Irish Sport Fishes
A guide to their identification

## Central Fisheries Board, Ireland.

## INTRODUCTION

The object of this booklet is to help the angler to identify the fishes he is likely to catch in Irish waters. Most of the species which have been taken on rod and line on the Irish coast or in Irish lakes and rivers are illustrated and briefly described. Also included are
(a) a few species not usually caught on rod and line, but which the angler may encounter and
(b) a few species which have, not yet been recorded from Irish waters, but which may occasionally visit them.

Fig. 1 shows the chief external features of five species of fish of divergent types. The external features important in the identification of fishes are in the main
(1) general form
(2) presence of gill slits or a gill cover
(3) number, position and shape of the fins
(4) number of spines or soft jointed rays in the fins (sometimes written in formula)
(5) nature of the scales
(6) nature of the teeth (in certain families)

Too much reliance cannot be placed on size (one may be dealing with a young example of a species which grows to a large size) or colour, since this is subject to considerable variation in some species.

Note: Fin Ray counts in this booklet are written in formula.

$$
\begin{aligned}
& D=\text { dorsal fin } \\
& A=\text { anal fin }
\end{aligned}
$$

Spiny fin rays indicated by Roman numerals; soft fin rays by Arabic numerals.

In this guide the following annotations are used; $\mathrm{M}=$ marine fish; $\mathrm{F}=$ freshwater fish; $\mathrm{B}=$ brackish water fish. Indicated sizes are usually the approximate maximum the species has been known to attain.


## PORBEAGLE Lamna nasus M.

Ir. Craosaire sgadan; Fr. Taupe; Ge. Heringshai; Du. Harringhaai;
It. Smeriglio; Sp. Cailon, Marrajo.
Body stout, gill-slits and eye rather large. Tail-fin set vertically, with the upper lobe somewhat the larger. A keel on each side of the tail column and a smaller seco ndary keel on the tail below it. Second dorsal small, placed over the anal fin. Teeth long, slender with (in the adult) small secondary cusps at their base. Brownish or greyish. Grows to over 400 lb .

## MAKO Isurus oxyrinchus M.

Fr. Mako; Ge. Makrelehai; It. Squalo mako; Sp. Marrajo.
Rather like porbeagle, but less stoutly built and with a smaller eye. Tailfin more symmetrical, without small secondary keel. Small second dorsal fin in advance of anal fin. Teeth long, slender, without basal cusps. Bluish in colour. Grows to over 1000 lb .

## BLUE SHARK Prionace glauca M.

Ir. Craosaire gorm; Fr. Requin bleu; Ge , Blauhai; Du. Blauwe haai;
It. Verdesca; Sp. Tintorera.
Slender shark with small gill-slits, raked-back tail and very long, slender pectorals. Teeth triangular, with a finely serrated cutting edge. Vivid blue above when fresh caught. Grows to several hundred pounds in weight.

TOPE Galeorhinus galcus M.
Ir. Fhmaire; Fr. Milandre, Ha; Ge. Hundhai; Du. Ruwehaai; It. Canesca;
Sp. Cazon, Tollo.
Small greyish shark, with short triangular pectorals and a short, deep notch in the tail-fin. Cutting teeth. Grows to more than 70 lb .

## SMOOTH HOUNDS M.

Fr. Emissole; Ge. Glatthail. Du. Toorthaai; It. Palombo; Sp. Musola.
Resemble clumsily built tope-like shark with, at most, a shallow notch in the tailfin. Teeth adapted for crushing rather than cutting, in beds like those of a skate. Two European species:
(1) Mustelus mustelus. Plain grey. Its status as an Irish species is uncertain.
(2) Mustelus asterias. Grey sprinkled with small, pale spots. Not uncommon. Grows to about 4 feet.

## LESSER SPOTTED DOGFISH Scyliorhinus caniculus M.

Ir. Freangach; Fr. Petite rousette; Ge. Kleiner Katzenhai; Du. Hondshaai;
It. Gattuccio; Sp. Pintarroje, Gato marino.
Small, slender, sinuous, rough-skinned shark, with two small dorsal fins placed far back and close together. Thickly sprinkled with small dark brown spots. Nasal flaps simple, continuous and touching mouth. Anal fin ends under or in advance of the origin of the second dorsal. Grows to about 2.5 feet in length.

