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# HID WIDENER <br> <br>  <br> <br>  <br> <br> HUW GlVF 

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COLLEOTION OF BOOKS ON ANGLING, ETC.

GIVEN BY
JOHN BARTLETT,
(A. M. 1871.)

Nov. 17, 1892.
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## ARTof ANGLING,

## Rock and Sea-Fishing:

With the Natural. Hiftory of
RIVER, POND, aid SEA-FISH. Richard Brorke Illuftrated with 133 C U TTS.


Printed by and for JohnWatts at the Priating. Office in Wild-C.ourt near, Lixeoln's-Inn Fields.

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 17 Nov. 1892.rift of
JOMN BAR'LETT, of Cambridge.

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## T O

## RIChard Heath,

Of Hatchlands in tbe County of Surrey, Efq; GUSIItR1?84

## $S I R$,



HE Remembrance of the Pleafure I once enjoy'd when I had the Honour of your Converfation in the Country, makes me now defirous of prefixing your Name to this fmall Treatife, merely

$$
\text { A } 2 \text { as }
$$

## DEDICATION.

as a Teftimony of Refpect and Gratitude for Favours already receiv'd.

Though I am confcious how little fuch a Trifle deferves your Notice, yet I am too well acquainted with your Difpofition to favour every thing that is defign'd for Information and Improvement, to defpair of its meeting with a candid Reception. Befides, the Study ${ }_{i}$ fi Nature aldways has been and always will be efteem'd by the wifef-Men an Entertainment worthy of the moft rational Mind, and confequently no way unfuitable to the higheft Rank or the fevereft Profeffion; which I the rather take notice of, left it fhould be thought that I offer you a difagreeable Prefent, or that I have employ'd my Time ill in bufying myfelf about Enquiries of this Sort.

It

## $D E D I C A T I O N$.

It is not my Purpofe to offend your Modefty by going into the ufual Style of Dedications, however I may juft mention what will not lay me under the leaft Imputation of Flattery, That You are the Delight of all Companies where you happen to be, and are poffefs'd of every Quality that conftitutes a Complete Gentleman. This naturally puts me in mind of the many agreeable Moments which I have loft by my Removal from your Neighbourhood, and which I cannot yet think of without Regret, efpecially fince I learnt from you how to relifh the ferener Pleafures of Life, and to enjoy all the Advantages of a rural Retirement.

But I forget that I am talking to the Publick as well as to You; I hhall therefore add nothing elfe, but my fin-