GREATER SPOTTED DOGFISH Scyliorhinus stellaris M.
Ir. Madadh mor, Fr. Grande rousette; Ge. Grosser Katzenhai; Du. Grote hondshaai; It. Gattopardo; Sp. Alitan, Gata.
Also called Bull huss. Rather stouter in the body than the previous species and often with larger spots but these features cannot be relied upon for identification. Nasal flaps separate from each other and from the mouth. each with a central rib, the tip of which projects as a little point. Anal fin ends under the second dorsal. Grows to over 20 lb.

SPUR DOG Squalus acanthias M.
Ir. Fiogach; Fr. Aiguillat; Ge. Dornhai; Du. Doornhaai; It. Spinarolo; Sp. Mielga, Galludo.
Blue-grey or brownish with a few pale spots. A claw-like spine in front of each of the two dorsal fins; no anal fin. Grows to about 20 lb .

BRAMBLE SHARK, SPINOUS SHARK Echinorhinus brucus M.
Fr. Boucle Ge. Stachelhai; Du. Stekelhaai., It. Ronco; Sp. Pez tachuela A fairly large, clumsily built shark occurring mainly in fairly deep water Two small dorsal fins (without claw-like spines) placed far back; no anal fin. Skin sprinkled with clumps of thorn-like spines.


## THRESHER Alopias vulpinus M.

Fr. Renard de mer; Ge. Fuchshai; Du. Voshaai; It. Squalo volpe;
Sp . Pezzorro.
A large shark with an enormously long and powerful tail, large pectorals and tiny second dorsal and anal fins. Grows to about 1000 lb.

## SIX-GILLED SHARK flexanchus griseus M.

Fr. Griset; Ge. Grauhia; Du. Grauwehaai; It. Squalo cappopiatto; Sp. Canabota.
A fairly large shark, brownish in colour, with six gills instead of the usual five on either side of its throat. Long tail. A single dorsal fin; anal fin present.

## HAMMERHEAD SHARK Sphyrna zyguena M.

Fr. Marteau; Ge. Hamrnerhai; It. Pesce martello; Sp. Pez martillo.
A large shark with an oddly and distinctively shaped head. No Irish records, but this species has been recorded on a number of occasions on the British coast. Several other species of hammerheads occur in various parts of the world.

GREENLAND SHARK Somniosus rnicrocephalus M.
Fr. Leiche; Ge. Eishai; Du. Apekalle. It. Squalo di groenlandia;
Sp . Tiburon boreal.
A large clumsily built shark with small gill-slits. Two small, spineless dorsal fins'. pectorals and tail small; no anal fin. An Arctic species; no Irish records, but has been recorded from the Scottish coast.

BASKING SHARK Cetorhinus maximus M.
Ir. Liomhan greine; Fr. Pelerin; Ge. Riesenhai; Du. Reuzenhaai. It. Squalo elfante; Sp. Peregrino.
A huge shark, growing to more than thirty feet in length. Gillslits almost encircle throat. A plankton feeder, with tiny teeth.


## COMMON SKATE Raja batis M.

Ir. Scalaphort; Fr. Pocheteau; Ge. Glattroche; Du. Schate vleet; It. Razza bavosa; Sp . Raya noruega.
Leading edges of wings taper progressively into snout. Upper side grey. On capture, yellow or gold spangle-like markings and/or eyelike spots may he present, but these fade rapidly after death. Underside usually greyish, sometimes almost black in the central region, but often becoming white towards the wing tips. Entirely white-bellied forms are common, but the pores are always marked with black. Grows to more than 200 lb . in weight.

NOTE: The larger species of Raja are commonly referred to as "skates" while the smaller species are called "rays". A further point of distinction is that, if a straight-edge is laid from wing-tip to tip of snout, the leading edge of the disc will fall behind the straight-edge in "skates," whereas in "rays" part of the disc will overlap the straigh edge. None of the rays have black-marked pores on the underside, which is always White.

## WHITE SKATE Raja alba M.

Ir. Scalaphort ban; Fr. Raie bordee; It. Razza bianca; Sp. Raya blanca. Snout a narrow, parallel-sided projection. jutting out from the outline of the disc, giving this skate a distinctly " bottle-nosed " appearance. Distance from tip of snout to mouth not exceeding 20 per cent Of total length. Upper side grey, sometimes with markings which fade after death. Underside white, with a black border to wings in young and sometimes a greyish border in adults; Pores not. marked with black. Grows to several hundred pounds.