A 3 cereft

## DEDICATION.

 cereft Wifhes for the Happinefs and Profperity of Yourfelf and Family, defiring that you would always believe me to be```
S I R,
```

Your moft obliged

And moft obedient
bumble Servant,
R. BROOKES.


## THE

## PREFACE.

㯰T is not worth while to trouble the Publick in what manner I came to be engag'd in writing the following Treatife; it is fufficient to fay that I undertook it the more readily becaufe there is nothing that I know of in the Engli/b Language whofe Defign is fo extenfive as this. Treatifes of Angling are indeed numerous enough, but they fcarce meddle with the Defcription even of Freh-water Fifh ; on the contrary feveral of this Clafs are not fo much as mention'd by Name in them.

To take notice of every Fif that inhabits the Profundity of the Ocean would be a Task next to impoffible; however I have taken care to omit none which are brought to our Market, caught on our Coaft, or in any manner ufually come to our Knowledge. To perform this it was neceflary that I fhould have recourfe to feveral Authors ; but the Book I have been moft oblig'd to is Willougbby's Hiforia Pifcium, as augmented by Mr. Ray, and publifh'd at the Expence of the Royal Society.

As to the Drawings I have little to lay, becaufe they were all, except one or two, done by myfelf: I can A 4 only

## $P R E F A C E$.

only affure the Reader, that the Shape and Proportion of the Finh are all carefully preferved, and that the Original Prints were done immediately from the Life.

In the Angling Part I had the Affiftance of Mr. Cbetreood, who is allow'd by all to have great Skill in that innocent Diverfion, and therefore moft of the Egotifms in the Firf Part, or where the Sentence is ufher'd in with I, have him for their Author, as well as fome other things which are here and there interfpers'd among the Directions for Angling. This I thought the more neceflary to take notice of, becaufe they contain the Refult of his own Experience, which is that of a great number of Years.

As to the Treatife in general, I have endeavour'd to make it in fome Senfe ufeful to all, but efpecially to the younger Sort, who may by this means come to be acquainted with the great Variety of Watry Inhabitants with little Trouble or Expence. Nor can this be thought a vain or an unprofitable Amufement, fince the more Knowledge we have of the Nature of things, the more we muft admire the Wifdom of the Divine Architect.

As it is ufual in Books of Angling to infert Poetical Amufements, two of my Friends who are well known to the Publick on account of their ingenious Performances, have been at the pains to compofe the following Lines for that purpofe.


## $P R E F A C E$.

## 

## The A N G L E R's L I F E.

Tune, The Banks of Indermay.

## I.

wHE N vernal Airs perfume the Fields, And pleafing Vierws the Landskip yields: The limpid Stream, the fcaly Breed, Invite the Angler's rwarving Reed. The mufing Swain whbat Pleafures feize!
The talking Brook, the figbing Breeze,
The aEtive Infect's buzzing Wing, And Birds that tuneful Ditties fing.

## II.

At latef Erve, at early Dawn, The Angler quefts the fcented Lawn, And roams, to fnare the Finny Brood, The Margin of the flow'ry Flood. Now at fome Ofier's wwatry Root The Chub beguiles, or painted Trout ; No Cares nor Noife his Senfes drown, His Paftime, Eafe and Silence crown.

## III.

Adieu, ye Sports of Noife and Toil
That Crowds in Senfelefs Strife embroil;
The Fockey's Mirth, the Huntfman's Train,
Debauch of Health, and rwafte of Gain.
More mild Delights my Life employ,
The Angler's uncxpenf:ve $\mathcal{F}$ oy.
Here I cän fweeten Fortune's Frowns,
Nor emvy Kings the Blifs of Crowns.
M. B.

## $P R E F A C E$.

## 

## The Pleasures of Angling.

Tune, All in the Downs, छ'c.

## I.

A$L L$ in the fragrant Prime of Day, E'er Phoobus fpreads around bis Beams,
The early Angler takes bis Way
To verdant Banks of cryffal Streams. If Health, Content, and thougbtful Mufing charm, What Sport like Angling can our Cares dijarm?

## II.

There ev'ry Senfe Delight enjorss, Zephyr with Odours loads his Wing;
Flora difplays ten thoufand Dyes, And varied Notes the Warblers fing. If Health, Content, \&c.

## III.

On the foft Margin calmly plac'd,
Pleas'd be beholds the Finny Brood
Thro' the tranfparent Fluid bafte,
Darting along in queft of Food.
If Health, Content, \&c.

## IV.

The skifful Angler ope's his Store,
(Pafte, Worms, or Flies bis Hook fufains,)
And quickly fpreads the grafy shore
With fhining Spoils that crown bis Pains. If Healtb, Content, \&c.

## $P R E F A C E$

V.

If fome fierce Sbaw'r in Floods defcends, A gloomy Grave's thick Sbade is near;
Whofe grateful Umbrage fafe defends
'Till more inviting Skies appear.
If Health, Content, \&c.

## VI.

There blijsful Thougbts bis Mind engage,
To crowded noify Scenes unknown;
Wak'd by fome Bard's inftructive Page,
Or calm Reflexions all his own.
lf Health, Content, \&c.

## VII.

Thus wobetber Graves or Meads be roams,
Or by the Stream bis Angle tends;
Pleafure in fweet Succeffion comes,
And the frweet Rapture never ends.
If Health, Content, and thoughtful Mufing charm,
What Sport like Angling can our Cares difarm?
J. D



## T H E

## CONTENTS.

PREFACE.
Page vii

> PARTI.

The Art of Angling.
Chap. I. Of Fifh in general.
Page $\mathbf{I}$ p. 7

## Chap. II. Of: Angling in general.

Chap. III. Of Baits, and where to find them. p. 12
Chap. IV. Of the Salmon. p. 17

Chap. V. Of the Grey. $\quad$ p. 25
Chap. VI. Of the Scurf, Bull-Trout, Salmon-Trout or Salmon-Peale.
p. 26

Chap. VII. Of the Samlet, Branlin, or Fingerin.
Chap. VIII. Of the Trout. $\quad$ p. 27
Chap. IX. Of the Grayling or Umber.
p. 33

Chap. X. Of the Red Char or Torgoch.
p. 35

Chap. XI. Of the Gilt-Char.
p. 37

Chap. XII. Of the Guiniad.
p. 38

Chap. XIII. Of the Schelly.
p. 40

Chap. XIV. Of the Pearch.
Chap. XV. Of the Ruff or: Pope.
p. 4 I

Chap. XVI, Of the Carp.
Chap. XVVII.

## The C O N T E N T S.

| Chap. XVII. Of the Tench. | p. 49 |
| :---: | :---: |
| Chap. XVIII. Of the Bream. | 51 |
| Chap. XIX. Of the Rud or Finfcale. | p. 54 |
| Chap. XX. Of the Red-Eye. | 55 |
| Chap. XXI. Of the Chub or Chevin. | p. 56 |
| Chap. XXII. Of the Barbel. | p. 58 |
| Chap. XXIII. Of the Dace or Dare. | p. 60 |
| Chap. XXIV. Of the Roach. | . 61 |
| Chap. XXV. Of the Gudgeon. | 62 |
| Chap. XXVI. Of the Bleak. | p. 63 |
| Chap. XXVII. Of the Loach. | p. |

Chap. XXVIII. Of the Bull-Head or Miller'sThumb.
Chap. XXIX. Of the Minnow or Pink. p. 66
Chap. XXX. Of the Stickleback or Sharpling. p. 67
Chap. XXXI. Of the Pike, Luce or Pickerel. p. 68
Chap. XXXII. Of the Sturgeon. p. 72
Chap. XXXIII. Of the Smelt.
p. 75

Chap. XXXIV. Of the Shad.
p. 76

Chap. XXXV. Of the Bars.
p. 77

Chap. XXXVI. Of the Mullet. P. 78
Chap. XXXVII. Of the Flounder or Fluke. p. 79 Chap. XXXVIII. Of the Lamprey or Lampern.

| Chap. XXXIX. Of the Lamprey-Eel. | p. $8 \mathbf{1}$ |
| :--- | :--- |
| Chap. XL. Of the Eel. |  |
| Chap. XLI OO the Eel-Pout or Burbot. | p. 83 |
| C. 87 |  |
| Chap. XLII. Of the Sea-Snail. | p. 88 |

> PARTII. Of SEA-FISH.

| Chap. I. Of the Whale. | p. 90 |
| :--- | ---: |
| Chap. II. Of the Porpurs. | p. 99 |
| Chap. III. Of the Shark. | p. 102 |
| Chap. IV. Of the Pilot-Finh. | p. 104 |
| Chap. V. Of the Scate or Flare. | p. 105 |
| Chap. VI. Of the Maid. | P. Io7 |
|  | Chap. VII. |

## The C O N T E N T S.

| Chap. VI | p. 108 |
| :---: | :---: |
| Chap. VIII. Of the Monk or Angel-Fir. |  |
| Chap. IX. Of the Cramp-Fif. | p. 1 |
| Chap. X. Of the Turbot or Bret. |  |
| Chap. XI. Of the Pearl or Lug-Aleaf. | 16 |
| Chap. XII. Of the Plaice. | p. 117 |
| Chap. XIII. Of the Dab. | p. 118 |
| Chap. XIV. Of the Halybut. | p. 119 |
| Chap. XV. Of the Sole. | 20 |
| Chap. XVI. Of the Conger or Sea-Eel. | p. 121 |
| Chap. XVII. Of the Sand-Eel or La |  |
| Chap. XVIII. Of the Butter-Fifh or Gunnel | p. 123 |
| Chap. XIX. Of the Sea-Lark or Bulcard. |  |
| Chap. XX. Of the Father-Lafher. | 25 |
| hap. XXI. Of the Sun-Fin. | 26 |
| Chap. XXII. Of the Hake. | p. 127 |
| Chap. XXIII. Of the Ling. |  |

Chap. XXIV. Of the Tunny or Spaniih Mackrel.
p. 129
$\begin{array}{lr}\text { Chap. XXV. Of the Albicore. } & \text { p. } 13 \mathbf{I} \\ \text { Chap. XXVI. Of the Mackrel. } & \text { p. } 132\end{array}$ Chap. XXVII. Of the Sea-Gudgeon or Rock-Fifh.
p. 135

Chap. XXVIII. Of the Lump or Sea-Owl. p. 136
Chap. XXIX. Of the Pogge. $\quad$ p. 137
Chap. XXX. Of the Cod or Keeling. p. 138
Chap. XXXI. Of the Whiting-Pollack. P. 142
Chap. XXXII. Of the Coal-Fifh or Rawlin-Pollack.
p. 144

Chap. XXXIII. Of the Whiting-Pout. p. 146
Chap. XXXIV. Of the Haddock.
p. 147

Chap. XXXV. Of the Whiting. p. 148
Chap. XXXVI. Of the Herring. p. 149
Chap. XXXVII. Of the Sprat or Sparling. p. 153
Chap. XXXVIII. Of the Pilchard.
Chap. XXXIX. Of the Anchovy. p. 156
Chap. XL. Of the Horn-Fifh or Garr-Fifh. p. $15^{8}$
Chap. XLI. Of the Ifing-Glafs-Fih. Chap. XLII.

## The C O N T E N T S.

Chap. XLII. Of the Grey-Gurnard.
p. 160 Chap. XLIII. Of the Red-Gurnard or Rotchet.

|  | ${ }^{61}$ |
| :---: | :---: |
| Chap. XLIV. Of the Piper. | 62 |
| XLVI. Of the Weever | 163 164 |
| Bo |  |
| LVIII. Of the Doree. |  |

Chap. XLIX. Of the Umbrana or Ombrino.
Chap. L. Of the Sea-Bream.
p. 167

Chap. LI. of the Old Wife or Wraffe. p. 169
Chap. LII. Of the Dolphin of the Moderns. p. 170
Chap. LIII. Of the Flying-Finh or Sea-Swallow.

|  | p. 171 |
| :---: | :---: |
| Chap. LV. Of the Sucking-Fin. | 73 |
| Chap. LVI. Of the Balance-Fif. | p. 174 |
| Chap. LVII. Of the Sea-Fox or Sea-Ape. | p. |

Chap. LVIII. Of the Frog-Fiih or Toad-Fifh.
Chap. LIX. Of the Cuttle-Fifh.
p. 176

Chap. LX. Of the Saw-Fifh.
p. 177

Chap. LXI. Of the Dolphin of the Ancients. p. 180 Chap. LXII. Of the Dog-Fifh or Picked Dog-Fifh. p. 182

Chap. LXIII. Of the Sea-Unicorn or Narwal.

| ap. LXIV. Of the Sword-Firh. | P. 183 p. 184 |
| :---: | :---: |
| Chap. LXV. Of the American Oid-Wife. | 6 |
| Chap. LXVI. Of the Butterfly-Fih. |  |
| Chap. LXVII. Of the Sea-Eagle. | p. 188 |
| Chap. LXVIII. Of the Star-Gazer. | p. 189 |
| Chap. LXIX. Of the Sea-Wolf. |  |
| Chap. LXX. Of the Bounce, Roug |  |
|  |  |
| hap. LXXI. Of the B |  |
| hap. LXXII. Of the Centrina |  |

## The C O NTENTS.

Chap. LXXIII. Of the Gilt-Head or Gilt-Poll.
Chap. LXXIV. Of the Yellow-Gurnard.
p. 194

Chap. LXXV. Of the Sheat-Fifh.
p. 195

Chap. LXXVI. Of the Sea-Bat.
p. 197

Chap. LXXVII. Of the Sea-Loach or Whiftle-Fifh.
Chap. LXXVIII. Of the Orb or Sea WeatherCock.
p. 200

Chap. LXXIX. Of the Sea-Serpent.
p. 201 Chap. LXXX. Of the Hippocampus or Sea-Horfe. 202
Chap. LXXXI. Of the Tortoife or Turtle. p. 203 Chap. LXXXII. Of the Soldier-Crab or Hermit.
Chap. LXXXIII. Of the Lobiter. $\quad$ p. 208
Chap. LXXXIV. Of the Crab, Craw.Fin, Prawn and Shrimp.
p. 211

Chap. LXXXV. Of the Scollop. p. 203 Chap. LXXXVI. Of the Oifter, Mufcle, Cockle and Periwinkle.
Of Fi $j$-Ponds, and the Manner of Feeding Fijb.
p. 217

A hort Defcription of the Rife and Progrefs of all the noted Rivers in England, with the remarkable Towns they pafs by, and the Kinds of Fifh they contain.
p. 222

An Account of the Navigation of the River Thames, And the Locks that are built thereon. p. 243
Neceffary Cautions to avoid the Penalties of certain Statutes relating to Fijb and Fijhing.
p. 247

INDEx.

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## THE

## Artof Angling.

 PAR T the FIRST.
## C H A P. I.

 Of F I S H in general.

S I defign in this Treatife to give a particular Account of all the Fiih which are either brought to our Markets, or caught in our Rivers, I thought I could not begin more properly than by giving a Defcription of fuch things as moft of them have in common, becaufe this will greatly contribute to make all that fhall be faid of them befides eafily underftood.
The firft thing that occurs is their Sbape or Figure, which always tapers a little at the Head, and qualifies them to traverfe the Fluid which they inhabit. The Tail is extremely flexible, and is furnin'd with great Strength and Agility, bending itfelf either to the right or the leff, by which means it repels the Water behind it, and advances the Head and all the reft of the Body. I know it is commonly thought that the Fins are the chief Inftruments of Motion, but this is a vulgar Error, for the
chief ufe of the Fins is to poife the Body and to keep it fteady, as alfo to ftop it when it is in motion. Borelli, by cutting off the Belly Fins of a Fifh, found that it reel'd to and fro, and was unable to keep itfelf in an upright Pofture. When a Fifh would turn to the left it moves the Fins on the right fide, when to the right it plays thofe on the left; but the Tail is the grand Inftrument of progreffive Motion.

Moft of their Bodies are cloath'd and guarded with borny Scales, fuitable to the Dangers they are expos'd to, and the Bufinefs they are to -perform : Thefe Scales we find moitten'd with a flimy Liquor, and under them liees, all over the Body, an oily Subftance, which by its Antipathy to Water fupplies the Fifh with Warmth and Vigour.

Fiih are enabled to rife or fink in the Water by means of a Bladder of Air that is included in their Bodies; when this is contracted they fink to the Bottom, bat when it is dilated they rife to the Top. That this is the true ufe of this Bladder, appears from an Experiment made upon a Carp. This Creature was put into an AirPump, and when the Air was pump'd out of the Veffel, that which was in the Bladder of the Fith expanded itelf to fuch a degree, that the Carp fivell'd in an extraordinary manner, and his Eyes ftarted out of his Head, 'till at laft the Bladder burft in his Body. The Fiih did not die, but was thrown immediately into the Water, where he continued to live a Month longer: However he never rofe any more, but crawl'd along the Bottom like a Serpent.

The Gills ferve this Animal for Refpiration, and are 2 kind of Lungs which he opens for the Reception of the Air : Their Mechanifm is fo contriv'd as to admit this Element without any mixture of Water. Through thefe Paffages the Air evidently flows into the Bladder, and then the Fiih afcends: But in order to fink he is obliged to contract this Bag; the Air then rifes to the Gills, and is ejected, and the Fifh defcends with a Rapi-
dity proportionable to the Quantity of ejected Air. This Motion may likewife be affilted by the Action of the Mufcles, not to fay that it is the mof ufual Expedient: When thefe are expanded the Air in the Bladder dilates itfelf by its natural Spring, and when thefe are contracted the Air is compref'd, and the Bladder will confequently fhrink. Befides Air is neceflary to preferve the Lives of Fiih, for by what means foever the Air is excluded from the Water, it foon proves fatal to the Fifh that are contain'd therein.

A great number of Finh are furnifh'd with Teeth, which are not defign'd for Eating or Chewing, but to retain their Prey. Thefe Teeth are differently placed, according to the different manner of this Animal's Feeding; in fome they are placed in the Jaws, Palate and Tongue; in others in their Throat; thefe laft are calld Leathermouth'd Fi弓h.

The Eyes of thefe Animals are flat, which is mof fuitable to the Element in which they live, for a protuberant Eye would have hinder'd their Motion in fo denfe a Medium, or by brufhing through it their Eyes would have been apt to wear, to the Prejudice of their Sight. To make amends for this the cryffalline Humour is fpherical in Fifhes, which is alfo a Remedy againft the Refraction of the Water, which is different from that of the Air, and Animals that live in the Air have the Cryfalline lenticular, and more flat.

All Fifh have a Line from the upper Corner of the Gills to the middle of the Tail on each fide: In SeaFih it inclines more towards the Back, but in thofe of the River towards the Belly. This Line is compos'd of a great number of fmall Points, which Willougbby has been fo curious as to number in forme Fifhes.

Of all the Obfervations relating to the Inhabitants of the Water, that of their Generation is not the leaft curious. Some are viviparous, and thefe are of the cetaceous Kind. Others produce large Fggs after the manner of Birds, with a Yolk and a White, which are hatch'd

## The Art of Anging.

in their Bodies before they are excluded, and this is proper to the cartilaginous Kind. Others are Oviparous, or bring forth a great quantity of Sparwn, which, being a kind of little Eggs, are hatch'd by the natural Warmth of the Water. Thefe laft are diftinguifh'd by the Name of Spinous, that is, they are provided with fmall fharp Bones to fupport and flrengthen their Mufcles; whereas the Cartilaginous, fuch as the Scate and Thornback, have only a kind of Grifle, which is fo foft that it is generally eaten.

The Spinous fort generate without Coition; inftead of that the Females dig Holes wherein they depofite their Spawn, upon which the Male immediately after emits his impregnating Fluid in order to render the Spawn prolifick.

The Encreafe of this fort of Animals is fo prodigious that it is almoft incredible; Lerwenbook computed no lefs than 9344000 Eggs in a fingle Cod. Hence it ceafes to be a Wonder that every Species is preferv'd, notwithftanding they are conflantly preying upon and devouring each other. It is the Bufinefs of Soals, and moft flat Fifh, to conceal themfelves in the Mud, which they refemble in colour, 'till the Spawning of other Fifh is over, and then they feize the Eggs, feeding th $n$ thofe delicious Morfels without Noderation or P ; and they were not deftroy'd this manner, Bladder would fcarce be fufficien ${ }_{\text {m }}$ contain then shy whe

Moft Fifh are pro the; Carp, have none: flefing Ralate, whis among Perfons wh ufe a Tongue fince it cannot are entirely Food in theif it affift ty thing wif Organ

## The Art of Angling.

thofe of the Cetaceous Kind, and therefore does nc: iect. adapted to perform an Office of fo exquifite a $\Lambda_{2}=\mathbf{m}$. unlefs in an obfcure manner, which, perhaps. mas: fufficient for their purpofe.

Some Fifh have no Throat, their Mart or S:ower io. ing placed next to their Mouths; bur fuch wact beies are long and flender, as the Efl Kind, bave a Tace: tho' they are without Lungs.

Tho' the Stomach of Fifh is endor:d witi ne in:
Heat, yet it has a wonderful Faculy of Daw.....
in thofe of the more voracious kind, it res: er.
folves great numbers of other Fih, but exer $\geq$
Crabs and Lobfers, which are cover'd wail mart Shells.

Below the Stomach in mof Fih, and wirw le $I$.
 what purpofe they ferve is a Secret L:era wn: fome how or other affift Digeftion, as F.e: : : .

The Hearts of fuch Fifh as refifte tirear: te: have only one Ventricle and one Aurizit. $\mathrm{E}:=2 \cdot \mathrm{O}$ is very large in proportion to the fin: 2 he wife the Veins in general to the froi. Is $\because$, nk of the Heart is triangular. left
Many Writers on Fib have 2 firiticerer the cept thofe,
Urinary
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and, cetaccous Kizd hare enter 1 : moft ut this prove a

 yam obleves the wre tre? or divided ingo wor ine ©fl, fom miace $z=1$ ?
 4fright $G x$
of fall

fome Places are ftock'd with Fifh, efpecially if we may believe the Relations of fome Authors of the greatel credit. Rondeletius tells us of a Place between three Mountains which had no Communication with any Spring, River, Pond or Lake; however it happen'd to be fill'd with Rain-water that proceeded from plentiful Showers which had fallen fome Days before he vifited the Place, and in that fhort time the Lake was flock'd with Fifh, among which there appear'd Carp in great abundance.

The moft ufual Food of Fifh are Worms, Flies, and other Infects; and yet there does not want Inftances of fome who not only live, but grow to a large Size by Water only. The Wife of Rondeletius kept one of thefe Animals in a Glafs Veffel for three Years together on nothing but Water, and might have kept it longer if it had not grown too big for the Veffel. Hence it appears how much the Nature of the Water may contribute to the Goodnefs of the Fifh. Others live upon Spawn, particularly the Flat-Fifh, as was mention'd befare, for as foon as the Eggs are excluded they feed upon them with the utmolt. Greedinefs. This would contribute greatly to depopulate the Waters, if the Quantity of Spawn was not fo exceeding great. Others devour the fmall Fry almoft as foon as hatch'd; others when they are grown larger. Some live upon fmall Fifh, fuch as the Minnow, Bleak, Gudgeon, Roach, Dace, and the like; others devour Shell-Fif, as Shrimps, Prawns, and fmall Crabs; others again, as the Pike, are fo exceeding voracious as to prey upon their own Kind. Some few will feed upon Crumbs of Bread, Sea-Weeds, and the like, and it is well known to Sailors that feveral Kinds of Sea-Fifh will follow the Ships hundreds of Leagues, on purpofe to fwallow all the Naftinefs that falls from them.

As to the Age of Fiih nothing certain can be pronounced; except that they are not fo thoyt-lived as the Ancients imggin'd ; for inflance a Salmon is fix Years in
grow-

## The Art of Angling.

growing before he is thought worthy of that Title in Yorkfire, notwithftanding fome have affirm'd that he came to his full growth in a Year. On the other hand it has been related that a Carp will live a hundred Years, but how truly muft be left to the Reader's own Judgment to determine.

## C HAP. II.

## Of ANGLING in general.

AS there are different forts of Angling, which we shall have frequent occafion to mention hereafter, it was judg'd neceffary to explain what they are before we proceed to the particular Fih. Of thefe the moft common fort is

Float-Angling: In this the Line fhould be longer than the Rod by two or three Foot, and let the Lead that is put upon it be neither fo heavy as to fink the Cork or Float, nor fo light as to hinder the fmalleft Touch from pulling it under Water, becaufe that is the only Sign you have of a Bite. In Rivers it will be moft proper to make ufe of a Cork, but in Standing-Waters a Quill may ferve well enough.

Runiing-Line Angling is with one or two fmall Pellets of Lead to your Line without a Float. The Lead fhould be juft fo much as will fink the Bait to the bottom, and let the Stream carry it down without much flopping or jogging. It is neceffary to begin at the Head of the Stream, and let the Bait drive downward as far as the Rod and Line will permit. The Line muft be kept as ftrait as is confiftent with letting the Lead drag on the Ground, and when there is a Bite it will eafily be felt, as well as feen by the Point of the Rod and Line. When the Fin bites the Line Ihould
be flacken'd a little that he may more eafily fwallow the Bait, and then you fhould frike gently and directly upwards. When your Lead is rub'd bright you ought to cover it thinly with Shoemakers Wax, or change it.

Top-Angling with a Worm requires a Line without Float or Lead. The Bait muff be drawn up and down the Stream on the Top of the Water. This Method fhould only be ufed when the Weather is fine and the Water clear; it is fometimes fuccefsful in fifhing for Trout and Salmon-Smelts.

Ledger-Bait Angling is when the Bait always refts in one fixt and certain Place: To perform this the Line muft be leaded as ufual, and the Float taken off. Within half a Yard of the top of the Line mult be wrapp'd a thin Plate of Lead about an Inch and a half long, and an Inch broad; this will ferve to difcover by its Motion when you have a Bite. You may either hold the Rod firmly in your Hands, or flick the thick End of it into the fide of a Bank.

Dibbing or Fiy-Angling; this is generally perform'd on the very Surface or Top of the Water, with a Line about half the length of the Rod if the Day be calm, or with one almoft as long as the Rod if the Wind is fo ftrong as to carry it from you. The Fly muft always be in motion as near the Bank-fide on which you. are as may be thought convenient, unlefs you fee a Fiih rife within your reach, and then it will be beft to guide it over him, and if you can keep out of fight by kneeling or otherwife, you may be almoft fure to take him. Sometimes the Bait is fuffer'd to fink two or three Inches into the Water, but this is but feldom. You muft always dib in a clear Water without either Lead or Float to your Line. The beft Place is a ftill Deep on a hot calm Day, or in the Evening of a hot Day. If you dib in a Stream, it is beft when the Water is clearing after a Flood, in which cafe the Horfe-Fly is the propereft Bait. ...

Trowling ; this Method is principally ufed in fifhing for a Pike. This requires ftrong Tackle, and no very flender Top with a Ring fix'd to it for the Line to run through. When I have feen a Pike lying in wait for his Prey, I have put three or four Rings, one bigger than another, made in this Form Oo upon a Gud-geon-Rod; and then have put my Trowling-Line thro' the Loops of the Rings, and have found it fucceed very well. Your Line muft be of Silk, at leaft two Yards next the Hook, and thirty Yards long; there muft likewife be a Reell to wind it upon. The Hook muft be leaded, that the Head of the Fifh which is your Bait may hang downward; there muft be likewife two Links of Wire faften'd to it. And becaufe it is not very eafy to thruft the Wire through the Body of the Fiih, it will be proper to have a Filh-Needle, which paffing through firf the Wire will readily follow it. Let the Point of your Hook ftand near the Eye of your Bait, and then few up its Mouth to keep it firm. The Fin of the Tail hould be cut off, and the Tail itfelf faften'd to the top of the Wire, otherwife the Bait will not lie fmooth and even upon the Hook. It will be likewife proper to faften the Bait at the Gills with the help of a Needle and Thread. This done, make a Loop at the end of your Line and faften a Swivel to it, then put it through the Loop of your Ring, and hang your Bait on the Swivel. When you throw your Bait into the Water take care to avoid Stumps and Weeds, for they will do your Bait as much Damage as the Bite of a Pike. When this Fifh takes the Bait at firft it is crofs his Mouth, for he feldom or never fwallows it 'till he gets to his Harbour. Therefore as foon as you perceive you have a Bite, take care not to check him, but give him Line enough, otherwife you will labour to no purpofe.
Trowling in Ponds is perform'd with a long Line which will reach from one fide of it to the other: It fhould have as many arm'd Hooks and Baits, about three

Yards afunder, as the length of the Line will allow: This Method requires an Affiftant, who muft hold one end of it, and help you to keep it in a gentle Motion 'till you find you have a Bite, and then Arike with a Jerk the contrary way to the Motion of the Fifh.

Trimmer-Ancling is very ufeful in a Meer, Canal or Pond, and even in the fill Part of a River. This requires a round Cork fix Inches in Diameter, with a Groove on which to wind up your Line, except fo much of it next the Hook as will allow the Bait to hang about Mid water, and likewife fo much of the other end as will reach to the Bank.or a Bufh, where it is to be faften'd. In this Pofition you may leave it to take its Chance, while you are Angling elfewhere. As foon as the Pike takes the Bait, and runs away with it, the Line unwinds itfelf off the Trimmer without giving him the leaft Check. However, when you come to take up your Line, give it a Jerk as in other Fifling, and then your Prey will be more fecure.. This is a good Method of Filhing in the Night.

Snap-Angling is with two large Hooks tyed back to back, and one fmaller to fix your Bait on. Your Tackle muft be very flrong, and your Line not quite fo long as your Rod, with a large Cork-Float leaded enough to make it fwim upright. Your Bait muft not be above four Ifiches long. As foon as ever you perceive the eosk to be drawn under Water, flrike very frongly witbout giving the Finh time, otherwife he will throw the Bait out of his Mouth. When you find he is hook'd, mafter him as foon as you can, and with your. Landing-Net under him get him out of the Water. Some prefer a double-fpring Hook, and put the Bait on by thrufting the Wire into the middle of its fide and through its Mouth, fewing up the Mouth afterwards.

Bladder-Angling; this is as much for Diverfion ap any thing elfe. It is ufually practis'd in large Ponds

Ponds with an Ox's Bladder, and a Bait fix'd on an armed Hook, or a Snap-Hook. The quick rifing of the Bladder after it has been pull'd under Water, never fails to ftrike the Fih as effectually as a Rod; and let him ftruggle as much as ever he will, the Bladder always gets the Vietory at laft. Thefe four laft Methods are ufed only for Pike or large Pearch.

In all Kinds of Angling there are fome Genrral Rules to be obferved, which will conduce greatly to the Angler's Diverfion; as not to Angle in cold Weather when the Eaft or North Winds blow, for it is a common Oblervation, That the Soutb-Wind is moft favourable to Anglers, and next to that the Weff. Likewife in great Drougbts in the middle of a hot Day, or in flormy tempeftuous Weather, the Angler can expect but fmall Succefs. Soon after any Fifh have fpawned it will be to no purpofe to expect them to bite, for then they are weak and fickly, and have little Inclination to feed. The ufual Montbs for Angling are from the beginning of May to the beginning of September; when you Angle before or after thefe times, the warmeft Part of the Day is always beft. On a hot Summer's Day early in the Morning, and late in the Evening will be moft feafonable, and likewife dark, cloudy, gloomy Weather; nor will a Gale of Wind hurt your Sport, if it does not blufter too much. In all forts of Angling it will be beft to keep out of the Fifhes Sight, and as far from the River's Bank as porfible, unlefs the Water be muddy, and then you may come as near as you pleafe. For the fame Reafon the Angler's Clothes fhould be of a grave dark colour, and not bright and glaring, for that would fright away the Fifh. To invite the Fifh to the Place of Angling, it will be proper to caft in fuitable Food, fuch as boiTd Corn, Worms and Garbage; but to keep them together it will be ufeful to throw in the Grains of Ground Malt. But for Salmon and Trout, a Compofition of fine Clay, Blood and Ground Malt will be beft.

## 12 The Art of Anging.

If you are in doubt at any time about a proper Rait, it will be a good way when you have taken a Fifh to flit his Gills, and take out his Stomach, and obferve carefully what he laft fed upon.

## C H A P. III.

## Of B A I T S, and where to find them.

THE procuring of good likely Baits is not the leaft Part of the Angler's Skill: Thefe are either Natural or Artificial; but we fhall only fpeak of the former, becaufe the latter are beft had ready made at the Shops where Fi/bing-Tackle is fold. Of Natural Baits the Worm is not the leaft confiderable; there are feveral forts of them as follow, but the largeft is

The Lob-Worm or Dew-Worm; this is a proper Bait for Salmon, Trout, Cbub, Barbel and Eels of the largeft Size. It is to be found in Gardens or Cburchyards, by the help of a Lanthorn late on a Summer's Evening. In great Droughts, when they do not appear, pour the Juice of Walnut-tree Leaves mixt with a little Water and Salt into their Holes, and it will drive them out of the Ground.

The Branding, Gilt-Tail and Red-Worm, are all to be found in old Dunghills, or the rotten Earth near them, but the beft are found in Tanners Yards, under the heaps of Bark which they throw out after they have done with it: The Brandling is moft readily met with in Hogs-1)ung. Thefe are good Baits for Trout, Grayling, Salmon-Smelts, Gudgeons, Pearch, Tencb and Bream.

The Marsh-Worm is got out of Marß Groumd on the Banks of Rivers, and is of a bluifh colour. It is a likely Bait for Salmon-Smelts, Gudgeon, Grayling, Trout, Pearch, Bream and Floundèr, in March, April and September, tho' they ufe it from Candlemas 'till Michaclmas preferable to any other.

## The Art of Angling 13

The Tag-Tail is of a pale Flefh-colour, with a yellow Tag on his Tail almoft half an Inch long; they are found in Marled Land, or Meadows after a Shower of Rain, and are a good Bait for a Trout if you Angle for them after the Water is difcolour'd with Rain.

And here you muft obferve, that all Worms fhould be well fcour'd in Mofs, that has been well wafh'd and cleanfed from all Dirt and Filth; after it is wrung very dry, both the Mofs and Worms fhould be put into an earthen Pot clofe ftop'd, that they may not crawl out. This Pot fhould ftand cool in Summer, and the Mofs fhould be changed every fourth Day; but in Winter it fhould ftand warm, and if you change the Mofs once a Week it will be fufficient.

Befides thefe Worms that are to be found in the Earth, there are others which breed upon different Herbs and Trees which afterward become Flies. The principal of thefe are the Palmer-worm, the Oak-worm, the Crab-tree-worm and the Caterpillar. Thefe are to be kept in little Boxes with Holes to let in the Air, and they muft be fed with Leaves of the fame Tree on which they were found. Thefe are good Baits for Trout, Cbub, Grayling, Roach and Dace.

The Earth-Bob or White-Grub is a Worm with a red Head as big as two Maggots, and is foft and full of whitifh Guts; it is found in a fandy light Soil, and may be gather'd after the Plough, when the Land is firft broke up from grazing. You may know in what

- Ground to find them by the. Crows, for they will follow the Plough very clofe where thefe Animals are to be met with. This is chiefly a Winter Bait, from the beginning of November to the middle of April, and is proper for Cbub, Roach, Dace, Bream, Tench, Carp, Trout and Salmon-Smelts. They are to be kept in a Veffel clofe ftopt, with a fufficient quantity of the Earth they were bred in, and they will be ready for ufe all the Winter.

The Clap-Bait is found under Cow-dung, and is like a Gentle, but bigger. You muft feek for it only on fuch Land as is light and fandy, for it is much of the fame nature with the Earth-Bob, and may be kept in wet Mofs for two or three Days. It is an excellent Bait for a Trout, but almoft every other Fifh will take it.

The Cod-Bait, Cadis-worm and Straw-worm are only different Names for the fame Bait. They are found in Pits, Ponds, Brooks and Ditches, and are cover'd with Husks of Sticks, Straws or Rufhes. They are very good Baits for Trout, Grayling, Carp, Tench, Bream, Cbub, Roach, Dace, Salmon-Smelts and Bleak. The green fort are found in March, the yellow in May, and a third fort in Auguf.

The Flag-worm or Dock-worm are found in the Roots of Flags that grow on the brink of an old Pond. When you have pull'd up the Root, you will find among the Fibres of it reddifh or yellowif Cafes; thefe you muft open with a Pin, and you will find a fmall Worm longer and flenderer than a Gentle, with a red Head, a paliih Body, and Rows of Feet all down the Belly. This is an exceeding good Bait for Grayling, Tench, Bream, Carp, Roach and Dace.

The Ash-Grub is a milk-white Worm with a red Head, and may be had at any time from Michaelmas 'till Fune. It is to be found under the Bark of an Oak, A/b, Alder or Birch, if they lie a Year after they have been cut down. You may likewife find it in the Body of a rotten Alder, if you break it with an Ax; as alfo under the Bark of a dècay'd Stump of a Tree. It is a good Bait for a Grayling, Cbub, Roach, and Dace.

Gentiés or Maggots are known to every one; they may be kept in a Horn with Holes in it to let in the Air; or in a Box with Gum-Iry. They are very good Baits for Roach, Dace, Cbub, Cart, Tench, Barbel, Bream, and Bleak.

## The Art of Angling. $\quad 15$

The Ant-Fly is to be met with from the end of If une to September: They are to be kept in a large Glafs Bottle, with a Handful of the Earth, and another of the Roots of Grafs from the Ant-Hills where they were bred. They are an excellent Bait for Roach, Dace and Cbub, if you Angle with them under the Water about a Hand's breadth from the bottom.

The Young-Brood of Wafps, Hornets and HumbleBees are ufed by fome afier gentle baking in an Oven. They are reckon'd tempting Baits for Roach, Dace, Cbub, Bream, Flounder and Eels. But the danger in taking thefe prevents their frequent ufe.

Salmon-Spidwn is efteem'd 2 good Bait for a Cbub, after it has been boild; but there are enough for this Finh without it.

Sherp's-Blood dry'd upon a Board 'till it is hard, and cut into pieces of a fize fit for the Hook, is a good Bait for a Cbub, Roach and Dace.

The White Snail, and likewife the Black one with his Belly flit that the White may appear, are good Baits for the Cbub early in the Morning, and likewife good Night-Baits for the Trout and Eel.

The Grashopper in the end of Gune, all fuly and $A u g u f f$, is a Bait much efteemed for 2 Trout, Grayling and Cbub. The Legs and upper Wings muft be cut off, likewife the Shank of the Hook muft be flenderly leaded, and the Bait muft be kept in continual Motion.

The Water-Cricret, Water-Loufe or Creeper is found under Stones that lie hollow in the Water, and turns into a Stone-Fly about May-Day. If you dib with them in the middle of a Sunfhiny Day in April, it is efteem'd a fatal Bait for a Trout. Others fifh with them within half a Foot of the bottom, and others let them drag on the Ground.

The Minnow, Loach and Bull-Head are proper Baits for Pike, Pearch, Cbub, Eel and large Trout. The Trout in March, April and September, will take Baits 2

Foot within the Water in the Day-time, if the Wind blows pretty briskly from the South, Soutb-Weft or Weff. In the Summer-Montbs, if the Day be dark and the Wind high and bluftering, he will take it at the bottom, otherwife he will not meddle with it but in the Night. The Pike, Pearch and Cbub will take them either by Day or Night. They fhould be put on Night-Hooks for the Eel, becaufe in the Day he does not bite fo readily.

The Lamprey is a good Bait for Chubs and Eels either by Day or Night, as is the Roach, Gudgeon and fmall Dace for the Pike.

Small-Frogs of a brightifh Yellow, that are found in green Meadows in $\mathcal{F} u n e$ and $\mathcal{F} u l y$, are good Baits for Cbubs, Pikes and Pearches.

Periwinkles taken out of the Shell are good Baits for Roach in the River Thames, as are likewife Sbrimps uncafed for the Pike and Cbub.

Pastes are varioully compounded, almoft according to the Angler's own Fancy; but there fhould always be a little Cotton-Wool, 乃baved Lint, or fine Flax, to keep the Parts of it together that it may not fall off the Hook. White Bread and Honcy will make a proper Pafte for Carp and Tench. Fine white Bread alone with a little Water will ferve for Roach and Dace; and Mutton Suet and foft Nerw-Cheefe for a Barbel. Strong Cbeefe with a little Butter, and colour'd yellow with Saffron, will make a good Winter-Pafte for a Cbub. When you Angle with Pafte you fhould chufe a fill Place, and ufe a Quill-Float, a fmall Hook, a quick Eye, a nimble Rcd and Hand. The fame Rule holds with regard to all tender Baits.

Natural flies for Angling are of various Kinds, the principal of which, according to their Seafons, are as follow.

In January the Dun-Gnat. February, the Browne Palmir, the Dun-Fly, and the Blue Dun. March, the Whirling Dun, the Thorn-tree Fly and the Black Gnat. April, the Stine-Fly, the Yellou-Dun, the Violet-Fyy,

## The Art of Angling.

and the Horfe-Flefh-Fly. Max, the May-Fly, the Green Drake, and the Grey Drake. June, the May-Fly, the Black Ant-Fly, and all the Palmers. July, the OrangeFly, the Wa/p-Fly, and the Sbell-Fly. August, the Drake-Fly, the late Ant-Fly, and the Fern-Fly. September, the Camel Brown-Fly and the late Badger-Fly. Остовbr, the fame Flies as in March. November, the fame as February. December, the fame as fonuary.

I could have been much larger and more particular in the Catalogue of Natural Flies, if the Artificial had not been more in ufe, as being always at hand and attended with lefs trouble: Befides thefe latter are to be had ready made, and much more neat than an unexperienced Perfon could be fuppofed to make them from any Directions I could give.

## CHAP. IV.

## Of the S A L M O N.



ASALMON, called in Latin Salmo, has different Names, according to its different Ages: Thofe that are taken in the River Ribble in York/bire, in the firt Year are called Smelts, in the fecond Sprods, the third Morts, the fourth Fork-Tails, the fifth Half-Fi/b and in the fixth, when they have attain'd their proper Growth, they are thought worthy of the Name of Salmons.

Their

## 18 The Art of Anging.

Their greatef Magnitude is much the fame in mot Parts of Europe, and when they are largeft they weigh from 36 to near 40 Pounds.

The Salmon is a beautiful Fih, and has fo many excellent Properties, that it is every where in high Efteem. It has a longif Body cover'd with fmall thin Scales, a fmall Head, a fharp Snout, and a forked Tail. The Colour on the Back is bluifh, on other Parts white, generally intermix'd with blackifh or reddifh Spots in a very agreeable manner. The Female is diftinguifh'd from the Male by a longer and more hooked Nofe, its Scales are not fo bright, and its Body is fpeckled over with darkbrown Spot3, its Belly is flatter, its Flefh more dry and not fo red, nor yet is the Tafte fo delicious.

The Excrefcence which grows out of the lower Jaw of the Male, which is a boney Griftle like a Hawk's Beak, is not a Sign of his being fickly as Walton and others have thought, but is a Defence provided by Nature againft fuch Fifh as would devour the Spawn. It grows to the length of about two Inches, and falls off when he returns to the Sea.

Its Teeth are but fmall in proportion to the Body; its Gills are quadruple, with a broad Cover full of red Spots in the fame manner as the Sides, for towards the Back they are dusky.

The Fle/b is pale, but when boiled or falted becomes red ; it is fweet, tender, flaky and lufcious, for which reafon it fatisfies the fooner: Tho' the Tafte of it is generally prefer'd to that of all other Fifh, yet it fooner offends the Stomach by its Vifcidity, and confequently is apter to create a Naufea and caure a Surfeit. About the time of Spawning it grows more infipid, and lofes its lively Colour. Some begin to be out of Seafon foon after the Summer-Solltice, and others foon after, which may be known by their falling away, their lofing their beautiful Spots, and by their Colour, infomuch that when they are quite out of Seafon they look like a Fith of a different Species.

The Salmon-Fry, or Scegger, call'd in fome Countries a Salmon-Smelt, is by moft thought to be the Offspring of a fickly Salmon, which has been forcibly detain'd from vifiting the Salt-water: But however that be, tho' its Beauty is agreeable enough to the Eye, its Tafte is very ordinary and infipid.

The Salmon chufes the Rivers for his Abode about fix Months in the Year; they enter the Frelh-Water about February or March, where they continue 'till the Autumnal Seafon, at which time they caft their Spawn, and foon after return to the Sea. But directly the contrary of this is reported of the River $E_{x}$ in Devon/bire, and the Rivers $W_{y e}$ and $U_{s k}$ in Monmouth/bire, where the Salmon are faid to be in Seafon during the other fix Months; and what is ftill more remarkable, if true, is that they never frequent the $W_{j e}$ and $U_{s k}$ in the fame Year, for if they are found in one of thofe Rivers they are fure to be wanting in the other. But however this be, it is certain that the Salt-Water beft promotes their Growth, and the Frefh chiefly contributes to make them fat.

When Spawning-time comes the Female feeks a proper Place in a gravely Bottom, where the has been obferved to work with her Head, Tail, Belly and Sides, 'till the has form'd a kind of Nidus of the fame Dimenfions with herfelf, which done fhe difcharges her Spawn and retires; then the Male or Milter advances, and covers the Spawn with his Belly, emitting at the fame time a whitifh fluid like Milk: This is no fooner over but the Female returns to the Male, when they ufe their joint. Endeavours to cover their Brood with the Gravel, in which they work with their Nofes like Hogs: After this they return to the Deeps to recover their Strength, which they do in about twenty Days.

There is nothing, relating to this Fif, which has been more talk'd of than its Agility in leaping over the Obflacles which oppofe its Paffage either to or from the Sea; for they are frequently feen to throw themfelves
up Cataracts and Precipices many Yards high. Some have thought this has been done by bending their Bodies round like a Hoop, and then taking their Tail in their Mouths; but this feems to me to be altogether impoffible. I have beheld them myfelf, both in England and Ireland, make feveral Effays before they could gain their Point, and when they have done it, it has been often to their own Deftruction, for they have leapt into Baskets plac'd on purpofe to catch them.

There is a remarkable Cataract on the River Tivy in Pembroke/bire, where People often fland wondering at their Strength and Slight which they ufe to get out of the Sea into the River; on which account it is known in thofe Parts by the Name of the Salmon-Leap. On the River Wear, near the City of Durbam, there is another of this kind, which is accounted the beft in England. Likewife at Old Aberdeen in Scotland there is another, where fuch great plenty of Salmon has been caught that they have been accounted the chief Trade of the Place; and there is an obfolete Law which obliged them to fell none to the Engli/b but for gold Coin.

Whenever their Paffage to the Sea is intercepted by Weirs, or any other Contrivance, they foon grow fickly, lean and languid, lofing their beautiful Spots; and if they are caught in that condition, when they come to the Table they prove taftelefs and infipid: In the fecond Year they pine away and die.

It is worth Obfervation, that the Salmon not only is defirous of returning back to the Rivers, but to that very River where it was fpawn'd, as is evident by an Experiment made by Fifhermen and others, who have caught them when very fmall, and have run a fmall Ribband, Tape or Thread thro' the Tail-Fin : By this Mark they have been certain that they have retaken the fame Fifh at the fame Place as they return'd from the Sea: By this means they have likewife difcover'd that the Salmon is of a very quick growth, and much more fo than any other Filh,

The chief Rivers in England that yield this excellent Fifh are the Thames, Severn, Trent, Medway, Dee, Ex, Usk, Wye, Lon, Tyne, Werkington, Weaver, Lone, \&c. However our London Markets are fupply'd fooneft from the North, where they are not only more plentiful, but are in Sealon before thofe in the Southern Rivers.

The River Lone, which glides through Lancafbire, is fo over-flock'd with Salmon, that the Servants make an Agreement that they will not eat it above twice a Week; the fame thing is reported of fome Parts of Scotland. However this is certain, that they are fo plentiful in the Tyne, that near Biwell Caftle in Nortbumberland I have bought one which weigh'd twenty Pounds alive out of the Wirs for two Shillings. But this is atill exceeded by Lougb-Erne in Fermanagb a Province in Ireland, for this Water abounds fo much in Salmon, that the only Fear the Fifhermen have is of too great a Draught, by which their Nets are often broken.

Thus having given a general Account of the Nature of this noble Fifh, I fhall now proceed to the Method of taking him with the Angle.

But firf it muft be noted that the Salmon does not lie long in a Place, but feems defirous of getting fill nearer to the Head of the Spring. He does not lie near the Bank-fide or under the Roots of Trees, but fwims in the deep and broad parts of the Water, generally in the middle and near the Ground. But the Salmon-Smelts commonly lie in the rough and upper part of a gentle Stream, and ufually pretty near the middle.

The moft alluring Bait for the Salmon, in the Weftern Illands of Scotland, is a raw Cockle taken out of the Shell, with this they fifh at the bottom, ufing a running Bullet. This Method I have try'd in the River Medway in Kent with Succefs : My Practice was to let the Cockle fall into a Shallow, from which there was a gradual Defcent into a deep Hole. The fame Day a Brother-Angler caught a Salmon with a Prawn, without fo.much as ufing a fingle Shot to his Line; inftead of that

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## 22 The Art of Angifng.

that he drew his Bait gently over the Hole on the Verge of the Shallow, and at the the fame time kept out of fight. In moft of the Salmon Rivers of France; as I have been inform'd, they ufe Mufcles taken out of the Shell, but I have never made the Experiment myfelf.

I fcarce need to caution the young Practitioner againft Angling for Salmon from September to March, becaufe, as I obferved before, during that time they afually exchange the Frefh for Salt-Water.

The moft ufual Baits are a large gaudy Artificial Fly, Lobworms, fmall Dace, Gudgeons, Bleaks and Minnows; which fhould be often varjed -in order to fuit the Humour of this fickle Fifh, for what he likes one Day he will defpife the next. Tho' it muft be own'd it is a very difagreeable Circumftance to an Angler, and which he often meets with to exercife his Patience, to fee the Fifh fporting on the Surface of the Water, and not be able to tempt him with any of his Baits. However he generally bites beft about three in the Afternoon, in May, Fune, fuly, and Auguft, efpecially if the Water happens to be clear, and there is a little Breeze of Wind ftirring; but there will be ftill greater Likelihood of Succefs if the Wind and Stream fet contrary ways. It muft likewife be obferved that this Fifh feldom ftays long in a Place, but is continually fhifting to be as near the Spring-head as poffible, and fwimming generally in the deepeft and broadeft part of the River near the Ground.

When you make ufe of the Fly let your Hook be ftrong and large; but I fhould rather advife two wellfcour'd Lob-worms, for I have been moft fucceffful in fifhing at the Bottom with them. In this Cafe let your Hook be large and arm'd with Gimp, for tho' the Sal mon, when fruck, feldom or never attempts to bite the Line, yet as you will be oblig'd to play the Fifh for fome time, the Line muft rake againft his Teeth, and you will be in great danger of lofing your Prize without this Precaution. Next to Gimp I would re-commend which yet are only preferable to ours on account of the length. If, therefore, you cannot eafily procure the former you may make ufe of our own, which I have often lap'd into the length of half a Yard, which have been Proof againtt the Teeth of a Jack when I have troll'd for that Fifh.

Wherever you obferve a Salimon leap out of the Water you may fafely conclude there is a deep Hole not fat off, and if the River is too broad for you to throw a Fly, or if a contrary Wind hinders you, then lay. your Ledger-Bait as near the Hole as you can, and you will have great probability of Succefs, for he always chufes fuch Places for Retirement. If you Bait with a Dace, Gudgeon, \&c. then put on your Swivel and Reel, and make ufe of a large Cork-Float, with your Live-bait about Mid-water.

For the Salmon-Fry or Scegger the propereft Baits are Ant-Flies; you may ufe three or four Hooks to one Line tyed to fingle Hairs. They are alfo frequently caught with the Red-worm in filhing for Gudgeons. The Places where they are generally found are the Scowers near the Deeps.

The chief Salmon Fifheries in Europe are along the Coafts of England, Scotland and Ireland; the Fifhing ufually begins about the firt of fanuary, and ends by the laft of September. It is perform'd with Nets in the Places where the Rivers empty themfelves into the Sea, and along the Sea-Coafts thereabout; becaufe thefe Fifh are feen to crowd thither from all Parts in fearch of Frefh-water. They alfo filh for them higher up in the Rivers, fometimes with Nets, and fometimes with Locks or Weirs made for that purpofe with Iron Gates: Thefe Gates are fo contrived that the Fifh in paffing up the River can open them with their Heads, but shey are no fooner enter'd than the Gates clap too and prevent their return. Thus the Salman are inclofed as in a Refervoir, where it is eafy

- 24 The Art of Anging.
to take them. It is the Practice of fome Fifhermen, when they have caught a Salmon, and fufpect he belongs to more of the fame Species, to tie a fmall Cord to his Tail, and at the other end a large Cork; which done they turn him into the River again, when the terrify'd Animal makes the beft of his way to the reft of the Company, and of confequence the floating of the Cork difcovers where they lie: By this means they not only retake their former Captive, but find their trouble amply rewarded by the extraordinary Succefs of the Draught.

In fome Places they firh for Salmon in the Nighttime by the Light of Torches or kindled Straw, which the Fin miftaking for the Day-light make towards, and are ftruck with the Spear, or taken with the Net, which they lift up with a fudden Jerk from the bottom, having laid it the Evening before oppofite to the Place where the Fire is kindled. In fome Parts of Scotland it is faid they ride a fifhing up the Rivers, and when they efpy them in the Shallows they fhoot them with Fire-Arms.

When the Fifh are caught they open them, take out the Guts and Gills, and falt them in large Tubs made for that purpofe, out of which they are taken before Oztober, and are pack'd up in Casks from 300, to 450 Pound weight.


CHAP. Digitized by Google

## C HAP. V.

 Of the G R E Y.THE Grey I take to be the fame kind of Fifh which in Scotland they call the Grey-Lord. In Magnitude it differs but little from the Salmon, but the Shape is very unlike, being confiderably broader and thicker; the Tail is indeed as large but not forked. The Body is every where ftain'd with Grey or $A / \beta$-colour'd Spots, from whence it derives its Name. The Flefh is more delicious than that of the Salmon itfelf, and fells for almoft double the Price. He makes his Progrefs from. the Sea into the Rivers with extraordinary Swifnefs, and is poffefs'd of very great Strength and Agility, furmounting almoft all Obftacles with the greateft Eafe. He is feldom taken, and is therefore known but to few. He never advances into the Rivers before the beginning of Auguft in order to Spawn, and then commonly takes the Advantage of a Flood; whereas the Salmon comes into the Frefh-water in every part of the Spring.

It would be to no purpofe to give Directions how to take this Fifh with the Angle, for he defpifes all kinds of Baits, and in this he refembles the Fordich-Trout, which I almoft fufpect to be of the fame Species, but for want of a more particular Defcription of the latter cannot certainly determine.

CHAP.

## CHAP. VI.

## Of the Scurf, Bull-Trout, SalmonTrout or Salmon-Peale.



THESE are all different Names for the fame Fifh, which in Latin is called Salar. In fome Places it grows to the length of twenty Inches, in others it feldom exceeds fixteen. It differs in fhape from a Salmon in not having a forked Tail; its Head likewife is more Short and thick than that of a Grey, and its Body is adorn'd with variety of Spots. The Flefh of thofe taken in Yorkßire is not red, as in the Salmon, and its Tafte is more ftrong and rank than that of the Grey.

They are found in York/bire, Dorfet/bire and DevosBire, and enter the Rivers the beginning of May.

They delight to lie in deep Holes, and commonly fhelter themfelves under the Root of a Tree. When they watch for their Prey, they generally chufe that fide of the Hole that is towards the Stream, that they may more readily catch whatever Food the Stream brings down.

They will rife at an Artificial-Fly like a Salmon: But the beft Bait for them is a well-fcour'd Brandling, efpecially thofe that breed in a Tanner's Yard.

You may Angle for them any time in the Morning, and in the Afternoon from Five 'till Night. They are in-Seafon all the Summer.

When you try to catch them remember to keep out of fight, and let your Line fall into the Stream, with-
out any Lead, except one fingle Shot, and then it will be carried gradually into the Hole. When you have a Bite you ought not to ftrike too eagerly. They bite freely enough, and ftruggle hard for their Lives.

It is worth while to obferve that fome give the Name of Salmon-Trout to a young Salmon, which has occafion'd feveral to run into Errors in treating of this Fifh. They have likewife in France a kind of Pond-Trout, which they call a Salmon-Trout, that grows to fuch a Magnitude as to weigh above thirty Pounds, and in the Leman Lake near Geneva there are fome of this kind that weigh fifty Pounds.

## C H A P. VII.

## Of the Samlet, Branling or Fingerin.



ASAMLET or Branlin, in Latin Salnulus, never exceeds fix or feven Inches in length, and has Teeth not only in the Jaws but the Palate and Tongue. The Body is cover'd with fmall Scales like a Trout. The Back is full of black Spots, and on the Sides there are five or fix Impreffions of fuch a Form as tho' they had been made with Fingers; hence fome give them the Title of Fingerins; in every one of thefe Pits there is generally 2 red Spot. Their Bellies are white, and their Tail is forked like a Salmon. But what is moft remarkable in this Fifh, and which is exceeding ftrange, is, that they are all Males.

It is found in thofe Places only where Salmons frequent; but whether they wander into the Sea or not is 2 doubt, for they may be taken at all times of the C 2 Year.

## 28 The Art of Angilng.

Year. They delight in the moft fwift and rapidStreams, where no other Fif is able to abide. They are thought to preferve their Breed by impregnating the Spawn of a Salmon, becaufe they are feen to hover over it fometimes, as foon as it has been depofited by the Female Salmon.

They may be Angled for in the fame manner as the Salmon-Scegger, mentioned in the Chapter of the Salmon.
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## C H A P. VIII.

 Of the T R O U T.TH E Trout, in Latin Trutta, is of a longifh Make, and refembles a Salmon more than any other Fif. His Head is fhort and roundih, his Nofe blunt, his Body thick, and his Tail broad; his Mouth is wide, and he has Teeth not only in his Jaws but in his Palate and Tongue. His Eyes are large with a reddifh Circle round the Pupil, but the reft of the Iris is of a filver colour. His Scales are fmall, and his Skin eafily falls into Wrinkles and feparates from the Flefh. In the larger $T_{\text {rout the }}$ thack is of a dusky Hue, and full of black Spots, but in fome mix'd with red. The Sides are painted with Spots of a Purple or Vermilion Dye, but on the Belly they have a yellowifh Caft.

On the Back they have two Fins, that in the middle of it is full of black Spots, and the Edges of that near the Tail is of a Vermilion colour; on the Belly, as in moft other Fifh, there are two pair, which are always either red or yellow.

Trout generally delight in the cooler and fmaller Risers, which defcend from Hills and rocky Mountains:
and they feem to take a Pleafure in friving againft the Stream. It is really wonderful to fee with what Force and Agility they will furmount all Difficulties in travelling towards the Source of Rivers, let their Defcent be never fo rapid. And feveral Authors tell us that they are found among the Alps in Waters fo very cold that no other Fifh can live therein.

Their time of Spawning is in November or December, when they dig Holes in gravelly or fony Places and depofite their Spawn therein. But, contrary to the Nature of other Fifh, they are not thought to be in high Seafon when they are fulleft of Spawn, for they are fatteft and have the moft delicious Tafte in the Months of fuly and Auguft. The Flefh is a little dryer, and not quite fo tender as that of a Salmon, but yet it is accounted the moft agreeable of all Filh that have their conftant Abode in Frelh-water.
There are feveral Kinds of this Fifh which are all valuable, but the beft are the Red and the Yellow Trout; and of thefe the Female is preferable, which is known by a lefs Head and a deeper Body.

The Fordich Trout, which is fo much talk'd of, feems to be of a different Sort from the reft, becaufe it is almoft as big as a Salmon, and lives nine Months in the Sea; befides it is feldom or never caught with the Angle, being fuppos'd not to feed at all in Frefh-water; and there feems to be a probable ground for this Opinion, for when they are open'd there is nothing found in their Maw. Yet their Return to the River is fo very conftant and punctual, that the Fifhermen know almoft to a Day when to expect them. When this Fin is in full Seafon the Flefh of it cuts white.

The Trout begins to be in Seafon in March, but, as I said before, they are in higheft Seafon in fuly and $A u$ guff. However they are fooner fo in fome Rivers than others; in the River Wandle they are more forward than in any other about London, and there is near a Month difference between that and Hertford River. What the

Reafon fhould be is hard to guefs, for there are variety of fmall Fin in the other Rivers for them to feed on; whereas in that part of the Wandle frequented by the Trout there are none but Eels, Flounders, and PrickleBacks.

In the Winter-time the Trout is fick, lean and unwholefome, breeding a kind of Worm with a big Head not unlike a Clove for fhape; this Creature fticks clofe to him, and in a manner deprives him of all Nourifh: ment, for there is nothing thrives about him but his Head, which at this time is of a larger fize than ordinary: He is now without thofe beautiful Spots which before were his chiefeft Ornament, and the vivid Colour of his Belly becomes dusky and difagreeable. But as foon as the Sun approaches the Vernal Equinox, and with his genial Warmth and Influence begins to invigorate the Earth, he then makes a Shew of fome Spirit, and roufing as it were from a kind of Lethargy, forfakes the deep fill Waters for the more rapid Streams, where againft the gravelly Bottoms he rubs off his inbred Foes, and foon after recovers his former Strength and Beauty.

The ufual Baits for a Trout are the Worm, Minnow and Fly either Natural or Artificial. The proper Worms are the Branling, Lob-worm, Earth-worm, Dung-worm and Maggot, but efpecially the two firf; and indeed, for my own part, in fifhing at the bottom I prefer the Lob-worm, nor have I often ufed any other.

This Fifh, as I obferv'd before, delights in the fwifteft Streams, and confequently you muft Angle for them near fuch Places: When they watch for their Prey they generally fhelter themfelves under a Bank, or a large Stone, or in the Weeds, where I have often feen them lurking entirely cover'd all but their Heads. When I have difcover'd them in this Situation, I have gone a little up the Stream, with great Care and Caution, and mudded the Water, putting in my Bait immediately in the very Place which I had troubled; then keeping my

## The Art of Anging.

felf as far from the Bank as I could, in order to be out of fight, I followed my Float, and have often been fuccefsful.

Trout may be taken in this manner either with a Minnow or two well-fcour'd Lob-worms. When I ufe two Worms I put the firft on the Hook with the Head foremoft, and then flipping it a little up the Line to make room, I put on the other with the Tail foremoft, after which I draw the firf down to it fo clofe that they may feem to be knotting or engendring ; for they often perform this naturally on the Banks of Rivers, and fometimes fall into the Water, where they become a Prey to the hungry Fifh.

This is likewife a good Bait when you Angle in the Morning-Twilight, or in the Dusk of the Evening, or even in the Night when it is dark. In this cafe you muft put no Lead on your Line, but throw your Bait as gently as you can acrofs the Stream, and draw it foftly to you on the Top of the Water. This is the beft Method of catching the oldeft and the largeft Trout, for they are very fearful and fliy in the Day-time, but in the Nigbt they are bold and undaunted, and generally lie near the top of the Water in expectation of meeting. with Food; for if. they fee any thing in motion, let it be what it will, they will certainly follow it if it glides gently along.

It is the Practice of fome to firh at the Bottom in the Dark with a little Silver Bell fix'd to the top of the Rod, in fuch a manner that when the Trout takes the Bait the Sound of the Bell may give notice of the Bite; but I think this Method is very precarious, becaufe the leaft Weed that touches your Line as it comes down the Stream will deceive you. The fureft way in my Opinion is to hold your Rod in your Hand, for as the Trout is a bold Biter, you will eafily perceive when he takes the Bait: As foon as you have frruck it give it the But of your Rod, for if you hold it the leaft upon a level you run a great rifque not only

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of lofing your Line and Hook, but even fome part of your Rod.

When you Angle with a Fly let your Rod be rulhtaper'd, with 2 very flender Top, that you may throw your Fly with greater Certainty and Eafe, for if the Top is too ftiff the Fly will foon be whip'd off. Your Line fhould be three times the length of your Rod, and if you put on two Flies at a time, the one two Foot above the other, you will ftand the better chance.

In this kind of Angling you fhould place yourfeff fo that the Wind may be upon your Back, or at leaft you muft chufe fuch a Time or Place, that the Wind may blow down the Stream, and then it will affift you in laying your Fly upon the Water, before your Line touches it; for if your Line touch the Water firft it will caufe a Rippling that will fright the Finh away.

It is the ufual Practice to Angle for a Trout with a Fly on the top of the Water, and yet the largeft áre taken by letting it fink five or fix Inches under it.

You need not be very cautious in the choice of your Flies, for a Trout is not difficult, nor yet very curious about the Seafon, for I have Angled fucceesfully with an Artificial May-Fly in Auguft.

The Time of the Trout's Biting is from Sun-rifing 'till near Eleven in the Morning, and from Two in the Afternoon 'till Sun-fet; and yet the moft certain times are Nine in the Morning and Three in the Afternoon, efpecially if the Wind be at South, for when it blows from that Point it is moft favourable to the Angler. A cold Eafterly Wind is always unpropitious to this Sport.

It would be only loft Labour to give Directions for the making Artificial Flies, fince they may be bought ready made, and much neater than an unexperienc'd Perfon can be fuppos'd to make them. And for the like Reafon, fince a $\mathcal{T}_{\text {rout }}$ will rife at an Artificial Fly as well as a Natural one, it would only be fuperfluous trouble to hunt after the latter, when the former are always at hand.

## The Art of Angling.

And as the Trout may be deceiv'd almoft by any Fly at the top, fo he feldom refufes any Worm at the bottom, or fmall Fifh in the middle; for which Reafon I have fometime caught them when I have been trolling for fack, and little expected any fuch matter.

You may likewife dib for Trout in the fame manner as you do for Cbub, with a ftrong Rod, and a fhort flrong Line; but you muft be fure to keep out of fight, for the Shadow of your Rod, or the Flight of a Bird over the River, will make them fly almoft as fwift as the Bird, and it will be fome Minutes before they will thew themfelves again. You need not make many Trials in a Place, for if they will not rife after half a dozen Throws, either there is none there, or they do not like your Bait.

There is a Method of taking Trout in fome Parts of England by tickling them; I knew one who was very expert in that Art; he would grope for them in their -lurking Places, and gently tickle their Sides, which they feem to be delighted with, 'till at length approaching their Gills he held them faft, and made them Prifoners; and we learn from the Pbilofopbical Tranfactions that Carp. are fometimes taken the fame way.

## C H A P. IX.

## Of the Graylang or Umber.



TH E Grayling, call'd in Latin Tbymallus, is in pro: portion neither fo broad nor fo thick as a Trout, and in fize feldom exceeds eighteen Inches; they weigh C. about.

## 34 The Art of Anging.

about half a Pound, but in fome Places they are faid to be three times as heavy: Its Back is of a dusky Green inclining to a Blue; the Sides are grey, feeming to glitter with Spangles of Gold. From the Head to the Tail, in the Places where the Scales meet, there feems to be drawn fo many obfcure parallel Lines; the Lateral Lines, common to all Fifh, are nearer the Back than the Belly ; The Sides, except towards the Tail, are irregularly footted with Black. The top of the Back-Fin is painted with Red, but the lower-part is of a bluif Purple; the Fins of the Belly are likewife of the fame colour, that is, of a bluin Purple, and fpotted with Black. It has a little Head with protuberant Eyes, the Iris of which is of a filver colour with yellow dusky Spots; the Moutb is of a mean fize, the upper faw of which is longer than the lower; inftead of Teeth the Lips are rough like a File; the Tongue is fmooth, and the Gills quadruple.

They delight in Rivers that glide through mountainous Places, and are to be met with in the cleareft and fwiftert Parts of thofe Streams, particularly they are bred in the Hodder, Dove, Trent, Derveen, Wye and Lug.

This Fiih may be eaten all the Year; but its principal Seafon is in December, at which time his Head, Gills, and the Lift that runs down his Back are all black.

The Time of its Sparwing is in May.
The Fleh is accounted by fome to have the moft agreeable Tafte of all River-Fifh; it is firm, white, cleaves like Salmon, and is judged to be very wholefome.

It is a brisk fprightly Fifh when in the Water, and fwims as fivift as an Arrow out of a Bow; but when he feels the Hook he is dead-hearted, and yields rather too foon for the Angler's Diverfion.

He feeds upon Gra/boppers, Flies, Worms, and fuchlike Infects, and therefore fuch fort of Baits muft be us'd in order to take him; but at the Bottom I prefer a large well-fcour'd Red Worm before any other.

## The Art of Angling. - 35

The fame Rules that have been laid down for taking the Trout will alfo ferve for the Grayling, only let your Tackle be fomething finer. Some Anglers, when they make ufe of a Fly, faften their Hook to two Hairs, but becaufe they are apt to tangle in the Weeds, I would recommend the Silk-worm Gut, which fhould be well wax'd with Virgin's Wax, to hinder it from fraying.

The Grayling has fo quick an Eye, that he has difcover'd and taken my Bait fix Inches out of the Water, when I have been Angling for him ftanding upon a Bridge.

You may obferve likewife, that he is a much fimpler and bolder Fifh than a Trout, for if you mifs him twenty times, he will fill continue to rife at your Fly. And as this is his peculiar Property, that he is more apt to rife than defcend, your Bait fhould never drag on the Ground, but be fix or nine Inches from the Bottom. And for the fame Reafon it will be more proper to ufe a Float than a Running-Line.

## C HAP. X.

## Of tbe Red Char or Torgoch.



THE Red Cbar is the Umbla Minor of Gefner and other Authors, and is known in Wales by the Name of Torgoch. The Body of this Fifh is of a longer and more flender Make than that of a Trout, for one of about eight Inches long was no more than an Inch and an half broad. The Back is of a greenif Olivefpotted with White: The Belly, about the breadth of half an Inch, is painted with Red, in fome of a more: lively:

## 36 The Art of Angling.

lively, in others of a paler colour, and in fome, efpecially the Female, it is quite white. The Scales are fmall, and the Lateral Lines fraight. The Mouth is wide, the Faws pretty equal, unlefs the lower be a little fharper and more protuberant than the upper ; the lower Part of the Fins are of a Vermilion Dye. The Gills are quadruple, and it has Teeth both in the farws and on the Tongue; in the upper Gaw there is a double Row of them. The Srwimming-Bladder is like that of a Trout; the Liver is not divided into Lobes, the Gall-Bladder is large, the Spleen fmall and blackifh, the Heart triangular, and the Eggs of the Sparwn large and round.

The Fle $\beta$ is more foft and tender than that of a Trout, and when boiled can foarcely be allow'd to be red. It is in the higheft Efteem where known, and in Wales is accounted the chief Difh at the Tables of People of Fafhion.

The only Place in England where this Fifh is taken is Winander-Meer; but in Wales it is to be had in five different Places, namely, Llanberris, Llin-Umber, Fefiniog and Bettus in Carnarvonßire, and near Cafageddor in Merioneth/bire. In this laft County they are fmaller than in the former, and are taken in October; but in Carnarvombire, in one of the Lakes they are caught in November, in another in December, and in the third in Fanuary, and when the Fifhing in one ends they begin in ancther.

They fwim together in Shoals, and tho' they appear on the Surface of the Water in the Summer-time, yet they will not fuffer themfelves to be taken either with the Angle or with Nets. Therefore the only Seafon for Finhing is when they refort to the fhallow Parts of the Lake in order to Spawn. At thefe times they fet Trammel Nets bnited, and leave them for whole Days and Nights, into which the Fifh enter of their own accord.

Some have doubted whether the Wel乃 and Engli/h Finh are of the fame kind or not, but Mr. Ray thinks there is no room to make it a doubt. The Welf/ Name Torgoch

Forgoch fignifies a red Belly, which diftinguifhes the Red Cbar properly enough. The Gilt Cbar is, indeed, a quite different Species, and is above twice as fmall as the Red. The Belly of the former is of a Silver Coloux, the Flefh is red, and the Back is fpotted with black; whereas the Belly of the other is red, the Flefh white, and the Spots on the Back white likewife. And tho' fome Fifhermen fay they only differ in Sex, and would have the Red to be Males and the White Females, yet it is as plain as can be that they are of a diftinct Species; and notwithftanding the Red are fo large, the White are more valuable, and the Flefh is more delicate. Thefe of this Meer are only taken in the Winter-time as well as thofe in Wales, for in the Summer they will get over the Tops of the Nets, and make their Efcape. Dr. Leigh affirms that the Cbar is found in ConingfonMeer in Lancaßbire, which from what he fays of the Size muft be the Red Cbar.

## C H A P. XI.

## Of the GILT-CHAR.



TH E Latin Writers call this Carpio Lacûs Benaci' becaufe they imagin'd it was only to be met with in that particular Lake; but it has fince appear'd to be the fame Fifh with our Gilt-Cbar, which is bred in Winander Meer in the County of Wefmoreland. It is proportionably broader than a Trout, and the Belly is more prominent, but its length, when greateft, never exceeds twelve

38 The Art of Anging.
twelve Inches. The Scales are fmall, the Colour of the Back is more lively than in a Trout, and is beautify'd with black Spots; the Belly and Sides beneath the Lateral Line are of a bright Silver Colour; the Scull is tranfparent, and the Snout bluifh. It has Toeth in the lower Jaw, on the Palate and the Tongue; the Srwim-ming-Bladder is extended the whole length of the Back, and the Gall-Bladder is large.

The Flefh of the Gilt Cbar is red, and is accounted fo very delicious among the Italians, that they fay it excells all other Pond or Sea-Fin whatever, and they efteem the Nature of it to be fo wholfome, that they allow fick Perfons to eat it.

Winander-Meer, as was before obferved, is the only Place in England where the Gilt Cbar is found; it is a Lake, according to Camden, ten Miles in length, and in fome Places exceeding deep, therefore they are only taken in the Winter-time when they go into the Shallows to Spawn.


UUINIAD is a Wel/h Name for a Fifh that is fame with the Ferra of Rondeletius. The Shape is not very much unlike that of a Salmon, and the ufual length is about twelve or thirteen Inches; the Back is of a dusky colour, but the Belly is white. The Scales are
of a middle Size, the upper Farw is fomewhat more prominent than the lower, and the Moutb is much like that of a Herring. It has no Teetb neither in the Jaws nor Throat, and the Belly does not terminate fharp like a Wedge; but is about three quarters of an Inch broad. The Top of the Head is of a faint bluifh colour with obfcure Spots; the Eyes are large, but have no Pellicle to cover them as fome Fih have. The Lateral Line runs direelly from the corner of the Gills to the Tail, which is forked.

The Brain is divided into feven Lobes, but the Li wer has none: The Gall is yellow, the Scull is fcarcely tranfparent, the Borders of the Eye on each fide feem to be wrinkled, the Air-Bladder runs the whole length of the Back, as in Trouts; the Spleen is very long and foft, like coagulated Blood.

The Place which this Fifh is bred in the Welf call Llin-Tegid, and the Englifh, Pemble-Meer; it lies near Bala a Bailiff-Town in Merionetb/bire, and the chief in that Mountainous Tract. It generally lies at the bottom of the Lake among Water-Gladiol, a Plant peculiar to thefe Mountains: It is call'd Guiniad from the Whitenefs of its Body, the Word fignifying much the fame as Wbiting in Englijb. There is one thing worthy of Remark, which is, That tho' the River Dee runs through this Lake, yet they are never found in its Streams; and on the contrary, tho' Salmon are caught in the River they never enter the Lake; fo frictly do thefe Animals keep to the Haunts that Nature has provided for them.

They are in Seafon in the Summer: The Flefh is white, and yet the Tafte is not much unlike that of a Frout: It is in the higher efteem becaufe it is a kind of a Rarity. This Fifh is likewife an Inhabitant of LakeLeman near Geneva, among the Alps.

## 40 The Art of Angitng.

## C H A P. XlII.

## Of the S C H ELLE Y.

THE Scbelley is bred in a Lake in Cumberland called Hulfe-Water, or Ulles-Water, and is of the fame Species with that which the Latin Writers name Lavaretus. The Size of this Fifh is not very large, for it feldom or never exceeds two Pounds in weight. In Shape it is more like a Herring than a Trout, and feems to be a Species partaking of the Nature of both. The Head is fpeckled with Black, the Scull is tranfparent, the Back is almoft black, but the Belly and Sides are of a Silver colour. The Back Fin next the Tail is without any Radii, and feems to be only a Lump of Fat. The Lateral Line runs directly from the upper Corner of the Gills to the Tail, which is forked. In every thing elfe it is like the Guiniad.

The Flefh is white, tender, fweet, not vifcid; of good juice, and moderately nourifhing.

They fwim in Shoals, and are caught with Nets in the Months of March and April. As foon as they are taken out of the Water they die, like a Herring. They are taken in the Lake Acronius among the Alps in great quantities, and after they are falted they are fent to Bafit and other neighbouring. Towns.

## C H A P. XIV.

## Of the P E A R C H.



TH E Pearch, called in Latin Perca, and in Cumberland, Barfe, is generally, when full grown, about twelve or fourteen Inches long; fometimes, tho' but feldom, they attain to fifteen, which is an extraordinary Size.

This Fifh is Hog-back'd, and rather broad than otherwife. The Colour inclines a little to a dusky Yellow, with five or fix blackifh Places like Girdies proceeding from the Back towards the Eelly. The Tail is forked. The Lateral Lines are nearer the Back in this than any other Fifh, which, proceeding from the upper Corner of the Gills, run parallel to the Eack'till they reach the fartheft part of the fecond Back-Fin, and then they divide the Tail into two equal Parts.

The Scales are fmall, thick, hard and rough, drying much fooner than thofe of any other River-Fifh. The Iris of the Eye is of a yellow or gold Colour. The Moutb is wide, and the Jazws very rough, with fmall Teetb. On fome Parts of the principal Back-Fin there are black Spots, but the whole Fin next the Tail is yellow, and the Tail itfelf is reddifh. The Belly-Fins have fometimes, but not always, a mixture of Red and White. The Gills, as in almoft all River-Fijh, are quadruple.

The Liver is oblong and undivided; the Spleen blackifh, the Gall-Bladder full of yellow Gall, and in

## 42

## The Art of Angling.

the Brain there are two fmall Bones. Inftead of a Swimming-Bladder this Fifh has a tranfverfe Membrane in his Abdomen, which runs all the length of his Back.

The Flefb of this Fifh is firm and of an agreeable Tafte, of eary Digeftion and very wholfome ; but the Liver is ufually thrown away, becaufe it is apt to be meally.

They Spawn but once a Year, and that is the latter end of February. Some think the Male is to be diflinguih'd from the Female by the Fins being of a deeper Red.

The moft natural Places for this Fin are Rivers, and yet he will live and thrive well enough when fhut up in a Pond. In the Day-time he does not feem to be fond of any particular Haunt, becaufe he is almoft continually roving about in queft of Food, being a very voracious Fifh: And yet they are more likely to be found under the Hollow of a Bank, the Piles of Bridges, Stumps of Trees, or in a gentle Stream of a middling Depth. In the Night, indeed, they retire to a Place of Repofe, which if you are fo lucky as to difcover early in the Morning you have a fair chance to take them all, for they bite very boldly, and generally herd together, and the taking of one does not difcourage the reft from falling into the fame Danger.

It will be to no purpofe to Angle for this Fifh before the Mulberry-tree begins to bud, that is before the Spring is fo far advanc'd as to put the Fruit out of danger of being killd by nipping Frofts; and for the fame Reafon he always bites beft in warm Weather ; yet in the very midft of Summer he is fooneft taken in cool, cloudy and windy Weather, and you may Angle for him any time of the Day, but you will be more likely to fucceed from Seven to Ten in the Morning, and from Two 'till Sunfet in the Afternoon, or later.

The moft likely Baits are Worms, Minnows, and fmall Frogs. For my own part I prefer a BrandlingWorm well fcour'd in Mofs, unlefs it be in the Mole,
and fome other Rivers that run into the Tbames, where Minnows are fcarce. But they are not very nice in the choice of their Feed, for I have even caught them with a Fly in fifhing for Trout: I have likewife taken a Brace at a time when I have been Angling for Gudgeons with two Hooks baited with Red-Worms.

They take the Bait beft within a Foot of the Ground, and fwallow it inftantly, becaufe they have the largeft Mouth, in proportion to their Size, of any other Fifh. However when you Fifh with a Minnou, or Frog, they fhould have a little more time before you frike, than when you bait with a Worm.
The Pearch is a Fifh that ftruggles hard for his Life, and confequently yields the Angler much Diverfion: If you find that you have a Bite from a large one, give him a little time to gorge the Bait, but if it is a fmall one you may frike inftantly, efpecially if your Bait be a Brandling.

I have often fifh'd for him with two Hooks and à live Minnoru with good Succefs. The Hooks have been ty'd to Silk, one of which I have put thro' the upper Jaw, and the other thro' the middle of the Back.

When you Bait with a Frog thruft the Hook through its Leg near the Thigh, and when you throw it into the Water keep it from the Shore as much as poffible, for it will be for making thither unlefs prevented.

As the Pearch generally fwallows the Bait, and as it is difficult to get the Hook out of his Entrails without breaking the Line, it will be neceffary to carry an Infrument in your Pocket which I call a Gorge. It may be made of Iron or Wood, about fix Inches long and half an Inch thick, with a Hollow at the Extremity. This hollow End you are to thruft down the Throat of the Fifh 'till you feel the Hook, at the fame time keeping your Line flraight left the Hook fhould catch again; when you have difengaged it with this Inftrument, you may draw them both out carefully together.

CHAP.
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## $44{ }^{\circ}$ The Art of Angling.

C HAP. XV. Of the R U F F or P O P E.


THIS Fifh is called by fome A/predo, from the Roughnefs of its Body, and by others Perca fiuviatilis minor, from its.Likenefs to a Pearch. When largeft it feldom exceeds fix Inches, and is cover'd with rough prickly Scales. The Fins are prickly alfo, which, like a Pearch, he britles up fliff when he is angry. His Back is of a brown dusky colour, but his Sidrs are of a pale Yellow, his Belly white, and the Covering of the Gills are of the colour of Gold. His Back, along which there runs a Line, is fpotted with Black, as are alfo moft of the Fins. The upper part of the Eyes are brown, the lower yellow, and the Pupil black. The Faws are rough like a File, but the Palate and Tongue fmooth; the Tail is forked.

The Stomach is round, and one that was diffected had fome watry Infects in it with fix Feet. The Gut has but one Fold, the Liver is of a flefh colour, the AirBladder is undivided, runs the whole length of the Belly, and is faften'd to the Back.

The time of Spawning is in April. The Flefh is fecond to none for the Delicacy of its Tafte.

It is found in moft of the large Rivers in England, particularly the Yare in Norfolk, the Cam in CambridgBire, the Ifss near Oxford, the Scrw near Stafford, the Tame that runs into the Trent, the Mole in Surreyn \&c. The

The mof likely Place to meet with him is in the Sandy and Gravelly Parts of thefe Rivers, where the Water is deep, and glides gently along. And if you meet with one you may conclude there is more, for they generally herd together in Shoals.
Ho will take almoft any Bait, and bites at the fame time as the Pearch. However I prefer a Red-Worm or fmall Brandling, finding it to be a Bait they generally covet: Yet I have taken them with a Minnow almof as big as themfelves, when I have been Angling for Trout.
The beft way, before you begin, will be to bait the Ground with two or three Handfuls of Earth, and then you will be fure of Diverfion if there is any Ruffs in the Hole, and will ftand a fair chance to take them all. I have fometimes ufed a. Pater-nofer Line with five or fix Hooks, according to the Depth of the Water, for when it has been 2 little troubled they will take the Bait from the Top of the Stream to the Bottom.

## C H A P. XVI.

## Of the $\mathbf{C}$ A $\mathbf{R} \quad \mathbf{P}$.



TH E Carp, in Latin Cyprinus, according to Rondeletius, grows fometimes to the length of a Yard and a half, and a proportionable Thicknefs; but the largeft I ever faw was caught in the Thames near Hamp-ten-Court, and weigh'd thirteen Pounds. The Colour of this Fiih, efpecially when full grown, is yellowifh; the

## 46 Tht Art of Angling.

the Scales are large, the Head fhort and like that of a Tench; the Mouth is of a middle Size; the Lips fat, flefhy and yellow. It is without Teeth, but there is a sriangular Bone in the Palate, and two other Bones -in the Throat, which ferve for the fame purpofe. On the upper Lip, near the corner of the Mouth, are two yellow Appendages, which may be call'd Muftachioes from their Situation. The Fins are large ; the Tail is broad, a little forked, and of a reddifh Black. The Lateral Line is Araight, and paffes through the middle of each Side.

It has no Tongue, but in the room thereof Nature has provided a flefhy Palate, which being taken out of the Mouth looks like a Tongue, and fome Perfons pretend to be pofitive it is one.

All the Intefines pals through the very Subftance of the Liver, and are joined to it, infomuch that they feem to make one Mafs; and not only the Gall-Bladder and Spleen, but the Stomach itfelf is confounded among the seft. The Air-Bladder is double, and is connected to the Back. The other internal Parts have nothing fingular.

They Spawn feveral times in a Year, but the principal are in May and $A u g u f$, in which Months they are lean and infipid; and confequently out of Seafon. The Females drop their Spawn as they fwim along, and are generally follow'd by thirteen or fourteen Males, who impregnate it as it falls, yet a great deal of it perifhes. They are in higheft requeft in April. Willougbby affirms the largeft weigh about twenty Pounds.

Some Authors of note have affirm'd that Carp have been often found in Ponds wherein they were never known to be put: But in Egeland we have not been fo lucky as to find it true, Ho there were none of this kind of Fih in all the Inand before they were brou Winnto it by Leonard Mafcal, about a hundred and fixty Years ago, as he himfelf tells us in his Treatife of Filaing.

One thing obfervable in a Carp is, that it lives the longef out of the Water of any other Fifh; and Mr. Derbam affures us that in Holland they hang them up in a Cellar, or other cool Place, in a fmall Net full of wet Mofs, with only their Heads out, and feed them with white Bread foak'd in Milk for many Days.
The Fle/b of the River-Carp is much better than that of the Pond, and in general it is more or lefs wholefome, according to the Nature of the Water in which they are bred, and confequently muddy ftinking Ponds produce the worft Fin. It is foft, infipid, and not altogether free from Vifcidity. But your curious Eaters value it chiefly for the Palate or Tongue, as they call it.
The River-Carp is not fond of a rapid Stream, but delights in a ftill deep Water with a Marly or Clayey Bottom, efpecially if there be green Weeds, which he loves exceedingly.
A Carp exercifes the Angler's Patience as much as any Fifh, for he is very fly and wary. They feldom bite in cold Weather, and in hot a Man cannot be too early or too late for them. Yet when they do bite there is no fear of their Hold.
Proper Baits are the Red-worm in March, the Cadew in $\mathcal{F} u n e$, and the Grafbopper in $\mathcal{F} u l y$, Auguft and September. But I lately difcoverd a green Pea to be a Bait inferior to none, if not the beft of all; and that I may never be at a lofs for one, I caufe a fufficient quantity to be half boil'd, and cover'd with melted Butter.

As I obferved before this Fifh is very cautious, and therefore your Float muft be fmall, and you muft be fure to keep out of fight. And becaufe, when hook'd, he ftruggles in a violent manner, you muft take care that your Tackle be very good and ftrong, otherwife he will break from you.

When you have found a Place which you think a likely Harbour for Carp, you fhould plumb your Ground over Night in order to find the Depth of the Water.

## The Art of Angling.

Water. Likewife at the fame time bait the Place with fmall Bits of congeal'd Blood, boil'd Malt, Wheat or Rye mix'd with Bran.

The next Morning early repair to the Place as gently as you can, taking care, as I faid before, to keep out of fight; when you have a Bite let the Float fail away before you frike, and then do it Atrongly, and the contrary way to the Motion of the Float, and there will be lefs danger of pulling the Bait out of the Fifh's Mouth. When you have hold of him, if your Tackle be good, you need not fear lofing him, for he feldom or never breaks his Hold.

When you Angle for a Carp you ought not to forget your Landing-Net, which is by much the fafeft way of taking him out; otherwife play the Fifh 'till you draw it to the Shallows, where you may fix your Rod upright in the Ground at a proper Diftance from the River, and, putting both your Hands under the Fifh, throw it on the Shore.

If you are defirous of Angling with a Pafte, the following is as good as any. Take fine Flower, a bit of lean raw Veal, a little Honey and Cotton-Wool fufficient to keep the Ingredients together, and beat them in a Mortar to a Pafte. When you fifh with a Grafbopper you muft take off its Wings, and let it fink into the Water without Lead or Float.
What farther remains to be faid of the Carp will come in more properly when I come to treat of Fj/h-Ponds.


## The Art of Angling.

## C H A P. XVII.

## Of the $\mathbf{T} \mathbf{E} \mathbf{N} \mathbf{H}$.



THE Tench, in Latin Tinca, are generally met with in England of about five or fix Pounds weight, yet in fome Cauntries they grow to twenty. It is a fhort, thick, roundih Fih, and is about three times as long as broad. His Snout is Short and blunt, his Mouth round, lis Tail broad but not forked, his Back is dark, his Sides green mix'd with a fhining Yellow, the Cover of the Gills is of a beautiful Yellow; the Tail, as well as the Fins of the Belly and Back, are blackifh; the Scales are fmall, thin, and cover'd with a uifcid Mucus, which makes him very llip. pery; but it is fuppofed to have a healing Quality, and to cure the Wounds of other FiM, efpecially the Pike; his Skin is thick, and he hath an Appendage at each corner of his Mouth, like the Carp, but it is inconfpicuous unlefs laid hold of with the Fingers; the Ejes are fmall, round, and a little prominent; the Iris is red; there are two Noftrils, which look like fmall Ears; the Palate is flefhy, like that of the Carp; his Teeth are in his Throat.

The Swimming-Bladder is divided into two Lobes: the relt of the Intefines have nothing fingular.

In this Fifh the Sex is eafily diftinguin'd, for the Fins on the Belly are much larger in the Male than in the Female.

The Fleßh is in no great Efteem for its falutary Properties; for Phyficians, with one Voice, forbid it to fick Perfons; and yet the Tafte of it is agreeable enough; but it is faid to breed noxious Humours, and not to be very eafy of Digettion.

The Tench delights in Standing-Waters and Ponds, and the ftill Parts of Rivers, whenever they are found there, for they feem to be the Natives of Standingwater. However they are faid to breed in the Rivers Stower in Dorfethire, and the Tyber in Italy.

Their Time of Sparoning is the latter end of fune, or the Deginning of $\mathscr{f} u l y$; and they are in Seafon from the beginning of September to the end of May.

Moft Anglers declare that this Fin bites beft in the three hot Months; and yet I have found they will bite at all times, and at all Seafons, unlefs after a Shower of Rain, but beft of all in the Night.

They will take almoft any Bait, but I have had more Succefs with a Red-worm dipt in Tar, than any other. They bite almoft in the fame manner as the Pond-Carp, and will run away with your Float ; but when once you have hooked him, you are in no danger of. lofing him, if your Tackle is but ftrong enough. The Ground-Bait fhould be the fame as for all Pond-Fih, that is, either Blood, or Blood and Grains mixt.

When the Weather is very warm you muft fifh about Mid-water, and without a Float, gently pulling your Bait almof to the Surface, and then letting it down as flow as poffible. When you Angle with a Pafte, let a little Tar be mixt with it, for that is an Ingredient he is very fond of.

## C H A P. XVIII.

## Of the B R E A M.



TH E Bream is called in Latin, by fome, Cyprinus latus; the Broad Carp, and by others, Brama. It is a broad, flat Finh, with a fmall Head and a fharp Snout. He has a fharp Hog-Back, and the Lateral Lines run from the Gills towards the Belly, making an Arch, contrary to what appears in moft other Fifh. The Back is of a bluifh Black; the Șides and the Belly white, except the Fifh is full-grown and fat, for then his Sides are of a Gold-colour, and the Belly reddifh. The Scales are large, the Mouth fmall and void of Teeth, but inftead thereof there is a triangular Bone in the Palate; this laft is foft and flefhy, as in the Carp. He has two Noftrils; the Iris of the Eye is of a Silver-colour, and the Pupil is fmall.

The Liver is long, and lies between the Stomach and the Intefine; the Gall-Bladder is almoft hid within the Liver; the Spleen is Angular, and the Air-Bladder divided into two Lobes.

The Flefh of the Bream is in no great Efteem, and yet makes no bad Difh, if well cook'd. Thofe who would be thought Criticks in Good-eating, prefer the Tail of a Pike, the Head of a Carp, the Back of a Tencb, and the Middle Part of a Bream.

They breed both in Rivers and Ponds, but delight
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chiefly
chiefly in the latter; for which reafon they are never found in fwift, rapid Streams, but only in fuch Parts of the River as moft refemble Standing-waters, with muddy or clayey Bottoms; I have found the Mole in Surrey, as far as'my own Experience reaches, the befl flock'd with this Fifh of any River in England. but in the Thames there are very few. They fwim in a herd as tho' they lov'd Society, for I have feen at leaft fifty Brace together at E/ber-Bridge.

They feldom grow to fuch a Size, according to Baltrerus, as to weigh above four or five Pounds; yet Gefner tells us he faw one that was a Yard long, and two Foot broad; but however that be, I have reafon to believe they fometimes weigh ten or twelve Pounds.

They Sparwn in May, and are in the highelt Seafon in March and April, and I think they eat as well in September as any time. About the time of Spawning the Male is mark'd with white Spots about the Head.

They naturally feed upon Slime, Weeds and Dirt; but will take any fort of Pafte, the Brood of Bees or Wafps, Flies under Water, and Cod-Baits. But I always find a fhort well-fcour'd Mar/h-riorm, or a large Redavorm, moft fucceffful.

They bite beft when there is a Breeze of Wind. When the Water is rough your Bait muft be placed within a Foot of the Bottom. The likelieft Place to meet with them is in the deepeft, and broadeft Part of a River, early in the Morning, and from Three or Four in the Afternoon 'till Sun-fet, when the Weather is warm. They bite very flow, and the larger they are, the flower. As foon as you have ftruck one he will immediately make to the Bottom, and fay there fome time ; if he flays too long, give him a gente Touch, and he will immediately rife, and give two or three ftrong Tugs ; but when once you have turn'd him he will foon yield.

My Method of Angling for him is this. I feek a fhallow Sandy Bottom that leads to a deep Hole: Then I throw into the fhallow Part of the Stream four or five Handfuls of Mayth-worms cut into Pieces, which will foon drive down into the Hole. I ufe a long Rod, and of good Strength, with a Line proportionable; a fmall Hook, and no Float. The Hook mutt be ty'd to India Grafs, on which put a cat Shot fix Inches from the Hook, and next to that a fmall Bullet. The ufe of the Shot is to keep the Bullet from flipping lower. This done, bait your Hook with a fhort well-fcour'd Marh-Worm, throw it in the Shallow, and the Stream will drive it into the Hole. By this Method I have caught more in two Hours than I could carry away.
Sometimes, when I find a deep Hole near the Bank, I plumb the Depth over Night, and Bait it at the fame time with Grains well fqueez'd. In the Morning early I vifit the Place again, and, taking my Stand out of fight, I bait my Hook with a large Red-Worm, and then drop it gently into the Hole: With thefe Precautions I feldom mifs of Sport. But remember always, when you have occafion to Plumb the Depth of a Place the Night before, to take notice at your Return whether the Water be rifen or fallen, and make an Allowance accordingly.

It has been faid by fome, that if there be fack or Pearch in the Hole where you Angle for this Fifh, you muft catch them firft, or you can expect to take no Bream ; but this Caution is needlefs, for they never herd with Fack or Pearch.

D 3
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## 54 Tbe Art of Anging.

## C H A P. XIX. Of tbe Rud or Finscale.



THE Rud, call'd in Latin Rutilus Latior, the Broad Roacb, is broader than a Carp, and thicker than 2 Bream. This Fifh feems to partake of the Nature not only of the Carp, but of the Bream and Roacb. Its Colour is a duskih Yellow, and its Scales are as large as thofe of Carp. The Tail is of a light and the BellyFins of a dark Red. The Noftrils are double on both fides. The Iris of the Eyes is Yellow, speckled with Black. The Teetb and Palate are like thofe of a Carp. Its ufual Size is from twelve to fixteen Inches long.

The Gall-Bladder is large, and freaked with White; the Liver is divided into two Lobes, the Spleen is blackifh, and the Air-Bladder double.

It is found in the Rbine, in the Lakes of Holdernefs in York/bire, in thofe not far from Lincoln, the Yare in Norfolk, and in the River Cberwell in Oxforadbire .

It is a Fifh in great Efteem, and is placed among thofe of the firf Rank. It is always in Seafon, and confequently fit to eat. The Time of Spawning is in April, and then it is at the worft; the Signs of which are white Spots about the Head of the Males. At this time likewife they feel more rough, and fwim in Shoals, cafting their Spawn among the Weeds that grow in the Water. The greateft weigh about two Pounds.

They bite very freely, fruggle hard for their Lives, and yield the Angler good Diverfion. They feed near

# The Art of Anging. 

 the Top of the Water, and the principal Baits for them are Red-worms and Flies.
## C HAP. XX.

 Of the R E D-E Y E.THE Red-Eye, call'd in Latin Erytbropbtbalmus, is very much like a Bream, but thicker. His Back is very round, and high, in the manner of a Horg. The Fins are all red; and the whole Body has a reddifh Cafl, efpecially the Iris of the Eye, from whence it derives its Name. The Scales arelarger than thofe of a Roash; when it is fcaled, the Skin looks greenifh. The Palate is like that of a Carp.

This Fifh differs from a Roach in its Shape, which refembles a Bream, as was mention'd before; befides, it has redder Eyes, and is of a more beautiful Colour than a Cbub. When full grown they meafure ten Inches.

They Sparis in May, among the Roots of Trees, and are Angled for in the fame manner as a Rud, Roach or Dace.

D 4
CHAP.

## 56 The Art of Angling.

C H A P. XXI. Of the CHUB or CHEVIN.


THE Cbub, in Latin Capito, is of a longer Make than a Carp, and has a larger and flatter Head than a Dare. The Back is of an obfcure Green, like an unripe Olive. The Sides and Belly are of a Silvercolour; but in a well-fed, full-grown Cbub, they incline to that of Gold fpeckled with Black. The Temples are yellowih, and the Head is of a very dark Colour. 'The Scales are as large as thofe of Carp. The Moutb is void of Teeth, and not large. The lower Faw is fhorter than the upper. The Palate is foft, and is furnifh'd with a triangular Bone. The Noftrils are large, the Eyes middling, and the Iris feems to partake of the Colour both of Gold and Silver. The Tail is forked, and the Lateral Lines run parallel to the Bottom of the Belly.

The Stomach is long, and the Gut has only one Fold. The Liver and Swimming-Bladder are both divided into two Lobes; the latter is of a Silver-colour fpeckled with Black.

It is bred in River6, and delights to abfcond in Holes, and under the Stumps of Trees in a clayey or fandy Bottom. I have met with fome that have weighed eight or nine Pounds.

They Sparwn in May, in fandy or gravelly Places, and in the very midft of the Stream. They are moft in Seafon in the Spring, while they are full of Spawn. WaL ton, and his Tranfcribers, fay he fpawns in March.

The Fleßh is white, foft and infipid, and is but in very little Efteem among the generality.

He commonly fwims in Mid-water, and fometirnes at the Top, and therefore he is beft taken by dibbing. From the beginning of May to September you may Angle for him, before the Sun rifes 'till Nine; but in the Winter he lies lower, and then you may fifh for him at the Bottom in the middle of the Day.
They will take almoft any Bait, as the Brains of Butchers Meat dried, and cut into fmall Pieces $s$ all forts of Worms, Gentles, the Brood of Wa/ps, Black-berries, Dew-berries, black Snails, with their Bellies fit, and all forts of Paftes. In Dibbing they will take a black Ant-Fly, fmall Butter-fies with the great Wings cut off, Oak-worms, Ab-fies, green Caterpillars, and the CodBait ; in fhort, there is fcarce any thing comes amifs to them.

It is but a dead-hearted Fifh, and when once turn'd yields prefently. But yet you muft mafter it as foon as you can, becaufe when he is hook'd he does not make to the middle of the Stream, but to the Banks, which may endanger your Tackle.

When you throw your Bait into the Water they fly fwiftly from it, but return immediately to fee what it is, and, if they like it, they fwallow it without Hefitation; if you keep yourfelf out of fight:

It is a good way to throw in a Ground-Bait every ten Minutes made of Bran and Flower, with a Stone in the middle to fink it.

If they lie in an Eddy, or ftill Hole, you may get a forked Stick, and thruft the other end of it into the Bank ; on this you may reft your Rod, by fticking the But End of it into the Ground, and letting the Middle reft upon the Fork ; but you muft contrive it $\cdot$ fo, that the Bait may fink three Inches into the Water, and if there is any Wind ftirring fix ; then you may retire out of fight, and wait 'till a Bite requires your Affiftance.

## CHAP. XXII.

## Of the B A R BEL.



TH E Barbel, in Latin Barbus, is a beautiful, wellfhap'd Fifh, with fmall Scales placed after a mot exact and curious manner. The Back is of an Olive Colour, the Belly Silver. It is fpeckled on the Rack and Sides widh fmall black Spots. His Make is long and noundifh, and his Snowt Gharp. His.Moutb is not large, but the upper fouv is more prominent than the lower. He has four Barks or Wattles, from whence he derives his Name; two near the Cornexs of his Mouth, and two higher, near the end of the Snout. The Eyes are fmall, looking downwards, with Golden Iris's fpotsed with Brown. In the Summer their Bellies are red.

The Liver is pale and long, the Gall-Bladder large, and the Air-Bladder divided into two Lobes.

The Barbel cannot well endure Cold, and therefore in the Winter-time he is fick and languid, but in the Summer clean and found.

The Flefh is foft and flabby, and in no great Efteem. The Sparwn is unswholefome, purging both upwards and downwards, and is thought by fome to be little better than Poifon. The Male is much better than the Female. Their principal Seafon is September.

Waltan fays they Spawn in April; bat later Writers of great Authority affirm that it is in Auguf. They lay their Spawn in the middle of the Stream.

## The Art of Angling.

Their Size is from a Foot to a Foot and a half long; the Sort which are ufually met with weigh about feven or eight Pounds ; yet a Perfon of Staines caught one of twenty three Pounds weight ; his Bait was a bit of ruity Bacon.

He is bred in moft Rivers; and the Thames, in particular, abounds with them. In the Summer he haunts the fwifteft and fhalloweft Streams, where he lurks under the Weeds, and works and ropts with his Nofe in the Sand like a Hog. Yet fometimes he retires to Bridges, Flood-Gates, Locks and Weirs, where the Waters are fwift and deep.

He never feeds off the Ground, and will take any fort of Worm, bits of Bacon, old Cbeefe or new Cbeeff, if kept in a Linnen Rag dipt in Honey two or three Days to make it tough. The Watermen, who attend on you when you fifh in their Boats, fometimes provide Graves, to be had at the Tallow-Chandlers for a GroundBait over Night. Yet mott commonly they ufe the fame Worm that you bait with. They are a wary, fubtle, frong Fifh, and Aruggle hard for their Lives, and will often pick off your Baits.