## LONG-NOSED SKATE Raja oxyrinchus M.

Fr. Raie capucin; Ge. Spitzschnauziger Roche; Du. Scherpsnuit,
It. Razza monaca; Sp. Picon.
Disc shaped like an inverted kite. Distance from the tip of the snout to the mouth at least 25 per cent of total length of the fish. Grey or brownish above, sometimes with a few pale spots on capture, which fade later. Underside usually greyish, with dark spots marking the opening of the pores. Grows to about 5 feet. Essentially a deep-water species, rarely taken inside the 100 fathom line.

## CUCKOO RAY Raja natevus M.

Ir. Roc na sul dubh; Fr. Raie fleurie; Ge. Kukuksroche; Du. Koekoeksrog;
It. Razza fiorita; Sp. Raya santiaguesa.
Disc heart-shaped. Yellow-brown in colour with, on each wing, a large, circular black spot overlaid with yellow spots and hieroglyphic markings. Grows to about $21 / 2$ feet.

## SANDY RAY Raja circularis M.

Fr. Raie circulaire; Ge. Sandroche; Du. Zandrog; It. Razza rotonda;
Sp. Raya falsavela.
Disc heart-shaped. Brownish, with a number of small, but distinct cream or yellow spots symmetrically arranged on the wings. Grows to nearly 4 feet. Not common.

## STARRY RAY Raja radiata M.

Fr. Raie radiee; Ge. Sternroche; Du. Keilrog;
Shape rather like a blonde ray; upper surface of disc sprinkled with curved spines with ribbed bases. Brownish above without permanent markings; tail not banded. Grows to about 2 feet. A northern species, not so far recorded from Ireland, but has been taken on the Welsh coast and in Scotland.

## THORNBACK Raja clavata M

Ir. Roe garbh; Fr. Raie bouclee; Ge. Nagelroche; Du. Ruige rog, Stekelrog;
It. Razza chiodata; Sp. Raya de clavos.
Disc diamond-shaped; wing-tips more pointed and general outline more angular than in other rays. Characteristically, a curved row of rather large spines on the upper surface of each wing*. However, these spines are sometimes reduced in number or size or may be entirely lacking. Occasionally examples are taken which have some large spines on the underside, and such examples may or may not have spines on the upper surface. Coloration very variable. Typically, the upper side is sprinkled with dark and pale spots and may have some larger dark and pale markings. However, examples occur which have extensive white vermicular markings; or extensive black patches; or prominent black markings on the centre of each wing. Two colour variations are illustrated. The most constant feature of the coloration of this ray is the dark banding on the tail. Grows to about 40 lb .

## SHAGREEN RAY Raja fullonica M.

Fr. Raie chardon; Ge. Chagrinroche; Du. Kaardrog; It. Razza spinosa;
Sp . Raya cardadore.
Characters largely negative. In general outline, more like a "skate" than a "ray" and might he mistaken for a small skate. However, the snout is proportionately shorter than in the common skate and is not bottle-nosed as in the white skate, while the underside is uniform white, without dark pores. Upper surface of the disc very rough because of coarseness of the denticles. No distinctive pattern on upper surface. Grows to about 31 feet. Not common.

## PAINTED RAY, SMALL-EYED RAY Raja microocellata M.

Ir. Roe ban-striocta; Fr. Raie melee; Du. Uilrog.
Anterior margin of the disc only slightly undulated. Colour pattern distinctive comprising white spots and lines on a greyish ground; the main lines tend to run parallel with the anterior and posterior margins of the wings. A few dark spots may also be present. Grows to about 32 inches. Localised.
*These spines are not to be confused with the thornlike spines which may occur along the midline of the back and which link up with those on the tail of most species; or with the beds of small but prominent prickles which occur near the wingtips in the males of all species of Raja.

BLONDE RAY Raja brachyura M.
Ir. Roe fionn; Fr. Raie blanche; Ge. Blonde; Du. Blonde rog; It. Razza a coda corta; Sp. Raya boca de rosa.

Disc heart-shaped. Upper surface fawn or brownish, thickly sprinkled with small dark brown spots which extend to the hind margins of the wings. The anterior margin of the disc, on the underside, has a border of prominent prickles. Grows to about 40 lb .

HOMELYN, SPOTTED RAY Raja montagui M.
Ir. Roe breac; Fr. Raie douce; G. Gefleckter Roche; Du. Gladde rog; It. Razza maculata; Sp. Raya pintada.

Generally resembles blond ray, but the spots are larger, less numerous and normally do not extend to hind margin of wings. Grows to about $21 / 2$ feet. A circular configuration of spots midway on each wing.

## UNDULATE RAY Raja undulata M.

Ir. Roe dubh-striocta; Fr. Raie ondulee; Ge. Banderroche; Du. Mozaickrog; It.
Razza ondulata; Sp. Raya mosaica.
Anterior margin of disc very strongly undulated in males, rather less so in females. Coloration distinctive - a pattern of dark lines on a grey or fawn ground, most of the dark lines bordered with row of white spots. Grows to about $31 / 2$ feet. Common in Tralee Bay, rare elsewhere.


## ELECTRIC RAY Torpedo nobiliana M.

Ir. Craimpiase; Fr. Torpilla; Ge. Zitterroche; Du. Electricke rog; It. Torpedino; Sp. Tremiegla.
Disc almost circular in outline. Tail portion of the body fleshy, with two dorsal fins and a terminal tail-fin - rather like a monkfish. Skin smooth, no spines or prickles. Black, grey or brown, without markings. Powerful electric batteries in the wings. Grows to over 100 lb .

## STING RAY Dasyatis pastinaca M.

Ir. Roe an ghaith nimhe; Fr. Pastenague; Ge. Stechroche; Du. Pijlstaart;
It. Pastinacha; Sp. Pastinaca.
Disc heart-shaped, not greatly elevated. Tail whip-like, without fins, but with a long, barbed venomous spine near its junction with the disc. This can inflict severe and possibly dangerous wounds. Grows to over 70 lb .

## HORNED RAY Mobula mobular M.

Fr. Mante; Ge. Teufelsroche; Du. Duivelsrog; It. Manta; Sp. Manta.
One of the mantas. Wings narrow, pointed. Tail whip-like, with a small dorsal fin and a spine near its junction with the disc. Head projecting from general outline, with forwardly -directed hornlike processes (cephalic fins) on either side of it. May grow to more than 15 feet long. A single Irish record.

## EAGLE RAY Myliobatis aquilla M.

Fr. Aigle de mer; Ge. Adlerroche; Du. Groote pijlstaart; It. Aquila di mare; Sp . Aquila de mar.
Wings pointed; tail whip-like, with a small dorsal fin and a spine near its junction with the disc. Head prominent, elevated, and projecting from general outline. No cephalic fins. Teeth bar-like, extending across jaws. Grows to about 5 feet. Not common.


## HERRING Clupea harengus M.

Ir. Scadan; Fr. Hareng; Ge. Hering; Du. Haring; It. Aringa; Sp. Arengue.
Belly knife-edged; pelvic fins under about the middle of the dorsal.5360 scales in a longitudinal series. May grow to about 15 inches.

PILCHARD Sardina pilchardus M.
Ir. Pilshar; Fr. Sardine; Du. Sardine; It. Sardina; Sp. Sardina.
Scales larger than in herring (only 28-30 in a longitudinal series).Radiating lines on gill-cover. Grows to about 10 inches. The young is the sardine of commerce.

## SPRAT Sprattus sprattus M.

Ir. Sprot; Fr. Sprat; Ge. Sprott; Du. Sprot; It. Spratto; Sp. Espadin.
Body proportionately shorter and deeper than in herring; belly distinctly saw-edged. Pelvic fins slightly in advance of dorsal fin. Grows to about 6 inches. Marketed as brisling.

ANCHOVY Engraulis encrasicolus M.
Fr. Anchois; Ge. Anchovis; Du. Anjovis; It. Acciuga; Sp. Anchoa.
Conical snout projecting well beyond mouth. Maxillary slender, straight, extending back far beyond eye. Grows to about 8 inches. Rare in Irish waters.

## ALLIS SHAD Alosa alosa M. and F.

Fr. Alose; Ge. Maifisch; Du. Groote meivisch;It. Allaccia; Sp. SAbalo. In adults, only a single dark spot behind the gill-cover. Gill-rakers long and closely spaced, at least 60 on the lower limb of the first gillarch. Grows to about 8 lb . Ascends rivers to spawn and may travel far beyond tidal limits.

TWAITE SHAD Alosa fallax M. and F.
Ir. Capall cnarnhach; Fr. Alose finte; Ge. Finte; Du. Meivisch; It. Cheppia;
Sp. Saboga.
Large, deep-bodied, herring-like fish. A row of dark spots on the upper side, but some or most of these may be obscured by the silvering on the scales. Gill-rakers shorter and more widely-spaced than in the allis shad-in adults, not more than 30 on the lower limb of the first gill-arch. Grows to about 3.5 lb . Shoals ascend rivers to spawn, but usually do not travel beyond the head of the tide. A landlocked form occurs in the lakes of Killarney.