His Time of Biting is early in the Morning 'ill Ten ${ }^{\circ}$ ' Clock, and from Four in the Afternoon 'till Sun-fet. Their principal Months are faid to be from the latter end of May'till the end of Auguft ; but I prefer Septempber before any other Month, becaufe then they retire to the deep Holes. In the Summer they come to the.Shallows about Sun-fet, where they may be eafily taken with a fcour'd Lob.worm.

Your Rod muft be very ftrang, with 2 tough Whalebone at the end. You have no occafion for a Float, but muft put a large Bullet on the Line that your Bait may lie Ledger. You muft have ten Hairs next the Hook, but the remaining Part of your Line mut be Silk. If you make ufe of a Wheel, as in Trout-ifining, i will be fo much the better.

## 60 The Art of Angling.

. The moft famous Places near London for Barbel-Angling are Kingfon-Bridge and Sbeperton-Deeps; but I take Walton-Deeps, Cbertfey-Bridge, Hampton-Ferry, and the Holes under Cooper's-Hill to be in no wife inferior. You may likewife meet with them at all the Locks between Maidenbead and Oxford.

## C H A P. XXIII.

 Of the DACE or DARE.THE Dare, call'd in Latin Lexcifcus, is not unlike a Cbub, but is proportionably lefs; his Body is more white and flatter, and his Tail more forked. The Iris of his Eyes is not fo yellow, and the Tail and BackFins not fo black, but they are fpotted with that Colour. The reft of the Fins are not fo red. He is not fo broad as a Roach, and is a Leather-mouth'd Fifh.

He breeds almoft in all Rivers, and generally lies near the Top of the Water. He is a very brisk and lively Fin, and fwims fwiftly like a Dart, from whence he derives his Name.

The Flefla of the Dare is fweet, foft, and of good Nourifhment, but is in no great Efteem.

They Sparwn in Februlry and March, and are fit to eat in April and May ; but their highert Seafon is September.

They delight in Gravelly and Sandy Bottoms, and the deepeft Part of the River under the Shade of Trees, or Dock-Leaves.

They are a very fimple Fifh, and will often bite when you leaft defire it. However, their darling Bait

## The Art of Anging. 61

is a Gentle at the Bottom, and a fmall Fly at the Top. In the Summer-Months an Ant-Fly is beft. They will likewife take any Pafs, as well as all forts of fmall Worms.

## C H A P. XXIV.

 Of the $\mathbf{R} \mathbf{O}$ A C H .IT is a lefs Fifh than a Bream, and about one third. as broad as it is long. The Back is of a dusky colour, and fometimes bluifh ; but the Belly pale. The. Iris of the Eyes, as well as the Fail and Fins, are red; the Lateral Lines run parallel to the Belly, and the Tail is forked; about the Gills it is of a Gold-colour; the Moutb is round; but void of Teeth, it being a Leathermouth'd Fifh.

The Intefines have nothing fingular.
They breed both in Rivers and Ponds; and though the Pond Roach are largeft, thofe caught in Rivers are the beft Fifh.
They Sparwn about the middle of May, and recover their Strength in a Month's time.

They are to be Angled for much in the fame manner as the Dace, and their Haunts are the fame, and there-: fore the lefs needs to be faid about them.

In Winter you may fin for him with Pafte or Gentles, in April with Worms or Cod-Bait ; but in very hot Weather with little rwhite Snails, or with Flies under Water, for he feldom takes them at the Top as the Dace will; and this is the principal thing wherein they differ.

CHAP.

## 62 The Art of Angling.

CHAP. XXV. Of the GUDGEON.


TH E Gudgeom, in Latin Gobius fluviatilts, is generally five or fix Inches long, of a fmooth Body, with very fmall Scales. The Back of it is dark, but the Belly pale. There are about nine or ten black Spots plac'd along the Lateral Line, from the Head to the Tail; befides thefe there are fmall ones, here and there. in other Parts of the Body, without any Regularity. The Iris of the Eye is white. The Moutb is withont Teeth, but on the Palate is a Triangular Bone which ferves in their ftead.

The Inteffines have nothing fingular.
They are to be met with every where in Rivers, but in fome they grow to a larger Size than others. I once faw four which were taken out of Uxbridge River that weigb’d a Pound.

This Fifh Spawns twice in a Year; the firft time about the latter end of April, and the fecond in Novempber; fome fay of tues.

His Fiefh is very well tafted, of eafy Digeftion, and very nourihing, infomuch that fome think it no way inferior to a Smelt.

He delights in fandy, gravelly Bottoms, gentle Streams, and fimall Rivers. In the Summer-time he reforts to the Shallows, and in the Winter to the Deeps.

He bites all Day from the end of March 'till Mickaelmas, but not 'till an Hour after Sun-rife, nor longer than: an Hour before Sun-fet.

The

## The Art of Angling.

The principal Baits are the fmall Red-worm, Gilt tail, Brandling, and Meadorv-worm. H\& will likewife take a Gentle, Cod-bait, and the Broed of Wa/ps, but will never rife at a Fly.

When you Angle for them in the Shallows rake up the Sand or Gravel with a Rake or Pole, and it will draw your Gudgeons about your Bait; when you have no fach Conveniency throw in fome Handfuls of Earth. Ufe a Float, and let your Bait always touch or drag on the Ground. Be not too hafty with them when they bite, because they will fometimes mibble a little before they take it, tho' they commonly bite pretty fure.

When you Angle for them in a Boat in the Thames, let the Waterman rake the Gravel up to draw the Gudgeons about you; then plumb the Ground, and bait your Hook with a fmall well-fcour'd Red-worm; by this Method you will feldom fail of good Sport. It will be the beft way to Angle pretty Arong, left a larger Fifh hould take your Bait, and break your Tackle; and then you may fometimes take Pearch or frout inftead of Gudgeons.

## C H A P. XXVI.

 Of the $\mathbf{B} \quad \mathbf{L} \mathbf{E} A \mathbf{K}$.

TH $£$ Bleak, in Latin Aburnus, is 2 very fmall Fif, fcarcely ever attaining to be fix Inches long. His Body is cover'd with thin Silver Scales which eafily come off. He is of a llenderer and flatter Make than a Cbub, and his Head is proportionably lefs. He has large Eyes, and the lower part of the Iris is fpotted with Red. The Infide of the Mouth is like that of a Carp; and

## 64 The Art of Angling.

and provided in the fame manner. The Liver is divided into very long Lobes.

They are to be met with in great plenty in all our Rivers, and are reckon'd to be chiefly in Seafon in $A u$ tumn. It Spawns in March, and recovers its Strength in three Weeks time.

The Flef $\beta$ is fweet, nourifhing and pleafant, but litthe fought after, becaufe of the diminutive Size of the Fifh.

The beft Baits for him in the cold Months are Gentles and fmall Red-worms, and in the Summer either a Na tural or Artificial Ant-Fly.

As this Fifh is always changing his Situation, and feems to be ever reftlefs, and ever in motion, the beft Method of Angling for him is with a Pater-Nofer Line; that is, a Line with half a dozen or more Hooks ty'd to the main Line, about three or four Inches one above another. He will take your Bait wherever he meets it.

## C H A P. XXVII.

 Of the L O A C H.

THE Loach, in Latin Cobitis flurviatilis barbatw la, refembles a Gudgeon in Colour. Its Body is fmooth, foft and llippery, with no difcernable Scales. The Head, Back, Fins and Tail are fpotted with Black. In other Parts they are of a dirty Yellow, like Freckles. It has Barbs or Wattles, like the Barbsl. The Nofe is lenge and the upper $\mathcal{F}$ aw is more

## Tbe Art of Angitng. 65

 prominent than the lower. The Eyes are fmall, with a black Pupil, and a yellow Iris. The Tail is flat, and not forked.They begin to Sparwn in April among the Weeds, but as they do not all Spawn at the fame time they are always in Seafon.

Its ufual Size is about four 'Inches. It was formerly accounted a great Delicacy, but now is moft commonly fwallow'd alive, as being very reftorative.

They are generally found in fmall, fwift, clear Brooks, and lie under Stones, Pieces of Wood, and fuch like things, which they ufe as a Harbour.

You may Angle for him clofe to the Ground with a very fmall Hook, and a proportionable Red-worm. There is no Art in taking them, for all you have to do is to prevent them from running under fuch Places as will endanger your Tackle, and therefore they are to be pull'd out immediately.

## C H A P. XXVIII.

## Of the Bull-Head or Miller's-Thumb:



THE Bull-Head, calld in Latin Gobio fluviatilis Capitatus, is a fmall Fiif of about four or five Inches long, but never reaches to fix. It has a large deform'd Hsad; the Eyes are fmall, but fo placed that they look upwards. The Mouth, is large, and full of fmall Teeth; the Body is without Scales; the Back is yellow, with three or four Strokes of Black:

66 The Art of Angeing.
It is found in Brooks and gravelly Rivers, where they lie hid like a Loach under Stones, and fuch like Places.

They Sparw in Marck, and are in beft Seafon when they are full of Spawn, as moft other Fifh are.

They are a fweēt Fin, and very agreeable to the Tafte; but their Bodies are fo fmall that few think it worth their while to Angle for them.

They may be taken with any Bait, their Mouths are fo large; but they are moft fond of a Red-worm; and they are fuch bold Biters, that if there is never fo many in the Place where you Angle you may take them all.

## CHAP. XXXX.



## Tbe Art of Angi:xe

 Fords, where the Carrect is fuif anitur.

This fmall Fifh is ufualy canght ior $z$ fern II ven to take Pearch, Pike, Treut or Sainoz. in ircia make his Appearance in Marik, anč comine rive -I September, when he retires to tixe $1: 2 \mathrm{i}$ fren. Ix Woody Places for Security. He nere: =- II =ne nor in dark windy Weather, bracie tre times is ranging about for Food.

His Time of Biting on a fir Dit is =iry \#yr afer Sun-rifing 'till an Hoor beier Sx- En Incor are fmall Worms of any fort ; 2ai is is crite water, or at the Bottom. In $A=E$ proper to ufe a Float.

## CHAP. XNX.

## Of the Sticklebackor Sieffer:



The Bait fhould be a Bit of a Red-worm upon a very fmall Hook.

In the Wandle, where there is few or no White Fi/h, Gudgeons or Minnows, it will ferve for a Bait for a Trout, if you cut the Prickles off, which I have experienced at Cafbalton and Mitcham more than once.

## C H A P. XXXI.

## Of the Pike, Luce or Pickerel.



THE Pike, in Latin Lucius, is a very voracious Fifh, and often grows to an enormous Size. In a Ditch near Wallingford I faw two caught, one of which, being the Milter, weigh'd fifty-one Pound, and the Spawner fifty-feven. The Ditch runs into the Thames, and they retir'd thither in order to Spawn.

The Make of a Pike is long, the Head is flat, the Back fquare ; the Snout very prominent, almof like the Bill of a Duck, and the lower Farw is longer than the upper. The Moutb is very wide, and the Tail forked. His Body is cover'd with fmall thick Scales, moiften'd on the Edges with a kind of Mucus, which may be eafily wip'd off; to this Mucus is owing that greenifh Caft which we behold in this Fifh, and the younger he is the greener he appears. If the Back and Sides are placed towards the Light there appears fomething of a golden Hue. The Sides are fpotted with Yellow, and the Belly with White: On the Tail there are dusky Spots and reddifh Lines, efpecially tor wards the Corners. The Teeth in the lower Jaw are crooked, in the Upper there are none, but on the Pia
late there is a triple Row. The Tongue is broad, black, a little forked, and rough with Teeth. The Eyes are of a Gold Colour, and feem to be a little funk into the Head; and therefore the moft commodious way of holding him is by putting the Fore finger into one Eye, and the Thumb into the other. The Head and Gills are fpotted with variety of fmall Holes.
The Liver is of a pale Flefh-colour. The Gall. Bladder is join'd to the upper Part of the Liver, and is empty'd into the Gut by a long Duct; the Gall iffelf is of a greenifh Yellow. The Spleen is of a blackifh Colour, and almoft triangular. The Heart is of the fame Figure. The Gut is cover'd with Fat, and is folded back three times. The Stomach is large, and wrinkled on the Infide.
The Pike will live in either Lakes, Ponds, or Rivers; and with us in England is a very common Fifh; but in Spain there are none at all. It never is met with in the Sea, nor in the Mouths of Rivers where the Water is falt; and if by any accident he is drove thither he becomes fick, lean, and good for nothing.

This Fifh is of fo voracious a Nature, that he will fwallow another Fifh almoft as big as himfelf. There are feveral Stories related by Gefner, and others, conceming his ravenous Difpofition, but they have been tranfcribed fo often that they will not bear repeating. Certain it is they will not fpare their own Kind; and if the Pearch fares better than other Fifh, it is only on account of its prickly Fins; for they will fometimes take them crols-wife in their Mouths, and when it is dead, and its Fins laid flat, they will fwallow it Head foremof.

The ufual Time of Spazwing is in March, fometimes fooner, if the spring be forward. They retire into Ditches, as is fuppofed, that other Fifh may not devour their Spawn. They are prodigious Breeders; Baltner reckon'd no lefs than a hundred and forty eight thouland Eggs of Spawn in one Row. They grow faft while
while young, for in the firf Year only they grow to the length of fixteen Inches, if the Brook be clear in which they are fpawn'd. When he comes to be thirty Inches he is at a ftand, and then thrives in Thicknefs. It is a very uncommon Sight to meet with one full four Foot long.

They are in Seafon all the Year except in Spawn-ing-time, and about fix Weeks after it; therefore February, March, April and May are the worft Months, but efpecially March and April, for in part of the other Months, at leaft, they may be in pretty good Order, efpecially the Male.

The Fleft is white, firm, dry and fweet, efpecially of a Rivel-Pike. Some think the larger they grow the more agreeable is their Tafte. Bat, in my Opinion, when they weigh more than twelve Pounds they have a fort of Ranknefs, and under Three they art flabby and infipid.

The $\rightarrow$ Pike is fond of 2 quiet, fhady, unfrequented Wate, and lurks in the midf of Weeds, Flags, or Bull-Rufhes: Yet he often makes Excurfions from thence, and ranges about in fearch of Prey. In Winter and cold Weather he lies deep, and near the Bottom, but as the Weather grows warm he frequents the Shallows; in a very hot, clear, fultry Day he may be feen lying on the Surface of the Water.

His beft Biting-time is early in the Morning, and late in the Evening, when there is a brisk Wind, and where the Water is clear. If they bite at all they will take the Bait at firft, it is therefore needlers to throw it often into the fame Place.

He will take any fort of Bait, except a Fl ; but the principal are young Roach, Dace, Gudgeons, Minnows, Loaches and Bleak; in July, young Frogs and SalmonSmelts are proper. All your Baits in general hould be frefh, fweet and clean, otherwife you may fpend a great deal of time to no purpofe.

## The Art of Angling. 71

There are feveral ways of fifhing for a Pike, but the principal are Trowling, Trimmer-Angling and Snap-Aatling; but as thefe have been explain'd before, I mall now fhew how they may be brought into afe in the beft manner I can.

In Trowling the Line fhould be made of green Silk, or Thread, and fhould be forty Yards long, or more, if the River be broad. Very groat care fhould be taken that your Line may run freely out; for if it knots or tangles, and by that means checks the Motion of the Pike as he runs away with the Bait, he will let it go, and will not be prevaild upon to take it again very foon, unlefs he be hungry indeed. When you have fix'd your Bait on your Hook, with as little Damage to it as poffible, caft it up and down fuch Places as you imagine the Ptke frequents, letting it fink a confiderable Depth before you pull it up again. When the Pike comes you may fometimes perceive it by a Motion in the Water, or at leaft you may feel him, which is the fame thing. When this happens yout Bufinefs is to give him Line enough, that he may have free Scope to go where he pleafes, without the leaft Check, for the Reafon before-mention'd. When he is got into his Hold, there let him lie 'till you perceive the Line move, and then you may conclude he has pouch'd the Bait; then wind up your Line 'till you think it is almolt ftraight, and with a nimble Jerk, contrary to the way the Pike takes, hook, and Land him as foon as you can.

A Trimmer is made ufe of in the ftill Part of a River, or in a Pond, Meer or Canal. Your Bait, which fhould be a young Roach, Dace or Gudgeon, may hang about Mid-water, and may be left to itfelf while you are firhing elfewhere. By this Artifice one Perfon may do as much Execution as if he had a Companion along with him, with little or no additional trouble to himfelf. For farther Directions fee Chap. 2. aforegoing.

A Snap is generally two large Hooks pin $s o$ back, and a Pearch-Hook in the middle tu .. Bait upon. When you make ute of it take $\because$. Dace or fall Roach, and fix it to the fa:. running it under the Back-Fin; then let it $S$ : the Current, and when you perceive the $\Gamma$ ', drawn under Water you may conclude the $P$ : hold of it; therefore give it a fart Jerk, ar giving him time to play keep your Line alva: drawing him towards the Shore as foo as without breaking your Tackle, and then : Landing-Net throw him out of the Water. It ways be the mot prudent Method to have Git: Wire next your Hook.

## C HAP. XXXII. <br> Of the STURGEO




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## 74 The Art of Angling.

been taken from fourteen to eighteen Foot long; and Cardan faw one that weigh'd a hundred and eighty Pounds; in the Elb they fometimes amount to two hundred Pounds; a German Prince once took one of two hundred and fixty Pounds weight.

Of the Sparon of this Fifh there is made a fort of Edible which they call Cavear, or Kavia, and is a confiderable Merchandize among the Turks, Greeks, and Venetians. It is likewife in high Efteem throughout Mofcovy, and has lately been introduced on the Engliß Table. It is made after the following manner.
'They take Sturgeon's Spawn, and free it from the little Fibres by which it is connected, and walh it in White-wine or Vinegar, afterwards fpreading it upon a Table to dry ; then they put it into a Veffel and falt it, breaking the Spawn with their Hands, not with a Peftle; this done they put it into a fine Canvafs Bag, that the Liquor may drain from it; laft of all they put it into a Tub with a Hole at the bottom, that if there be any Moifture ftill remaining it may run out; then they prefs it down, and cover it clofe for afe.

The Italians fettled at Mcfoow drive a valt Trade with Cavear, Sturgeons being caught in great Plenty in the Mouth of the Volga, and other Rivers that empty themfelves into the Cafpian Sea.

In Holland they cut thefe Fin into fmall Pieces, and pickle them; then they put them in Cags, and fend them abroad. This is in great Efteem among us.

The common way of killing them is with a HarpingIron, for they take no Baits and when they feed they rout in the Mud with their Snout like Hogs. In fome Places they take them with Nets.

C HAP.

# Tbe Art of Angitng. 

## C H A P. XXXIII.

 Of the $\quad \mathbf{S}$ M E L T.

THE Smelt, in Batin Eperlanus, is a Fifh for Shape not much unlike a Trout, only longer in proportion to its Bignefs. Its common Size is about fix Inches long; fometimes they are to be met with nine Inches.

The Back is of a dusky Colour, but the Belly and Sides thine like Silver. Thofe who examine them attentively will find fmall black Spots on the Head and Back: The Body is cover'd with Scales, which fall off with the keaft Touch. The Scull is fo tranfparent that the Lobes of the Brain may be diftinctly feen through it. The Eyes are of a Silver Colour. The lower faw is a little more prominent than the upper, but they are both well furnifh'd with Teetb; two of which in the upper Jaw, and as many in the Tongue, are longer than the reft.

The Flefb is foft and tender, and of a delicate Tafte: it is fo highly in Efteem that they are generally fold at an extravagant Price. All Writers on this Fifh affirm that it has the Smell of a Violet ; but the vulgar Opinion would have it to be that of a Cucumber.

It is a Fifh of Paffage, and vifits the Thames and other great Rivers twice a Year, that is in Marc.b and Auguf; in the firt of thefe Months they generally advance up the River as high as Mortlack, but in the laft they make a Stand about Blackzwall.

The beft way of Angling for them is with a Patermofter Line, with a fmall Shot to fink it under Water: Your Baits fhould be Gentles well fcour'd, or Pafte, or E 2 the

76 The Art of Anging.
the Fifh iffelf cut into fmall Bits fufficient to cover your Hook. It is faid they are to be caught in DagenbamBreach, but of this I can affirm nothing from my own Knowledge.

## C H A P. XXXIV. Of the S H A D.



THE Shad, in Latin Alofa, is is Shape much like a Herring, but a little broader: It grows to the length of a Foot and a half, and is much of the fame Colour as a Pilchard, that is, of a bluif Black on the Back, and the Belly and Sides of a Silver Colour. The Covers of the Gills are of a thining Yellow, fometimes inclinable to Purple ; near the Gills, on both fides, are large round black Spots; befides thefe there are fix or Seven Spots of a fmaller Size placed in a right Line towards the Tail, which appear more plain when the Scales are off. The Eyes and Moutb are large, and the upper $\mathcal{F}$ arw only is furnifh'd with Teetb. The Tongue is fmall, fharp and blackifh.

The Stomach refembles that of a Herring; the Gut paffes directly from the Pylorus to the Vent. The AirBladder is long, and has a Communication with the Stomach.

The Sbad enters the Severn in March and April, at .which time they are fat and full of Spawn; but in May they return back to the Sea very lean, and prodigioully alter'd ; in fome Rivers, as the Thames, they flay 'till $\mathcal{F}^{\prime}$ ne or fuly.

The Flefß is well enough tafted, bat is fo full of fmall Bones that it is little valued for that Reafon; tho' the Severn Sbad are much better than thofe caught in the Tbames.

The ufual and only way of taking this Fifh is with Nets.

## C. H A P. XXXV. Of the B A S S.



TH E.Bafs, in Latin Lupus, from its Greedinefs fometimes grows to the length of a Yard and a half; yet, according to fome, they are thought to be of a large Size when they weigh fifteen Pounds. They are fhaped pretty much like a Salmon. The Colour on the Back is of a dark dirty Blue; on the Belly Silver. When young they have black Spots on the Back and Lateral Lines, which, as they increafe in Bulk, quite vanifh. The Scales are of a middling Size, thick, and adhere very clofely. The Mouth is large, and full of fmall Teetb. In the Palate there is a triangular Bone, and there are two more in the Tbroat. The Tongue is broad, flender and rough, there being a rough Bone in the middle. The Eyes are large, and of a Silver Colour, with dark cloudy Spots; a fmall Circle next the Pupil is yellow.

The Intefines have nothing very fingular.
It is a very voracious Fifh; and yet the Fleh is of a good Flavour, and very wholefome.

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## 78 The Art of Anging.

Thiey will live either in the Sea, Rivers or Ponds; But the Sea-Ba/s are beft, and next to them are thofe that are taken in the Mouth of large Rivers.

The way of catching them is with Nets. Sometimes they are cought with an Angle in Fifhing for Mullet.

## C H A P. XXXVI.

## Of the M U L L E T.

THE Mullet, in Latin Mugil, is in Shape much like a Dare, and has a flat Head and a fharp Snout. He has large Scales not only on the Body, but on the Covers of the Gills and part of the Head. The Back is of a dirty Green; the Belly white; the Sides are painted with alternate Streaks of White and Black from the Head to the Tail; the Eyes are of a Silver Colour; between them and the Corner of the Mouth is a Bone befet with Prickles; there are no Teetb in the Jaws, but the Tongue is a little rough, and there are two rough Bones on each fide the Palate. The Tail is forked.

The Stomach is fmall, hard, round and Mufculous, like the Gizzard of granivorous Birds. The Guts are very long, and are folded back feveral times. The Spleen is large, and the Gall yellow.

When he is largeft his Size is about a Foot and a half long.

He is faid to live upon Weeds and Mud; hewever it is certain that he abftains from Fih.
. In the begianing of the Summer he comes into the Rivers on the South of England every Tide, and re-

## The Art of Angling.

eurns back with it. The River Axe in Devonffire, and Arundel in Suffex, are famous for this Fifh.

The Italiaws make a Pickle with the Spawn, which they call Botargo, in the following manner. They take the whole Roes and cover them with Salt for about foar of five Hoars, then they prefs them between two Planks during a Day and a Night; after which they wash them, and fet them in the Sun to dry for thisteen or fourtees Days, taking them in in the Night-time. They raife the Appetite, provoke Thirf, and give a true Relifh to Wine.
They are bold Feeders, and are to be caught with moft Flies that allure the Trout. Within two Foot of the Bottom they will take a Lob-worm or a Mar/b-worm; but your Tackle muft be ftrong, for they ftruggle hard for their Lives.

## C H A P. XXXVII.

Of the Flounder or Fiuke.


TH E Flounder, in Latin Pager fluviatilis, is in Shape much like a Plaice, only the Body is fomewhat longer, and when it is full-grown it is thicker. The Colour is of a dirty Olive. Sometimes they are beautifully fpotted, but I never met with any of thefe, except far up the River. The Scales are exceeding fmall, and adhere fo clofely to the Skin that there is no per- fed of fmall Prickles, from whence arifes that Roughnefs which may be felt along it from the Head to the Tail. The Eyes are of the right Side, and are of the fame Colour as the Body, only a little more grey. The Mouth.is fmall, the Tongue narrow, and there is a Row of Teetb in both farws.

The Flounder is both a River and a Sea-Fib; but the former are not fo black, and are more foft than the latter. But this Difference feems to arife only from the Nat

They are in Seafon all the Year, except in $\mathcal{F}$ une and fuly, which is their Time of Spawning, and then they are fick and flabby, and infefted with Worms which breed in their Backs.

The Fl/ $/ b$ is white, foft, innocent and nourifhing; but it is always beft when it is moft firm. The Tafte of it is much like that of the Plaice, from which it differs but little in any Refpect.

It is the Nature of all flat Fin to lie and feed at the Bottom; fome indeed are fond of Mud, but the Flounder avoids it as much as poffible, delighting to lie on Sandy or Graveily Bottoms, efpecially on the Declivity of a deep Hole near a Bank.

They may be Angled for either with a Float or 2 Running-Bullet, but I prefer the latter. The Bullet fhould reft at leaft a Foot from the Hook, that the Bait may be at liberty to be put in motion by the Water. If you ufe a Float let it lie flat on the Water, and when you perceive it to move along flowly, and foon after become upright, then Atrike, and you'll be fure of your Prey. But always remember that he is fome time in fucking the Bait into his Mouth before he gorges it.

The beft Baits are Red-worms, or very fmall Marbworms put on a fmall Hook. You fhould bait the Ground with a Handful of fmall Red-worms cut in two pieces. They may be Angled for all the Day, but early in the Morning is the likelieft Time.

CHAP.

## The Art of Angling. $\quad 8 \mathrm{I}$

## C H A P. XXXVIII.

## Of the Lamprey or Lampern.



THE Lamprey, in Latin Lampetra, is called by Dr. Plot, the Pride of the $I / f$, and by others, Seven-Eyes.

It is a Fifh about five or fix Inches long; on the Back it is of a greyif Black, but the Belly is of a lively Silver-colour. Its Mouth is round, and furnifh'd with fix or feven Teeth. On the Top of the Head there is a Hole, as in the Cetaceous Kind ; for as the Mouth, when the Lamprey adheres to a Rock or Stone, is entirely Shat, there is a Neceffity for a Hole to take in the Water, which is difcharg'd again by the Gills, or the Seven Holes placed on each Side near the Head. The Eyes are of a palifh Yellow, and cover'd with a Cuticle. The Belly rifes and falls much in the fame manner as in Animals that breathe.

The Liver is undivided, and the Capfula of the Heart almoft Boney, which is purpofely defign'd by Nature as a Guard or Security for it, becaufe this Fifh has no Bones, not even fo much as a Back-bone.

The River-Lamprey, contrary to the manner of other Fif, procreate their Species with their Bellies join'd together, which is eafy to be obferved, becaufe at that. time they get into flallow Fords, where all that paffes is vifible enough.

The Fleß is of a foft glutinous Nature, and is generally eaten Potted; and even then is is more agreeable to the Palate than healthful to the Body. . Their time of Sparwing is in ApriL

82 The Art of Anging.
There is another Sort of this Fifh which is call'd the Blind Lamprey, which is fmall and round, like a large Dew-worm or Lob-wiorm. It has no. Scales, and its Body is divided into fmalt Rings by tranfverfe Lines in the manner of Worms. Thefe Rings are about eighty four in Number. The Mouth is round, and always open, but it has neither Teeth nor Tongue. It has a Hole on the Head, and Seven on each fide inftead of Gills, as in the other Species.

## CHA P. XXXIX.

Of the LAMPREy-ERL.


TH IS is of the fame Shape, but of a larger Size than the Lamprey, for it is fometimes taken in the Severn three Foot in length, and the Diameter of the Body five Inches. The Skin is of a blackifh Colour, and full of palinh angular Spots; it is tough, but yet not taken off when dref'd, as in Eels. It will hold a bit of Wood or a Stone fo firmly in its Mibuth, that they cannot be taken out without Difficulty. On thetop of the Head there is a Wbite Spot, and before it a fmaH Hole encompars'd with a Membrane which rifes up a fmall matter; the Ufe of it is the fame as in the Lamprey. The Gills are concealed under the Searen Holes

## The Art of Angling.

troles placed on each fide. The Edge of the Mouth is jagged, and adheres fo clofely to any thing, that fome have fuppored thefe Inequalities to be Teeth cover'd with Pitch; whereas the $T_{e e t h}$, properly fo called, are placed on the Infide of the Mouth, and the more remote they are the larger. It has no Bonos, but a Griftle down the Back full of Marrow, which fhould be taken out before it is drefs'd. In fhort they refemble a Lamprey in all things.

They live chiefly in the Sea, but come into the Rivers to Spawn, where they are found in great Plenty. They are difcover'd by the Froth that rifes from them.

Their bigheft Seafon is in March, when they firft enter the Rivers, and are full of Spawn. In spril they make Holes in 2 gravelly Bottom where they depo fite their Spawn, and if they meet with a Stone of two Pound weight they remove it, and throw it out.

They are feldom Angled for purpofely, but are fometimes caught with Worms in Angling for other Fifh.

## C HAP. XL. Of the E EL.



THE Eel, in Latin Anguilla, has a long fmopth. Body, moiften'd all over with a vilcous Liquor, which renders it very flippery. It has no Scales, but is cover'd with a Skin which is eafily taken off. The Back is of a dusky Colour, the Sides of a whitioh Blue, and the Belly fomewhat lighter. Thofe that inhabit clear.

## 84

 The Art of Anginng. clear Running-water are of the brighteft fhining Colour,' and are ufually call'd Sikver-Eels. The Mouth is pretty wide, and full of Teeth; the Tongue is cover'd with a foft Skin, but within it is hard and boney; the upper farw is a little more prominent than the lower, and is furnih'd with two fmall Brifles not eafily difcernable; the Eyes are whitifh; it has four fmall Gills cover'd with the Skin, except a fmall Chink near the Fins. The Vent is nearer the Head than the Tail.The Liver is large and red, and divided into two Lobes; the Gall is yellow, and the Gall-Bladder large ; - the Spleen is oblong; the Stomach reaches almoft to the Vent; the Gut is ftraight.

He feeds upon Earth-wormu, fmall Fi/h and Snails.
All Authors acknowledge their Ignorance as to the manner how Eels generate; but I have been affur'd by a Fifherman of Mortlack, that he had feen Spawn in the Belly of one ficking to the Outfide of the Gats two or three times, and that it was like the Spawn of the Barbel, and about the Size of a common Marble; which, if true, it is very furprifing that it hould have efcap'd the diligent Enquiries of all Writers, ancient and modern. However he is now living, and ready to make Affidavit of the Truth of the Affertion.

There are four forts of Eels, the Silver-Eel, the Greeni乃s or Greg.Eel, the Red-fin'd Eel, and the Blackiß Eel: This laft has a broader, flatter and larger Head than the reft, and is counted the worft. But whether thefe Diftinctions are effential or accidental will admit of a Doubt. In the Thames the Fifhermen give them particular Names; but the moft ufual are, the Silver-Eel, and the Greg: This laft is thicker and morter than the other Sort, and of a darker Colour.

Near Glouceffer and Tewhisbury there are a fort of diminutive Eels which they call Elvers, and are thought to be young Congers. Thefe are taken in fuch Quantities that they make a fort of Cakes of them, which eat pretsily enough when fry'd.

## The Art of Angling. 85

Tho' Eels love to lurk and hide themfetves in the Mud, yet they are averfe to muddy Water, becaufe they we liable to be fuffocated by it: They are caught in Nus in the time of a Flood, at Mill-Dams, and fach. like Places.

In the Bay-time they skulk among Weeds, under Stomes, or the Roots of Trees, or among the Planks, Piks, or Boards of Weirs, Bridges, or Mills.
The proper Baits for an Eel are fmall Gudgeons, Roach; Dare or Bleak. They are likewife fond of Lampreys, Lob-worms, fmall Frogs, raw Flef, falted Beef, and the Guts of Fowls.
The beft Time to Angle for them is on a Windy, Rainy, or Gloomy Day, efpecially after Thunder. Your Rod muft be frong, your Line the fame as for Trowling, with an arm'd Hook; and your Bait muft lie Ifdger.

Another Way to take Eels is by laying Baited Hooks, which are to be faften'd to a Tree, or the Bank, in fuch a manner that they may not be drawn away by the Eels: Or a String may be thrown crofs the Stream, with feveral Hooks faften'd to it. The Line mult be ty'd to a large Plummet of Lead or a Stone, which muft be thrown into the Water with the Line, in fome remarkable Place, fo that it may be found readily in the Morning, and taken up with a Drag-Hook, or otherwife.

Siliging or Brogling for Eels is another remarkable Method of taking them, and is only to be practifed on a warm Day when the Waters are low. This requires a ftrong Line, and a fmall Hook baited with a Lob-worm. Put the Line into the Cleft of a Suick, aboot a Foot and a half from the Bait, and then thruft it into fuch Holes and Places before-mention'd where he is fuppofed to lurk; and if there be one there"it is great ميis but he takes your Bait. Some put that part of the Line next the Hook into the Cleft; but however that be, it muft be fo contriv'd that the Line may be difengaged when he takes the Bait. When he has fwallow'd it He is not to be drawn out haftily; but after he is pretty well tired with pulling, and then you will make him more fecure.

To Bobs for Eels you muft provide a large Quanlity of well-fcour'd Lob-wworms, and then with a long Needle pafs a Thread through them from Head to Tail till you have flrung about a Pound. Tye both Ends of the Thread together, and then make them up into about a dozen Links. The common way is to wrap them about a dozen times round the Hand, and then tying them all together in one Place makes the Links very readily. This done faften them all to a frmall Cord, or Part of a Trowling-Line, about two Yards in length. Six or eight Inches above the Worms there fhould be a Knot for a Lead Plummet to reft on. The Plummet frould weigh about half a Pound, and be made in the Shape of a Pyramid, with a Hole through the Middle for the line to pafs through; the broad Part of the Plummet, or the Bafe of the Pyramid, fhould be towards the Worms, becaufe that will keep it more fteady. When you have put the Plummet on your Line you muft faften it to a ftrong, fliff, taper Pole of about three Yards long, and then the Apparatus is finiff'd.

Being thus prepared, you muft Angle in muddy Water, or in the Deeps or Sides of Streams, and you will foon find the Ecls tug frongly and eagerly at your Baits. When you think they have fwallow'd the Worms as far as they can, draw them gently up towards the top of the Water, and then fuddenly hoift them on the Shore or in your Boat; by this means you may take three or four at a time.

Sometimes when I have been Angling for other Fifh, I have thrown a long Line into a likely Place, with feveral Eel-Hooks on it placed about a Yard and a half afunder, and a heavy Lead to fink it. The Hooks were baited with Liob-worns and fmall Fift. I have

## C H A P. XLI.

## Of the Exl-Pout or Bureot.



THE Eel-Pout, in Latin Mufela furviatilis, has 2 finooth, foft, flippery Body like an Eel, efpecially the Belly. It has either no Scales, or they are exceeding fmall. Its Colour is blackifh, refembling that of a Tench. The Head is a little flattifh, and both the Faws are well furnifh'd with fmall Teetb. On the lower $\mathcal{F}$ aw grows a Barb of about half an Inch long, and likewife a fhort Pair between the Nofrils and the Snout; the Tail torminates in a Circular Figure.

The black Colour is eafily wip'd off, and then there appears underneath a Mixture of Yellow, White and Błack.

This Fifh is met with chiefly in the Trent, though I have been lately inform'd there are fome in the Savern. They Spawn in December, and are fo fruitful, that one Roe contains no lefs than 128000 Eggs. Their ufual Length is about fourteen or fiffeen Inches.

Their Places of Refort are the fame as the Eels, if within the Reach of the Tide; and the beft time to take them is after a Storm of Thunder and Lightening with heayy Raia.

## 88 The Art of Angitng.

The beft Bait for him is a fmall Gudgeon, Roach, or Dace; your Hook fhould be arm'd on account of his Tharp Teeth, and becaufe he is a vigorous, ftrong Fifh, and ftruggles hard for Life.

His Flehh is good and fweet, and greatly efteem'd. His ufual Size is from fourteen to twenty Inches.

## CHAP. XLII.

## Of the S EA-SNAIL.



THE Sea-Snail is calld in Latin Liparis, or more properly Liparis nofkas, becaufe it differs from others of that Name that are not found on the Britifh Coaft. When it is juft taken it is brown on the Bach, and white on the Belly; but in ten or twelve Hours after, it becomes of a much lighter Colour. The Head is round, the Mouth void of Teeth, but the farws are a little rough. The Apertures of the Gills are little Holes, fcarcely large enough to admit a Pea; they have Covers arifing from the upper Part of the adjacent Fins, which they open or thut at pleafure. The Bafis of the Fin is extended from the back Part of the Head almoft to the bottom of the Throat, infomuch that it nearly joins the other that comes from the oppofite Side. Thefe Fins are about an Inch long, and more than an Inch broad. On the bottom of the Throat there is a round Spot which exactly reprefents the Impreffion of a Seal.

The Vent is nearer the Head than the Tail; immediately below the Vent arifes a Fin which is continued to the Tail, and joins one that runs all the length of the

## The Art of Angilng. $\quad 89$

Back, infomuch that the hinder Part of the Finh very mach refembles an Eel.

The whole Fifh, as well the Head as the Body, is very foft and unctuous, and is eafily refolvable into an oily Liquor; whence it juftly deferves the Title of Snail.

It is not taken in the Sea, but in the Mouths of Rivers four or five Miles from it; however it never wanders out of the Salt-water.

It does not appear that this Fifh is ever Angled for, nor indeed that it is of any great ufe when caught; but the Nature of our Defign would not allow us to omit it $;$ and if it will ferve no other purpofe, it may fatisfy the Curiofity of thofe who are defirous of being acquainted with the vaft variety of living Creatures that inhabit the Element of Water.



0 F
S E A - FISH,
AND THE

Various Methods of Rock and Sea-Fifing.

## PART the SECOND.

C H A P. I. Of the W H A L E. H E Whale, in Latin Balcena, is by far the largef of all the Inhabitants of the Sea, and is chiefly caught in the Nortb-Sea. Some of thofe taken at Spitzberg amount to two hundred Foot in length. Thofe

## SEA-FISH. 91

Thofe on the Coaft of America are about Ninety, or an Hundred; and thofe on the Coaft of Guienve and in the Mediterranean are the fmalleft of all.

There are two forts of Whales, one of which is call'd Cacbelot, whofe Mouth is furnifh'd with little flat Teeth; whereas the true Wbale has none, but inftead thereof has 2 kind of Whiskers in his Throat about a Span broad, and fifteen Foot long, ending in a fort of Fringe like Hogs Briftes; they are fet in the Palate, and do, in fome meafure, the Office of Teeth. Of thefe W.bishers, cut into a proper Breadth, is made Whale-bone, which the generality erroneoufly think is taken from the Fins of this monflrous Fifh.
The Whale, properly fo call'd, has likewife no Fins on his Back, but has two behind his Eyes of a Bignefs proportionable to the Bulk of the Whale; they are cover'd with a thick black Skin, curioufly marbled with white Stroaks, which look like Veins in a piece of Wood. When thefe Fins are cut up, there appear Bones underneath refembling a Man's Hand; there likewife appear between them very fliff Sinerws, which are fo hard that they will rebound if flung againft the Ground. Thefe are all the Fins that a Whale has, and with thefe he fteers himfelf as if a Boat was rowed with Oars.

The Tail does not ftand upright, as the Tail of almoft every other Fifh, but hies in a Horizontal Pofition, and is about fix or eight Yards broad. The Head is the third Part of the Length of the Fif, and on the fore-part of the upper and under Lip there are fhort Hairs. The Lips are crooked, fomewhat like an $\delta$, on the uppermoft of which there are black Streaks mixt with brown. Their Lips are fmooth and quite black, and when they are thut they lock one within the other.
The Whale-bone, as we term it, is, as I obferv'd before, in his Mouth and Throat; of this the middlemoft Pieces are the longeft; there are about five hundred of them in all, and between every one there is room enough to put ones Hand.
$92 \quad S \mathrm{E}$ A-F I S H.
In the midft of thefe Pieces lies the Tongue, which is large and white, but on the Edges fpotted with Black: It confifts of a foft fpongy Fat which cannot eafily be cut, for which Reafon they fling it away.
On the top of the Head, and before the Eyes, is placed what they call the Horvel or Bump, in which are two Spout Holes. Out of thefe Holes he blows the Water fo very fiercely that it roars like a hollow Wind, or an Organ-Pipe: It is fo vory loud that it may be heard at the diflance of a League, when the Wbale is not to be feen by reafon of the Foggy Air. He blows out the Water the fierceft of all when he is wounded, and then the Noife refembles the Roaring of the Sea in a great Storm.

The Head of the Whale is not round at the top, but flat, and Nopes downward like the Tiling of a Houfe 'till it comes to the under Lip. In fhort, the whole Fith is thaped like a Shoemaker's Laft, if you look on it from beneath.

His Eyes are placed near the Corner of the Mouth, and are not much bigger than thofe of an Ox. They have Eye-lids, and Hair upon them like the Eyes of a Man. The Cryftalline Humour is not much bigger than a Pea, and is clear, white and tranfparent.

His Back and Sides are quite red, but underneath the Belly they are commonly white; tho' fome are of a Jet Black.

They make a beautiful Appearance in the Water when the Sun Shines, for as the Waves of the Sea rife up, and are dafh'd againft him, they fhine like Silver. Some of them are marbled on the Back and Tail, and wherever they are wounded there always remains a white Scar.

Thofe Whales that are black are not fo in an equal degree; for fome are as deeply black as Velvet, others as a Coal, and others again are of the Colour of a Tench.

The Skin of this Fifh is almoft as flippery as that of an Eel, but this does not hinder a Man from ftanding upon him, becaufe the Flefh being foft finks downward with his Weight, and makes a fort of a Hole. The outward or Scarf-Skin is as thin as Parchment, and is eafily taken off with ones Hands when the Fifh is hot; but it is of little or no ufe.
The Penis of the Whate is of a tendinous Nature, and is of fix, feven, or eight Foot long, according to the Bignefs of the'Fifh : It lies in a Doubling of the Skin, juft like a Knife in the Sheath when the Haft only appears. The Pudendum of the Female is Chaped like that of a Mare or Cow. On each fide of it grow two Udders with Nipples like thofe of a Cow; fome of thefe are all over white, fome are fpeckled with black and blue Spots like a Laprwing's Egg. When they have no young ones their Udders are fmall. In the Act of Coition they fland upright with their Heads out of the Water, embracing each other with their Fins.

It is fuppofed they never have more than two young ones at a time, becaufe there has never been found more than two in their Bellies when they have been cut open. How long they go with Young is altogether uncertain.

In the Year 1658 a Skeleton of a Whale was publick: ly fhewn at Paris. The Scull was between fixteen and feventeen Foot long, and weighed 4600 Pounds. The faws were ten Foot wide, and fourteen Foot long, weighing each 1100 Pounds. The Fins, which look like Hands, weighed each 600 Pounds. The foints of the Back, from the Head to the Tail, were forty-five Foot long, the firft Joints weighing 50 Pounds, and the others proportionably lefs as they came nearer the Tail.

The Fish is coarfe and hard, looking like that of a Bull, and is full of Sinews: It is very dry and lean when it is boil'd, bocaufe the Fat of a Whale lies only beween the Flefh and the Skin. Some Parts of it look blue and green, like powder'd Beef, efpecially at the joining

## 94 S E A-F I S H.

joining together of the Mufcles. The Tail is the tendereft Part, and is not fo dry as that of the Body. It may be eaten fafely, when there is nothing better to bo got, for thofe that have eaten of it daily have found no bad Effects from it.

The Fat lies about fixteen or twenty Inches deep ander the Skin upon the Back and Belly, but upon the Fins it cuts two Foot deep : Yet in this there is fome Variation, according to the Condition the Whale is in.

It was the Opinion formerly, that the Drug calfd Sperma Ceti was in reality the Sperm of the Whale, in confequence of which many Trials were made upon it to no purpofe. But lately it has appeared to be in reality the Brain of the Cacbelot or Male Whale, which, when it is taken out of the Scull, is melted over a gentle Fire; then it is caft into Molds, like thofe in which Sugar is refin'd; after it is cool'd, and drain'd from the Oil, they take it and melt it again, repeating the Operation 'till it is well purify'd, and very white. Thes with a Knife, made for the purpofe, they cut it into Flakes, in the fame manner as it appears when it comes to us.

Some have afferted that a Whale is no Fiih of Prey, but Experience evinces the contrary, for there have been found great Qaantities of Cod, Herrings, and other Fifh in his Maw.

The chief Place where Whales are caught is on the Weftern Coaft of Spitzberg, from the Latitude of $76^{\circ}$ 40 to 80 Degrees; the Eftablifhment at Greenland not fucceeding to Satisfaction.

The Dutch have upwards of three hundred Years had the Whale-Fibsery almoft to themfelves, and it is now efteem'd one of the principal Branches of their extenfive Trade. The chief Merchants of their flourifhing Provinces affociate themfelves into a Body for the carrying it on, and fend every Year a Floet of Veffels to the North Seas for that purpofe.

## S E A-FIS H.

In the Year 1728 the South-Sea Company began to fhare with them, in which they met with pretty good Succefs at firft ; but it has fince dwindled away to nothing, 'till this prefent Year 1740, when the Parliament has thought fit to give farther Encouragements to proceed in it, which it is hoped will be a means of retrieving fo gainful a Branch of Trade.

And that the Reader may be a Judge of the Importance of this Trade, we fhall here fubjoin the Difripline obferved in the Whale-Fi/bery, the Method of Fifling, the Cargo and Equipage of a Veffel, and the Produce thereof.

The Difciplize is adjufted by ftanding Regulations, the principal of which are as follow:

That in cafe a Veffel be Sbipzureck'd, and the Crew faved, the next Veffel they meet with fhall take them in, and the fecond Veffel half of them from the firf ; but no Ship is obliged to take in any of the Cargo of the Shipwreck'd Veffel: But if any Goods taken out of fuch a Veffel are abfolutely relinquifh'd, and another Ship finds them, and takes them up, the Captain fhall be accountable to the Owners of the Chipwreck'd Veffel for one Half clear of all Expences. If the Crew defert a fhipwreck'd Veffel, they fhall have no Claim to any of the Effects faved, but the whole fhall go to the Proprietor; but if they be prefent when the Effects are faved, and affint therein, they thall have one Fourth thereof: That if a Perfon kill a Fifh on the Ice, it thall be reputed his own fo long as he leaves any Perfon with it; but the Minute he leaves it, it becomes the Due of the firft Captain that comes that way. But yet if the Fifh be faften'd to an Anchor, or a Rope faften'd to the Shore, it fhall remain to its firf Proprietor, tho' he leave it alone: That if any Perfon be wounded or maimed in the Service, the Commiffioners of the Fibery are to procure him a reafonable Satisfaction, to which the whole Fleet fhall contribute.

They likewife agree to attend Prayers Morning and Evening on pain of a Forfeit at the Difcretion of the Captain ; not to get drumk, or draww tbeir Knives, on for. feiture of half their Wages ; nor fght on forfeiture of the whole. They are not to lay Wagers on the good or ill Succeefs of the Fifhing, nor buy or fell with the Condition of taking one or more Fiih, on the Penalty of twenty-five Florins. They are likewife to reft fatisfy'd with the Provifions allow'd them; and they are never to light Candle, Fire or Match, without the Captain's Leave, on the like Penalty.

After the reading this Regulation the Crew are all call'd over, who receive the cuftomary Gratuity before their fetting out, with an Affurance of another at their Return, in proportion to the Succefs of the Voyage.

The Captain on this occafion receives from an humdred to an hundred and fifty Florins: The Pilot from forty to fixty: Each Harpineer from forty to fifty: The other Officers from twenty-fix to thirty-fix Florins: The old Sailors twenty, and the young ones twelve.

The Fleet, which confifts chiefly of Veffels from two to three hundred Tuns, and from thirty-five Men to forty. one, ufually fets fail about the beginning of $A p r i l$, and takes its courfe by the Inands of Iceland from 60 to $6 i$ Degrees of Latitude; after which leaving them to the Weft, it fleers Northward thro' 73,74 and 75 D grees of Latitude, where they begin to find the Ice.
It is through thefe prodigious Heaps of Ice, which abound in thofe Parts, that they firft begin to fyy the Whales, and there moft of the Veffels make a Stop in order for Fifhing. But as the Fifh are larger and fat. ter the further they go North, for that Reafon fome Vefels will venture as far as eighty or eighty-two Degrees.
Each Veffel of three hundred Tuns has Six Shalopt, each Shaloop is allow'd a Harpineer, and five Sailors to row it ; in each Shaloop there are feven Lines of three Inches Circumference, five of them in the fore-part of

## $S E A-F I S H$.

the Veffel, and two behind. The five Lines together make fix hundred Fathom, and with the addition of the other two, the whole amounts to eight hundred and fifty Fathom. If the Wbale dives deeper, or runs farther under the Ice, the Line muft be cut to prevent the Lofs of the Boat.

The Inftrument wherewith the Execution is done is a Harping-Iron or Favelin five or fix Foot long, pointed with Steel in a triangular Shape, like the Barb of an Arrow.

The Harpineer, ftanding at one end of the Sloop, as foon as he is at a proper diftance from the Whale flings the Harping-Iron, with all the Force he is Mafter of, againft the Whale's Back, and if he is fo lucky as to penetrate thro' the Skin and Fat into the Flefh, he let's go a String faften'd to the Harping-Iron, at the End whereof is a dry Gourd, which fwimming on the Water difcovers whereabout the Whale is, who, as foon as he is fruck, plunges to the Bottom. The Gourd is made ufe of when they have not Line enough to purfue the Whale in its Career. However great care is taken that they may have Line enough, and if the Cargo of one Shaloop is not fufficient they throw the End of the Cord to another, and from thence to another if there fhould be occafion. The Cord in running out fo fwiftly would. often take Fire, if it was not kept wetting with a Mop or a Swab.

As foon as the Wbale rifes again for Breath the Harpineer gives him a frefh Wound with a Lance, and fo do the reft of the Crew as they have an Opportunity ; for when he begins to faint with Lofs of Blood they can approach near him, and then they plunge their Lances into various Parts of his Body, which foon difpatch him. When the Carcals begins to float they cut off the Fins and Tail, and tow it to the Ship, where they faften Ropes to keep it from finking, and when it is cold they begin to cut it up.
$98 \quad$ S E A - F I S H.
In order to this three or four Men go down upon the Whale with Irons upon their Boots to keep them from flipping. They begin to open him on the Side, and proceed downwards towards the Belly, cutting off all the Fat into Pieces of three Foot broad, and eight long: Befides the Fat on the Sides they frequently cur off that on the Throat and the under Lip, leaving the Lean behind. They next proceed to the Whale-bone, which they cut off, with a Hatchet made for that purpofe, from the upper Jaw of the Fiih. The Fat and Bone thus procured they leave the Carcafs for the Bears who are very fond of it.

As faft as the large Pieces of Fat are cut off the reft of the Crew are employ'd in flicing them fmaller, and picking out the Lean.

When this is prepared they fow it under Deck 'till the Fat of all the Whale is on board ; then cutting it ftill fmaller, they put it up in Tubs in the Hold or Bottom of the Veffel, cramming them very full and clofe; this done they fail homewards, where the Fat is to be boiled, and melted down into Train-Oil.

As to the Produce of this Fifhery it is different in dif-- ferent Years. In 1697, the moft fortunate Year that ever was known, 197 Veffels took 1968 Whales. Whereas in 1725 there were 226 Veffels which only took 349 . Of there Veffels 12 were Englifb, which caught to their Share 25 Whales and a half; the Produce of thefe were 1000 Puncheons of Blubber, and 20 Tun of Whalebone.

Now fuppofing a Puncheon of Blubber to be worth 2l. 15 s. as it was to the Dutch in 1697; and an hundred weight of Whale-bone to be worth $4 l .4$ s. the Amount of both Articles will be $3590 l$. for the whole Year's Produce; and the Value of the Produce to the whole number of Ships was 346744 \% 10 s.

CHAP.

## $S \mathrm{E} A-\mathrm{F} \mathrm{I} \mathrm{S}$.

## C HAP. II.

## Of the P O R P U S S.

TH E Porpufs, in Latin Pbocana or Porcus Marinus, is a Fifh ufually about fix Foot long, and is feen very frequently leaping in and out of the Water, efpecially before a Storm, making an uncouth kind of a Noife like Snorting.

The Sbape is long and round, but towards the Tail it is fmall, tapering like a Cone, and at the very Root of the Tail it is flat. The Snout is long and fharp, furnifh'd with frong Mufcles to enable them to dig up fmall Fih out of the Sand. The Skin is thin, fmooth, and deftitute of Scales. The Back is of a very dark Blue, inclining to Black. About the middle of the Sides it begins to grow whitih; the black Spots and Streaks, wherewith it is beautifully painted, at the Meeting of the Colours gradually changing into a perfect Whitenefs.

He has no Gills, nor Holes where the Gills fhould be, but on the Top of the Head there is a wide Pipe which opens like a Half-Moon; and inwardly it is divided by a Boney Subftance, as it were, into two Noftrils. Thefe afterwards unite into one, and open with a fingle Hole into the Mouth near the Gullet: The End of this Aperture is provided with a ftrong Sphincter, whereby it may be open'd or thut at pleafure. The upper Part of the

## 100 S E A-F I S H.

Nofrils are cover'd with a ftrong Skin in the manner of an Epiglottis, to hinder any Liquor from entering contrary to the Inclination of the Fifh.

The Eyes are fmall in proportion to the Magnitude of the Fiih, at leaft as to outward Appearance, for when the Eyelids are cut off they feem to be larger. The Moutb is not large, but furnif'd with forty-eight Tectb in a well-difpofed Order, there being Spaces left between the Teetb of the lower Jaw to receive thofe of the upper. They are all fharp, and feem to be a little loofe in their Sockets. The Tangue is flat, fmooth, and connected thro' the whole Length to the bottom of the Mouth, and for that Reafon is immoveable.

He has only three Fins befides his Tail, one on the Back, and two near the Parts where the Gills are placed in other Fifh. The Tail is placed Horizontally, like the Wbale's, which Pofition is neceflary, he being oblig'd to rife fo often to take Breath.

The Belly and all other Parts of the Body is cover'd *with Fat, which tends to preferve the Equilibrium between the Fifh and the Water, otherwife it would be difficult for him to rife. The Fat likewife is a great Defence againft the Cold, which would otherwife ex. tinguig the Natural Heat; for it ferves for the fame purpofe as good warm Clothes in the Winter-time. The Flefh is. red, and looks very much like Pork.

He has a pretty large Caul, which does not lie upon the Inteftines, but hangs loofe, and is placed between the Stomach and the Guts. He has a Triple-Stomach, or at leaft divided into three Bags. The Stomach of one that was difiected was found full of Sand-Eels; and in that of another were Bones of Fiih, Shell.Fifh and Prawns mixt with :a little Sand.

The Guts of a young Porpufs that was but three Foot and a half long meafur'd no lefs than forty-eight. There was no Difinction into Great and Small, nor fo much as a Cacum, or any Appendage whatfoever. The pancreas is large, and adheres clofely to the third or lowermort

## S E A-F I S H. ror

lowermof Stomach. The Liver has neither Lobes nor Gall-Bladder. The Spleen is fmall, and compos'd of feveral diftinct Lobes. The Kidneys are broad, flat and oblong, adhering to the Back. The Urinary-Bladder is fmall. The Penis is long, and.lies conceal'd in a fort of a Sheath, the Chink of which only appears externally. The Teficles are placed at the Bottom of the Abdomen, and are of an oval Form, the internal Subflance being like that of 2uadrupedes, as are the reft of the Vafa Praparantia. A little above the Bladder the Seminal Veffels open into the Uretbra with feveral Ducts.

The Diaphragm is entirely Mufcular, without any Tendinous Membrane in the middle. The Heart is large, and placed in an ample Pericardium; in, other Refpects it refembles the Heart of 'Quadrupedes, unlefs in the Largenefs of the Auricles. The Lungs likewife are like thofe of four-footed Animals, except that they are larger and more denfe.

The Brain and Cerebellum do not differ from thofe of quadrupedes, unlefs in their being more compact; but there are no Olfactory. Nerves, nor Mamillary Proceffes.

He has thirteen Ribs, fix fhort and feven long. The Breaft-bone is fhort, the Sboulder-bones broad and flat, and furnifh'd with two remarkable Proceffes.

This Fifh is feldom caught but by chance, it being of little Value but for the Fat, the Fle/h not being fit to eat. In fome Parts of the Eaft-Indies, indeed, there are Fifhermen who make it their Bufinefs to take them, but they ferve for no other purpofe but to make Oil of their Fat; fometimes, for the fake of Diverfion, they are fhot with a Musket.
$\mathrm{F}_{3}$
CHAP.
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## 102 S E A - F I S H.

## C H•A P. III.

## Of the $\mathbf{S} \mathbf{H} \mathbf{A} \mathbf{R} \mathbf{K}$.



THE Sbark, in Latin Canis Carcbarias, fometimes grows to fo large a Bulk, that when he is laid upon a Cart two Horfes are fcarce able to draw him. Some Authors mention Inftances of their weighing 2000, others 4000 Pounds, and that there has not been only whole Men, but once a Man in Armour found in their Bellies: But this laft is almoft incredible.

That this is a voracious Animal many, of our Sailors have found to their Coft, having often loft Legs, Arms, and even a great part of their Thighs in the Jaws of thefe monflrous Creatures.

It appears from hence that a Shark muft have 2 Mouth of a very extraordinary Size, and likewife a proportionable Head. The Moutb is not plac'd, as in other Fin, at the end of the Snout, but under the Eyes, at fome diftance from it, which obliges him when he takes his Prey to turn on his Back. He has fix Rows of Teeth which are extremely hard and fharp, and of a triangular Figure; there are feventy-two in each Jaw, which make 144 in the whole. However fome think that the. Number of Teeth is uncertain, varying according to the Age of the Fifh, and that the older they grow the greater Number of Teeth they have.

The Fins are larger in Proportion than in other Fing. The Tail is forked, and the upper Part is confiderably longer than the lower. The Vent is between the Fins

## S E A - F I S H. 103

on the Belly. The Skin is rough. The Eyes large and round, and furnifh'd with Mufcles by which they may be turn'd to look any way whatever: But inftead of Optick Nerves, which the Eyes of all other Creatures are endow'd with, there is a Grifly Subftance which has not the leaft Softnefs in it. It has a moft monftrous Stomach, and an extremely wide Tbroat. The Liver is very fat, and divided into two large Lobes.

The Fleß of a Sbark is white, and has no very difcernable Ranknefs in the Tafte. Some Phyficians, particularly Galen, condemns it; and yet our Sailors often venture to feed upon it, and find no ill Confequences attend it. The Method of the Buccaneers was firt to boil them, then to fqueeze them dry, and afterwards to ftew them with Vinegar and Pepper.

The Method of taking them, when they are feen to hanker about a Ship, is to ftrike them with a barbed In. ftrument call'd a Fizgig, which takes fuch faft hold in their Bodies that they draw them on board therewith; and then they cut off their Tails with an Ax to prevent their Flouncing; for they are an exceeding frong Fifh. Sometimes they Bait a large Iron Hook, made faft to a thick Rope, with a piece of Salt Beef, which he will fwallow very greedily, and then they drag him on Board.

He is to be found not only in the Mediterranean Sea, but in all Parts of the Occan, and is extremely fond of Human Flefh when any Perfon is fo unhappy as to come within his Reach.

If Ships in the Guinea Trade happen to throw a dead Slave over board, there is feldom wanting three or four Sbarks to tear him to pieces in an Inftant.

## CHAP. IV.

 Of the PILOT-FISH.

THIS Fifh is an Attendant upon the Shark, and is never feen but in his Company, generally fwimming before him as though he was his Pilot; whence our Sailors have beftow'd the Title of Pilot-Fi/b upon him.

That there is fome natural Friendfhip between thefe two Fifh is pretty certain, for they always are feen in each other's Company, but upon what account is very hard to determine, tho' they are faid to go before to direct the Sbark to his Prey. They are about the Size of a middling Whiting, and make a very beautiful Appearance in the Water, playing about the Sbark, who will not meddle with them tho' he is ever fo hungry.

When he is taken he appears to be of a deep Blue on the Back, but of a lighter Colour on the Belly and Sides. His Scales are thin and fmooth like thofe of a Tench.

They are moft commonly fruck with a Fizgig when they are taken, and are accounted a very delicate Morfel ; but they are very fcarce, and hard to come at.

## SE A-FIS H. 105

## CH AP. V.

## Of the Scateorflare.

THE Skate, in Latin Rail Levis undulata, is a gritty Fifth, with a flat froth, and very broad. Body. It grows to a very, large Size, for forme have been taken that have weigh'd above 100 Pounds: But what is fill more extraordinary, there was one fold by a Fishmonger at Cambridge to St. Fobn's College, which weigh'd 200 Pounds, and dined 120 Perfons. It was. carefully meafur'd, and the Length was 42 . Inches, the Breadth 31.

The Colour on the upper Part is a pale Ah, very much Spotted with Black, The under Part is white; and freckled pretty thick likewife with fall black Spots. The Snout is hort and harp. The Sides ferminate in Fins. The Males are diftinguifh'd by fall Prickles on both fides the broad Part of the Fins, which are wanting in the Females.

The Liver is of a dirty Yellow, marbled with Lines of a dark Colour; it is divided into three Lobes, in the Right of which the Gall-Bladder is fituated. The Spleen is large, reddish, and adheres to the Stomach. The -

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## 106 S E A - F I S H.

Pancreas is placed at the Angle, where the Gut bends downward. The Intefines are very large, and have but one Fold. The Female has a capacious Uterus, very large Cornua and Ovaria. The Male has Seminal Vef. fels on each fide of the Belly, targid with Sperm ; at the Extremities of which are placed oblong Glandulous Bodie's, which we take to be the Teficles.

The Great Artery, foon after it leaves the Heart, is divided into two Branches, and then into three others which pafs to the three lowermoft Gills, from whence other Veffels bring the Blood back; for as in 2uadrupedes all the Blood paffes thro' the Lungs, fo in Fifh it all paffes thro' the Gills: Hence it is very evident why the lively red Colour of the Gills is 2 certain Sign of the Frefhnefs of any Fifh; for as foon as the Blood begins to admit any Degree of Putrefaction the Brightnefs of its Co lour vanifhes, which is moft evident in the Gills becaufe they are moft turgid with Blood.

Steno, in his Anatomy of a Skate, has difcover'd the Spots on this Fin to be conglomerate Glands, which fecrete the Liquor that renders their Bodies fo llippery; and likewife fuppofes the Spots in other Fifh may be for the fame purpofe

All Fifh of this Sort, when firt taken, have a rankifh Tafte, which by keeping a little vanifhes. They are moft in Seafon in the Winter, for then they do not fmell fo ftrong, and their Tafte is more pleafant.

They delight to feed in muddy Places not far from the Shore. They are found in great Plenty near Scarborough in Yorkbire, and are very common on all the Sea-Coaft of Great Britain.

## S E A - F I S H. 107

## C H A P. VI.

## Of the M A I D.



THIS Finh does not at all differ from the former but in Age, for a Maid is nothing elfe but a young Skate. But as this is a Circumftance not known to the generality, we chofe rather to infert a fuperfluous Article, than be fuppofed guilty of omitting a Fifh which is feen every Day. We have therefore nothing to add to what has been faid of the Skate, but that the Maid is more fweet, tender, and fitter for the Table than the Skate, which Qualities are owing to its Youth alone. However by this means we have an Opportunity of giving you the Figure of the Back or Upper-part of this Fin, as we had done before of the Belly or Lower-part. .

CHAP.

## C H A P. VII. Of the THORNBACK.



THE Tbornback, in Latin Raia Clavata, is in Shape almoft fquare, and yet a tranfverfe Line drawn from Corner to Corner is longer than one from the Head to the Root of the Tail ; fo that, in a Senfe, this Fifh is broader than it is long: For Inftance, one of fixteen Inches and a half broad was twelve long, except the Tail.

This Fifh has no Scales, but is cover'd with a vifcous Liquor which renders it very llippery. Its upper Part is of a dusky Colour, but pretty full of round white Spots; the under Part is entirely white. In the middle of the Back, to the very end of the Tail, is a Row of thirty Prickles or Thorns, from whence it has gain'd the Name of TJ̄ornback. The lower Part of the Tail is fmooth, but on each fide are two other Rows of Prickles, the former Part of which are placed obliquely, and the latter horizontallyo

## S E A-F I S H. 109

The Eyes are placed on the upper Side; and are very protuberant, having no Bone, nor any thing elfe to defend them; only on the inner Side there are fmall Prickles. The Pupils do not look downwards, but fide-ways. It is well worth Obfervation, that the Pupils have round jagged Covers underneath the Horny-Coat, which are let down from the upper Part of the Eye. Near the Eyes are two Holes, which we imagine ferve inftead of Ears, if Fifh do hear at all; for it is difputed by fome whether they hear or no.

When the Tbornback is laid with its Belly appermoft the Noffrils appear in fight, being contiguous to the Mouth. This laft is void of Teeth, but the JawBones are rough like a File. The Gills, as in other Fifh of this Kind, are five Holes placed in a parabolick Form. On the Belly appear two Semi-circles, one of which encompaffes the Thorax, the other the Abdomen; where thefe Circles touch there is a Bone which divides the upper from the lower Belly. A little above the Tail are two Cartilaginous Proceffes, the back-part of which is divided, as it were, into Teeth; to thefe are joined two Fins which reach to the Tail; they arife from a Griftle a little above the Vent, which anfwers to the Os pubis in Quadrupedes. To thefe Fins are joined two Appendages in the Male Eifh, which are fuppofed to perform the Office of a Penis.

The Orifice of the Stomach opens immediately into the Mouth. The inner Surface of the Stomach is cover'd with a Cruft which feems to be of a Glandulous Subftance ; this Covering is extended over the Infide of the Gut, but does not feem fo thick as in the Stomach. The Liver is of a pale Yellow, and is divided into three Lobes like fo many Tongues. The Spleen is of a deep Red and placed under the middle Lobe of the Liver, between the two Orifices of the Stomach. The Pancreas is fituate at the Bending of the Gut near the Pylorus, and is furnifh'd with a Duct

## IIO S E A-FIS H.

a Duct as in other Animals. The Shape of the Heart refembles the Figure of the Body. The Blood-Veffels are in their Ramifications much like thofe of a Skate.

Tho' the Prickles of this Fifh are often difpofed in the manner above defcribed, yet we have often feen them in a much greater Number, or placed after a quite different manner; nay, fome have had Thorns upon the Belly. For this Reafon Rondeletius gives us the Figures of above a Dozen Thornbacks, which fcarcely differ in any thing elfe but the different Pofition of the Prickles.

They are found in the like Places as the Skate, and their Flefs is much of the fame Tafte, but is fomewhat more hard of Digeftion. The Liver is accounted a great Dainty among fome.

## C H A P. VIII.

 Of the Monk or Angel-Fish.

TH E Monk-Fi/h, in Latin Squatina, is of a middle Nature between a Sbark and a Skate. It grows to a large Size, often weighing fixty Pounds. Rondeletius afirms they fometimes grow to the Bignefs of a Man, and that he faw one which weighed a hundred and fixty Pounds.

The Skin of this Fifh is very rough, and co:er'd all over with a filthy Slime. It is very much ufed to polifh
lim Wood and Ivory with, and goes by the general Name of Fi/h Skin. Its Colour upon the Back and Sides is of a dusky Afh; but on the Belly it is white.

The Head is roundifh at the Extremity, where the Mouth is placed, quite different from thofe Fih to which it feems to be ally'd. It has three Rows of Teetb in each Jaw, each Row confifting of eighteen, fo that the whole Number amounts to 108 ; but there is fome Variation in this. The Tongue is broad, and Gharp at the End. The Nofrils, placed on the upper Lip are wide, and filld with a flimy Mucus. The Eyes are of a middling Size, placed not far from the Mouth, and do not look directly upwards, but fideways. Inftead of Gills it has five Holes like the Thornback.

The foremoft Pair of Fins have a great Refemblance of Wings, whence it is call'd the Angel-Fi/h, becaure $A n-$ gels are always painted with Wings. On the Extremities of thefe Fins, near the Corners, are placed thort fharp and crooked Prickles. Likewife the lowermoft Fins placed near the Vent have the fame. Below the Vent there are two Fins on the Back. The Tail is forked.

The Liver is divided into three Lobes, to the middlemoft of which the Gall-Bladder adheres. The Gut is large, and joined to the Mefentery.

The Fle/h of this Fifh is in no Repute, being defpifed even by the Country-People on account of its Ranknefs and difagreeable Tafte. The Skin is in great Requeft for making Sheaths, Cafes, and fuch like things. Fovius affirms that this is the Skin of which the $T_{u r k s}$ make Shagreen.

The Monk Fijb is to be met with in all Parts of the Occan, and is frequently taken on the Coaft of Cornavall.

## CHAP. IX.

## Of the C R A M P - FISH.



TH E Cramp Fi/b, in Latin Torpedo; is of a circular Figure, all but the Tail which is long and nender. It is faid to grow to no extraordinary Size; and yet one caught by F. Redi weighed fixteen Pounds. Its Colour is of a dirty Yellow refembling Sand or Gravel. Its Eyes are fmall and almoft cover'd with Skin, behind which are two Holes in the Shape of Half-Moons, which are fuppofed to be the Organs of Hearing. On the upper part of the Body are five remarkable black Spots placed in the fame Form as in the Cut, and are/a little bluinh in the middle.

The Head of this Fifh is broad and joined to the Body, for which Reafon it feems to have no Head at all. The Extremities of the Body end in Fins. A little above the Vent two Fins arife, which have two Appendages that ferve for a Penis, as in the reft of the Cartilaginous Kind. Below thefe in the middle of the Back or Tail, for it is hard to fay which Term is moft proper, two others appear one a little below the other. The upper Corner of the Tail is longer than the lower, fomewhat in the manner of a Sbark, and other Fiih of the fame Kind.

## $S$ E A-F I S H. II3

The Mouth of a Cramp-Fi/b is like that of a Skata; and is furnifh'd with fmall hharp Teetb. The Noftrils are placed near the Mouth. Inftead of Gills it has five Holes like a Thornback. There are no Prickles in any Part of the Body, it being fmooth and foft to the Touch. There are a great many fmall Holes, efpecially about the Head, thro' which a Liquor is fecreted to lubricate the Body, and defend it from the Sharpnefs of the Salt-Water.

The Liver is divided into two Lobes placed on both Sides, and only connected by a fmall String. The Stomach is large as well as the Gut, which laft proceeds directly to the Vent.

Some of thefe Kinds of Fifh are without Spots, others have White ones, befides the Black before mentioned.

The moft remarkable Quality of this Fifh is to numb the Hand of the Perfon that touches it, and it performs this to fuch a Degree that it feems affected with the Cramp; from whence it derives the Name of Cramp-Fi/b.
The famous Redi order'd one to be caught purpofely , that he might make a Trial of the Nature of this benumbing Quality. As foon as he touch'd the Finh he found a Tingling of his Hand, Arm and Shoulder, attended with a Trembling, and fo acute a Pain in his Elbow that he was obliged to take his Hand away. The fame troublefome Symptons were renew'd as often as he repeated the Trial. However they grew weaker and weaker 'till the Creature died, which was in about three Hours. After it was dead the benumbing Quality quite ceafed, for though it was handled never fo much it produc'd no Effect. According to Borelli the Stupefactive Quality of the Cramp-Fißh does not proceed from any Poifonous Steam becaufe if he be touch'd when he is intirely at reft no Effect is produced at all: Befides, if the Fingers comprefs the Extremities of the Sides ever fo ftrongly

## $114 \quad \mathrm{~S}$ E A - F I S H.

ftrongly the Hand receives no Damage; but if the Hand lies upon the flefhy Part near the Back-bone, the violent Vibrations of the Fifh will ftupify it, and affect it with a fort of a Cramp.

Borelli likewife obferved a very remarkable Diffrence in the manner of touching the Fin, for if his Fingers were quite extended, and he touch'd the Filh lightly with them, he received no Damage, but if they were bent, and the Joints were laid upon him, efpecially that of the Thumb, then the ftrong Vibrations of the Fifh produced a Cramp. From thence he concluded that the Tendons and Nervous Ligaments of the Joints being exquifitely fenfible, were very mach affected with the violent and repeated Strokes of the Fifh, which produced a Cramp in the fame marner as a Blow upon the Elbow.

Mr. Reaumur affirms be could never perceive any fuch Trembling or Vibration of the Fifh as Borelli feaks of; and that on the contrary the Numbnefs is not caufed by repeated Strokes, but by the Velocity of one fingle Stroke, which is equal to that of a Ball out of a Musket; and accordingly the Perfon who begins to feel it imagines that his Fingers have been violently fruck. As a Proof of this the Fiih before he flrikes makes his Back quite flat, when he has fruck it is round and protuberant.

The Flefh of the Cramp-Fi/s is feldom or never brought upon the Table, as being unwholefome; for it is moift, foft, fungous, and of an ill Tafte, and is therefore jaftly rejected.
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C HAP.

## S E A-FIS H.

## C H A P. X.

 Of the Turbot or Bret:

THIS Fifh in the Soutbern Parts of England is call'd a Turbot, but in the Northern a Bret. The Latin Writers term it Rbombus maximus a/per. non fquamofus, to diftinguifh it from others of the fame Figure, it being the large of the Kind, and rough, but without Scales.

The Size of this Fifh feldom exceeds a Yard in length, nor two Foot and a half in breadth. Tho' he has no Scales, he has a rough granulated Skin full of exceeding fmall Prickles, placed without Order on the upper Part. The Colour of the fame Part is Afh, diverify'd with a great Number of black Spots, fome of which are large, others fmall. The lower Part is white.

The Mouth of a Turbot is proportionably wider than that of a Plaice, it has likewife a greater Number of Teetb both in the Jaws and in the Palate. The Noftrils are not placed in the fame Line with the Back-Fin, but below it.. The Eyes are placed on the left Side; or, to fpeak more intelligibly, on the right Side of the Mouth; there

## 116 S E A - F I S H.

there is likewife more Diftance between them, and they are farther from the Back than in others of the fame Kind.

The Liver of this Fiin is pale, the Spleen red, and the Gut has bat one Fold. The Stomach is very large, the Kidneys long, and the Urinary Bladder pretty capacious.

It is taken very frequently in the Britif and German Ocean, and is the largeft of all this kind of Fifh except the Halybut. The Fle/ß is white, firm; delicate and wholefome, far excelling the Plaice, and all other Fifh that refemble it in Shape. Nay it is fo highly efteemed by fome, as to be preferr'd before all the Inhabitants of the Water.

It is a Fifh of Prey and lives upon others, particularly Crabs which it is a great Enemy to; for which Reafon it lies near the Mouths of Creeks and great Rivers.

## CHAP. XI.

## Of the Pearlor Lug-Aeeaf:



THE Pearl, in Latin Rhombus non aculeatus Squamofus, differs from a Plaice much in the fame manner as a $\tau_{u r b o t, ~ t h a t ~ i s, ~ i n ~ n o t ~ h a v i n g ~ a n y ~ r o u g b ~}^{\text {g }}$

Lines

## S E A - F I S H. ${ }^{117}$

Lines at the Root of the Fins which furround it; in having the Eyes placed on the left Side, to the right of the Mouth, and farther diftant from each other ; likewife in having the Back-Fin take its Rife nearer the Mouth.
This Fifh is cover'd with Scales, but they are very fmall; and this diftinguifhes him from others of the fame Kind. The Body is of an Afh-colour, and neither rough nor prickly. The Tail is round. In other things he refembles a $\Psi_{u r b o t . ~}^{\text {. }}$

## C H A P. XII.

 Of the $\mathbf{P} \mathrm{L} A \mathrm{I} \mathrm{C}$.THE Plaice, in Latin Paffer, is a Fif extremely flat; fometimes we meet with them of the length of a Foot; and feven Inches broad. The upper Part is of a dirty Olive, painted with round Spots of a Vermilion Dye; the lower Part is white. This is a Scaly Fifh, but the Scales are fmall, and are in a manner concealed in hollow Cavities, infomuch that it requires no lictle Trouble to feparate them. At the upper Edge of the Coverings of the Gills are placed feven boney Tubercles, the fifth from the Eyes being the higheft and largef. There is no A/perity in the Lateral Line, nor in the Circumference of the Body at the Roots of the furrounding Fins. There is one Row of Testb in both Jaws,

## $118 \quad \mathrm{~S} E \mathrm{~A}-\mathrm{F}$ I S H.

Jaws, and a Clufter of Teeth on the Palate. The Eyes are prominent, very near together, and placed on the right Side to the left of the Mouth. One of the Nofrils is fituate on the upper Side near the Eyes, and the other on the lower Side under the Eyes. The Tail is long and roundifh at the End.

As for the Internal Parts the Liver is long, undivided and red; the Gall-Bladder large, and the Splenn blackifh. There are three Kidneys, which are joined to a large Urinary Bladder by a long Duct.

This Fifh is every where to be met with. The Flef is foft, fweet, pleafant and wholefome, and by fome thought of equal goodnefs with a Sole; but thefe things depend much upon Fancy.

## C H A P. XIII.

## Of the D A B.



TH E Dab, in Latin Paffer afper five Squamofus, is a little thicker than a Plaice, but much about the fame Size. He is a Scaly Fifh, and the Seales are large for one of this Kind. He feels pretty rough if you draw your Fingers from the Tail upwards, but he has no Prickles neither on the middle of the Sides, nor at the Root of the furrounding Fins. The Situation of the Eyes are like a Plaice. The Colour of the upper Part is of a dirty Olive with a reddifh Caft, and fpeckled

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fpeckled with Spots of a•dusky Yellow. The Mouth is of a middle Size, and there is one Row of $\tau_{\text {eet }}$ in both Jaws.

It differs from a Plaice in being thicker, in having larger Scales, in having no Tubercles near the Head, in wanting the Vermilion Spots; though fome have yellow ones.

This Fifh is frequently met with in all Parts of the Sea that furround our Coaft. The Flefb is firmer, and is thought to be better relifh'd than that of a Plaice.


THE Halybut, in Latin Hyppoglofus, is the largeß of all flat Fifh that we are acquainted with. It exceeds the $\mathcal{T}_{u r b o t}$ greatly, and is of a longer Make. One of thefe Finh of a Yard long is about half a Yard broad. The upper Part of the Body is of a dusky Green, almoft black. The Scales are fmall, and there is no Rougbness on the upper Part, nor Prickles at the Root of the Fins. The Eyes are placed on the right Side, or to the left of the Mouth. The Fins are at a greater Diftance from the Head than in other flat Fifh.

It is found in the German and Britifb Ocean, and likewife in the Iribh Sea. It is thought to be nearly as good as a Turbot for the Finenefs of its Tafte.

CHAP.

## 120 S E A - F I S H.

## - CHAP. XV.

Of the S O L E.


THE Sole, in Latin Solea, is a flat longih Fith, in Shape much like the Soal of a Shoe, from whence it derives its Name. It is often feen of the length of a Foot, and fometimes a little longer. The upper Part is of a dark Afh-colour, and the lower white. The Scales are very fmall. The Latoral Line paffes direatly from the Head to the Tail through the middle of both Sides. The Corners of the Mauth are rough with a fart of fmall Briftles or Hairs. The Body is furrounded with fhort Fins, which on the upper Edge begin near the Eyes and are continued to the Tail; on the lower Edge it proceeds from the Tail to the Vent, which is placed near the Head. The Eyes are fitmate in the left fide of the Head, and are fmall, round, and cover'd with a loofe Skin. The Pupils are fmall and of a thining Green. The Tail is round.

The Flefh is more firm and folid than that of a Plaice; and for Sweetnefs of Tafte, the Plenty of Nourifhment it affords, and the Goodnefs of its Juice, far excels it; for which Reafon, in fome Countries, they flile it the Sea-Partridge.

## S E A - FIS H. 12 r

## C H A P. XVI.

## Of the Conger or Sea-Eex.



TH E Conger has the fame Name both in Latin and Englijh, and is a very long Fiih, being fometimes two Yards, or two Yards and a half in length, and of the Thicknefs of a Man's. Thigh. It is made much like an Eel, but is larger, of a ligbter Colour, has bigger Eyes of a Silver Hue ; as alfo two white Lines on each Side compos'd of a double Row of Points, and a Membramous Fin running all the length of the Back to the very Tail.
At the very End of his Snout the Conger has two fmall Horns or Tubes, from whence a Mucous Liquor may be exprefs'd; and the like has been obferv'd in fome kinds of Eels. In other Refpects it refembles an Eel.

The Fleßh is very white and fweet, but not eafy of Digeftion. It was greatly efteem'd by the Ancients, and does not want its Advocates among the Moderns, efpecially when it is fryed.
The young Fry of this Fifh are call'd Elvers in Glaucefferßire, where shey are taken in great Plenty out of the Severn in dark Nights. They herd together in fuch Swarms, that they are eafily caught with a kind G Dgatrece oy Google

## 122 S E A-F.IS H.

of Net made for that purpofe. They are fuppofed to travel as far as Gloucefier and Gerwksbury out of the Sea, for they are chiefy taken near thofe Places. They are fo fmall that they are made into Cakes, and are fold very common in that Form. Their Size does not exceed a fmall Needle, which makes it very furprifing how they fhould come fo far in fuch Shoals.

## CHAP. XVII.

Of the Sand-Eel or Launce.


THE Sand-Eel, in Latin Ammodyites, is long and roundin, and has fome Affinity with an Eel, as the Englif Name intimates. It feldom exceeds a Foot in length, and is of the fame Shape and Figure as the Gar-Fijb, that is, the Back is Blue and the Sides and Belly Silver. The Lateral Lize runs directly from the Head to the Tail. The Back is terminated on each fide by another Line, and on the Belly there are three others which reach as far as the $V_{\text {cent }}$. It has no Scales; the Nofe is Gharp, the Moutb wide and without Teetb; the Tongue is long and Gharp, and the Tail is forked.

The Livier is pale, the Stomach loing and conick. This Finh is deftitute of a Swimming-Bladder.

The Flefb has a delicate Tafte, and is a very agreeabe Bait for other Finh.

The Males are fhort and thick, the Females long and flender; the former being more turgid with the Milt than the other with Spawn.

They generally lie half a Foot under the Sand, and when the Tide is out the Fifhermen dig them up with a fort of a Hook made for that Purpofe.

There

## 6 E A-FISH.

There feems to be two forts of Sand-Eels, one of which has but one Fin on the Back, and likewife wants the Belly-Fins. The Fins of the other are placed as in the Cut.

## C H A P. XVIII.

## Of the Butter-Fishor Gunnel.



TH IS Fifh fometimes attains the Length of fix Inches, bat never exceeds an Inch in Breadth. The Colour varies, fometimes it is reddifh, fometimes of 2 dark Olive, fometimes green and white like a variable Silk. At the Root of the Back-Fin, on both fides, are ten or twelve beautiful, round, black Spots, encircled with a white Border. They are placed through the whole length of the Back at equal Diftances from the Head to the Tail; by thefe this Fifh is diftingain'd from all others.

The Head is little, the Swout fhort, the Moutb large; with one Row, of Teeth; the Eyes fmall, of a reddilk Yellow, and cover'd with a Cuticle. The Body is cafed with exceeding fmall Scales. The Tail is roundifh.

This Fin is taken frequently on the Corni/h Coast; but of what Ufe it is does not appear.

G2 CHAP:

124 S E A-F I S H,

## C HAP. XIX.

Of tbe Sea-Larkor Bulcard.


HE Sea-Lark, in Latin Alauda non criftata, is call'd in Cornwall the Mulgranoc and Bulcard. The Colour on the Back is in fome of a dark Green or Olive; others are prettily painted with Streaks of a Hight Blue, and the Spaces between are Murray or Fillemot. But the Colour in moft greatly varies. The Top of the Head rifes almoft to an Edge; the Eyes are fmall and white, with a reddiih Caft, being cover'd with a Skin; the Mouth is not large; the Fere-Teeth are long, fmooth, and placed like the Teeth of a Comb; the Tongue is round, foft and flefty ; the Tail, when it is expanded, is circular.

The Liver is pale, the Spleen red, and the Sir-Bladder adheres to the Back.

He lurks in the Holes and Cavities of Rocks, and of. ten bites the Fifhermens' Hands, but without any bad Confequence. He is to be met with every where in Rocky Places near the Shore.


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## S E A - F I S H. 125

## C HAP. XX.

## Of the FATHER-LASHER.



TH IS Fifh is call'd in Latin Scorpena, and when fall-grown does not exceed nine Inches in length. It has fome Refemblance of a Miller's 'Thumb, the forepart being much larger in proportion than that towards the Tail. It has no Scales. The Belly is broad and flat ; the Sides are divided in the middle by a rough Line; the Top of the Head is black, and there are three or four black Patches on the Back, but the Spaces between them are pale; the Sides beneath the Line are yellow; the Belly is white. There are feveral Prickles about the Head, and the Covers of the Gills uniting together underneath the Body cover the fore-part of it like a Mantle.

The Noftrils are fmall; the Mouth large, armed with feveral Rows of fmall Teetb; the Tongue is broad, large and fmooth; the Eyes are cover'd with a loofe tranfparent Membrane; the Pupils are fmall and encompafs'd with a red Circle. When the Tail is fpread it is fomewhat roundilh.

He feeds upon Sbrimps, fmall Fi/h, and Sea-Infetts, as appears from opening the Stomach. He will live a long

## 126 S E A-F I S H.

while out of the Water. He gain'd the Name of Tatsis. Laßber from the Boys of Cornwall.


THE Sun-Fifh, in Latim Mola, has a broad hhott Body, the hind-part of which is cover'd with a Circular Fin, which ferves inftead of a Tail; fo that it feems to be the Head of a Fifh, or at moft the Half of one with the Tail-part cut off. It fometimes weighs near a hundred Pounds. The ordinary Size is above two Foot long. He has no Scales, but his Skin is hard, thick and rough ; he is blackinh on the Back, and of a Silver Colour on the Belly; both the Belly and Back terminate in a fharp Ridge. The Mouth is very fmall for the Bignefs of the Fifh, and when open'd is roundifh; the Fares are hard, rough and fharp, as it were with feveral Rows of fmall Teetb; there are four Holes in the Head befides the Noftrils, which laft are placed between

## S E A - FI S H. 127

the Eyès and the Mouth. The Eyes are fmall, and of a Silver Colour near the Pupil, the other Part is of a dusky Yellow ; it has no Tail, but has a Semicircular Fin in the room of it; near to which it feems to be bound with a Fillet, as in the Figure; in which the Situation of the Fins may alfo be feen.
The Liver and Gall-Bladder are large, and the Spleen fmall, foft and blackifh; the Urinary Paffage does not terminate in the Vent, but has a Paffage proper to itfelf beneath it ; the Guts refemble thofe of 2uadrupedes.

The Fleft is exceeding foft; the Bones are grifly, and foft likewife; the Skin adheres fo clofe to the Flefh that it is not to be feparated from it but with Difficulty.

It is call'd the Sun-Fißs from the Roundnefs of its Body, or becaufe it will fhine in the Night : However this Quality does not belong to this Fifh alone, but to feveral others.

This Fifh is taken both in the Mediterranean and in the Ocean; fometimes likewife near Penzance in Cornwall.

## CHAP. XXII. Of the H A K E.



THE Hake, in Latin Merlucius, is a Fih about half a Yard long, and fometimes more. It is thaped fomething like a Pike, from whence it derives its Name, for Merlucius or Maris Lucius fignifies a Sca-Pike.

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Willougbby

## 128 S E A-FIS H.

Willougbby compares it to a Whiting, a Fifh very well known, which it is moft like both in Shape and Colour. The Back is of a light Colour; the Belly of a dirty White; the Scales are fmall, the Head broad and flat; the Moutb is large like a Pike's, and full of fharp Teetb; the Tongue is fmooth; the Ejes large, of a Gold CoJour, and cover'd with a Membrane; the Tail is not forked, but terminates in a right Line.

The Liver is large, white, and undivided; the Stomach is long; the Gut has only one Fold; the Heart is included in a ftrong Pericardium; and the Ribs are remarkably broad, fhort and griftly.

He lives upon other Fifh. His Flefb is foft and tender.

They are caught in great Plenty about Penzance, a Maritime Town in the remoteft Part of Cornvall, and almoft every where in the Britifh and German Oceans. The proper Time of Fifhing for Hake at Fifcard, and other Places between Wales and Ireland, is from Whitfontide to St. Fames's-tide.

## C H A P. XXIII. Of the LING.



THE Ling, in Latin Afellus longus, has a Body in Shape long and round, cover'd with fmall Scales that ftick clofe to it. The Back and Sides of fome are Olive, of others A/b-colour'd or Grey. In fhort this Finh is very like a Hake in all things except in its being of a larger Size, of a longer Make, in having a round Tail, in the length of the Back-Fins, and in having a Barb on the lower Jaw; likewife the upper Jaw is Ionger

## S E A - F I S H. 129

longer than the under, the contrary of which takes place in a Hake.
The Flefh of a Ling when juft caught is very delicious, and when falted and dried is juftly prefer'd before all other Salt-Fih.
It is frequently taken near Penzance, and may be fin'd for among the Iflands of Scotland all the Year. On the North-Eaft of England it may be taken from Eafer 'till Midfummer, and on the North-Eaft of Ireland from Cbriftmas to Micbaelmas.

## C H A P. XXIV.

## Of the Tunny or Spanish Mackrel.



TH E Tunny, in Latin Thunnus, is a large heavy Fifh, fometimes weighing upwards of a hundred Pounds. His Body is round, long and thick, but towards the Tail remarkably fmall; the Back is of a very dark Colour, and appears to have either a blue or a greenif Caft, according to the Light it is plac'd in. The Scales are exceeding fmall, the Snout fharp, the Jaws equal and furnifh'd only with one Row of $\tau_{\text {eeth }}$; the Mouth is large, the Tongue broad, and on the Palate there is a Tubercle of fmall Teeth; the Eyes are pretty large, and of a Silver Colour.

The Stomach is round and long, reaching atmoft to the Vent; the Liver is divided into three Lobes; the Spleen is red, large and long; the Heart is triangular.
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## 130 S E A-FIS H.

The Tunny is a Fifh of Paffage, that is, rambles from one Part of the Sea to another at a confiderable diftance. In the Months of September and OEtober they leave the Ocean, and pafs through the Straights of Gibraltar into the Mediterranean Sea towards the Levant; they fwim in Shoals, and are often taken on the Coaft of Cornwall with their Stomachs full of Pilcbards.

Both the Ancients and the Moderns feem to think that their Place of Spawning is in the Euxine Sea, and that they traverfe the Mediterranean for that purpose.

The Time of Fihing begins in September; they are caught by a Contrivance made of fmalh Cane, which the Frencb call Madrague; fome of thefe are faid to be a Mile in compafs. They are divided into feveral Partitions, and the Fifh having enter'd the large ones; are drove from thence into the fmaller; for they are like Sheep, if one leads the way all the reft will follow. The inmoft Partition of all is of a clofer Contexture than the reft, and it is floor'd as it were with a Net: When they take out the Fiih they draw it fo near the Shore that the Bottom may be within five Foot of the Surface of the Water, and then the Fighermen leap into it as into a Fifh-Pond; they lay hold of the Fib by the fmall Part of their Tails and throw them into the Boats, where they immediately die.

When they are brought to Land they hang them up in the Air; then they cut off their Heads, take out their Entrails, and having cut their Bodies to Pieces they broil them on large Gridirons, and fry them with Oil-Olive: After this they feafon them: with Salt, Pepper and Cloves, and a few Bay-Leaves; then they put them into Barrels with frefh Oil-Olive and a little Vinegar; and in this manner they are tranfported, ready to eat, into different Parts of Europe by the Name of Sea-Tunny.

The Fleft of this Fifh is not very delicate, but very ufeful: When it is cook'd in the foregoing manner, and

## S E A-FIS H. I3I

 dote with good Oil, it is as firm and white as Veal, and eats pretty much like it: In the Opinion of many it has an excellent Tafte, and yields a good Juice.
## CHAP. XXV. Of the ALBICORE.



THE Albicore is about four or five Foot in length; fometimes more, and when largeft weighs about 150 Pounds: It has large yellow Eyes, a broad forked Tail of a greenifh Yellow; the Belly-Fins are likewife yellow; the Belly is white, and when juft taken fihines like Sitver.

This Fifh will follow Ships for many hundred Leagues, and often proves a very feafonable Relief; to the Crews when Provifions are fliort. It is either caught with a Hook or flruck with a Fizgig. It is: a flrong Fifh when in the Water. They live chiefly upon. Elying-Eifo.
It is a very flefhy Fift, having few or no Bones except the Back-bone, and is accounted a very good Fiff: by Sea-faring Men. All agree that it is well-tafted, and not unwholefome:
The Albicore generally keeps company with another: call'd a Bonettoe, but not the fame Bonettoe which in: Cornwall is term'd the Scad, of which we fhall treat hereafter. It is about three Foot long, and two in Circumference. It has a fharp Head; a fmall Mouth, large.

Gills.

132 S E A - F I S H.
Gills, a full Silver Eye, and a Tail like a Half-Moon. It has no Scales except on the middle of the Sides, where there is a Line of a Gold Colour which runs from the Head to the Tail; on this Line are placed a double Row of Scales which are fmooth two thirds of the Length of it, and then begin to be rough 'till they reach the Tail. The Colour of the Benettac is greenifh on the Back and Sides, but on the Belly it Chines like Silver. It has feven Fins, two on the Back, two at the Gills, a Pair on the Belly juft below the Gills, and one in the middle of the Belly oppofite to the largeft on the Back. From the laft on the Back, proceeds a fmall narrow one which reaches to the Tail, and another reaches from the laft on the Belly to the Tail in like manner. Thefe, by fome unskilful Navigators have been divided into ten or twelve Fins each.

Roth thefe Fin are well known to all Sailors who have crofs'd the Equinotial Line; and they refemble each other in their Shape, Colour, and in the Number of their Fins. But the Bonettoe is thought to be the fineft Eating by much: It is taken in the fame manner as the Albicore.

## C H A P. XXVI.

 Of the M A CKREL.

THE Mackrel, in Latin Scomber, is generally a Foot, and fometimes a Foot and a half long. The Body is long, round, thick and flefhy, but towards the Tail very flender and fmall. It is not entirely void of Scales, but they are very thin and little. Underneath

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the Lines that divide the Sides in the middle it is of a bright Silver Colour, and above them of a bluih Green; from the Back towards the Sides proceed feveral dark Streaks, which by diverfifying the Colour contribute greatly to the Beauty of the Fiih. The Tail is fo very forked that it feems almoft to be parted into two diftinct Fins. The farws are equal in length, and furnifh'd with fmall Teeth. The Eyes are large, the Tongue fharp, and the Noftrils fmall and round.
The Heart is triangular, the Spleen blackiif, and the Liver red and undivided. It has no Swimming-Bladder.
It is a Finh of Prey, and exceeding voracious; there are often found fmall Fifh in its Belly.
Mackrel are found in large Shoals in divers Parts of the Ocean, but efpecially on the Coafts of France and England. They enter the Engli/b Channel in April, and take their Courfe thro' the Straights of Dover, infomuch that in $\mathcal{F}$ une they advance as far as Cornwoall, Sufex, Normandy and Picardy.

They are taken either with the Angle or with Nets. When they are Angled for it mult be out of a Boat, Smack, or Ship that lies at Anchor. The beft Bait for them is a Bit of a Herring put upon a ftrong Hook; but when this is wanting, a Shrimp, or a Bit of any other Fifh will do, or even a Piece of Scarlet Cloth ; for they bite fo freely there is no danger of not having Sport; when you have taken one their own Fleh will ferve for a Bait. There is no occafion to be curious about your Tackle, for you may even fifh without a Rod, and with feveral Hooks at a time.
In the Weft of England they finh for them with Nets, near the Shore in the following manner. One Man fixes a Pole into the Sand near the Sea, to which he makes faft one End of a long Net. Another in a Boat takes the other End of the Net in his Boat and rows round in a Circuit as far as the length of the Net will permit, and then back towards the Shore; when his Boat is a-ground he fteps into the Water, and taking

## 134 S E A - F I S H.

the Cord of the Net with himi drags the Net towards the Shote; then, upon a Signal given, both the Men draw the Net out of the Sea, and by this Method often catch three or four hundred Fifh; they are immediately carried away by Horfes which wait for that purpofe. The Quantity of Mackrel taken upon that Coaft fometimes is almoft incredible; and then they are fo cheap they are not worth carrying away.

The Flefl of a Mackrel is very good when frelh; efpeciafly if they are dreft when juft taken out of the Water; and there is fuch a Difference between them and thofe that are brought to London, that it is not to be conceived by any that have not try'd. However they ate not to be defpifed even when they are well cured by Pickling, and put up into Barrels.

There are two ways of Pickling them ; the firft is by opening and gutting them, and filling their Bellies with Saht, cramming it as hard in as poffible with a Stick; which done they range them in Strata or Rows, at the Bottom of the Veffel, firewing Salt between the Layers.

In the fecond Way they put them immediately into Tubs of Brine made of frefh Water and Salt, and let thiem fleep fo long 'till they think they have imbibed Salt enough to make them keep; after this they take them out and barrel them up, taking care to prefs them down clofe.


CHAP.

## S.EA-FISH. 135

## C H A P. XXVII.

## Of the Sea-Gudgeon or Rocí-Fish:



TH E Sca-Gudgeon, in Latin Gobius niger, is a flender roundifh Fifh; about fix Inches long, and fometimes more. The Colour is a light Blue, mix'd with Olive and fpotted with Black. They have likewife tranfverfe Streaks of an Olive Colour whichare pretty broad, and look agreeable enough. The Tail, which is circular when fpread, and the BackFiths are of a pale Blue. The Covers of the Gills and the Belly are yellowifh. The Eyes are fmall, yellow, and pretty near each other, looking upwards. The Head and Moutb are large, the Fows furnifhed with a double Row of Teetb. The Pair of Belly-Fins coalefee on the Edges in fuch a manner that whent they are difplay'd they reprefent a Funnel ; with thefe he faftens himfelf to the Rocks, whence by fome he is call'd the Rock-Fihb.
The Liver is pale and undivided; the Stomach wide, long, and reaches to the very Vent; the Spleen is fmall; the Gall-Bladder round; the Air-Bladder flender, tranfparent, and not feparated into Lobes.
It is a foft flippery Fifh; it is Scaly indeed, but the Scales are very fmall. It is always to be met with in the Fin-Markets of Venice, and is taken near the Shore, or in Ponds made by the Sea-Water. The Flefb is fat and tender, and in very great Efteem.

CHAP.

## 136 S E A - F I S H.

## CHAP. XXVIII.

## Of the Lumpor Sea-Own.



THE Lump, in Latin Lumpus AngLorum, is about a Foot or a Foot and a half long, and is a thick deform'd Fiih, as the Name implies. The Belly is broad and red, the Back is narrow, thie Body without Scales, but there are black fharp Tubercles on all Parts of the Skin. On each Side there are three Rows of crooked Prickles; the firft begins near the Eye and ends at the Tail, the fecond begins at the Gills and confifts of about fixteen Prickles, the lowermoft Row upon the Belly has five Prickles onIy; there is likewife a Row upon the Back confilting of eight; but from this, as well as the reft, there is fometimes a Variation. The Moutb is like that of the SurFifo, but larger, being three Inches broad from Corner to Corner. The Lips are fat and thick, and the Jarws full of Teetb.

The Belly Fins are contrived like thofe of a Sea Gudgeon, by which means he can fix himfelf at the Bottom, or adhere to the Sides of Rocks at Pleafure. The Noftrils are Tubes or Pipes which rile above the Skin in the fame manner as thofe in a Cuckow.

The Liver is large and undivided; the Stomach, Spermatick Veffels and Kidneys are likewife large; but it has neither Gall-Bladder nor Air-Bladder.

## S E A - F I S H. 137

It is a very common Fifh, and frequently feen in the Markets, but the Flefh is in no great Efteem.

## C H A P. XXIX.

## Of the P O G G E.



THE Pogge, in Latin Catapbracius, is about two Hands breadth in Length. 'The Head is but two Inches broad at the moft, each Side of which is full of Warts or Tubercles, which render it a very difagreeable Sight. On the fore-part, about the Mouth, are a great many fmall Briftles, and the Hind-part is arm'd with Prickles which bend backwards.

The Snout turns up very remarkably, being defended by four Thorns, the foremoft Pair of which are in Fi gure like a Half-Moon. The Moutb is fmall, and Semicircular, and the Cbin, if it may be fo call'd, is bearded with Briftles. The Trunk of the Body is OCLangular, but near the Tail Sexangular. The Back is Brown fpotted with Black. The Belly white, in the middle of which is the Vent.

The Pogge is cover'd with Boney Scales, in the middle whereof a crooked Tubercle is erected, which being continued to the reft renders the Body Angular. It has no Teeth, but the Lips are rough like a File.

This Fifh is frequently taken in Torkßire and the Bihhoprick of Durbam. It is accounted a delicious Morfel when the Head is taken off, and the Body divefted of

## 138 S E A - F I S H.

its Armour. It feeds upon Sbrimps and Fifh of the ininutef Kind.

## C H A P. XXX.

## Of the Cod or Kexwinc.



THE Cod, in Latin Afellus major vulgaris, is a Fifh of about three Foot long or upwards; thofe that are fmall are callid Codlings. It has different Names from the different Places where it is taken, and from the different manner of curing it: Hence it is calld GreenFijh, Iceland-Fi $/$, Aberdeen-Fi $/$, Nortb-Sea-Cod, StockFijb, Poor Fobn, and Barrelfd-Cod.
 prominent Belly. It is brown on the Back, white underneath, and is full of yellow Spots. The Scales are fmall and ftick clofe to the Skin; the Eyes are large, and cover'd with a loofe tranfparent Skin; on the lower faw is a Barb of about an Inch long; the Tongue is broad, round, foft and fmooth; there are feveral Rows of Teeth in the Jaws, one of which is longer than the reft. There are likewife Teetb on the Palate and in the Thiroat.

The Stomach is large and is often found full of fmant Fifh, particularly Herrings; the Liver is large and divided into three Lobes; the Gall-Bladder is large; the Kidneys run all the length of the Back; the SwimmingBladder is thick, ftrong, and connected to the Back, and is by mon People calld the Sound.

## S E A - F 1 S H. 139

The Tleß is exceeding good, and highly efteemed. It is greatly in ufe as well freh as falted; and in Lent it goes by the general Name of Salt-Fi/b. The Head of a large Cod is thought, by thofe who are Judges of nice Eating, to be a moft excellent Difh.

Frefb Cod, that is Cod for prefent ufe, is caught every where on the Coaft of Great-Britain; but there are particular Times of Fifhing in particular Places, becaufe they are then found in great Plenty. Thus from Eafer to Whitfontide is the beft Seafon at Alanby, Workington, and Whitehaven on the Coafts of Lanca/bire and Cumberland: On the Wef Part of Ireland from the Beginning of April to the Beginning of June: On the North and North-Eaft of Ireland from Cbrifmas to Michaelmas: And on the Nortb-Eaft of England from Eafter 'till Midfummer.

But the chief Support of the Cod-Fijbery are the Banks of Nerwfoundland, which are a kind of fubmarine Mountains, one of which, call'd the Great Bank, is four hundred and fifty Miles long, and an hundred broad, and feventy-five from Nerwfoundland. The beft, largeft and fatteft Cod are thofe taken on the Southfide of the Dank; thofe on the North-fide are much finaller.

The beft Searon for filhing for them is from the Beginning of February to the End of April, at which time the Fiih, which had retired during the Winter to the deepeft Parts of the Sea, return to the Bank and grow very fat.

Thofe that are taken from March to fuly keep well enough; but thofe in $\mathcal{F} u l y$, Augixf and September, foon fpoil. The Fifhing is fometimes done in a Month or fix Weeks, fometimes it holds fix Months.

When Lent begins to draw near, tho' the Fifhermen have caught but half their Cargo, yet they will haten homewards becaufe the Markets are beft at that time ; and fome will make a fecond Voyage before others have got a fufficient Cargo for the firit.

Each

## $140 \quad \mathrm{~S}$ E A-FIS H.

Each Fifher can take but one at a time, and yet the moft expert will catch from 350 to 400 in a Day. They are all taken with 2 Hook and Line baited with the Entrails of other Cod, except the firf. This is very fatiguing, both on account of the Heavinefs of the Filh and the Coldnefs of the Weather; for tho' the Great Bank lies from 41 to 42 Degrees of Latitude, yet the Weather, in the Seafon of Fifhing, is very fevere.

The ufual Salary allowed to the Captain and Sailora is one Third of the Cod that they bring home found.

They falt the Cod on board the Ship in the following manner: They cut off the Head, open the Belly, and take out the Guts; then the Salter ranges them fide by fide at the bottom of the Veffel, and Head to Tail, a Fathom or two fquare: When one Layer is compleat he covers it with Salt, and then lays on another which he covers as before ; and thus he difpofes of all the Fifh caught in the fame Day, for Care is taken not to mix thofe of different Days together. After the Cod has lain thus three or four Days, they are removed into another Part of the Veffel and falted afrefh; and then it is fuffer'd to lie 'till the Veffel has its Burthen: Sometimes they are put into Barrels for the Conveniency of Carriage.

The principal Place for Finhing for Cod which is defign'd to be $d r y$ ' $d$, is along the Coalt of Placentia in Nerwfoundland, from Cape Race to the Bay of Experts, within which Limits there are feveral commodious Ports for the Finh to be dried in.

In this Fifhing Veffels of all Sizes are ufed, but thofe are moft proper which have large Holds, becaufe the Fifh have not a Weight proportionable to the Room they take up.

The Time of Fifhing is in the Summer-Seafon for the Conveniency of drying the Fifh in the Sun: On which account European Veffels are obliged to fet out in March or April: For as for thofe that begin their

Voyage

## S E A-F I S H. 141

Voyage in $\mathfrak{F} u m$ or $\mathcal{F} u l$, their Defign is only to purchafe Cod that are already caught and prepared by the Inhabitants of the Englij/b Colonies of Newfoundland and the neighbouring Parts; in Exchange for which we carry them Meal, Brandy, Limnen, Molefus, Bifcuits, \&c.

The Finh which they choofe for Drying is of a fmaller Sort, which is the fitter for their Purpore becaufe the Salt takes more hold of it.

When the Fihing - Veffels arrive in any particular Port, he who touches Ground firf is intitled to the Quality and Privileges of Admiral, has the Choice of his Station, and the Refufal of all the Wood on the Coaft.

As faft as they arrive they unrigg all their Veffels, leaving nothing but the Shrouds to fuftain the Mafts: in the mean time the Mates provide a Tent on Shore, cover'd with Branches of Fir, and Sails over them, with a Scaffold 50 or 60 Foot long, and 20 broad: While the Scaffold is building the Crew apply themfelves to Fifhing, and as faft as they catch any Fifh they open them and falt them on moveable Benches; but the main Salting is perform'd on the Scaffold.

When the Fifh has taken Salt they walh them, and lay them in Piles on the Galleries of the Scaffold to drain; after this they range them on Hurdles only a Fifh thick, Head againft Tail, with the Back uppermoft. While they lie thus they take care to turn and hift them four times in every twenty-four Hours.

When they begin to dry they lay them in Heaps, ten or twelve apiece, to retain their Warmth, and continue to enlarge the Heap every Day 'till it is double its firft Bulk; at length they join two of thefe Heaps into one, which they continue to turn every Day as before, and when they are thorough dry they lay them in huge Piles as large as Hay-Stacks.

## 142 <br> S E A-FIS H.

Befides the Body of the Fifh, there are the Tripes and Tangues, which are falted at the fame time with the Fifk and barrell'd up. Likewife the Roes, being falted and barrell'd up, are of Service to throw into the. Sea to draw Fin together, particularly Pilcbards. The Oil is ufed for dreffing Leather and other Purpofes in the fame, manner as Train-Oil.

When Cod leave the Banks of Nerwfoundland they go in purfuit of Whitings, and it is owing to this that the Return of the Whitings is frequent on our Coaft.

On the Coafts of Buchan the Scots catch a fmall kind of a Cod which is highly prized; they falt it, and dry it in the Sun upon the Rocks, and fometimes in the Chimney; but the greateft Part of it is fpent at home.

## CHAP. XXXI.

 Of the Whiting-Pollack.

TH IS Fifh is the Afellus virefrens of Scooufield, and has the Engli/b Name of Wbiting-Pollack beftow'd upon it from its Likenefs to a Whiting. However it is, larger, proportionably broader and not quite fo thick. The Back is blackinh, or of a dirty Green; the Sides beneath the Lateral Lines are variouny flreak'd with a dusky Yellow; the Body is Scaly, but the Scales are very fmall.

The Mouth is large and the Teeth fmall; the Tongue is marp at the Point; the Eyes of a Silver Colour and 'large;

## S E A-FIS H.

large; the lower faw is a little more prominent than the upper,

The Liver is pale and divided into three Lobes; the Splece is triangular, oblong and of a blackith Colour; the Air-Bladder is thick, and connected to the Ribs.

He lives upon Fifh, particularly Sand-Eels.
He differs from 2 Cod in Magnitude, not being much above fifteen Inches long, and four broad; in having a proportionably lefs Head, a broader and thinner Body; in having no Barb, and in the Belly-Fins being much lefs.

He is frequently taken near Penzamce and St. Fres in Corrwall; and is likewife often caught in Rock-Fi/bingHe fruggles hard for his Life, and yields the Anglef good Diverfion.

Proper Baits in Rock-Fifoing are a live Sbrimp, a Cockle, a Pcriwinkle, a Lob-worm, a Mar/b-worm, and a Hairy Worm that is found under the Sand at the Tide of Ebb.

This laft, as it is the moft natural, fo it is the moft fucceffful Bait; befides it has this Advantage, that it needs no Scouring as other Worms do. They mutt be dug for on that Part of the Shore that is half Mud and half Sand. When full grown they are near four Inches long, and are of a pale Flefh-colour; for Shape they refemble an Ear-wig.

If you fifh out of a Boat or Smack you will need no Rod, and your Line may be fixty Yards long, with three or four Hooks one above another, and baited with different Baits. Some Inches above the higheft Hook moft be fixed about half a Pound of Lead. When you fifh you muft quoil your Line in feveral Rings in your left Hand, and holding your Lead in the Right throw it as far into the Sea as you can, taking care to hold the Loop of your Line faft in your Hand, left you loofe it.

## $144 \quad$ S E A - F I S H.

The beft time for Sea-fifhing is in warm Weather, and early in the Morning, or after Sun-fet, provided the Tide has been ebbing near an Hour.
Some in this kind of Finhing choofe to place themfelves under the Covert of a Rock, where they fhelter themfelves and fit fecure from the Inclemencies of the Wind and Weather, and this in a proper Senfe may be called Rock-Fijbing. In this Cafe a Rod is neceffary, as likewife a Float. It is common to ufe two Hooks, one to lie at the Bottom, and one to hang about Mid-water; and if a little mirchievous Finh, call'd a Miller's-Thumb, fhould happen to carry your Bait into the Clefis of the Rocks, you mult have Patience 'till he thinks proper to come abroad, for there is no dealing with him by Force.
The Flefh of a Wbiting-Pollack is well-tatted, nourifhing and faky, like that of a Cod.

## C HAP. XXXII.

## Of the Coal-Fish or Rawlin-Poliack.



TH E Coal-Fifh, in Latim Afallus nigor, is very like the former, only the Lateral Lines are white, broad, and not fo crooked, by which Mark the Fifbersmen diftinguifh it from the Wbiting-Pollack. Befides, the Colour is more black, lively, and fhining; likewife all the Fins are of a blackifh Blue, the Scales lefs, and the Fyes larger and more protuberant. In a Cod the upper Jaw is a little longer than the lower, but the diret contrary obtains in this, the under Jaw being longer than
than the upper ; the Cod has a Barb hanging at his Ciin, bat this Fifh has none; likewife the Tail of this is more forked than that of a Cod.

They are taken on the Coaft of Nortbumberland and York/bire, and are call'd Coal-Fibh from the Black Colour of their Back and Head. The young ones of this Kind are called Billards, Pollards, and Rock-Wbitings.
Some reckon this Fifh to be better than a Haddock, and inferior to a Wbiting or a Cod; and it is confequent-. ly fold at a cheaper Rate than the latter.

There is another Fifh of this Kind which the Corsib call a Bib, or Blinds, which grows to about the length of a Foot, and is rather of a broadifh Make than thick and round. On the Back it is of a light Otive or dirty Yellow, and on the Belly of a Silver Colour. Its Scales are twice as large as thofe of a Cod; and at the End of the lower Jaw there is a Barb of half an Inch long, and fometimes an Inch.
A Bib may be diftinguifh'd from a Cod by its Size, which is fmaller; by its Shape, which is flhorter and broader; and by the Bignefs of its Scales, as was before mention'd.

## $146 \quad$ S E A-F I S H.

## C H A P. XXXIII.

Of the Whiting-Pout.


THE Whiting-Pout, in Latin Afellus mollis Latus, is remarkably broad in proportion to its Length, by which it is diftinguifh'd from all other Fifh of this Kind. The Edges of the Tail. and Fins ane black.

The Size of this Finh is generally about eleven Inches long, and three.and 2 half broad. It has fmall Scales, and is of a Silver Colour on the Body like 2 Whiting. It has alfo a fmaller Mouth than other Fifh of this Kind.

The young Fifh of this Sort are calld by the Londoners, Whiting-Mops, and are expos'd to Sale in great Plenty in Ocaber.


CHAP.

## S E A-FISH.

## CHAP. XXXIV.

## Of the H A D D O C K.



$A$N Haddock, in Latin Afinus, has the Appellation of Afellus tertius by Rondeletius. It is of a midde Size between a Cod and a Whiting. This Fiin is blackifh on the Back, and is cover'd with fmall Scales. From the upper Corner of the Gills to the Tail there runs a-Black Line; and on the middle of both Sides, not far from the Gills, is a large Black Spot, which they fay is a Mark made by the Finger and Thumb of St. Peter, that he might diftinguifh this Fih from others, as being very much to his Liking. The lame Monkif Fable is told of another Fih call'd the Piper.
The Eyes are large; and there is a Barb on the lower jaw about an Inch long. The Tail is forked. In other hings it refembles a Cod.
Some reckon this to be but a coarfe Fih, and apt 0 caufe Fevers; but that chiefly happens when it is aken in Seas that are fhallow and muddy, as about Priefland: But where the Seas are deep and the Water lear this Fifh is wholefome enough, and the Tafte is ar from being defpicable.

## 148 S E A - F I S H.

## C H A P. XXXV.

Of the W H'I TING.


THE Whiting, in Latin Afellus mollis major, fea albus, is one of the fmalleft of this kind of Fiih, it being feldom met with above a Foot in length. It is a flender Fifh for the Size, efpecially towards the Tail, for about the Head the Make is confiderably larger. The Belly is white, and the Back mach whiter than in any other of this Sort, from whence it derives the Name of Wbiting. The Fins below the Vent are fpeckled with Black. It has no Barb. The Scales are fmall; the Eyes large, and cover'd with a tranfparent loofe Skin; the under faw is longer than the upper, infomuch that when the Mouth is fhut the long crooked Teetb ftand out of it; but thofe within the Mouth are fmall.

The Liver is white, having the left Lobe of it very long, and neaching to the bottom of the Abdomen. The Stomach is large, and often furnifh'd with Bones, as is fuppos'd, of fmall Fih.

The Flefb is fweet, tender, and in univerfal Esteem: In fome Parts of England and Holland they take out the Guts of thefe Fiih, and then dry them, by which means they may be kept a confiderable time. They eat pretty enough.

There is another fort of Whiting not above feven Inches long, which is very common in the Mediterramean Sea, and is call'd by the Venetians, Mollo, but by the People of Marfeilles, Capelan. It is doubted

## S E A-FIS H.

by fome whether they are found in the Ocean or not ; and yet it is probable that this is the fame Fin which our Countrymen corruptly call Capeling, and which they catch upon the American Coaft for a Bait in Cod-Fij/bing. It is of a darker Colour than a common Whiting, and has a Barb at its Nofe like a Cod. The Fle/b is very foff, tender and nouriming.
The Finhing for Wbitings in a Boat or Smack is diverting enough, becaure they bite very freely, and require no very nice Tackle to catch them. You may know where to caft Anchor by the Sea-Gulls, for they never fail to hover over the Place where the Whitings lie, and if they feem to dip into the Water every now and then you are fure not to lofe your Labour.

The beft Bait is the Hairy-Worm, but if that is not to be got a Lob or Mar $\beta$-wworm will ferve. You need not ufe any Rod, but a Pater-Noffer Line, with half a dozen Hooks half a Yard diftant from each other. The Line may be faften'd to the Infide of the Boar, by which means you will have but little Trouble, except in drawing up your Fih and putting on frefh Baits. The Time of waiting before you examine your Hooks need not be long, for they are a very greedy Fif.

## C H A P. XXXVI.

## Of the H E R R I N.

TH E Herring, in Latin Harengus, is a well-known Fifh of nine Inches or a Foot in length. It is $\mathrm{H}_{3}$ com-
commonly thought to be the Halec of the Ancients, which is a great Miftake, for Halec is not the Name of any fort of Fifh, but only of a Sauce to Salt Fifh in general.

That which diftinguifhes this kind of Fifh from all others, is a Scaly Line that yuns along the middle of the Belly from the Head to the Tail. The Colour of the Belly and Sides is of a fhining Silver, and the Scales are large and eafily come off.

A Herring has no Spots, the Belly is harp like a Wedge; the Eyes red; the lower Jaw a little longer than the upper, and full of Teeth, as are the Palate and Tongue; the Tail is forked.

The Swimming-Bladder is of a Silver Colour, and runs the whole length of the Belly; the Spleen is red, the Gall-Bladder large, the Gut runs direedly from the Stomach to the Vent.

A Herring dies immediately after it is taken out of the Water, whence the Proverb arifes, As dead as a Herring. The Flefh is every where in Efteem, being fat, foft and delicate, efpecially if drefs'd as foon as taken. That it is a Fifh every where in Efteem, appears from the valt Quantities that are taken and confum'd, as well falted, dry'd and pickled, as frefh.

It was a Queflion formerly whether Herrings fed apon any thing befides Water, but Lerwenboeck has made it evident that they come every Year in Purfuit of Worms and fmall Fifh, which at the time of their Arrival abound in the Cbannel; for when they have clear'd the Northern Seas of their Stock of Provifions, then they travel Southward in fearch of a frefh Supply. Their moft conftant Abode feems to be in the Seas between the North of Scotland, Norwway and Dexmark, from whence they make annual Excurfions through the Britiß Channel as far as the Coaft of Narmandy.

The Dutch begin their Herring-Fi/Bery on the fourteenth of Func, and employ no lefs than a thourand Veffels therein. Thefe Veffels are a kind of Barks, called Buples,

## S EA-FIS H. ${ }^{15 I}$

Buffes, carrying from forty-five to fixty Tun, and two or three fmall Cannon.

None of them are allow'd to ftir out of Port without a Convoy, unlefs they carry twenty Pieces of Cannon among them all, in which Cafe they are permitted to go in Confort. Before they fet out they make a Verbal Agreement, which has the fame Force as if it was in Writing.

The Regulations of the Admiralty of Holland are in a great meafure follow'd by the French, and other Nations: The principal are, That no Fifher thall caft his Net within a hundred Fathom of another's Boat: That while the Nets are caft a Light fhall be kept on the hind Part of the Veffel: That when a Boat is by any Accident obliged to leave off Fifhing, the Light fhall be caft inno the Sea: Likewife that when the greater Part of the Fleet leaves Fifhing, and cafts Anchor, the reft mall be oblig'd to do the fame.

The beft Times of Fifhing on the Coaft of Norfolk and Suffolk, near Yarmouth, Lefoffe and Soutbwold, are from the middle of September'till the middle of October. The Nets that they ufe are about five Yards deep, and twenty-five Yards long: They fometimes faften fo many of thefe Nets together as will take in a Mile in compafs.

They judge whereabout the Herrings lie by the Hovering and Motion of the Sea-Birds, which continually purfue them in Expectation of Prey. The Fifhers, as they row gently along, let their Nets fall into the Sea, taking their courfe as nearly as they can againft the Tide, that fo when they draw their Nets they may have the Affiftance of the Tide. As foon as any Boat has got its Load it makes to the Shore, and delivers the Herrings to the Man who is to wahh and gut them.

They diftinguih their Herrings into fix different Sorts, as the Fat Herring, which is the largeit and thickeft of all, and will keep about two or three Months; the Meat-Herring, which is likewife large, but not fo thick $\mathrm{H}_{4}$

## 152 S E A - F I S H.

nor fo fat as the former; the Night-Herring, which is of a middle Size; the Pluck, which has received fome Damage from the Nets; the Sbotten-Herring, which has loft its Milt or Spawn ; and the Copfben, which by fome Accident or other has been depriv'd of its Head.

All thefe Sorts of Herrings are put into a Tub with Salt or Brine, where they lie for twenty-four Hours; then they are taken out and put into Wicker-Baskets, and wafh'd; after this they are fpitted on fmall wooden Spits, and hung up in a Chimney built for that purpofe, at fuch Diftances that the Smoak may have free Accefs to them all. When they have filld thefe Places, which will hold ten or twelve thoufand, they kindle the Billets which are laid on the Floor in order to dry them ; this done they fhut the Doors, all other Air-Holes being ftopt before, and immediately the Place is fill'd with Smoak. This is repeated every Quarter of an Hour, infomuch that a fingle Laft of Herrings require five hundred Billets to dry them. A Laft is ten Barrels, each Barrel containing near a thoufand Herrings. Thefe, thus prepar'd and dry'd, are call'd Red-Herrings.

The Pickled-Herrings are beft done by the Dutch, who take them for that Purpofe about the Summer Solfice. The ufual Method of Pickling them is this: As foon as the Herrings are taken out of the Sea they are gutted and wafh'd; then they are put into a flrong Brine made with Water and Sea-Salt for fifteen Hours; after this they are taken out and well drain'd, and put in a regular Order into Barrels, with a Layer of Salt at the Bottom of the Barrel, and another at the Top. They then take care to fop them up carefully that no Air may get in nor Brine out, either of which would be prejudicial to the Fifh.

Herrings always fwim in Shoals, delighting to be near the Shore. They Spawn but once a Year, and that is about the Autumnal Equinox, a little before which, like moft other Fifh, they are higheft in Seafon.

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S E A-F I S \text { H. } \quad{ }_{153}
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## C H A P. XXXVII.

## Of the Sprat or Sparling.



ASprat is fo like a Herring in every Particular, that after the moft diligent Examination, the beft Authors have concluded that there is no difference between them but in their Age.

They are taken annually in great Plenty about the Winter-Solfice, and, as it is well known, are not fold by Number or Weight, but Meafure, at a very low Price. An old Cornifh Fifherman, who was confulted in this Affair, declar'd that there are two kinds of Sprats ufually met with upon that Coaft, one of which is young Pilcbards, and the other young Herrings, which may be eafily diftinguifh'd from each other: That the Pikchard Kind travel no farther Eaftward than DevonBire and Cornwall; whereas the other are to be met with every where.

In Rotberfon, or Rofern-Meer in Cbefbire, there are Sprats taken annually for ten Days about Eaffer, which are not to be diftinguih'd in any manner from SeaSprats, being of the fame Colour, Shape and Tafte. Likewife at the fame time that they are taken in the Meer, they are alfo caught in the River Merfey below Warrington-Bridge, where the Tide brings up the SaltWater, which Place is about feven or eight Miles from the Meer. But the moft remarkable Circumftance relating to the Affair is this, That tho there is a Rivulet runs thro the Meer into the River Merfey, and though there are feveral Weirs between the Lake and the River, yet no Sprats have been ever caught or feen between thofe two Places ; therefore the Queftion is, how

## 154 S E A - F I S H.

they can get out of the River into the Lake? If they do come from thence it mult be by means of a Flood, and even then they muft reject two or three other Rivers that run into the Merfey for the fake of this Lake; for there are no Sprats found in the Bullen or Berken, which are join'd by the Rivulet that runs thro' the Meer before they reach the Merffy. There is, indeed, a parallel Inftance in the fame Neighbourhood in favour of this Opinion, there being two Rivers, the Weever and the Dane, which meet at Nortbrich, and yet Salmon, when they come out of the Sea, always enter the Dane, and never vifit the Weever. But tho' this is allow'd to be the Cafe of the Sprats, yet what Reafon can be affign'd that none are ever taken at the Weirs, fince they muft neceffarily pafs thro' them once a Year? Some, who are aware of this Difficulty, fuppofe they were firft carry'd into the Lake by an extraordinary Inundation, and have bred there ever fince, only, like the Cbar, making their Appearance at the Time of Spawning. But if we grant this Suppofition it may be fill ask'd, Why they are never taken of a larger Size, fince a Sprat is nothing but a young "Herring? In hort the Difficulties on both fides are fo great that we mut leave this Matter undetermin'd.

## C H A P. XXXVIII. Of the PILCHARD.



THE Pilcbard, in Latin Harengus minor fau Pilcbardus, is never above nine Inches long, and is fomewhat of a thicker Make than a Herring. The Back is of a bluin Green, the Belly and Sides of a Sil-

## S E A-FIS H. 155

ver Colour ; near the upper Corner of the Gillo on both Sides there are black Spots, and in fome there are four or five placed in a right Line towards the Tail. The Mouth is wide, but there are no Teeth either in the Tongue, Palate or Jaws. The Eyes are of a middle Size and of a Silver Colour, with a little Tincture of Red. In moft other things it refembles 2 Herring.
The Fleff eats admirably well, and is more firm and delicate than that of a Herring; and befides, ise falutary Properties are no way inferior to its Tafte.

The Pilchard is a Finh of Paffage, and fwims in Shoals in the fame manner as the Herring and Ancbovy. The chief Fifheries are along the Coaft of Dalmatia, to the South of the Illand of Ifea; on the Coafts of Bretagne from Bell-IJle as far as Breft, and along the Coafts of Cornwall and Devorffire. That on the Coaft of Dalmatia is fo plentiful that it not only furnifhes all Greece, bat 2 great Part of Italy. That on the Coatl of Bretagne employs yearly above three thoufand Sloops, and moft of the Seamen of the Country.

The Pilchardstaught on our own Coafts are not fo much valued, though bigger, as thofe on the Coaft of france, which is owing to their not being fo well cured.

The Seafon of Fifhing is from $\mathcal{F}$ une to September: tho' fometimes they are caught on the Coafl of Cornwall at Cbriftmas.

Near France they ufe the Rous of Cod-Fifa as Baits; which thrown into the Sea makes them rife from the Bottom, and run into Nets placed for that purpore.

The Pilcbards naturally follow Light; and for that Reafon will gather about a Boat which carries a Light in the Night-time, which renders the Fifhery much more expeditious and eafy.

On the Coafts of Deroon/bire and Cornsvall they fet Men to watch on the Tops of Mountains and Cliffs, whom they call Huers, who are able to difcover when a Shoal of Pilchards are coming by the Blacknefs or Purple colour of the Water, and in the Night by its fhining.

## $15^{6} \quad$ S E A - F I S H.

thining. - When the Huurs perceive by thefe Marke where the Fifh are they direet the Boats and Veffels, by Signs before agreed upon, how to manage their Nets, which they call Saines, by which Means they often take at one Draaght a hundred thourand Pikbards and upwards.

They lay the Pilcbards in a Heap in 2 Warehoufe upon the Groumd, placing one Layer upon another with a fufficient Quantity of Salt between each; thus they go on laying, Aratum fuper fratum, as the Chymitts fpeak, 'uill they are an Ell and a half high ; after they have remain'd fifteen or eighteen Days in this manner, and are thoroughly falted, they take them out and thruft wooden Spits through their Gills, that they may wafh them with greater Eafe. After they have been wafh'd twice they put them into Barrels, and prefs them down with heavy Weights, which force out a great Quantity of Oil ferviceable for many Purpofes; then they fill the Barrels up again, and fell them to the Merchants. This Finhery yields great Profit to the People in thofe Parts.

## C H A P. XXXIX.

 Of tbe A N C H O V Y.

'TH E Ancbory, in Latin Encraficbolus, is a fmall Fiih about as thick and as long as ones Finger ; but near Cbefter they have boen taken much larger. The Body is of a rounder Make than a Herring's. The Eyes are large, the Body of a Silver White, and the Gills are of a flining Red; the Snout is Mharp; the Mouth. wide, but
but without Teetb; yet the $\mathcal{F}$ awus are as rough as a File. The Tail is forked.

Ancbovies are very common àt Venice and Genoa, as alfo at Rome. They are likewife plentiful in Catalosia, at Nice, Antibes, St. Tropex, and other Places in Provence.

They are moft commonly taken in the Night in May, $\mathcal{F}$ une and $\mathcal{F} u l y$; for in thefe three Months they. leave the Ocean, and pafs up the Mediterranean towards the Levant. When they fifh for Anchovies, and would take a large Quantity, their Method is to light a Fire on an Iron Grate placed at the Poop of the Ship, fo that the Fifh feeing the Light make towards it, and aro more eafily taken.

When the Ancbories are caught they gut them, and take the Gills out of the Head, and whatever elfe is apt to putrify, and falt them.

As to the manner of Salting them, they do nothing elfe but range them in Barrels of different Sizes, with a proper Quantity of Salt; the largeft Barrels do not weigh above fix and twenty Pounds.

In choofing Ancbovies, thofe that are leaft ought to be preferr'd; as alfo thofe that are white without, red within, that are firm, and have round Backs.

There is another Sort of Fifh fold inftead of Ancboroies calld a Sardin, which is very probably a young. Pilcbard; it being larger and flatter than an Anchoryy and not fo well tafted.

CHAP.

## CHAP. XL.

## Of the Horn-Fishor Garr-Fish.

THE Horn-Fifo, in Latin Acus Vulgaris, is a long, flender and roundif Fih. The Snout is very long, flender and fharp; the Head is flat, and of a bluifh Green; the Back is green, with an obfcure Purple Line running along the Middle of it; the Lateral Liwes that run along the middle of the Sides are Scaly; the reft of the Body is fmooth; both the farws are arm'd with a great Number of Mharp Tecth; the Lower is longer than the Upper; but what is moft remarkable of all the upper Jaw is moveable as in a Crocodile. The Tail is forked.

The Guf runs directly from the Stomach to the Vent; the Liverer is not divided into Lobes; the Gall is of a bluifh Black.

It does not grow to any large Size; for fix of thofe that are ufually taken will not weigh a Pound. Yet fome have been caught that bave weighed two or three Pounds.

The Fleß is hard and dry, and confequently not very eafy of Digettion; but yet it yields good Nourifhment. They are common every where, and are ufually brought to the Market in May.

## S E A-FIS H. 159

## CHAP. XLI.

## Of the Isinco-Glass-Fishi



$\mathrm{T}^{\mathrm{H}}$H E Ifyng-Gla/s-Fiß, in Latin Hufo or Exofis, has 2 very thick, heavy, large Head; the Mouth is very long and wide, and there is a Barb or long Excrefcence hangs from each Side of his Upper-Jaw ; his Back is full of little white, prickly Scales, placed in exact Order; the Tail is forked.

Authors have been guilty of feveral Miftakes concerning this Filh, becaufe they never had an Opportanity of feeing one; as that it is without Bones; that it has a fmooth Body without Scales or Prickles; and that it was of the Cetaceous Kind, and refembled them in Nature and Balk.

The Length of this Fih is about twenty-four Foot; and it weighs about four hundred Pounds. It is ufually met with in the Seas about Mufcory, and in the Danube.

The Fleß is fweet and vifcid, and eats beft when it has been fome time in Salt; the Flefh of the Back has the Tafte of Veal, and that of the Belly is thought to be as fweet and good as Pork. It is a very common Difh in Mufcooy, and the Jelly is very wholefome and nouriming.

As to the manner of making the 1fing-Glafs, the Guts,' Stomach, Tail, Fins and Skin are taken and boil'd 'till they are all diffolved that will diffolve, then the Liquor is ftrain'd and fet to cool; when it is cold the Fat is carefully

## $160^{\circ} \quad$ S E A-F I S H.

carefully taken off, and the Liquor itfelf is boil'd agaim to a juft Confiftency, after which it is cut into thin Slices, then hung upon a String and carefully dry'd. That which is cleareft and whiteft is beft. The chief Confumption of this is by the Wine-Merchants, who make ufe of it to Fine or Force their Wine, as they themfelves term it.

## CHAP. XLII.

 Of the Grey-Gurnardo:THE Grey-Gurnard, in Latin Gurnardus grifeus, has a Back of a dirty Green, fometimes fpeckled with Btack, and always with Yellow or White. The Lateral Line is more rough and prominent in this than in others of the fame Kind. Under this Line the Sides are of a lighter Colour, and fuller of white Spots. The Belly, as in moft other Fifh, is white; the Head is large and cover'd with Boney Plates, the uppermof of which ferves for a Shield to the Top of the Head, and terminates on the back-part in two harp and prickly Horns; the Snout likewife is a double Horn arm'd with four or five Prickles; on the fore-part of the Eye are two Prickles, which bending backwards lie over the Eye. The Eyes are large and of a Silver Colour, but clouded with dusky Spots. The Mouth is large, and the Tecth very fmall; growing as

## S EA-FIS H. $16 \mathbf{i}$

well upon the Tongue and Palate as the Jaws. The Cover of the Gills is double, and rough with Prickles.

The Intefines have nothing very fingular.
This Filh is very common in the Britif Ocean; and frequently met with in the South of England.

## C H A P. XLIII.

 Of the Red-Gurnard or Rotchet.

TH IS Fifh is the Cuculus of Aldrovandus, and is not fo large as the Grey-Gurnard, it never exceeding a Foot in length. It has a large Boney Head arm'd with Prickles; the -Body gradually decreafes in Thicknefs from the Head to the Tail, which is very fmall; both the Body and Fins are of a reddifh Colour, from whence it derives its Name; the Faws and Moutb are rough with very fmall Teetb; the Eyes are large; the Covers of the Gills feem to have Lines engrav'd in them, proceeding as it were from a Center; they are likewife arm'd with three remarkable Thorns or Prickles.

The Tub-Fih, which is the Hirundo of Aldrovandus, is very like the Red-Gurnard, only it is larger and has a bigger Head; likewife the Gill-Fins are larger, and the Body is of a paler Colour.

## $162 \quad$ S E A F F S H.

The Flefh of the Red-Gurnard is hard, brittle, white; well-tafted and wholefome; claiming a Place among Fin of the higheft Efteem.

This Fifh makes an odd fort of a Noife, which fome fancy to be like the Singing of a Cuckow, others like the Grunting of a Hog; others again affirm, that when it is taken out of the Water and touch'd it erects its Prickles, and cries Curre very plainly; whence, in fome Parts of England, they go by the Name of Curres.

## C H A P. XLIV.



TH E Piper, in Latin Lyra, is of the fame Colour as the Red-Gurnard, only the Head is lighter, and has a yellowifh Caft. The Snout is divided into two broad Horns, which about the Edges are arm'd with Thorns or Prickles. On each Side there is a very large Thorn fituated above the Gill-Fins. The Bones of the Forebead hang over the Eyes like a Penthoufe, and at the Corner of the Prominence arifes a fhort, fharp, crooked Thorn. Below the Gill-Fins there are three Excrefcences, which fome call Fingers. The Boney Plates, which cover the Top of the Head, terminate in

## SEA-FISH. 163

two Horns, which are pointed at the Ends. The faws are rough like a File.

The Air-Bladder is very large, and the Liver fmall.
It is met with both in the Britifß Ocean and the Mediterranean Sea. It feeds upon fmall Crabs, among other things, they being often found in his Stomach.

The Flef is of the fame Nature as that of the Red and Grey-Gurnard, both for Tafte and Wholefomenefs.

This Fifh makes a fort of a Noife when he is taken out of the Water, which has given the Cornib People occafion to difinguif him by the Name of the Piper.

## C H A P. XLV. Of the SURMULLET.



THE Surmullet, in Latin Mullus, is from fix to nine Inches long; it has a thickih Body, which gradually decreafes in Circumference to the End of the Tail. The Scales are large and come eafily off. The Colour is a dusky Yellow. When the Scales are off the Sides are of a lively Red, whence the Frencb give it the Name of Rouget.

He has two long Barbs hanging from his Chin, which he can turn up and hide under the lower Part of his Gills at Pleafure. He has no Teeth, but the lower faw is rough like a File. His Tail is forked.

This

## Y64 S E A-F I S H.

This Fifh has always been efteem'd a great Rarity; and was fo dear formerly that it fold for its Weight in Silver.

There is another Fifh of this Kind better known in England than the former, and is twice the Size of it, for fometimes it grows to be fourteen Inches long. It likewife differs from the former in having the Back-Fins beautifully painted with Red and Yellow; when thofe of the lefier Sort are white, mix'd with a pale Purple. The fame thing may be faid in a Senfe of all the reft of the Fins. In This the Scales are thick, and adhere clofely; in the Former the directly contrary obtains. But what is the plaineft Diftinction of all is, that there are three or four parallel Lines which run all the length of the Sides, of a bright Yellow or Gold colour.

The Surmullet is very common in the Mediterraneam Sea, and the larger Sort is not very fcarce in the Ocean, it being often feen in the Market at Penzance in Cornwall.


THE Weever, in Latin Draco Marinus, has a longifh Body and a ftraight Back. The Sides are painted with yellow and brown Lines, which run obliquely from the Back towards the Belly. The Gills are yellow, and the Belly white. The Eyes are placed at a frmall diftance from each other, and nearer the End of the Nofe than in any other Scaly Fifh that we are acquainted with;

## S E A-F I S H. $\quad 165$

with; they are of a Gold-colour fpeckled with Black. The Mouth is very wide; and the lower $\mathfrak{f}$ aw is a little more prominent than the upper; they are both full of fmall Teeth. The Aperture of the Gills is very wide, and at their upper Angle; on both Sides, is placed a fharp frong Thorn. The Tail can be fcarcely faid to be forked; it is of a bluifh Colour fpeckled with Yellow.

He is often taken a Foot and a half long. The Flefh is firm, and eats agreeably enough.

The Fin on the Back, next the Head, is faid to be poifonous; and if a Fifher happens to be wounded with it the Part fwells, and is very full of Pain, which continues very intenfe 'till the Return of the Tide, and then abates. But fome doubt whether thefe Circumftances are not exaggerated or not.

## C H A P. XLVII.

## Of the Scador Bonetto:



THE Scad, in Latin Trachurus, is like a Mackrel both in Shape and Tafte, for which Reafon the Frencb give it the Name of the Bafard-Mackrel; but it is confiderably lefs than a Mackrel, and not of fo round a Make. The Back is of a flining Blue; the Belly of a Silver Colour with a Tincture of Purple; the Borders of the Gills feem to be ftain'd with Ink.

In the middle of the Sides there is a Line cover'd with fmall Boney Plates; it does not run directly along, but bends a little downwards. Thefe Plates are furnifh'd with Prickles

## 166 S-E A - F I S H.

Prickles which are largeft near the Tail, by which means it feems to be of a quadrangular Figure. The Eyes are large. The $\mathcal{F}$ arws, Palate and Tongue are rough like a File. The Tail is very much forked.

Thefe Fifh fwim in Shoals, and are taken in great Numbers near the Frencb and Spani/b Coaft along with the Mackrel. They are likewife taken near Cormwall, and on other Parts of the Britijb Coaft.

The Flefb is dry, and harder than that of a Mackrel.


TH E Doree, in Latin Faber, is a very broad flat Fifh, and almoft every where of an equal Thicknefs. He is fhaped almof like a Plaice, but fwims eref, and therefore ought not to be number'd among the flat Fin.

The Head is very large; the Moutb monftroully wide; che Eyes yellow and great; the Sides are of an OliveCo

## S E A-FIS H. $\quad 167$

Colour, variounly mix'd with a light Blue. On each Side there is a black. Spot as big as a Silver Groat. There are Teeth in both the $\mathfrak{F}$ arws; the Tongue is long, fharp and fmooth; the Lateral Lines are bent as in the Figare; the Tail is round.

The Size of this Finh is generally about eighteen Inches long, and feven or eight broad.

The Flefb is tender and eafy of Digeftion, and for Delicacy is by many thought fuperior to that of a Turbot.

This Fifh was formerly hung up in Churches on account of the remarkable Spots that appear on each Side; which were faid to be the Marks of St. Chrifopher's Fingers, who caught this Fifh as he was carrying our Saviour over a Ford: Or, according to others, becaufe this was the Fifh out of whofe Mouth St. Peter took the Money wherewith to pay Tribute; and that the Spots are elegant Reprefentations of the Coin, being left as a Memorial of the Miracle. But thefe fort of Fables meet with little Credit now even among the Roman Catbolicks themfelves.

They are taken both in the Ocean and in the Mediterranean Sea, and are often expofed to Sale at Penzance in Cormwall.

## C H A P. XLIX.

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TH IS Fih, in Latin Umbra, in Italy is called. Unbrana or Ombrino, and is chiefly known in England

## $168 \quad$ S E A-F I S H.

England by being the Subject of feveral diverting Scenes in one of Beaumont and Fletcher's Plays.

In Cobur it refembles a Tench, but the Shape is more like a Pearch. The Mouth is not large, but there are Teeth in the Jaws. The Edges of the Back-Fins and the Extremity of the Tail are black. The Eyes are of a dark Colour, and the Belly-Fins are as black as if they had been dipt in Ink. The Tongue is large ; the Scales are of a Lead Colour ; and the Tail is round.

The Liver is fmall, and divided into two equal Lobes; the Gall-Bladder is full of a reddifh Liquor ; the Stomacb is of a moderate Size.

This Fifh is in the higheft Efteem among the lialians, and is thought to make a Repaft worthy of a Prince. Sometimes they are taken of a large Size, and then the Head is efteem'd the moft tempting Part. They are often feen in the Markets at Rome ; but in other Places it is a very great Rarity.


TH E Sea-Bream, in Latin Brama Marina, is a flat Scaly Fifh about twenty-fix Inches long, and ten broad. The Tail is very fmall, and the Fin of it long and forked. The Back is black, the Sides are of 2 lighter Colour, and the Belly is white. The lower ffaw

## S E A-FISH.

Yaw has two Rows of Teeth; the upper, one. The Eyes are large, and for Colour and Shape refemble thofe of Quadrupedes. The Covers of the Gills are large like thofe of a Salmon. The Fins are placed as in the Cut.

The Flefh cats red, and is of a very delicate Tafte, far furpafling either the River or Pond.Bream, infomuch that it feems ally'd to them in nothing elfe but the Name.

It is often caught in Rock-Fi/bing, and is to be met with on any Part of the Britib Ccaft.


TH E Old-Wife, in Latin Turdus vulgati/imus, is in Shape like a Tench, and in Length about nine Inches. It has very large Scales, fome of which are red, others yellow, and others of a Fillemot Colour; and they are fo placed as to compofe five or fix right Lines from the Head to the Tail. The Snout is oblong, and a little turn'd up at the End. The Lips are thick and flefhy; the Mouth fmall; the Teeth are like a Saw, and not very fharp. The Eyes in fome are blue, in others of a Gold-colour. The Gill-Fins are yellow. The Tail, when extended, is round.

The Air-Bladder is undivided, the Gall green, the Urinary-Bladder is very vifible, and the Gut is apt to fall or appear through the Vent.

The Fleß is no way to be commended, either for an agreeable Tafte or wholefome Properties.

The People of Cornwall call this Fifh a Wraffe; and the Welch, Gwrach, which has fome Affinity to it in Sound, and fignifies an Old Woman: The Frencb likewife give it the Name of Une Vieille, which has the fame Meaning; but what ground there is for thefe Appellations we can by no means difcover.

## C H A P. LII.

 Of the Dolphin of the Moderns.

THE Dolphin of the Moderns, in Latin Auratus Pifis, is taken from four or five to fix or feven Foot long. It is a Fifh well known to Sailors, and by them greatly calebrated for its extraordinary Beauty ; but this Beauty muft confift in the Colour rather than the Shape, for neither the Head nor the Body are of fuch a regular Proportion as merit the leaft Praife, fince they feem to be rather difagreeable than otherwife. The Back, Belly and Fins are of a lively Green mixt with a Silver Colour; the Belly is white, but every Part is fpotted with a fhining Blue, which renders this Fifh a very agreeable Sight both in the Water and out. There is only one broad Fiz on his Back, which runs the whole length of his tapering Body, and always ftands upright when he fwims.

His Scales are fo fmall and fo fmooth that he feems to have none at all. His Tail is very forked, and the Fins of it are long, fometimes a Foot and a half in Dolpbins of the largeft Size.

This Fifh is a very fwift Swimmer, and will accompany a Ship for a long while together and very often proves a fearonable Relief; and as the Flefh is very well tafted, though dry, the Sailors are never backward in endeavouring to make a Meal of them as often as they can.
The Dolphins are a great Enemy to the Flying-Fifb, and are always purfuing them, which is one Reafon of their being feen fo often out of the Water. Some Writers call this Fifh a Dorado.

## C H A P.- LIII.

## Of the Flying-Fish or Sea-Swallow.



TH E Flying-Fi/h, in Latin Hirundo Marina, is very common between the Tropicks. There are feveral forts of them, but they are all about the Bignefs of a Herring, and their Gill-Fins are fo long and broad that they look like Wings; with thefe they are enabled to skim along the Surface of the Water in the manner of a I 2

Swal-

Swallow, infomuch that it is very common for them to fly into the Ships which are failing in thofe Seas. They are an excellent Bait for the Dolphin above defcribed, and are often made ufe of by the Sailors for that purpofe. They cannot fly far, becaufe their Wings foon fland in need of wetting.

- There is a fort of a Flying-Fi/b fometimes feen in the Mediterranean, which is call'd Milvus by Salvianus and other Writers; but between the Tropicks they appear by thoufands at a time, and it is thought a very good Diverfion to fee the Art they make ufe of to avoid the Dolpbins.


## C HA.P. LIV.

 Of the S E A - D EVIL. HE Sea-Devil, in Latin Diabokus Marinus, takes it Name from the monftrous and frightful Appearancepearance it makes in the Water. The Snout is cloven into two Parts, which look like Horns; on each Side are two narrow Fins; on the Back, efpecially near the Head, are very dark Spots. It grows to the length of feven Foot, and feems to be of the Tbornback Kind. The Flefh has a rank Tafte.

## C H A P. LV.

Of the SUCKING-FISH.

TH E Sucking-Fi/b, in Latin Remora, has a roundifh Body about eighteen Inches long and four thick. It has a triangular Mouth, the upper Part of which is fhorter than the lower. From the upper Part of the Head to the middle of the Back there is a griftly Subftance of an oval Form, like the Head or Mouth of a Shell-Snail, but harder. This Excrefcence is about feven Inches long, five broad, and half an Inch high. It is full of fmall Ridges, wherewith it will faften itfelf to any thing at Pleafure.

This Fifh ufually attends upon Ships for the fake of any Filth that is thrown out of it. In fine Weather they will play about the Ship, but when it blows hard, and confequently the Ship fails very fwift, they will flick to the Bottom of it, from whence they are not to be removed either by the Motion of the Ship, or the Beating of the Waves, tho' the Sea is never fo tempeftuous.

Sometimes they take the Advantage of ficking to fome large Fifh or other, for they cannot fwim very faft themfelves. They often fick to a Shark even af-

## 174 S E A - F I S H.

ter he is taken out of the Water, and throws himelf about violently on the Deck of the Ship for half an Hour together; for a Sbark is a very frong unruly Fif, and hard to be mafter'd.

The Sucking-Fi/b is fappofed to be the Remora of the Ancients, afd was faid by them to have fuch an extraordinary Force or Virtue as to ftop a Ship when under Sail. But this is not the only Thing in which fome of thofe Writers, efpecially Pliny, have been miftaken. However it is certain that feveral of thefe Fif, fticking to the Bottom of a Ship, may be a confiderable Hindrance to its Sailing.

The Body of this Fifh is of an Ah-colour, has no Scales, and is very good Eating.

## C H A P. LVI.

## Of the BALANCE-FISH.



THE Balance-Fiß, in Latin Zygena or Libella, differs from all others in the monftrous Shape of its Head, which is like a Smith's Hammer. It grows to a very extraordinary Size, and is of the Sbark Kind.

The Eyes are placed on each fide of the Head as far from each other as it's poffible for them to be ; they are large, round, and look rather downwards than upwards. He has a very large Moutb placed underneath his Head, which
which is farnifh'd with exceeding ftrong, broad, fharp Teeth. The Tongue is broad and like that of a Man. The Body is round and long, not cover'd with Scales, but with a Skin like Leather. The Back is Ahh-colour'd, the Belly white.

The Back-bone is continued to the upper Part of the Tail, which is very long and fringed with Fins on both fides. The other Horn of the Tail, if it may be fo call'd, is very fhort. But the lefs needs to be faid of thefe Parts, becaufe the Form of the Head and the Pofition of the Eyes are fo very remarkable, that by them he may be readily known from all other Fifh.

## C H A P. LVII.

## Of the Sea-Fox or Sea-Apr.



HHIS Fih is called in Latin Vulpes Marina, and Simia Marina, from the Length of his Tail, as well as from the ftrong Smell of the Flefh which is tike that of a Fox; tho' fome think he had thefe Names given him on account of the natural Cunning wherewith is endow'd.

He grows to as enormous a Size as any of the Sbark Kind, and fometimes weighs hundreds of Pounds. His Body is round and thick; his Moutb fmall, and not far diftant from his Snout. which is fharp, and yet has fome Refemblance of a Sbark, as he has in every thing elfe

## ${ }_{176}$ S E A - F I S H.

except his Body and Tail; for his Body is thicker and fhorter, and his Tail much longer than in any of that Kind. The Skin of the Belly is White, the Back of an Ah-colour.

Rondeletius affirms he once faw a Sea-Fox open'd, in which were feveral young ones of the fame Kind; from whence he concludes that this Fifh, as well as the Sbarks, fofter their Young in their Bellies. Tho' the Fifhermen, who were Spectators, believ'd he had devour'd them as Food; but they being alive, and unhurt, he fuppofed proved the contrary.

## C H A P. LVLII.

Of the Frog-Fish or ToAD-Fish.


TH E Frog-Fib, in Latin Rana Pifcatrix, refembles a Tad-Pole in Shape, and feems to be of a middle Nature between the Boney and the Griftly Fifh. His Head is of a circular Figure, and very large in Proportion to his Body. His Moutb is monftroufly wide, and the low Faw flands out an Inch farther than the upper. Both his Jaws are arm'd with long fharp Teeth. He has likewife Teeth on the Palate, and at the Root of the Tonguc, which is large and broad. The Back is flat and of a gray Colour, with fomething of a reddifh and greenifh

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\text { S E A-F I S H. }{ }^{1} 77
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greeninh Caft. The Eyes are white and placed to look upwards.

On the Head, about half an Inch from the Corner of the upper Jaw, are two Brifles or Strings, the foremoft of which is fix, the other four Inches long; with thefe he is faid to fifh as with a Line. On the middle of the Back are three other Brifles in the room of a Fin, and round the Circumference of the Body hang a fort of Strings in the Nature of Fins.

On the lower Part of the Body, under the Throat, are placed two Fins which refemble the Feet of a Mole, by the Affifance of which they creep at the Bottom of the Sea.

The Flefh of this Fifh is white when it is boil'd, and refembles that of a Frog in Tafte.

## C H A P. LIX. Of the C UTTLE-FISH.



TH E Cuttle-Fijb, in Latin Sefia, is a deform'd uncouth fort of Fifh, the Name of which is well known on account of the Bone which is put to various Ufes. He has two Trunks fix'd to his Head which ferve inftead of Hands, being not only ufeful in Swimming, I 5
but

## 178 S E A - F I S H.

but in taking what ferves for Suftenance. His Back is cover'd with a fort of Sbell about an Inch thick in the Middle, but thinner on the Sides; it weighs very light, is hard without and fpongy within. It is of a very white Colour, and has fomething of a faltif Tafte.

This Fifh carries underneath his Throat a Bag or Reo ceptacle full of a Liquor that is blacker than Ink, which he difcharges when purfued, and by that means conceals himfelf from the Sight of his Enemies, and fo makes his Efcape. Befides, he has fix Feet on the upper Part, and two larger below arm'd with Teeth.

They are eaten very commonly in feveral Parts of France, and are faid to be good Meat.

They live upon fmall Fif.


THE Saw-Fi/h, in Latin Prifis or Serra Pifcis, has often been treated of in an uncertain and fabulous manner; we thall therefore take care to fay nothing about it, but what has been related by Eye-Witneffes themfelves.

For Magnitude it may be reckon'd among the Cetaceous Kind, but has nothing elfe in common with them. The Body, both in Sbape and Colour, has a great Refemblance

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S E A-F I S H .
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femblance of the $D_{\text {og- }}-F i / b$, but is without Spots. Ori? the Back it is of an Afh-colour, and the Belly is white. The Skin is coarfe and rough like that of the BalanceFib. The Head is flattifh, and of the Shape of a Heart. The Snout is long, narrow, hard and fmooth, on each fide of which appear between twenty and thirty Teetb fomewhat refembling a Sarw, from whence it derives its Name. Some of thefe are five Foot long, and the Body of the Fifh is ten Foot. The Moutb is a tranfverfe Sciffure like that of the Balance-Fi/b, but without Teeth. The Lips are rough like a File. Frazier, who in his Voyage to the Soutb-Sea happen'd to fee a Saw-Fi/b, fays the Mouth of it is like that of a Man; his Words are, Il a une boucbe छo une autre Aperture bumaine. What he means by his autre Aperture will beft appear from the Cut. In one, whofe Body was about a Foot and a half long, the Eyes were as big as a Dutch Stivers. about an Inch from each of which was a Hole which fome think ferves for Hearing, others for fpouting Water. The Apertures of the Gills on each fide are five. The Fins, with the Tdil, are feven, placed as in the Cut.

This Fifh is chiefly feen and taken in the Wefiern Ocean. Frazier fays the Saw ferves as a Defence for it againft the Whales, as he judged from an Engagement he happen'd to fee between them on the Coait of Cbili.

## $180 \quad S \quad E A-F I S H$.

## C H A P. LXI.

## Of the Dorphin of the Ancients.

THE Dolpbin properly fo call'd, in Latin Delpbin, is a Cetaceous Fifh, and is cover'd with a fmooth hard Skin. He has an oblong roundilh Body, is Hogback'd, has a long round Snout which is turn'd a little upwards. The Cleft of the Mouth is long, and Thuts very clofe. The Teeth are fmall and fharp. The Tongue large and flelhy. The Eyes are likewife large, but fo cover'd with the Skin that nothing but the $P_{w}$ pil appears; they are placed not far from the Mouth, and almoft in the fame Line. On the Top of the Snout is a double Pipe by which he fpouts out the Water; it is placed before the Brain, and cemmunicates with the A/pera Arteria. He has a very ftrong Fin on each Side, and another on the Back, which is partly boney and partly griftly. The Tail confifts of two Fins.

The Back is black, the Belly white; the Skin thick and firm, but foft, on account of the Fat that lies underneath. 'The Fleß is blackinh and refembles that of a Hog. The Parts which ferve for Nutrition and Generation are more like Quadrupedes than Fifhes. The Lungs are large, and defended with ftrong Ribs, the Subftance of which is denfe and hard like Liver. The Heart is placed in the middle of the Thorax, and ex-

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S E A-F I S H . \quad 181
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actly refembles that of a Hog. In fhort, the Kidneys, Penis, Vulva, Tefes, and all the internal Parts have a great Likenefs to thofe of Quadrupedes.

He differs from a Porpufs in having a long Goafe-like Snout, in being more flender and flefhy, but not fo. fat. The Porpufs is lefs, but has a broader Back and a blunt Snout.

The Dolpbin generates in the fame manner as a Whale, and goes with Young about ten Months, feldom producing above one at a time, or two at the moft, and that in the midft of the Summer. They live a confiderable time, fome fay twenty-five or thirty Years. They fleep with their Snout out of the Water, and fome have affirm'd they have heard them fnore. When they feem to play on the Top of the Water it is a certain Sign of an approaching Tempeft.

What has been faid by the Ancients of this Creature's Love to Mankind is as erroneous as the Figure which Painters ufually give of him, than which nothing can be more falfe and ridiculous.
They fwim very fwift, which is owing to the Strength of their Mufcles, and pafs at a ftated Seafon out of the Mediterranean thro' the Hellefpont into the Euxine Sea. They fometimes fwim in Shoals, and there is never lefs than a Male and Female together,

They will live three Days out of the Water, during which time they figh in fo mournful a manner as to affect thofe with Concern who are not ufed to hear them. The Fleß is feldom eaten but by very poor People out of mere Neceffity.

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## 182 S E A-FIS H.

## C H A P. LXII.

## Of the Dog-Fish or Pickid Dog-Fish:



TH E Picked Dog-Fif, in Latin Galeus ccantbias five fpinax, has a roundih oblong Body, which is cover'd with a rough Skin of great ufe among the Foiners for polifhing Wood.

The Back is of a brownith Afh-colour. The Belly is white, and more fmooth than the other Parts. The Eyes are in the fhape of a Boat, and cover'd with a double Membrane. The Mouth lies juft under the Eyes, and is furnifh'd with a double Row of fmall Teetb. The Back is provided with two Fins, on the fore-part of both which are placed two Spines or Thorns, from whence he is call'd the Picked Dog-Fi/ß. The Males have two Penis's which join to the Belly-Fins near the Vent. The Tail is a little forked, and the Fin that others of this Kind have between it and the Vent is wanting.

The Dog-Fifb brings forth his Young alive, which are produced from Eggs hatch'd within the Body of the Fifh. He never grows to any large Bulk, the largeft never weighing full twenty Pounds.

He has a large Stomach, and feveral Cuttle-Fib have been found in it at once. He is frequently taken in the Britiß Ocean, and in the Iriß and Mediterrazear Seas.

There is another Dog-Fiß call'd the Smooth or Usprickly Hound, which is very like this, but he has neither Prickles nor Teeth, and has a Fin between the Pair at the Vent and the Tail, which the Picked-Dog has not. The

## S E A - F I S H. $\quad 183$

The Flefb of all thefe kind of Filh is rank and unwholefome.

## C H A P. LXIII.

## Of the Sem-Unicornor Narwaz.



TH E Sea-Unicorn, in Latin Monoceros Pifais, is often found near Iceland, Greenland, and other Countries that lie very far North. It is a kind of Whalh, and carries a fmooth large Horn at the End of its Snout. It is of a Spiral Figure, and may be feen of different Weight and Sizes in the Cabinets of the Curious, fome of which are at leaft three Ells in length. Thefe are the Horns which are commonly fhewn as a great Rarity for Unicorns Horns, and to which they attribute upon a very flight Foundation fuch extraordinary Virtues.

He is faid to carry this Horn for his Defence, and is fo courageous he will venture to attack the largen Whales.

Mr. Dumantel fays he faw a prodigious one near the Illand of St. Domingo in the Year 1644. But if what he reports of it be true, it muft be of a quite different Sort from the Narwal. It was eighteen Foot long, and was as thick as a Hogfhead. His Body was cover'd with Scales as large as a Crown-piece; and he had fix great Fins of a Vermilion Colour, four of which were placed on the Belly, and the other two look'd like Ears. The Scales on the Belly were yellow; the Tail was forked; the Head like that of a Horfe, and cover'd with a hard brown Skin. The Horn was nine Foot and a half long, and

## $184 \quad$ S E A - F I S H.

and the thick End was fixteen Inches in Circumference. It was fo hard that a good File would fcarcely touch it.

It had two great Gills like other Fifh. The Eyes were of the Bignefs of a Hen's Egg, the Pupil of which was of a Sky-Blue enamell'd with Yellow, and furrounded with a Vermilion Circle, which was fucceeded by a very bright one flhining like Cryftal. The Teeth in the fore-part of the Mouth were flat and fharp. The Tongue was cover'd with a rough red Skin.

The Flef of this Fifh was larded with Fat, and when it was boiled it was flaky like Cod. Above three hundred People fed upon it, and thought it very fine Eating.

The fame Perfon talks likewife of an oval Crown on the Top of this Fin's Head, raifed a little above the Skin ; but this and the Shape of the Head it is probable, are owing in a great meafure to Fancy.


TH E Sword-Fih, in Latin Gladius or Xipbias Pifis, has a Snout in the fhape of a Sword, which is $f_{0}$ remarkable that he is every where call'd by a Name of the fame Signification.

It grows to a large Bulk, being fometimes fifteen Foot in length, and weighing above a hundred Pounds. The Body is long, round, and thick towards the Head, but

## S E A - F I S H. $\quad 18.5$

fmall towards the Tail. The Skin is rough and black on the upper Part, but white on the Belly. The Moutb is of a middle Size and without Teetb. The upper faw terminates in a long Snout like a trwo-edged Sword, which is about one third Part of the whole Length of the Fifh. The lower $\mathcal{f}$ aw is pretty long; and ends in a fharp Point. The Eyes are white, prominent and large, but not in proportion to the Fifh. The Tail is in the Shape of a Half-Moun.

The Stomach is long, reaching almoft to the Vent. The Liver is fmall and red. The Spleen is little and of a dirty Colour.

The Sriord-Fi/s continues to be taken in the fame Place as it was former!y, that is between Italy and Sicily, and much in the fame manner. Their Cuftom is to place Watchmen on the high Cliffs that hang over the Sea, whofe Bufinefs is to obferve the Motion of the Fifh. As foon as they perceive any they give Notice to the Boats below, by Signs agreed upon, and direct them what courfe to take. As foon as they draw nigh the Fifherman, who is us'd to the Sport, climbs up a fmall Maft placed in the Boat for that purpofe, that he may obferve the Motion of the Fin which he dcfigns to frike, at the fame time directing the Rowers which way to fteer. When they have almoft overtaken him, the Fifher immediately defcends from the Maft and frikes a Spear or Harping-Iron into his Body; the Handle of which being loofe in the Socket, he takes back, while the Iron Part which is made faft to a long Cord remains in his Body. The Fifh thus hamper'd is fuffer'd to flounce about 'till he is tired and faint. After this they either hoift him into the Boat, or if he is very large tow him on Shore.
The Fle/b is whiter than that of a Tunny, and is well enough tafted. It is not very eafy of Digeftion, but it nourifhes much. The People of Mefina are very fond of it, preferring it to Sturgeon.

## 186 S E A - F I S H.

This Fifh is not only taken in the Mediterranean but in the Ocean.

## C H A P. LXV.

## Of the American Old-Wife.



THIS Fin is the Acarauna quadrata of Margrave, and is often taken notice of in the Relations of modern Voyagers, being a Fifh well known to Sailors. It is a Fiih about two Foot long and nine Inches broad, having a fmall Mouth and a large Eye. He has one large Fin on his Back, beginning at the hind-part of his Head and ending at the Tail; he has a pretty broad Fin on each Side near the Gills, and anothet under the Belly. They are all of a very light Blue, as the Body is of a deep Blue. The Edges of the Fins are yellow. His Body and Head have a great many Spots and Streals feeming to crofs each other.

The Sailors often take this Fifh in their Voyages, and it is reckon'd by them to eat agreeably enough.

## S E A - F I S H. 187

## C H A P. LXVI.

Of the Butcerfly-Fish.


TH E Butterfly-Fifh, in Latin Blennus, is about feven or eight Inches long. It is of a light Blue or Afh-colour, mixt with Olive or a dirty Green. The Eyes are large and of a Saffron-colour, being placed pretty near the Top of the Head. The Moutb is not large. The Teetb are long and round, and placed in a regular Order. The Tongue is foft, round and flelhy.

It has only one Fin on the Back, which reaches from the Head to the Tail, on the fifth Radius of which a beautiful Spot begins to be painted, and terminates at the eighth. It is black in the middle, and is encircled with a white Ring, which gives it the Refemblance of an Eye. The Tail is fomewhat round, and fpotted with a dark green Colour. The Body is without Scales.

The Butterfly-Fi/b is often expofed to fale at Venice among other fmall Fifh, perhaps during all the Winter.

CHAP.

## 188 S E A-FIS H.

## C H A P. LXVII.

 Of tbe SEA-EAGLE.

TH E Sea-Eagle, in Latin Aquila, has a Head almoft like that of a Toad. The Sides are expanded like Wings, and the Tail is exceeding long and venomous. The Eyes are large, round and prominent, and the Mouth is full of Teeth. The Skin is foft and fmooth, the under Part of which is white, and the upper livid. Thofe that are ufually taken are fmall, yet fometimes they weigh three hundred Pounds.

The Fleß is foft and moift, having a rank naufeous Smell, and is rejected as well by the Peafants as People of Falhion.

## S EA-FISH. 189

## C H A P. LXVIII.

 Of the STAR-GAZER.

THE Star-Gazer, in Latin Uranofcopus, is about ten or twelve Inches long. The Head is large, fquare, rough and boney. The Body is of a roundifh Make, alh-colour'd on the upper part and white on the lower. The Scales are fo fmall that fome have affirm'd he has none. The Face is flat, looking upwards, in which the Eyes are fmall, protuberant, of a Gold-colour, and placed near together; befides, they look directly upwards; from whence he is call'd the Star-Gazer. The Mouth is large and placed on the upper Part of the Snout. The Chin has fomething refembling that of a Human Face. The Palate, as well as the $\mathcal{F}$ aws, are arm'd 'with fharp Teeth, and the lower Lip is fring'd with a fort of Brifles. The whole Face, and efpecially the Covers of the Gills, are very rough with a fort of Warts and Tubercles, fome of which are prickly.

The Flefh of the Star Gazer is much commended by fome, and dinliked by others. He is often taken in the Mediterranean Sea.

CHAP.

## C H A P. LXIX.

 Of the S E A - W OL F.

THE Sea-Wolf, in Latin Lupus Maxinus, is taken near Hilligland, not far from the Mouth of the Elb. The Head is larger and more round than that of a Dog-Fibb. The Back, Sides and Fins are blue, but the Belly is white. The Skin is fmooth and lleek in every Part. The Heart is about the Size of a Bean. The Fle $\beta$ is white.
He is a very voracious Animal, and well-furnifh'd with dreadful Teeth. They are fo hard that if he bites the Fhake of an Anchor you may hear the Sound, and see the Imprefion of his Teeth.

They grow to be near a Yard long, and fometimes have a Mixture of Black on the upper Part. They are caught likewife in all Parts of the Ocean.

## C H A P. LXX.

## Of the Bounce, Rough-Hound or MORGAY.

TH E Bounce, in Latin Catulus major volgaris, is fometimes feen above the length of two Foot, and is fpotted like a Leopard. The Spots are black, and the Skin Afh-colour'd with a reddifh Caft; whence the French give him the Name of Roufette.

The Belly is flat and the Back broad; the Snout is fhorter and more blunt than that of the Dog-Fi/b; the Mouth likewife is greater and broader; the $\mathcal{I}$ aws are full of fharp hooked Teetb bending inwards; the Tongue is broad and fmooth; the Snout does not reach above. an Inch beyond the Aperture of the Mouth, which is in the under Side of the Fifh; the Noftrils are very large, the Eyes oval and half cover'd with a Skin, the Gills have five Holes or Apertures on each fide, the Fins are placed as in the Cut.

He is caught very frequently in the Mediterranean, and not feldom in the Britifh Ocean.

There is another Fifh of this Kind, which is call'd Catulus minor, and differs from the former chiefly in being much lefs, and of a lighter Colour. The Spots likewife are fmaller and more thick, and the Belly is entirely white.

The Flefb of this laft is commonly eaten, and is fold. in the Fifh-Markets at Rome. The Skin of both is rough, and ferves for the fame Purpofes as the Skin of the Dog-Fi/h.

## C H A P. LXXI.

## Of the BLUE-SHARK.



THE Blue-Sbark, in Latin Galeus glaucus, is as bold and mifchievous a Fifh as any that fwims. His Back is of a lively Blue, and his Belly of a Silver Colour; his Skin is not fo rough as the Dog-Fi/h, and others of the fame Kind ; the Snout is long, fharp, flat, and indented with many fmall Holes above and below; the Mouth is very large, and the Teeth Sharp, but not fo numerous as might have been expected; the Holes of the Gills are five on each fide; the Tail is divided into two Parts, the upper of which is much longer than the lower.
'The Stomach of the Blue Sbark is fo large that the Tunny-Fiß is often found entire therein; the upper Part of the Guits are fmall, the lower thick; the Liver is large, of a bluifh Red, and divided into two Lobes; the Spleen is very fingular, being divided into innumerable fmall Lobes, which refemble a Heap of Eggs or Spawn; the reft of the Vifcera have nothing very fingular.

This Fifh is fometimes taken two Yards and two Yards and a half long. He is very fond of Human Flefh, and watches all Opportunities of feizing the Legs of thofe that are within his Reach; nay there are Instances of his following Boys that have walk'd along the

## $S \mathrm{E} A-\mathrm{F}$ I S H.

the Shore, and attempting to fnap at their Heels. His Flefb is tough, rank, and hard of Digeftion; yet it is fometimes eaten, and is faid to be nourifhing.

He is fometimes taken on the Coaft of Cornuwall and other Parts of the Ocean, as well as in the Mediterranean Sea.

## C HAP. LXXII.

## Of the C E N T R I N A.



THE Centrina is of the Dog-Kind, and is calld by the Italians, Pefce Porco, either from his being like a Sea-Hog, or from his wallowing in the Mire.

His Body, from the Head to the Vent, is of a triangu-' lar Shape; the Belly being broad and flat makes one of the Sides, and the Back being fharp makes the oppofite Angle. They are taken of different Sizes. The Liver of one was fo large that it yielded fix Pounds of Oil. The Colour is of a dark Brown.

The Head is fmall and flat; the Nofrils are large,' and placed underneath the Snout; the Eyes are oval and cover'd with a Skin like an Eyelid; the Pupil is black, and the Iris green; the Mouth is fmall, and on the under Part of the Head; there are three Rows of Tectb in the upper Jaw, and one in the lower. Behind K the

## 194 S E A - FIS H.

the Eyes are two Holes in the Shape of a Half-Moon; which perhaps may ferve for Hearing.

On the Back are placed two Fins, which have each a 'Yborn or Prickle which feems to penetrate thro' it. The foremof of the Fins is fo thick at the Bottom that it feems to be a Production of the Back it self.

The Liver is whitifh, divided into two Lobes, and is of a monftrous Size; the Stomach is but fmall, and the Spleen is double.

He is taken in the Mediterranean and brought to the Fin-Markets at Rome. The Fle/h is tough, and fo full of hard Fibres that it will neither feparate from the Skin nor yield to the Edge of a Knife without Difficulty. He is but feldom caught, and feldomer eaten even by the pooreft People, when Fif are very fcarce, there being fomething in it of a poifonous Nature.

## C H A P. LXXIII.

## Of the Gilt-Head or Gilet-Pole:



TH E Gilt-Head, in Latin Aurata, is broad and flat, being in fonte refpects like a Bream; whence he is calld by the French, Brame de Mer, a Sea-Bream. Sometimes it grows to be twe Spans in length, bur feldom weighs full ten Pounds. The Body is cover'd with Scales of a moderate Size; the Back is of a dark

Green,

## S E A-FISH.

Green, almolt black; the Sides are Brown mix'd with Gold colour; the upper Corners of the Covering of the Gills are fpotted with Black; between the Eyes there is a Streak of a Gold-colour in the Shape of a HalfMoon, the Horns of which point towards the Eyes, and the gibbous Part towards the Snout; the Eyes are large and of a Silver-colour; the Mouth is of a middle Size; the Tongue fharp, the Teetb regularly placed, and the Tail is forked.

The Flefh is neither foft nor hard, but of a middle Confiftence, and yields good Nourihment. It is feldom taken in the Summer, but often in the Winter, when it is higheft in Seafon. It is often feen in the Fifh-Markets of Genoa, Venice and Rome in great Plenty; nor is it a Stranger upon the Britilh Coaft, it being taken in the Ocean as well as the Mediterranean.

It is call'd a Gilt-Head from the remarkable Semicircle of a Gold colour between its Eyes.


TH I S Finh is very uncommon, and was firt defcribed by Dr. Tyfon in the Pbilofopbical TranfacK 2

## 196 S E A - F I S H.

tions, N- 233. From the Likenfs of the Fins he placed it among the Gurnard Kind, for they had no Name for it on the Coaft of Sulfex where it was taken: He therefore calls it, Cuculus levis coruleo-flavefcens, cui in fupremo Capite Branchiarum Opercula; that is, The Smooth Gurnard of a bluiß Yellow, baving the Cover of the Gills on the Top of the Head.

The Head of this Fifh is thicker than the reft of the Body, and leffens gradually, or tapers 'till it comes to the Tail. It was about eleven Inches in length, of which the Tail was two. The Girth of the Head was four Inches and a half. The Fins, as to Situation and Number, were the fame as in the Red-Gurnard. The firt Spine or Radius of the Back-Fin was fix Inches long, the next two, and the reft fhorter. The Colour of the Fins was yellow mix'd with blue Spots. The Situation of the Fins will beft appear from the Cut.

The Belly of the Yellow-Gurnard is white, but under the lower Faw black. The Sides and Back were yellowifh, but between the Belly and the Sides there ran a blue Streak or Lift about a Line and a half broad from the Head to the Tail; and a little higher on the Sides there was a Chain of blue Spots the whole length of the Fih, with this Exception, that from the Eyes to the Extremity of the Snout the Spots were of a deep Yellow; and it was remarkable enough, that where the Spots were yellow the Ground was blue; and vice verfa, -where the Spots were blue the Ground was yellow.

The Body was fmooth, being without Scales. On the hinder Past of the Head, and about an Inch from the Eyes, were two Apertures or large Holes through which it fpouts out the Water. Thefe Holes are fo very remarkable that they may be look'd upon as a Characteriftick of the Fin; for tho' the Cetaceous Kind have Spouts in their Heads they have no Gills, but Lungs.

The Eyes of the Yellow Gurnard are placed more on the Top of the Head than thofe of the Red; they are

## S E A - F I S H. I97

likewife more flat, and are almoot half cover'd with the Skin like an Eyelid. The Extremity of the Snout, the Teeth and the Tongue are like thofe of the Red Gurnard; only that in the Palate were two griflly Bones whofe Edges bended downwards. Thefe, as Dr. Tyfon thought, ferve for hooking and flaying the Griftle of the Tongue when it makes a Compreffion, in order to force out the Water through the Holes of the Head.

## C H A P. LXXV.

 Of the S HEAT-FIS H.

THE Sheat-Fib, in Latin Silurus, fomstimes grows to a large Bulk weighing eighty Pounds. In the Elb there have been taken fome that have weigh'd 120 Pounds; and in the Vifula that runs into the Baltick they are fometimes caught fixteen Foot in length, and twenty-féven Inches in breadth.

It is of the Colour of an Eel, only the Belly and Sides are diverfify'd with White and Black. The Body is thick, round and Ilippery, being cover'd with a flimy Mucus. The Head is flat and broad, and the Moutb exceeding wide. In the upper farw it has two Areole of Teeth, and but one in the lower. The Tongue adheres to the lower Part of the Mouth. The Eyes are fmall, protuberant and round, and cover'd with a Membrane. Before the Eyes, on the upper Jaw, are two long Barbs or Wattles, and from the lower Jaw four others which are more fhort.and flender. Thefe are thought by fome

## 198 S E A - F I S H.

to fall off yearly, and to grow again, and to be of the fame Nature as Horns. The Tail is not forked.

The Fleß is commended as wholefome Food, and is drefs'd in the fame manner as an Eel. It is found in many large Rivers upon the Continent, and in fome Lakes, their Delight being in rough muddy Waters. It is a very voracious Fiih, and upon that account is reckon'd very mifchievous. This is not indeed a Sea-Fif, but as it is not caught in our own Rivers it comes in as properly here as any where elfe.

## C H A P. LXXVI.

Of the S E A - B A T.


THE Sea-Bat, in Latin Vefpertilio Marinus, is about eight Inches and a half in breadth from the Extremity of one Fin to the Extremity of the other. But the breadth of the Body is no more than three Inches and a half, and the length from the End of the Snout to the Tail-Fin is about five, whereof the Tail it felf is fomewhat more than an Inch. The Colour is reddifh, but diverfify'd in the manner of Waves. Near the Gill-Fins the Colour is yellow. The Eyes are likewife yellow.

## S E A-FIS H.

## C H A P. LXXVII.

## Of the Sea-Loach or Whistle-Fish.



THE Sea-Loach, in Latin Muftela vinvipara, is properly a Sea-Fifh becaufe it never is to be met with out of the Salt-water; but it is very common near the Coaft and in the Creeks of the Baltick, where they call it Aelpute or Eel-Pout, and is probably the fame Fifh which at Cbeffer they call the Sea-Loach, and in Cornwall the Whiflle-Figh.

It is about a Foot in length or fomewhat better. The Skin is fmooth, of a dusky Yellow on the Back, and full of black Spots; on the Sides it is of a lighter Colour, and on the Belly almoft white. The Head is much like that of an Eel. The Gills on each Side are quadruple. It has no $T_{\text {ceth }}$, but the Jaws are rough.

The Sea-Loach brings forth her Young alive, and the Females feem to conceive about the Vernal Equinox, becaufe about that time they begin to have Spawn like other Fifh; but the Eggs are very fmall and white, like Nits. About Whitfontide the Eggs begin to look a little reddifh, and to attain the Size of a Grain of Muf-tard-Seed: Likewife about that time they begin to foften, for when they firt appear they are hard. After this they begin to affume an oblong Figure, and to difcover two blackifh Specks which are the Rudiments of the Eyes and Head. Then the Belly begins to appear, and afterwards the Tail about the Thicknefs of a very fine Thread.

As the Eggs encreare the Belly is not only diftended with their Bulk, but with a llimy Liquor full of flender K 4

Fibres,

Fibres, by which means the tender Bodies of the young Fry not only lie foft and in a regular Order, but are kept from crowding and hurting each other.

When the young Ones are cut out of the Uterus, they bend their Bodies like Eels, moving their Mouths and Gills, and live feveral Hours. The time of their being excluded naturally is about the Winter-Solfice. The Males are diftinguifh'd from the Females by being lefs, and of a brighter Yellow, whereas the Female is more of an Afh colour.

After the Summer-Solfice the Sea-Loach retires from the Shore and Creeks into deeper Places, where they have a particular kind of Lurking-Holes from whence they are taken by the Fighermen; but fometimes they go out of their Reach. The Fle/b is hard and not very agreeable, being chiefly eaten by the poorer Sort.

## C H A P. LXXVIII.

 Of the Orb or Sea Weather-Cock.

TH E Orb, in Latin Orbis, is taken in the Mouth of the River Nile in $\boldsymbol{F g y p t}$. The Figure is nearly Spherical, the Tail only excepted. It is cover'd with a hard Skin which is all over befet with fharp Prickles.

## S E A - F I S H. 201

It has only one Hole at the Gills, which is near the Fin, that belongs to them. The Moutb is' fmall and arm'd with no more than four broad Teeth. It has another Fin near the Tail on the upper Part of the Body, and one anfwering to it on the lower.

This Fifh is not eatable, it being either all Head or Belly, which you pleafe; and is commonly hung up in the Cabinets of the Curious as a Rarity. Some fay if this Fifh is fufpended in a proper Place, the Snout will always point to the Quarter from whence the Wind blows, whence the Germans call it the Sea WeatberCock.

## C H A P. LXXIX. Of the SEA-SERPENT.



THE Sea-Serpent, in Latin Serpens Marinus, is commonly about five Foot long. The Body is exactly round, flender, and of an equal Thicknefs, except towards the Tail, where it grows fenfibly more flender.

The Colour of the upper Half is of a dusky Yellow, like the dark Side of old Parchment or Vellum. The lower Part is of a brightifh Blue. The Snout is long, dender and Sharp, and the Mouth opens enormoully wide. K 5

Near

Near the End of the lower Jaw there are four or five large Teeth bending inwards; the reft are fmall and almoft inconfpicuous. The upper Jaw likewife has four large ones, the reft are fmall as in the lower. The Eyes are little, and of a Gold-colour fpeckled with Brown. They are cover'd with a thick tranfparent Skin. It has only one Pair of Fins which are placed at the Gills. The Holes of the Gills are at fome diftance from the Head as in Eels.

The Flef is very well tafted and delicate, but is full of very fmall Bones, and therefore cannot be eaten without fome trouble. It is taken very frequently in the Mediterraneas.

## C HAP. LXXX.

## Df the Hippocampus or Sea-Horse.



THE Sea-Horfe never exceeds nine Inches in length, and is about the Thicknefs of ones Thumb. It has a Head and Snout of the fame Shape as thofe of a Horfe, and the Body is full of Clefts or Scifures. The snout is a fort of Tube with a Hole at the Bottom, to which there is a Cover which he can open and thut at pleafure. The Eyes are fmall and prominent, and between them are two high Tubencles. The Trunk of the Body confifts of feven Sides, but beyond the Vent of four only. The Tail ends in a Point, and is generally very much contorted. Behind the Eyes, where the Gills are in other Fifh, are placed two Fins which look like Ears. Above the Fins are two Holes, but there are no

$$
\text { S E A - F I S H. }{ }_{20} 203
$$

Gills neither externally nor internally. Under the Belly are two Vents, thro' one of which the Excrements are excluded, and the Eggs thro' the other.

The whole Body feems to be compofed of Cartilaginous Rings, on the intermediate Membranes of which feveral fmall Prickles are placed. The Colour is of a dark Green, but towards the Tail inclining to Black. The Belly is mark'd with Spots of a whitin Blue.

The Stomach is proportionably large, and the Heart is fmall. The Liver and Spawn are red. Elianus fays the Belly of this Animal is venomous.

It is taken in the Mediterranean, and likewife in the Wefern Ocean. There is a large amphibious Animal call'd by fome a Sea-Horfe, which ought not to be miftaken for this.

## C H A P. LXXXI.

## Of the Tortoise or Turter.



THE Tortoife, in Latin Tefudo, is a kind of an Amphibious Animal, living both by Land and Water. They are cover'd with a fine large Oval Shell, which is marbled with various Colours. Their Sizes are different, but they are often met with in America five Foot long and four broad.

There

## 204 , S E A - F I S H.

There are four forts of Tortoifes, call'd by Sailors the Trunk-Turtle, the Loggerbead, the Harwks-Bill, and the Green-Turtle. The Trunk-Turtle are commonly bigger than the reft, and their Backs are higher and rounder. The Fleh of this Sort is rank, and not very wholefome. The Loggerbead is fo call'd from the Largenefs of its Head, it being much bigger than thofe of the other Sorts: The Flefh of this Kind is likewife rank, and not eaten but in cafe of Neceffity. The Harwks-Bi!l Turtle is the leaft of the four ; they have long and fmall Mouths fomething refembling the Bill of a Hawk; on the Back of this Turtle grows the Shell that is fo much efteem'd in Europe for making Combs, Boxes, \&c. Some of them carry three Pounds, others which are very large fix Pounds of Shell. It confifts of thirteen Leaves or Plates, of which eight are flat and five hollow. They are raifed and taken off by means of Fire which is made under it when the Flefh is taken out; as foon as the Heat affects the (Leaves they are eafily raifed with the Point of a Knife. The Flefh is but ordinary Food, but fweeter and better than that of the Loggerbead; yet fometimes it purges both upwards and downwards, efpecially between Samballoes and PortoBello.

The Green-Turtle are fo call'd becaufe the Shell is greener than any other. It is very clear, and better clouded than that of the Hawks-Bill; but it is fo exceeding thin it is ufed only for Inlaying. Thefe Turtles are generally larger than the Hawks-Bill, and weigh fometimes two, fometimes three hundred Pounds. Their Heads are round and fmall, and their Backs flatter than the Harwk-Bill.

The Turtle is a dull, heavy, ftupid Animal, their Brain being no bigger than a fmall Bean, though their Head is as big as a Calf's; but they have a very good Eye, and a quick Sight. Their Flefb looks fo like Beef it would hardly be diftinguifh'd from it, if it was not for the Colour of the Fat, which is of a yellowifh Green.

They

## S E A - F I S H. 205

They feed upon Mofs, Grafs and Sea-Weed, unlefs in the time of Breeding, when they forfake their common Haunts and are fuppofed to eat nothing. Both the Male and Female are fat the beginning of this Seafon, but before they return the Male becomes fo lean that he is not fit to eat, while the Female continues in good Plight, and eats well to the very laft. They couple in the Water, and are faid to be nine Days in performing the Work. They begin in March and continue 'till May.

This Coupling-time is one of the principal Seafons of Fifhing for them. They are very eafily difcover'd when they are in the Action, the Male being upon the Back of the Female. As foon as they are perceived two or three People approach them in a Canoe, and either flip a Noofe round their Necks or one of their Feet; or if they have no Line they lay hold of them by the Neck, where they have no Shell, with their Hands only, and by this means catch them both together ; but fometimes the Female efcapes, being more fhy than the Male.

Another way of taking them at this time is with the Spear, which being thrown at the Back of the Turtle pierces the Shell, and fticks as faft in it as if it were folid Oak. He ftruggles hard to get looie, but all to no purpofe, for they take care that the I.ine which is faften'd to the Spear be ffrong enough to hold him.

The Time of taking Turtle upon Lar: is from the firt Moon in April to that in Auguf, boing the seafon in which thefe Creatures lay their Eg/g. The Quantity which they lay is prodigious, being at leaft fever it Handreds in one Seafon. The Nigh:i before the lays the comes and takes a View of the i'iace, and after taking one Turn about it the goes to Sea again, but never fails to return the Night following.

Towards the Setting of the Sun they a-e feen drawing to Land, and feem to look earnefly nimut them as if they fear'd an Amburcade. If they peiceive any Ferfon on Shore they feek for another Place, if otherwie they

## 206 S E A - F I S H.

come on Shore when it is dark. After they have look'd carefally about them, they begin to work and dig in the Sand with their Fore-feet, 'till they have made a round Hole of a Foot broad and a Foot and a half deep, a little above where the Water reaches when higheft; this done they lay eighty or ninety Eggs or upwards at a time, as big as a Hen-Egg and as round as a Ball; fhe continues laying about the fpace of an Hour, during which time if a Cart was to be drove over her the would not ftir. The Eggs are coverd with a white tough Skin like wetted Parchment. When fhe has done Laying, fhe covers the Hole fo dextroully that it is no eafy matter to find the Place; after this the returns to the Sea. At the end of fifteen Days fhe lays again in the fame manner, and at the end of another fiftreen likewife, laying three times in all.

In about twenty-five Days after Laying, the Eggs are hatch'd by the Heat of the Sand, at the end of which Term the little Iurtles, $^{2}$ being as big as young Ruails, run directly to the Sea, without any Guide to lead them or thew them the way. Thofe that are taken by the way are generally fry'd whole, and are faid to be delicious Meat.

The Men that ftand to watch for the Turtle turn them on their Backs, which is not perform'd without fome Difficulty, for they are very heavy, and fruggle hard. After this he hales them above High-Water Mark, and leaves them 'till Morning, for when they are once on their Backs they are not able to ftir from the Place.

As a Turtle enjoys the Benefit of Lungs, The can by fucking in the Air bring herfelf to an Equilibrium with the Water. She is allo able to fwim, like other Animals, by the Motion of her Paws, the' moft commonly fhe contents herfelf with creeping.

The Turtle, as was faid before, feeds upon Grafs and Weeds, and this fhe does on the Land as well as in the Water. Near feveral of the American Illands there are

## S E A-FISH.

a fort of green Meadows at the Bottom of the Sea, which is not many Fathom deep in thofe Parts; for which Reafon when the Weather is fine, and the Water fmooth, they may be feen creeping on this green Carpet at the Bottom of the Sea. After they have fed fufficiently they take their Progrefs into the Mouths of Rivers for Frefh-water, where they likewife take in the refrefhing Air, and then return to their former Station. When they have done feeding, they generally float with their Heads above Water, unlefs they are alarm'd by the Approach of Hunters or Birds of Prey, in which Cafe they fuddenly plunge to the Bottom.

A Turtle of an ordinary Size, and of the beft Sort, will yield at leaft two hundred Pounds of Fleh, which the Sailors take care to falt, and near three hundred Eggs, which will keep a confiderable time.

The Shell may be fahion'd in what manner the Workman pleafes by foftening it in warm Water, and putting it into a Mold, for it immediately takes the Impreffion by the Affiftance of a ftrong Iron Prefs, and may be afterwards adorn'd and embellifhed at Pleafure.


CHAP.

## 208 S E A - F I S H.

## C HAP. LXXXII.

## Of the Soldier-Crabor Hermit.



THE Soldier-Crab, in Latin Cancellus, is about three or four Inches long. It has fix Feet, two of which are Biters; one of the two is as broad as ones 'Thumb, and fhrinks up Atrangely when he is in his Shell, to clofe the Mouth of it. All the reft of the Body is a fort of a Pudding in a pretty rough thick Skin, as thick as ones Finger and a little more than half the Length. At the end of it is a little Tail coninting of three fmall Shells like the I ail of a Sea-Gralioopper. The Infide of this Part is full of a Subftance like that in the Shell of a Crab, but red. When it is expos'd in the Sun, or fet on the Fire, it melts into a kind of Oil.

They vifit the Sea-coaft once a Year to change their Shells, which every one endeavours to fit himfelf with according to his Size. As foon as this is done they run backward into the Shell, and thus cloathed anew and

## S E A - F I S H. 209

armed like Soldiers they march back to the Mountains, and take up their Quarters among the Rocks and the hollow Trees.

They feed upon rotten Leaves and Fruit 'till they are fo increafed in Bulk that the Shell becomes too ftrait for them, which obliges them to go down to the Sea-Coaft again to change their Houfes. The Curious, who have been at the pains to obferve them while they make this Exchange, have been very much pleafed with their Manner of doing it ; as they go along they ftop at every Shell to examine if it be for their Purpofe, and when they have met with one that they like, they immediately quit the old one, and run back fo fwiftly into the other as if they were afham'd to be feen naked ; tho' moft probably it is to avoid the Coldnefs of the Air.

Sometimes it happens that two make choice of the fame Shell, and then this occafions a Battle, for they will fight and bite each other, naked as they are, 'till one of them yields and refigns the Shell to the Victor. When he has got Poffeffion of it he takes three or four Turns upon the Shore, and if he likes it he keeps it, otherwife he betakes himfelf to his old one again, and goes and choofes anothef. This they fometimes do five or fix times, 'till they can get one entirely to their Liking.

There is another fort of Cancellus which the French call the Hermit, which is much lefs than the former; but as they belong to the Sea no otherwife than in borrowing a Shell from thence, we need not enlarge any more about them.

CHAP.

## 210 S E A-FIS H.

## C H A P. LXXXIII.

## Of the L O B S T E R.



TH E Lobfer, in Latin Aftacus, is better known by Sight than any Defcription that can be given of it. They always feed at the Bottom of the Water, and are furnifh'd with a Pair of ftrong Claws, with which they faften on the larger Prey that happens to come within their Reach; but when none fuch offers, they fearch the Beds of Mud and Gravel for the Worms that commonly lie hid therein.

Lobfers are taken with Pots, as they are call'd, made of Wicker-Work ; in thefe they put the Bait and throw them to the Bottom of the Sea in fix or ten Fathom Water, or fometimes deeper: Into thefe the Lobfer will creep for the fake of the Bait, and by that means is depriv'd of its Liberty. Their Flefb is fweet, reftorative and very innocent.

## C H A P. LXXXIV.

 Of the Crab, Craw-Fish, Prawn and Shrimp.

THE Ceab, in Latin Cancer, is much of the fame Nature as the Lobfer, and may be caught in the fame manner. They often lie in the Mouths of Rivers, Creeks, and Yonds made with Salt-Water, and then they may be Angled for with a Piece of Liver, or the Garbage of a Fowl. There requires no great Art in the Management of this fort of Angling; the Bait needs only be tied to a String and laid where they are fuppofed to be; as foon as they are aware of it they will feize it with their Claws, and will not leave their Hold 'till they are drawn up near the Surface of the Water; at which time 2 Landing-Net fhould be convey'd under them, and by that means they may be brought fafe to Land.

The Craw-Fish or Cray-Fifb, in Latin Aftacus firviatilis, exactly refembles a Lobfter in Shape, and is to be found almoft in every Brook and Rivulet in England.

## 212 S E A - F I S H.

land. The ufual way of taking them is by Groping, for they fhelter themfelves in little Holes on the Banks of Rivers, where they fearch for them with their Hands; fome will take in this manner feveral Dozens in an Afternoon: Others will take a Score or two of Rods or fmall Sticks, and fplit them at one end fo that they may put a Bait in the Cleft ; thefe they ftick in the Mud on the Side of the Brook at the diftance of about eight or ten Foot from each other. After fome time they take them up, and if they perceive any Game flicking to them they flide a little Basket made with Ruhes, having a long Handle to it, under the Craw-Fi/h, and fo take them fafely out of the Water in the fame manner as Crabs; for they will fuffer themfelves to be drawn no higher than the Surface of the Water. The beft time for this Sport is after Sun-fet, for then they feed moft eagerly. There is likewife another Way more expeditious than this, which is to take a Bunch of Thorns and Lard it well with the Thighs of Frogs, and throw it into the Water, in the Evening the Craww-Fib will throng about it in Shoals, and so entangle themfelves in the Thorns that by gently pulling up the Cord, which is faften'd to the Bundle, and תlipping a Basket underneath it, you may catch them every one.

The Prawn, in Latin Locufta, and the Shrimp, Squilla, harbour themfelves in the Holes of Rocks, and fuch-like Places along the Sea-Coaft; and those that live near the Sea-fide may divert themfelves very agreeably in fpending an Hour or two in catching them. The Net that ferves for this purpofe is fomething like a Cab-bage-Net, but deeper, and the Mefhes fmaller; this muft be faften'd to a Baw, with a Handle of the fame Shape and Size as a Tennis-Ball Racket. Thofe who would take them muft be upon the Spot as foon as it is High-Water, that they may be ready with their Nets when the Tide begins to turn. At this time the Nets muft be thruft into the Holes and Clefts of Rocks, efpecially

## S E A-F I S H.

efpecially fuch where Sea-Weeds grow; when you lift them up turn all that you take into a Pail, or fome fuch thing, and then proceed from one Part of the Hole to another 'till you think you have taken all that are there. You may try fome Places twice or thrice over, for when they are difturbed they will thift their Station. By this Method you may take fevefal Hundreds in an Hour's time.
The Flef of all thefe fort of Fifh are of the fame Nature, and only differ in degree of Goodnefs. They are all fuppofed to have a Reftorative Quality, and therefore muft be very nourifhing and wholefome.

## C H A P. LXXXV.

## Of the S C O L L O P.



THE Scollop, in Latin Peften, is a Shell-Fifh of a fweeter and more agreeable Tafte than an Oifter, and, according to Rondeletius, is more eafily digefted and more wholefome.

Mr. Reaumur, a Name well known in the Learned World, has taken fome Pains to difcover in what manner the Shells of divers Animals are firft form'd, and after-

## 214 $S \quad E A-F I S H$.

afterward encreafe; which he proves to be from a certain Juice which perfpires from their Bodies, and forms new Shells for thofe Animals that caft them, and encreafes the Shells of thofe that do not.

This Species in particular are cover'd with Shells foon after they are generated; but as foon as the Fifh begins to grow bigger the Shell will not entirely cover his Body, and confequently a fmall Part of it will begin to appear thro' the Opening of the Shell; from this Part there proceeds a thick vifcous Subftance from whence an additional Piece of the Shell is form'd. From this gradual Encreafe of the Shell thofe Wrinkles proceed which we may obferve in all forts of Shell-Fiih, and which may in fome meafure ferve for a Guide to determine what Age the Fifh may be of.

## C H A P. LXXXVI.

Of the Oister, Muscle, Cockle and Periwinkle.


TH E Names of thefe Fith in Latin are Ofreum, Mufculus, Pectunculus and Cocblea. They are fo well known
known to all that they fland in no need of a particular Defcription.

The Oister cafts his Spawn or Spat in May, which at firft appears like the Drop of a Candle; it fticks to any hard Subflance it falls 'upon, and feems to be provided with a Shell in two Days time, and in three Years they are fit for the Market.

Thefe Oifers they term Natives, and they are altogether uncapable of moving from the Place where they are firft Sparwn'd. For this Reafon the Dredgers make ufe of a fort of Nets, which are faften'd to a ftrong broad Iron Hoop with a fharp Edge, which they drag along the Bottom of the Sea, and fo take the Oifers.

The Oifers thus taken are carry'd to different Places, where they are laid in Beds or Rills of Salt-Water in order to fat them, and thefe they term Lajers. Thofe which when they are fpawn'd happen to ftick to Rocks ofien grow to a very large Size, and are called RockOifers. And it is fo far from being frange that the Oiffers ftick to the Rocks in this manner, that it is very common for Sailors to fee Millions hang on the Roots of Mangrave-Trees at Low-water, in the Mouths of Rivers in many Parts of the World. What is commonly faid of their changing their Sides at the Ebbing of the Tide cannot be true, for they have not the leaft Power to do any thing but to fhut and open their Shells.

But it is otherwife with the Muscle and Cockle, for they being lighter are more liable to be carried along by any Motion of the Water, and if they cannot move themfelves from Place to Place, they can however hinder themfelves from being the Sport of the Waves. For this purpofe they are capable of forming feveral Strings of the Thicknefs of Hairs, about three Inches long, and fometimes to the Number of 250 . With thefe they lay hold of any thing that is near them. Mr. Reaumur has often feen them making thefe Threads, and when

## 216 S E A - F I S H.

when he has cut them off they have begun to make others. This Mechanifm is fill more evident in the Pinna Marina, with regard to the Finenefs and Number of their Threads: This is a Shell-Fifh, which on the Coaft of Provence. grows to the length of a Foot, and on the Coaft of Italy to that of two Foot. The Production of this Animal is as fine as Silk, and is made ufe of for the fame Purpofes to this very Day at Palermo in Sicily, for they make various Kinds of Stuffs and other Curiofities of the Silk of this laborious ShellFifh.

The Infrument that the Mufcle employs in producing thefe Threads is what we commonly call the Tongue, in the midft of which is a narrow Channel, which ferves as a fort of a Mold for their firf Formation.

The Cockle has likewife a Power of making thefe Threads as well as the Mufcle; the only Difference is, that thofe of the Cockle are more thick and more fhort.

As fcr the Periwinkle there is nothing remarkable can be faid of it, but what belongs in common to all Animals that have Shells. Their Bodies confift of a thick flimy Subftance, for which Reafon they are look'd upon as a Reftorative Diet, but not very tempting upon any other account.


## $[217]$



## O F

# FISH-PONDS, 

And the Manner of

## FEEDINGFISH.

 N making of Fi/h-Ponds a principal Regard ought to be had to the Choice of a fit Place, and a proper Soil. It is now generally agreed that beathy Land, inclinable to Moorif, and full of Springs, is the beft. Let the Situation, if poffible, be at the Bottom or Side of a Hill, that any fudden Shower or continued Rain may wath down Worms, Infects, and other things fit for the Nourihment of the Fifh. This likewife will be a means of fild ling and refrefhing the Pond, if it has not the Advantage of a Brook or Rivulet. Moreover it has been obferved that thofe Ponds, which have been fo fituated as to receive the Stale and Dung of Hores, have bred the largeft and the fatteft Fiih.

The Head of the Pond fhould be at the loweft Part of the Ground, and the Trench of the Flood-Gate or Sluice fhould have a pretty fwift Fall, that the Water may not be too long in running out when it is to be empty'd. -

If more Ponds than one are to be made at a time, it will be moft beautiful and advantageous to have them placed one above another, in fuch a manner that the

Head

## 218 Of F IS H-P O N D S, $\varepsilon^{\circ} c$.

Head of one may be next to the Point or Tail of the other.

If the Pond carry fix Foot of Water it is fufficient, but yet it fhould be eight Foot deep, that there may be room enough to receive the Rains and Frefhes that may fall into it. In fome places there fhould be Shoals for the Fifh to fpawn upon, and Sun themfelves in; as likewife Holes, hollow Banks, and Roots of Trees to ferve for Retíring-Places. Some caft in Bavins in the moft fandy Places not far from the Sides, which ferve not only for the Fifh to fpawn upon, but are a Defence for the young Fry againft fuch Vermin as would devour them. Trees fhould not be planted fo near the Pond as to incommode it with the falling in of dead Leaves, becaufe they fpoil the Water and render it difagreeable to the Fifh.

In Stocking the Pond, if the Fifh are defign'd only for Store they fhould be all of one Sex, that is either Milters or Sparwners; by this means Carp will become large and exceeding fat in a fhort time.

The moft ufual Fifh which Ponds are flock'd with are Carp, Tench, Bream and Pike. Of thefe Carp and Tencb agree well enough together, but any other Fifh will devour their Spawn. The Pike admits of no Companion but the Pearch, and he is not always fafe, if not very large. However it is ufual to put Roach, Dace, Bream, Cbub, Gudgeons and Minnows into the fame Pond with him, that he may have wherewithal to fatisfy his voracious Nature, and grow fat the fooner. Likewife care fhould be taken, that all the Pike which are put into the fame Pond fhould be nearly of a Size, becaufe a Pike of thirty Inches will devour another of fifteen.

The beft Food to render Pike extremely Fat is Eels, and without them it is not to be done in any reafonable time.

The belt Feeding-Place for all forts of Fifh is a ShoalPlace, near the Side, of about half a Yard deep, and this will be a means to keep the deeper Parts fweet and clean.

## Of F IS H-P O N D S, E'c. $\quad 219$

clean. Befides, whatever is thrown into the Water will be more readily picked up by the Fifh, and nothing will be lof.

Any fort of Grain boiled is proper Food for Fifh; efpecially Peafe and Malt coarfe Ground. Alfo the Grains after Brewing, while frefh and fweet, are very proper. But one Bufhel of Malt will go as far as two of Grains.

Rafpings and Chippings of Bread, or almoft any Scraps from the Table, placed under a Cask of StrongBeer or Ale, in fuch a manner that the Droppings of the Liquor may fall among them, is excellent Food for Carp. Two Quarts of this is fufficient for thirty, and if they are fed Morning and Evening it will be better. than once a Day only.

From October to March thirty or forty Cart in one Stew-Pond may be kept well enough without Feeding ; but from March to October they muft be fed as conftantly as Fowls in a Coop, and they will turn to as good an Account: And it muft be always remember'd, that Conftancy and Regularity in the ferving of Fifh will conduce very much to their Feeding and Thriving.

It has been obferved by fome that Pike in all Streams, and Card in hungry Springing-Waters, if fed at flated times, will rife up and take their Meat almoft from the Hand.

There are Inflances of Fifh gathering together to be fed at the Sound of a Bell, and other kinds of Noifes, even tho' the Perfon himfelf keeps out of fight, which is a demonftrable Proof that Fifhes hear. Tho' it muff be acknowledged that fome very learned Men formerly have doubted whether Fifh have this Faculty or not: But the Abbè le Pluche, the ingenious Author of Spectacle de la Nature, feems to intimate that it is now not fo much as queftion'd.

Befides the Food already mention'd, there is one fort which may be called accidental, and that is when Pools or Ponds happen to receive the Waik of large Commons,

## Of FISH-P ON DS,

where Flocks of Sheep ufually feed; for the Water, being enrich'd by the Dung, will maintain a much greater Number of Carp than otherwife at could do. For the fame Reafon it is an Advantage for Cattle to fland in the Water in hot Weather and dung in it, for it nourifhes the Fifh very much.

Some feed Carp and Tench with the fhort Mowings of Grafs, Bullocks and Sheeps Blood, and Chickens Guts, which will help the Growth of the Fiih, and fatten them likewife. But then care fhould be taken to fupply them with no larger Quantities than they can difpenfe with, otherwife they will rot and putrify, thereby making the Water unwholefom, and greatly endanger the Fifh.

It is obferved by fome that Tench and Eel delight in thofe Ponds chiefly whofe Bottom is full of Mud; whereas the Carp likes a found gravelly Bottom, where Grafs grows on the Sides of the Pond, for in the hot Months, if the Water happens to rife, they will feed upon it.

Some make a fquare Hole in the middle of their Ponds three Foot deep, and cover it with a fort of Door fupported at the Corners by four ftrong Stakes driven into the Ground. This provides the Fin both with a Place of Shelter and Retreat, and likewife preferves the Ponds from being rob'd, for the Door and Stakes would tear the Nets all to pieces.

Thofe that have variety of Ponds fhould let them dry in their turns every three or four Years, and fo continue fix or twelve Months, which will kill the Water-Lillies, Can-Docks, Bull-Rufhes, and other Weeds that breed there; and as thefe die for want of Water Grafs will grow in their flead, which, as was faid before, Carp are fond of in the hot Months.

In the Winter Seaion, when there happens to be a hard Froft, it will be neceffary from time to time to break Holes in the Ice in order to give the Fifh Air, otherwife they will all die, for they cannot live without frefh

## Of FISH-P ONDS, EOc. 221

freh Air. It muft indeed be own'd that this is a Rule generally known, and as generally practifed.

Care fhould likewife be taken either to kill or drive away the Enemies of Fifh, and Devourers of their Spawn; fuch as Herons, Cormorants, Sea-Gulls, KingsFijbers, Water-Coots, Water-Rats, Bitterns, Wild-Ducks and Otters, if they frequent the Ponds; likewife TameDucks are great Devourers of Spawn, and the young Fry of Fig, and therefore fhould not be permitted to do Mifchief.

It is furprizing, that confidering the Benefit which may accrue from making of Ponds and keeping of Fiih, it is not more generally put in practice: For befides furnifhing the Table, and raifing Money, the Land would be vafly improved, and be worth more this way than any other whatfoever. Suppofe a Meadow to be worth Forty Shillings an Acre, four Acres converted into a Pond will return every Year a Thoufand fed Carp, from the leaft Size to fourteen or fifteen Inches long; befides Pike, Pearch, Tench and other Fifh. The Carp alone may be reckon'd to bring, one with another, Six-pence, Nine-pence, and perhaps Twelve-pence a-piece, amounting at the loweft rate to Twenty-five Pounds, and at the higheft to Fifty, which would be a very confiderable, as well as a ufeful Improvement.



## A SHORT

## DESCRIPTION

OFTHE
Rise and Progress of all the Noted Rivers in England, with the Remarkable Towns they pafs by, and the Kinds of FISH they contain.

## BARKSHIRE.'



HE principal River in this County is the Kennet, whofe Waters abound with excellent Trout; it takes its Rife in Wilffire, near a Village of thé fame Name; from whence purfuing its Courfe about five Miles, it paffes by Marlborough, and in about ten more enters this County near Hungerford: At Nerwberry it becomes navigable as far as Reading, where it falls into the Thames and lofes its Name.

The River Ock makes its firt Appearance near Compton, in the Vale of the White Horfe, and then runs almoft quite acrofs the County to Abington, a little beyond which it joins the Iffs and mixes with its Streams.

The River Loddon firft takes its Name in this County, but is the Product of four diftinct Rivulets, which have their
their Spring-Heads in Ham/fire ; after a fhort Courfe, without paffing by any Place of Note, it lofes itfelf in the Tbames at Wargrave near Henly. All thefe abound with Variety of Fin.

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B E D F O R D S H I R E .
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THE River Oufe, paffing clofe by the Town of Bedford, winds through this County with various Meanders, and divides the whole into North and South. This County gives us but one River more, the fool; but there are feveral Brooks that run into 'em both that afford good Trout .

## BUCKINGHAMSHIRE.

THE River Tame I fhall defcribe in Oxford/bire: There are Streams about Stony-Stratford, and that Part of the County, where Trout may be found.

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C A M B R I D G E S H I R E .
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THE River Cam takts its Rife at Dunton, runs by the Univerfity of Cambridge, and after a Courfe of upwards of ten Miles enters the Great Oufe, and is no more heard of. I know of but two other fmall Rivers in this County, the Welney and the Grant. Trout are hard to be met with, but there are Plenty of other Fifh. There are many large Meers and Lakes in the Ine of Ely well fock'd with Fifh.
CHESHIRE.

THE River Dee rifes beyond Pemble-Meer in Merioneth/fire, and running through it foon after takes in the Gyrow and the Alken, then entering Denbigh/fire paffes thro' the Middle of that County: With the help of other Streams it takes Poffeffion of Bangor, runs by Wrexham in Shrop/Bire, and thro' Part of Flinthire, then makes its Entry, attended with other Rivers, into Cbe/bire, ends its Triumph at Cbefer, and with a Mouth of feven Miles wide makes a Breach in the IribS Sea.

## 224 ADescription of the

The River Wever rifes near Broxton, receives the Walwarn, the Lee, and feveral other Streams, then runs down to Nortbwich, where it takes in the Dane with its additional Streams, befides the Pever, and falls into the Irifb Sea with the Merfay. Into the Merfay run out of this County the Ringay and Berking. The Dee and the Merfay yield plenty of Salmon, and at a Diftance from the Sea abound with Trout, and all Sorts of River Fiih, as well as the other Rivers.

$$
C O R N W A L L
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THE Tamer is by far the principal River of this County, for it runs a Courfe of near fifty Miles, almont from Sea to Sea, and divides it from Devon/bire. As it glides along it fwallows up the Aire, the Kenfe, and the Lemara; it paffes near Launceffon, Saltafb and Plimouth, and falls into the Sea in Plimouth Sound. There is fuch Plenty of Salmon in its Streams, that it gave Occafion to the following Diftich:

Cornwall from England, Tamer's Streams divide, Whence with fat Salmon all the Land's supply'd.
The River Foy takes its firf Rife near a Village called Levetban, and glides near Bodman, and after a Courfe of fixteen Miles runs into the Sea at Foy.

The River Loo, or Low, has its Spring at a fmall Village call'd Temple, and after a fhort Courfe of about twelve Miles difembogues its Waters between the two Lowe's into the Sea.

The fpring Heads of the River Valle appear at a Village called Roche, which as it runs widens its Banks till it mixes in the Waters that form the Harbour of Falmouth.

The Cober rifes at Theram, and after a fhort Courfe buries itfelf in the Sea near Helfion.

The River Hale rifes at a Village called Garmow, and falls into the Sea at Lalant.

## Noted Rivers in Engeand. 225

Allen rifes at a Village of the fame Name, glides by the Town of Truro, incorporates with the Stream of the Vallo, and then fall together into Falmoutb Harbour.

Cornwall being a narrow Neck of Land, wafhed on each Side by the Sea, moft of the Rivers run but a fhort Courfe; however they abound with Salmon, Sal-mon-Trout, Mullets and many other Sea-Fifh, befides feveral Sorts of the frefh Water kind.

$$
C U M B E R L A N D .
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THE Kirkfop and the Esk come out of Scotland, the two Levins from Nortbumberland, and join together near Stapleton, and, with the Sark, bury their Waters in the Eden.

The Wampull runs into the Sea at Whitridge.
The River Derwent appears firf at Barrowdall, and after a Courfe of twenty Miles runs into the Irib Sea near Werkington. Befides thefe the Alne, the Petterell, the Cocker, that flows by Cockermouth into the Sea, and Vent, there are feveral namelefs. Brooks that run into the above-mention'd Rivers, which afford plenty of Trout.

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D E R B Y S H I R E .
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THE $D_{\text {erwent }}$ rifes in the Peak, and receives in its Courfe the Burtock, the Wye, with the Lathkyll and Bradford; then runs down with a few Helps, to Derby, and about fix Miles farther finks into the Trent, as does the double-mouth'd Erwalh two Miles farther.

The Dove rifes near the Three Shire Stones, and with little Affiftance glides to Aßbourne, then, with Trout Streams on each fide it, falls into the Trent

The Ibber and Rother, two more Trout Streams, join at Cbefferfield, and three Miles farther meet the Crarwloe, then run into York/bire; moft of thefe Streams yield the beft fort of Trout, and fome of them Grayling ; but this Fifh is moft peculiar to the Dores.

## 226 LDsscription of the

## DEVONSHIRE.

THE River $E x$, from whence the Ciry of Exeter or Exchefer derives its Name, has its Rife in Somerfetfore, at Exford; after a Courfe of fix Miles, another River enlarges its Streams, called Dunsbrook; three Miles lower twe fnall Brooks join the $E x$, and at Tivertan the River Lemoz enlarges its Streams; then gliding about feven Miles farb ther it receives the River Columb, and within three Mike of Exeter the Foreton pours down its Tribute of Waters, from whence running lovingly together they fall into the Sea at Exmouth.

The River Dart firft appears among the Monntains near Gidley, and after a Courfe of near thirty Miles, falls into the Sea at Dartmouth.

The Plime makes its firf Appearance at a Place call'd Welcomb, and after receiving the Waters of eight fmall Rivulets with the River Tary, wafhes the Walls of Plit mouth, and lofes its Waters in Plimoutb Harbour.

The River Taw rifes a little above a fmall Village called Seale, and after a Courfe of thirty Miles, augmented with the Streams of the River Moul, that glides by Moulton, and three other fmall Rivers, is buried in the Sea beyond Barnfable.

Thefe Rivers and many others, as the Tave, Tinga, ©tter, Hureborn, Fouridge, Abdne, are flock'd with excellent Trout, Salmon, and moft River Fif.
DORSETSHIRE.

ONE Part of the double-headed Stour rifes near Mere in Wiltfiro, and the other at Wincauston in Somerfetflaire, which join at Stallbridge, and then it rans down to Hutton Maries, where it receives the Lidden and the Derelifb near Sbermifter; after a Courfe of about eight Miles it runs under Blanford Bridge, and at Craford, three Miles farther, it takes in another fmall Stream; then near Winborne Minffer a handfome Brook falls into it ; afterwards it glides on to Porley, where it takes

## Noted Riversin Engeand. 227

 takes in a River that flows from Cranborne nine Miles from the Stour; then augmented with fome petty Auxiliaries runs into the Sea near Cbriftchurch in HamBire.The River Frome raifes its Head near Bemifter, and, in its Current of three Miles, receives a fmall River to its Embraces; afterwards it glides on to Frome that gives it a Name, and takes in another Stream, then flows on with the Affiftance of two more Auxiliaries, gliding by Dorcbefter the Capital of the County, and falls into the Sea at Wareham, taking Luckford Lake in its Progrefs.

There are innumerable Streams in this County, befides the Rivers Ervil, Luddon, Allen and Piddle, all of 'em full of fine Trout, Facks, Pearch and all Sorts of River Fif.

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D U R H A M \text {. }
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The Kellop, the Wellop, and the Burdop form the Ware at St. Fohn's Chapel, then, with eight affiftant Streams, it fwells to the City of Durbam, and after a: Courfe of forty Miles falls into the Sea at Sunderland.

The Derwen rifes at Newdon, and after a Journey of fixteen Miles feeks the Tyne near Nerwcaftle. All thefe Streams produce Salmon and Trout, and mort other River Fifh.

For the Tees fee York/bire.
ESSEX:

THE River Cbelmer rifes at Debden, then rums with a few affiftant Streams down to Dunmorw in aCourfe of about feven Miles, and in about eight more enlarges its Banks to Cbelmsford, and after another Courfe of feven Miles falls into the Sea.

The Blackwater rifes at Wisbich, mixes with the Cbelmer near Langford, and finks with it in the Salt Water.

The River Croucb begins its Stream near Burfitd, and with the Sea forms Walfeet Illand, famous for Oyffers.

The River Stoure rifes near Sturmore, and after near thirty Miles Travel arrives at the Sea near Harwich.

The Colne, form'd by three fmall Rivulets, takes its Name at Great Yelden, and in a March of fourteen Miles touches at Colchefer, and a little below it bathes itfelf in the Sea and is drown'd.

All the Rivers which fall into the Sea in or near the Haven of Harwich are deep, and now in Motion, and confequently have few or no Salmon or Trout, but are full of Carp, Tench, Pike, Pearch and Eels.
GLOCESTERSHIRE.

THO' the Severn takes its Rife near Plinillimon Hill in Montgomery/bire, yet as it appears in its greateft Luftre in this County, running through it in 2 Courfe of above fifty Miles, I thought I could in no Place give the Defcription of it more properly than here. It is accounted the Second River in England. Before it enters Sbrof/bire it receives above thirty Rivers into its Channel from the Mountains in Wales; with the Affiftance of thefe it runs down to Laudring, where it receives the Morda, that flows from Ofwefiree; when ix arrives near Montford it takes the little River Mon to its Embraces; after almoft furrounding Sbreewsbury it glides on to Roxalter, and receives the Roddon and Terne in one Stream, then hafting to Bridgeiorth the Worfe mingles with its Waters; from thence it takes the Skirts of Stafford/bire, and enters Worcefer/bire, receiving. the Little Dowle at a Village of the fame Name, till it comes to Redfon, where the Stoure encreafes its Streams, and near Grimley the Salwarp haftens to augment its Train; then courfing below Worcefter, the Terne runs inte it at Powick; afterwards flowing forward, with the Auxilliaries of three fmall Streams, it joins the Avon, at Tewksbury, and then takes in the

## Noted Rivers in England. 229

Caran, the Swuiliat, and runs to the City of Glocefer, where it takes along with it the River Leden out of He reford/bire; then with the Affiftance of the Stroud, and two fmall Streams, it falls into the Sea that bears its Name along with another Avon.

## HAMSHIRE.

THE River Itcbin has two Springs, the one at Nortington, the other at Henton, about fix Miles afunder North and South, joining their Streams at Itchington; from thence it glides on to Winchefer, and at Southampton lofes itfelf in the Sea. There are Plenty of Salmon caught in this River, and the Trout are well tafted.

There are many Rivulets and Brooks in this County plentifully for'd with Trout and other River Fifh.

For the Rivers Avon and Stower, fee Wiltfoire and Dorfetbire.
HEREFORDSHIRE.

THE Wye firf fhows its Head in Plinillimon Hill, near the Spring of the Severn, and may be allowed to be the fourth River in England; it runs from its Head out of Montgomery/bire to the Skirts of Radzor/fire, then enters this County, takes in the Streams of the Lug near Hereford; then arrives at Rofs, ftears a winding Courfe to Monmouth, where it receives the River of the fame Name, and the Trothy from Wales, and near Cbefforw mingles with the Severn. Some Miles below Cbefforw the Usk, taking its Progrefs out of Wales, paffes by Nerwport in Monmouth/Bire, and falls into the Mouth of the Severn.

All the Rivers in Herefordfbire yield a prodigious Plenty of all forts of River Fih; the Lug is well for'd with Grayling.

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H E R T F O R D S H \cdot I R E .
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THERE is no County in England better watered with fmall Rivers and Brooks; but they are defcribed in the Courfe of the Thames, for which fee Middlefex.
$H U N$

## 230 <br> ADESCRIPTION of the

HUNTINGTONSHIRE.
THIS County has only two Rivers, the $\mathrm{O} u f e$ and the Nen; but there are a great many Rivulets and Brooks, wherein are good $\tau_{r o u t .}$

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K E N T
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THE Stour has two Heads, one rifes at Rojfon, and, with three afliftant Brooks, runs to ABfort, where it joins with the other Head that comes from Pofling, and, making one Body, runs to Canterbury, and from thence to Hackington Fordich, where it abounds with excellent $T_{r o u t}$; afterwards it continues its Courfe to the Sea, which wathes the Shores of the Ifle of Thanet.

The Medway rifes in Sufex, and flowing-through the Middle of this County runs by Maidfone and Rocbefer, and fome Miles below forms a Bed, where moft of the Royal Navy repofe after the Toils of War; a great many fmall Rivers run in to the Affiftance of this River well ftored with Fifh.

The reft, which are but few, 1 fhall mention in the Courfe of the Thames, for which fee Midalefex.

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L A N C A S H I R E .
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THE Ribble rifes in Yorkbire, takes in the Calder near Whaley, and with the Affiftance of the Derwent runs by Prefion, and a few Miles farther finks into the Iribs Sea.

The Hindburn and the Roburn run into the Lone, as. defcribed in Wefmorland.

The Irwell, the Spodden, and feveral other Streams, fall in with the Irk and Roche at Manchefter.

The Merfay rifes in Derbybire, wafhes the Town of Warrington, and, dividing this County from Cbefbire, falls into the Irib Sea below Leverpool in Lancafbire.

The Wyre rifes in Wyrefdale Foreft, and in its March receives the Calder and three other Sreams; then finks in the Irijb Sea, with the Skippen at Hackinggall.

## Noted Riversin Enciand. 23 s

There are many more Brooks and Rivulets, moft of 'em abounding with Trout, as the great Rivers with Salmon, and all other River Fif.

The Irk is thought to breed the fineft Eels in GreatBritain.

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L E I C E S T E R S H I R E .
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THE Stour rifes near Sutton in this County, wafhes the Town of Leicefter, and below that Place takes in the Eye, the Wreak, and feveral other Streams, then buries itelf in the Trent, with the Affiftance of many Streams.

The Rivers Deane and Snyte taking their Rife in this County, the former at Godby, and the latter at Hoofe, augment the Waters of Trent. Thefe Streams produce excellent Trout, and moft other Finh.
LINCOLNSHIRE.

THE River Witbam rifes at Witbam on the Borders of Leicefterbire, and after a Courfe of thirty Miles with very little Help arrives at Lincoln; thence, with the Affifance of the Bame that flows from Burgh, and three other Streams, it falls into the Sea at Bofion. The Trent parts it from Leicefter/bire and Nottinghambire.

There are feveral Waters in the Fens that go by the Names of Dikes and Drains, which afford large $\mathcal{F} a c k$, Pearch, Carp and Tench, \&c.
MIDDLESEX.

The Thames, which is the Southern Boundary of this County, is by far the principal River in Englaxd, and if we confider its Navigation, Commerce, the noble Towns and Pataces on its Banks, and the Multiplicity of Fifh that dwell in its Streams, it may be faid to be one of the Richeft in the World.

This Queen of Rivers raifes its Head among the Cotfuold Hills in Glocefferfhire, then receiving the Cburn:

## ADescription of the

from Sberuton and two other fmall Streams glides on to Cricklade, where it finks its Bed, and widens its Bounds till it becomes navigable for fmall Barges; when it arrives at Lecblade the Coln and the Lecb pay their Tribute of Waters; the one begins its Streams at Bradley, the other at North Lech, then flowing a Courfe of about ten Miles, with three Rivulets to enlarge its Streams, it receives the Windrufh, whofe Head appears firft at Cuttfden in Glocefferfoire; then after a five Miles March takes in the Evenlode, which has taken from its Head at Evienlode a Journey of twenty Miles to join its Streams; from thence it flows to Oxford, where, as if it wanted Water to fupply that Nurfery of Learning, it receives the. Affiftance of the River Cbarwell, and then divides its Streams to embellifh fome of the Colleges in Oxford; then flows to Abington in Berk/bire, where it receives the River Ock, that rifes on the Borders of Wilffire, another Tributary; then gliding between Berk/bire and Buckingbam/bire augments its Train till it reaches Dorchefer Bridge, where it weds the Thame, and from thence receives the conjunctive Name of Thame and Iffs, commonly called the Thames.

The Thame rifes with a double Stream, one in the Hills near Ailsbury, and the other at Merfworth, both in Euckingbambire; then namelefs it runs to Tame, where it receives its Title, and weds the Iffs at Dorcbefer Bridge; at Reading it receives the Kennet, as defcribed in Wilffire; about three Miles farther it takes in the Loddon, a River that rifes in Hambire, and produces good Trout; at Shiplake near Marlow it takes in a fmall Stream, that rifes at Weft Wickbam in BuckingbamBire, from thence it runs by Maidenbead and Windfor; within half a Mile of Stains it takes in one Branch of the Coln, and at Stains Bridge another Branch runs in:

The River Coln is a Confluence of many Streams, and produces more Trout than any River within fifty Miles of London; one of its Springs rifes at Aßbridge, and runs by Hemfed, whére it takes in another Branch that
comes from Nortbcburch, and paffes by Watford to Rickmanfworth; another Stream rifes in Bedford/bire, paffes by St. Albans and Watford, and joins the Coln at Rickmanfworth. At Uxbridge it receives a Stream that flows from Great Mifenden in Buckingham/bire, then it divides into feveral Branches the two before-mentioned; a third runs over Hounflow Heath, which divides again; one Stream runs by Hamworth, and the other by the Powder-Mills, and meet again in Bu/by-Park, and enter the Thames from Hampton-Court-Garden; another Branch divides and falls into the Thames at Thifleworth.

The Thames now glides forward till it meets the Tide at Tedington: The other Rivers that run into it on the right are defcribed in Surrey.

At Brentford it receives the River Brent, a poor Stream that rifes from a Spring near Coney-Hatch, and with the Affiftance of three or four fmall Waters makes Thift to creep into the Thames.

After this noble River has paffed London. Bridge it runs by Deptford, where it takes in a fmall River that rifes near Kefon in Kent, and running by Lewißham takes the Name of Lerwi/bam River: Beyond Blackwall it receives the Lea, which takes its Rife in Hertford/bire, and becomes navigable at Ware. Almoft againft Woolwich it receives into its Bofom the River Roddon, which flows from Dunmow in Efex.

Two Miles lower it receives the Waters from Dagen, bam Breach, where there is good fifhing; and a little further a fmall River runs in from Brentwood. Almoft againft Purfleet the Darent from Surrey, affifted by the Craye, falls into it. From Efex it receives a fmall Stream from Thurrock, and enters the Sea between the Nortb Foreland in Kent, and the Nafe in Effex, with a Mouth ten Leagues wide, after a Courfe of near three hundred Miles.

MONMOUTHSHIRE.

ONE of the moft confiderable Rivers of this County

## ADescription of the

234
is the Ebucith, which owes its Origin to two fmall Rivuless, calld Ebwith Vawre and Ebwith Vach; mear Rijely it is augmented by the Sroway, and from thence continues its Courfe towards the Sea, into which it falls with the Uske at Newport Haven.
The Rbymry divides this County from Glamorganfirr, and as it paffes along receives the Addition of many fmall Streams, and at length fall into the Severn Saa not far from Landaff.
For the Uske and $W_{y}$ ye fee Herefordjbire.

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N O R F O L K .
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THE Yare is form'd by the Confluence of feveral Streams which take their Rife in the Heart of this County, and is particularly famous for breeding great Plenty of fine Ruffs. It paffes through Norwich the Capital of this County, from whence gliding along to Yarmouth it joins the Thyrn and the Waveney, and with them falls into the Sea.

The Waveney rifes near Lopham, and paffing by feveral Towns, as Difs, Bungay and Beccles, feparates this County from Suffolk, 'till arriving near Yarmouth it lofes itfelf in the Yare.

The Thyrn appears firft near Burro, and after a courfe of near twenty-five Miles is likewife fwallow'd up by the Yare near Yarmouth.

For the Oufe fee Oxfordbire.

## NORTHAMPTONSHIRE.

THE Welland rifes in Leicefer/bire, and divides the two Counties, runs by Stamford, and lofes itfelf in the Fens in Lincolnfire below Crowland. The Welland from its Rife, for feveral Miles in its Courfe, affords good Trout; and above Spalding it is common to find Tench of four or five Pounds Weight.

The Nen or Nyne rifes among the Hills near Draugbton, takes in reveral Rivers in its March till it reaches the Inle of Ely below Peterborough, and then runs into the Sea below Wisbich: There are Frout to be found in

## Noted Rivers in England. 235

 moft of the Streams that fall into the Nyne, and yet there are but few in the River itfelf below Tbrapfon; however there is Plenty of fack, Pearch, Rud or RedTail, and very large Bream in the reft of its Courfe.The River Cbarwell rifes from the Hills near Catefby, on the Borders of this County, and with the Help of two other Streams runs by Banbury in Oxford/bire, and enters the $I / f$ fs at $O x f o r d$, as mentioned before. The Charwell is the beft Trout Stream in this County and Oxfordfire.

## NORTHUMBERLAND.

THE $\tau_{\text {weed }}$ rifes from the Erefteen Mountains, and after a long March, with the Aid of many Rivers, which are all well flock'd with $T_{\text {rout, }}$ it flows by the very Walls of Berwick, and immediately after lofes itfelf in the Sea.

This River abounds with Salmon more than any other in Englayd, there being a prodigious Quantity caught in it every Year, which, being pickled and fent to London by the Coal Ships from Nerwcaftle, gains the Title of Nerwcafle Salmon.

The Tyne is at firft two diftinct Rivers calld Nortb-Tyme and South-Iyne, whofe Heads are ar the diftance of forty Miles from each other ; they join their Streams near Hexbam, and as they pafs along take in the Skell, the manyheaded Read, the Allow, with the Harle, and many other Auxiliaries; then palfing by Nerwcafle glides on 'till it forms Tinmouth Harbour.

The Pont rifes near the Pitts Wall, and runstill it meets with the Blithe, then both embracing fall into the Sea, call'd Blithe's Nook.

The Wan/peck rifes near Whelpinton, takes in a fmall Stream, afterwards the Pont, runs by Morpeth, and dies in the Sea near Seaton.

The Coket, the Ufway, the Redley, and Rilland unite at Allantox, and with the Addition of four other Streams fall into the Sea near Warnmouth.

The Bromyse rifes at Aylenamore, runs about twelve, Miles with the Aid of two fmall Rivers, then receives the winding Bowbent, and falls into the Trweed at Tilmouth.

The River Aln rifes at Alnbam, and runs into the Sea at Aylmouth.

The Warn rifes at Warnford, then glides into the Sea at Warnmoutb. All thefe Rivers are full of Fifh.

## NOTTINGHAMSHIRE.

THE Rivers that water this pleafant County are Meden, Erwafh, Idle, Marwn, Derwent, and Sxyte, all burying their Waters in the filver Trent; and moft of 'em produce excellent Trout.
OXFORDSHIRE.

THE Oufe takes its Rife near Fitwell in this County, and proceeds to Buckingbam, Stoney-Stratford, and Nerwport Pagnel in the County of Bucks; from thence it glides along to Bedford, afterwards to Hunfington and Ely, till arriving at Lyn Regis in Norfolk it falls into the Sea. During its long winding Courfe it fwallows up no lefs than fix Rivers, vix. the Lorwfel, Ine, Cam, Little Oufe, Stoke and Lyn, befides a great Number of Rivulets and other namelefs Streams. The reft of the Rivers in this County are defcribed in the Courfe of the Tbames, therefore I fhall not fay any more, than that their Streams will yield the Anglers good Diverfion with all Sorts of Fifh, but Salmon.

For the $I /$ is and Thames fee Middlefex.

$$
R U T L A N D S H I R E .
$$

THE Chatter, in which there are good Trout, rifes on the Borders of this County, runs through Liefeld Foreft, and falls into the Welland near Stamford. The Welland runs into the Sea near Spalding.

The Wadeland rifes in Leiceflerfhire, and, after a Courfe of about twenty Miles, falls into the Welland below Stamford.

## Noted Rivers in England. 237

## SHROPSHIRE.

MOST of the Rivers in this Neighbourhood run into the Severn, which glides through the Middle of the County, for which fee Glocefterfire.
SOMERSETSHIRE.

THE Avon, which is the principal River of this County, rifes with two Heads, one near Tetbury in Glocefferfbire, and the other at Hacokerton in Wiltfhire; it receives another fmall Stream near Malmsbury, and above Cbipenbam takes in the Coln and the Lyne in one Flood, afterwards the Stert and Brook near Bradford, then haftes to Bath, but before that receives the Frome, then with the Addition of three fmall Streams it runs through the rich City of Brifol under a Bridge, like London Bridge, with Houres built on each Side, and then is incorporated with the Severn.

The River Tone firf thews its Head near Wivelf: comb, runs on to Taunton affifted by three Streams; then glides on till it lofes its Name in the Parrot, a River rifing at Crokethorn, augmented with feveral Streams, and fall into the Sea at Huntfpill.

For the River Ex, fee Devonfhire.
For the River Frome, fee Dorfctbire.
The River Frome begins its Courfe at Menager, runs down with the Affiftance of three other Streams to Bathford, where it falls into the Avon, and is no more.
The Tor appears at Burcomb-Lodge, haftens to Avelands Inland, and near it forms a large Meer well for'd with Fifh, then falls into the Sea with the Parrot.

Thefe, with the Ordred and Ervil, and many other Streams, walh the Finns of innumerable Shoals of Fifh.
There are fo many Springs about the City of Wells, and fo well for'd with Trout, that 1 have known a Brace of Eight Pounds fold for Three Shillings.

# $23^{8}$ <br> ADescription of the 

$$
S T A F F O R D S H I R E .
$$

ALL the Rivers in this County fall into the Trent, which, many imagine, takes its Name from thirty Streams fupplying it with Water; but others from thirty different kinds of Fif it produces.

It firft fhews its Head near Norton below Moury Hill, and takes in the Streams of the Sorw from Stafford, the Tyne from Nerwcaftle, the Blithe and the Peak from below Burton upon Trent; it likewife receives the Dave, which is fam'd for Grayling, with the Manyfold, Hunffe, Cbarnot, Yendon, Teance, Erwaßhe, Darwen, \&c. and at Nottingham the Lyne meets its Streams; in its Coorfe to Newark three more Streams unite with it, and there the Smyte alfo joins it; and in its Progrefs to Gainflorough the Flete and two others attend its Motions.

The Sour from Leicefter, the Leen from Nottingbam, the Mervial, the Idle, and many other Streams, increafe the Waters of this rich River, till it lofes its Name in the Humber.

This noble Stream is fock'd with Variety of Fift, and its Plenty and Abundance may vie with any other River of England; moft of the Streams that fupply it produce very good Trout.
SUFFOLK.

The Orevell and the Gipping join near Needbam, where the Gipping lofes its Name, and the Orwell, running by $1 p$ fuich, finks in the Sea fix Miles below that Town, yet retains the Name of Orwell Haven.

The River Breton rifes at Thorp, and, after a Courfe of about twelve Miles, lofes its Name in the Stour that parts Efex, and Suffolk; the Little Oufe rifes in this County, or rather upon its Borders, and joins the Great Oufe about nine Miles beyond Thetford in Norfolk.

Few of thefe Rivers produce any Trout, but they are plentifully ftock'd with Pike, Pearch and other Fifh.

$$
S U R R E Y .
$$

THE River Wandle rifes near Croydon, glides thro'
Bedington,

## Noted Riversim England. e39

Bedington, paffes through Cafhalton, Martin, Mitcham, and falls into the Thames at Wandfor; from Martin to the Head of the Stream there are feldom any other Fif caught but Trouts and Eels; but from thence to the Thames there are feveral other forts of River Fifh.

There is a fmall Stream that rifes above $\Upsilon_{\text {ewell }}$ near Epfom, and enters the Thames at Kingfon, where formerly $T_{r o u t ~ h a v e ~ b e e n ~ c a u g h t, ~ b u t ~ t h e y ~ a r e ~ n o w ~ v e r y ~}^{\text {n }}$ fcarce, tho' there are feveral other Sorts of Fifh.

The next is the River Mole that rifes fome Miles above Darking, and a little beyond that Place finks into the Earth, and, after a Courfe of two Miles under Ground, rifes again near Leatherbead, then runs winding to the Thames, and, as tho' weary of its own Waters, parts near Ember Mills, and buries itfelf in the Thames, one Stream over-againft Hampton-Court, and the other a little lower.

The River Wey rifes in Hamfhire, runs down, together with three or four affiftant Streams, to Godlamin, then to Guilford, where is a new Cut made navigable for Barges; at Weybridge the old River and new meet, and, lovingly wedded, again enter the Thames near Weybridge. In this old River I have caught good Trout between Guilford and Byfleet, but the Bottom is fo uneven, that if you fifh with a Worm you mult ufe a Float.

There is another Stream call'd Abbey River, but it is nothing more than a Cut from the Thames over-againft Pentybook, which again joins its Mother Stream near Cbertfey Bridge, and is full of all Sorts of Fin. This River was cut many Ages ago by the Monks of Cbertfey Monaftery.

$$
S U S S E X .
$$

THE River Ant, or Lavant, rifes near Rookhill, and after a fhort Courfe of five Miles runs half round Cbicheffer, and two Miles below it enters the Sea; this River produces but few Fiih.

The Head of the Arun, I think, rifes in Leonards Foreft, and, with the Affiftance of four other Streams, wafhes the Walls of Arundel, and three Miles farther lofes its Name in the Sea. This River is better flored with Mullets than any other in England.

The Lewes has more Heads than the Hydra, but its Body is not in Proportion; it glides by the Town of Lewes, takes in a fmall Stream at Bedingham, and falls into the Sea near Myching. The Rotber takes its firt Rife near Mayfeld, and, with the Help of four more fhort Streams, leaves this County, and falls into the Sea at Oxney Ifland in Kent.

The River Rotber has many Streams running into it before it takes its Title, and after a Courfe of feven Miles is devoured by the Sea near Old Sborebam: All thefe Rivers have many Sorts of Fifh, but few Trout.

$$
W A R W I C K S H I R E .
$$

ALL the Rivers of this County run into the Avon, which rifes at Kilworth on the Borders of LeicefterBire, and at Rugby receives the Streams of the River Sruift, and at Stoneby-Abbey the Sow ; then runs to Ebmonfon, where the River Leame encreafes its Flood; and after wafhing the Walls of Wariwick Caftle it haftens to Stratford upon Avon, the Burying place of the Immortal Sbake/pear; two Miles farther the Stour mingles with its Waters, and below Bitford the Arrow incorporates with it, and with a few additional Streams falls into the Severn at Tewksbury in Glocefter/bire.

$$
W E S T M O \cdot R_{b} L_{L} A N D
$$

THE River Lone rifes in Matter-Strange Foreft, where, after a Courfe of two Miles, it receives the Barrow and the Burbeck; then runs down to Kirkby-Lonfdale, and falls into the Sea at Orton-Chapel in Lanca/bire; there are fine Trout in this River down to Kirkby, and from thence to the Sea plenty of Salmon.

## Noted Rivers in Encland: 24r

The River Can or Ken takes in the Sput and three other Streams before its Arrival at Kendall; then flies to the Sea at Kenfands in Lancafbire. In this River are two Catadoups or Water-falls.

The Eden rifes near the Head of the Swale, runs by Carlifle, leaving Wefimorland, and falls into the Irißb Sea : This River is full of Trout and Salmon, with plenty of other Sea and River Fifh.

The River Wynfer rifes at Wynfer-Cbapel, and falls into the Sea with the Can. Wynander Meer, famous for the Cbar, runs into Lancafbire, and from the se to the Sea at Kenfands. The Glenkerwen and Glenkrode run into the Ulles Water on the Borders of this County, and enter the Eden at Hornby.

$$
W I L T S H I R E
$$

THE Avox firft appears near Savernake-Foreft within three Miles of Marlborougb, and in a Courfe of about fourteen Miles reaches Amesbury; from thence it glides along Salisbury-Plain'till it meets with the united Streams of the Willy and Nadder; then paffing by New-Sarum; it receives the Bourne. After this entering Hamßire it takes in feveral fmall Rivulets as it paffes along, 'till at length joining the Stour near Cbrift-Cburch, they both foon after fall into the Sea.

There is another Avon which rifes in this County, and paffing by Bath and Briftol falls into the Mouth of the Severn; for which fee Somerfet/bire.

The Nadder rifes near Sbaftsbury, the Willy or Willy-' bourne near Warminfter "nd the Bourne at a Village call'd Callingborne; all which, as was faid before, lofe themfelves in the Avon near Salisbury.

## WORCESTERSHIRE.

THE Rivers of this County are defcribed in the Courfe of the Severn and Avon, for which fee Glocefer-. feire and Warwickghire.

342 AEscription of the
rORKSHIRE.

THE Tees is the Northern Boundary of this large County,and rifes near Helloplarw Hill, where four Counties meet. Its Current is fo fwift that few Fifh are to be met with in it, except Salmon. About eight Miles from its Spring it falls fixty Foot perpendicular from 2 Rock; as it runs along towards the Sea, it takes in the Langdon, the Hude, the Lune, the Bauder, the Greata, the Skern and the Levan, befides feveral other namelefs Streanns. It paffes by no Town of Note, except Stochton, about feven Miles below which it mixes its Waters with the Ocean.

The Yore and Srwale firt make their Appearance near Morvell Hill in this County, but taking different Courfes, the former paffes near Rippon, and the latter by Richmond, after which they join their Streams a little beyond Borougbbridge, and then lofe their Names and are called the Oufe. Thus united they pafs by the ancient City of York, and purfue their Courfe till they meet the Trent, where they all affume the Name of the Humber, which is continued till the Sea receiving its wids Stream deftroys all Diftinction.

All the confiderable Rivers in the County lofe themfelves either in the Oufe or the Humber; thus the Dale and the Fofs flow into the Oufe above York, the Aire, the Darwen and the Dun below it, the Foulney, the Ancum and the Hull mix their Streams with it when it is called the Humber.

There are many other Rivulets of fmall Note, which scarce deferve a particular Mention; however moft of the Rivers in the County are well fock'd with Fifh, particularly with the various kinds of $\tau_{\text {rout }}$ and Salmon.


## An Account of the Navigation of

 the River Thames, and the Locks that are built thereon.AFTER what has been faid of the Rivers of England, perhaps the inquifitive Reader will not be difpleafed, to know in what Manner Barges of a large Burden are navigated into the very Heart of the Kingdom ; efpecially fince it is an Invention fo ufeful to the Publick: For by this Means Tradefmen and Farmers are enabled to fend their Goods to an advantageous Market, and at the fame Time the moft populous Cities are fupplied with Neceflaries of all Sorts at a moderate Price. To explain this we need only mention the River Thames, which is navigable upwards of 140 Miles above LondonBridge.

It is very obvious to all, that the principal Obfruction to the Navigation of moft Rivers is the Want of Water, efpecially in the Summer-time, when the Springs are low. Now; in order to remedy this Inconvenience, the Ufe of Locks was. happily invented, which are a kind of Wooden Machines placed quite acrofs the River, and fo contrived: as totally to obftruct the Current of the Stream, and dam up the Water as long as it fhall be thought convenient. By this Artifice the River is obliged to rife to a proper Height, that is, till there is Depth enough for the Barge to pals over the Shallows; which done, the confined Waters are fet at Liberty, and the loaded Veffel continues its Voyage till another Shoal requires the 'fame Contrivance, and again retards its Courfe.

## [ 244 ]

But though this Method is extremely convenient, it is attended with great Charge; for they are obliged to pay, in one Voyage, upwards of Fourteen Pounds; I mean, if they go through all the Locks in their Paffage to or from London. This extraordinary Expence is chiefly owing to the Locks being the Property of private Perfons, who raife a large annual Income therefrom; which may be readily eftimated, if we confider that 300 Barges pafs and repafs at leaft fix Times in a Year: And yet, which is fill more fuprifing, the Charge of the Locks is not above one Third of the Expence of a fingle Voyage.

But that the Reader may ftill have a clearer Notion of this Matter, I fhall fubjoin a Lift of all the Locks on the River Thames, with their Diftance from each other, and the Price the Barges are obliged to pay : And herein it muft be noted, that tho' between Lechlade and Oxford there are few or no Locks, yet in Summer, when the Water is low, they pay what is here fet down for Flathes only.

Dift. by Water.
PLACES. Miles. $\quad$ l. s. $-d$.
LechladetoSt. John's Bridge, Stone - $\frac{1}{2}-1-\infty 0$ or 06
Busket Lock - - - - - 2- 000206
Farmers Wires or Weirs - - - 1 - -00 or 00
Lower Farmers Wires - - - 1 - -00 oi 00
Daye's Wires - - - - - - - $-\infty$ or 00
$\uparrow$ Radcot Bridge, Stone - - - $2-200000$
Beck's Wire - - . . . . . 1 - -000000
Oldman's Wire - - . - - : 2-1.00 01 00
Rufhy Wire - - - - - - 1 - $-\infty 0$ or 00
Rudges - - - - - . - 1 - -00 or 00
Thames Wire - '- - - - 1 - $-\infty$ oi 00
Ducksford Wire - . - - 3 - -000000
Shifford Wire - - - - - 1 - $-\infty 0000$
Limbrefs - . ............. 00 or 00
${ }^{\text {Dgquitect oy }}$ Google


## [ 246 ]

Dift, by Water.


Neces-

NecessaryCautions. 249
Thofe that fell, offer or expofe to Sale, or exchange for any other Goods Bret or $\mathcal{T}$ urbot under fixteen Inches long, Brill or Pearl under fourteen, Codlin twelve, Whiting fix, Bafs and Mullet twelve; Sole, Plaice and Dab, eight, and Flounder feven from the Eyes to the utmoft Extent of the Tail, are liable to forfeit Twenty Shilings by Diftrefs, or to be fent to hard Labour for not lefs than fix, or more than fourteen Days, and to be whip'd.

Thofe who unlawfully break down Fi/b-Ponds, or Fifh therein without the Owner's Licence, are liable to three Months Imprifonment, to pay treble Damages to the Party aggrieved, and to be bound to good Behaviour for Seven Years.

Every one who between the Firft of March and the Laft of May fhall do any Act whereby the Spawn of Fifh fhall be deftroy'd, fhall forfeit Forty Shillings and the InAtrument.


INDEX.

N. B. If the Name of any River is not particularly exprefs'd, fee the County through which it runs.

## A.

AIR-Bladder of $F i / b$, its $v f e$. Page 2
Albicore.
American Old-Wife-
Anchovy.
Angel or Monk-Fin.
ANGLERS, General Rules for. 11
Angling, different Sorts of. 7 Ape (Sea.)
Ant-Fly, when to be bad, and bow kept.
Artificial-Elies.
Ath-Grub, where fownd.
15

Avon (River) defcribed.
Avon (River) defcribed.
в.

B Acon, for a Bait. BARKSHIRE (Rivers in)

222
BAITS in general.
12
Balance-Fif.
Barbel.
Bark-Worm, fee Ahh-Grub.
Bafs:
BEDFORDSHIRE (Rivers in)
223
Billards.
Bib or Blinds.


## $\mathbf{I} \mathbf{N} \quad \mathbf{D} \quad \mathbf{E}$.

| Carp. 45 | DESCRIPTION of Englif |
| :---: | :---: |
| How fed. 219 | $\text { Rivers. } 222$ |
| CAUTIONS Neceflary forFifb- | Dee (River) deforibed. 223 |
| ers. 245 | Dibbing or Fly-Angling. 8 |
| Cam (River) defcribed. 223 | Dolphin of the Ancients. |
| Caterpillars, how kept. 13 | of the Moderns. 170 |
| Cavear, how made. 74 | Dock - Worm or Elag-Worm, |
| Chelmer (River) dėfcribed. 227 | where found. |
| Char (Red) 35 | Dog.Fifh (fmooth.) 182 |
| Char (Gilt) 37 | Dog-Picked er Prickled. ibid. |
| Centrina. 193 | Doree. 166 |
| Cheefg, an Ingredient in Pafte. | DORSETSHIRE (Rivers in) |
| 16 | 226 |
| CHESHIRE (Rivers in) 223 | DURHAM (Rivers in) 227 |
| Chub or Cherin. ${ }^{6}$ | Derwent (River) defcribed. 225 |
| Clap-Bait, where found. 14 | Dove (River) ibid. |
| Coal-Fih or Rawlin-Pollack. |  |
| 144 | E. |
| Cod Baits. |  |
| Cockle. 214 | EAgle (Sea) 188 |
| Cod or Keeling. 138 | E Earth- Bob, where found. 13 |
| Coln (River) defcribed. 232 | Earth-Worms for Baits, where |
| CORNWALL (Rivers in) 224 | found. : 12 |
| Conger. 121 | Eden (River) defcribed 241 |
| Crouch (River) defcribed. 228 | Eel. $8_{3}$ |
| Crab-tree Worm, bow kept. 13 | Eel (Lamprey) 83 |
| Cricket (Water) where found. | Ecl (Sea) or Conger. 12 I |
| 14 | Eel-Pour. 87 |
| Cramp-Fid. 112 | Eel (Sand) 122 |
| Whence its benumbing 2wality | Encreafe of Fi/b incredible. |
| proceeds. 113 | Equivocal Generation of Eifo |
| Cutle-Fih. 179 | univerfally exploded. S |
| Crab (Soldier.) 208 | Effex (Rivers in) 227 |
| Crab. | Eyes of Fifk, bow /Jap'd, and |
| Craw-Fifk. ibid. | why. |
| CUMBERLAND (Rivers in) | Ex (River) defcribed. 226 |
| 225 |  |
| D. | F. |
| $\begin{array}{ll}\text { DAB. } \\ \text { Dace or Dare. } & 18 \\ \\ \text { de }\end{array}$ | FAther-Lather. 125 |
| Dace or Dare. 60 DERBYSHIRE (Rivers in) 225 | Feeding Fith, manner of. 218 Finfcale or Rud. |
| Devil (Sca) 172 | Fins of Fi/h, their vjo. ${ }^{\text {d }}$ |
| DEVONSHIRE (Rivers in) 226 | Fingerin. 27 |
| Dew-worm or Lob-wosm, where | Fifh in general, |
| found. . 12 | FISH |

## $\mathbf{I} \quad \mathrm{N} \quad \mathrm{D} \quad \mathrm{E} \quad \mathrm{X}$.

| FISH-PONDS. | 217 |
| :---: | :---: |
| Flag-Worm, where found. | 14 |
| Flare or Skare. | 105 |
| Flat-Eih Devourers of Spaw | wn. 4 |
| Flies Natural. | 16 |
| - Artificial. | 17 |
| Fly-Angling or Dibbing. | 8 |
| Flying. Fifh. | 178 |
| Float-Angling. | 7 |
| Flounder, Fluke or But | 79 |
| Food of Fifh. | 6 |
| Fox (Sea) | 175 |
| Fordich-Trout | 25 |
| Fiog-Fifh. | 176 |
| Frogs for a Bait. | 16 | G.

$G^{\text {Ar-Fifh or Horn-Fifh. }} 158$ Garden-Worm or DewWorm. 12

## Generation of Fifh.

Gentles, how kept. 14
Gills of Fiß, their Vfe. 2
Gilt-Head or Gilt-Poll. 194
Gilt-Tail (aWorm) where found.
Gilt-Char. $\quad 37$

GLOCESTERSHIRE, (Riversin)
Grains to feed Fifh. 219
Grafhoppers, when to be had.
Grayling.
Grey or Grey-Lord.
Gudgeon.
Gudgeon (Sea)
Guiniad.
Gunnel or Butter-Fik.
Garnard (Grey.)
Gurnard (Red.)
Garnard (Yellow.)

Gunnel or Butter-Fif. 123
Garnard (Grey.)
Gurnard (Red.) 160 161

| Keling or Cod-Fig. | 138 |
| :--- | :--- |
| Kent (Rivers in) | 230 |
| Kennet (River) | 222 |
| L. |  |

$\begin{array}{lr}\text { Ack or Pike. } & 68 \\ \text { Ifing-Glafs-Fithe } & \text { is9 }\end{array}$
K.
L.

| Ampern. | 81 |
| :--- | ---: |
| Lamprey. | ibid. |
| Lamprey, a Bait. | 16 |
| Lamprey-Eel. | 82 |

LANCASHIRE (Rivers in) 23 I Lark (Sea)

124
Latcral-Line in Fifh, what. 3 Launce or Sand-Eel. 122
Leather-mouth'd Fi $\beta$, what.
Leap (Salmon)
3
Ledger-Bait-Angling.
8
LEL-

## $\mathbf{I} \mathbf{N} \quad \mathrm{D} \quad \mathrm{X}$.

LEICESTERSHIRE (Rivers in) 231
LINCOLNSHIRE (Rivers in) ibid.
Ling.
128
Loach.
Loach, a Bait:
64

LOCKS, what. 244
LobAter. 210
Lob-Worm or Dew-Worm. 12
Lone (Rivar) defcribed. 240 Luce or Pike. 68 Lug-Aleaf or Pearl. Lump or Sea-Owl.
M.

MAckrel. Mackrel (Spanifh) 132 129 Maggots or Gentles, how kept. Maid. 107
Marth-Worm, where found. 12 Medway (River) defcribed. $23^{\circ}$ Merfay (River) defcribed. 231 May-Fly. 17 MIDDLESEX (Rivers in) 231 Miller's-Thumb.
Minnow.
65 Monk or Angel. Fifh. 1 io Morgay or Bounce. 191 MONMOUTHSHIRE (Rivers in)
Mops (Whiting)
Mullet. Mufcle. N.

$N$Arwal or Sea-Unicorn. 183 Natural-Flies for Baits. 16 NAVIGATION on the River Thames.

244 NECESSARY CAUTIONS for Eifhers.

248

Night-Hooks
85
NORFOLK (Rivers in) 234
NORTHAMPTONSHIRE (Rivers in) ibid. NORTHUMBERLAND (Rivers in) 235
NOTTINGHAMSHIRE (Rivers in) 236 Nyne or Nen (River) defcribed. 234 0.

OAK-Worm, how kept. 13 Oifter. 214 Old-Wife (American) 186 Old-Wife or Wraffe. 169 Ombrina. 107 Orb. 200 Orwel (River) defcribed. $23^{8}$ Oufe (River) defcribed. 223,236
Owl (Sea) or Lump. 13.6 OXFORDSHIRE (Rivers in) 236
P.

Palmer-Worm, how kept. 13 Paftes for Baits, how made. 16
Peale (Salmon) 26
Pearch. 4I
Pearl. 116
Pemble-Meer. 38
Periwinkle. . 214
Periwinkle for a Bait. 16
Picked-Dog. 182
Pike or Pickerel. 68
Pitchard. 154
Pilot-Fifh. IC4
Pink or Minnow, defcrib'd. 66
Pink or Minnow, a Bait. Is
Piper. 162
Rlaice. 117
Pogge.
137
Pol.

## I N D E X.

Pollack (Rawlin)
Pollack (Whiting)
Pope or Ruff.
Porpufs.
Pout (Whiting)
Prawn.
Prickleback or Sharpling.
R.
$\mathbf{R}^{\text {Awlin-Pollack or Coal-Fifh. }} 144$
Red-Char:
144
Red-Eye.
Red-Gurnard or Rotchet. 161
Red-Worm, where found. 12
Ribble (River) defcribed. 230
Ringay (River) defcribed. 224
RIVERS of England defcribed.
222
Roach. 61
Rock-Fifh or Sea. Gudgeon. 135
ROCK-FISHING. 143, 149
Rough-Hound or Bounce. 191
Rud or Red-Tail.
Ruff or Pope.
Running-Line-Angling.
RUTLANDSHLRE (Rivers in)
236
S.

SAlmon.
Salmon-Peale.
17
26
Salmon-Scegger.
Salmon-Trout.
Samlet.
Sand-Eel or Launce.
Saw-Fifh.
scad or Bonettoe.
Scales of Fifh, their VSo.
Schelly.
Scollap.
Scurf or Bull-Trout,
Sea-Bat.


144 Sea-Devil.
142 Sea-EagIe. 188
144 Sea-Eel or Conger. 12 I
99 SEA-EISHING. 143, 149
146 Sea-Fox or Ape. 175
211 Sea-Gudgeon. 135
Sea-Horfe. 202
Sea-Lark or Bulcard. 124
Sea-Loach or Whiftle-Fifh. 199
Sea- Owl or Lump. $\quad 136$
Sea-Serpent. 201
Sea-Snail. 88
Sea-Unicorn. 183
Sea-Weather-Cock. 200
Sea-Wolf. 190
Severn (River) defcribed. 228
Shad. $\quad 76$
Shark. 102
Shark (Blue) 192
Sheat-Fih. 197
Sheeps-Elood, for a Bait. 15 Shrimps.

211

For a Bait.
16

SHROPSHIRE (Rivers in) 237
Skate or Flare. 105
Skegger. 19
Smelt. . 75
Snails. 15
Snap-Angling. 10
Snigling for Eels. 85
Sole. 120
Soldier-Crab. 208
SOMERSETSHIRE (Rivers in)
237
Spanifh Mackrel or Tunny. 129
Sperma Ceti, how made. 94
Sprat or Sparling. 153
STAFFORDSHIRE (Rivers in)
237
Star-Gazer. $\quad 189$
Stickle-Back or Sharpling. 67
Stomach of Fi/h. 5
Stone-Fiy. Is
Stour (River) defcribed. $\begin{array}{r}230 \\ \text { Straw }\end{array}$

## IN DE X.

Straw-Worm or Cadew, where found.
Sturgeon.
Sucking-Fif.
SUFFOLK (Rivers in)
Sun-Fih.
Sur-Mullet.
SURREY (Rivers in)
SUSSEX (Rivers in)
Sword-Fifh.

## T.

TAG-Tail, where found. 13 Tails of Fill, their USe. I Tame (River)
Tees (River) described. 242 Teeth of Fifo, their USe. 3 Tench.
Thames (River) described. 224
THAMES (Navigation on it)
244
Thames (River) described. 231
Thornback
Toad-Fifl.
Tongue of Fish, its USe.
Top -Angling.
Torgoch.
Tortoise or Turtle.
Trent (River) described.
Trimmer-Angling.
Trout.
Trout (Bull)
Trout (Salmon)
Trawling for a Pike.
Trawling in Ponds.
Tub-Figh.
108
176

Tunny or Spanifh-Mackrel. 129 Turbot.
Tweed (River) described. 115

Tyne (River) described. ibid.
U.

Tale (River) described. 224 Umber or Grayling.

Weirs.

244

Welland (River) described. 234 WESTMORLAND (Rivers in) 240 Wever (River) described. 224 Whale and Whale-Fifhing. 90 Whigle-Fifk. 199 White-Grub, where found. 13 Whiting. 148
Whiting-Pollack. $\quad 142$
Whiting-Pout. $\quad 146$
Whiting-Mops. ibid
Whiting (Rock) 145

WILTSHIRE (Rivers in) 145
Winander-Meer. $\quad 38$
WORCESTERSHIRE (Rivers in)

242
Wolf-Fifh. 190 Worm (Hairy) where found.

143
Wraffe or Oh Wife. $\quad 169$
Wye (River) defcribed. 229.
Y.

YAre (River) described. 234 Yellow-Gurnard. 199
YORKSHIRE (Rivers in) 143
$\mathrm{N}_{2}$

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