COD Gadus morhua M.
Ir. Trosc; Fr. Morue; Ge. Dorsch; Du. Kabeljauw; It. Merluzzo; Sp. Bacalao. Three dorsal and two anal fins. Upper jaw the longer. Well-developed barbel on chin. Lateral line white in adults, which vary in colour from grey to brown, thickly sprinkled with small dark spots. Juveniles (codling) may he variegated rather than spotted. Grows to over 100 lb .

HADDOCK melanogranimus aeglifinus $M$.
Ir. Cadog; Fr. Eglefin; Ge. Schellfisch; Du Schelvis; It. Asinello; Sp. Eglefino. Three dorsal, two anal fins. Upper jaw the longer. Small barbel on chin. Tail-fin somewhat forked. Lateral line black and a conspicuous black patch on shoulder, above the pectoral fin. Grows to over 10 lb.

NORWAY POUT Trisopterus esmarkii M.
Fr. Tacaud norvegian; Ge. Spiirling.
Very like poor cod (which see), but more slender and lower jaw is somewhat the longer.

POOR COD Trisopterus minutus M.
Fr. Capelan; Ge. Zwergdorsch; Du. Dwergbolk; It. Merluzzo cappellano;
Sp. Mollero.
Three dorsal, two anal fins. Upper jaw somewhat the longer; a thin barbel under chin. Body less deep than in previous species. First anal begins about level with end of first dorsal; pelvics reach back only to the vent. Pinkish brown, Without bands. Grows to about 10 inches.

POUTING Trisopterus luscus M.
Ir. Trosgan sturoige; Fr. Tacaud; Ge. Franzosendorsch; Du. Steenbolk;
It. Merluzzo francese; Sp. Faneca.
Three dorsal, two anal fins. Upper jaw somewhat the longer; a thin, wispy barbel under chin. Body rather deep. First anal fin being well under first dorsal. In adults, pelvic fins reach back beyond beginning of anal fin. Pinkish-bronze in colour, usually with broad vertical bands, but these may fade after death. Grows to over 4 lb .

WHITING Merlangius merlangus M .
Ir. Faoitin; Fr. Merlan; Ge. Wittling; Du. Wijting.
Three dorsal, two anal fins. Upper jaw the longer; no barbel. Tail-fin not forked. Lateral line a narrow, brown seam. Pinkish brown above, silvery on the sides. Grows to about 6 lb .


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## POLLACK Pollachius pollachius M.

Ir. Mangach; F. Lieu; Ge. Pollack; Du. Pollak; it. Merluzzo, giallo; Sp. Abadejo. Three dorsal, two anal fins. Pelvic fins tiny. Tail-fin not forked when expanded. Lower jaw protruding; no barbel. Lateral line a brown seam, sharply bent behind pectoral fin. Usually brown on the back, with gold or orange reflections on the side. Grows to about 20 lb .

COALFISH Pollachius virens M.
Ir. Glasan; Fr. Lieu noir, Charbonni\&e; Ge. Kbhler, Seelachs; Du. Koolvis;
It. Merluzzo nero; Sp . Carbonero.
Three dorsal, two anal fins. Pelvic fins tiny. Tail-fin forked. Lower jaw the shorter in young juveniles, but protruding in larger examples. A barbel present, but so minute as not to he noticeable. Lateral line a white stripe, nearly straight (not marked by a white stripe in young juveniles). Dark green or blackish green above, paler on the sides. Grows to about 40 lb .

HAKE Merluccius merluccius M.
Ir. Colmoir; Fr. Merlu; Ge. Sechecht; Du. Stockvisch. It. Nasello; Sp. Merluza. Two dorsals, one anal fin. Tail-fin square cut. jaws about equal or lower slightly the longer; no barbel. Mouth large, with numerous long, sharp teeth, some of which fold backwards. Silvery grey with a black lateral line. Grows to about 25 lb .

## LING Molva molva M.

Ir. Langa; Fr. Lingue; Ge. Leng; Du. Leng; It. Molva;
Two dorsals, one anal fin. Tail-fin rounded. A well- developed barbel under chin. A somewhat eel-like fish, more or less olive in colour, sometimes mottled. Lateral line rather inconspicuous. Grows to about 50 lb .

THREE-BEARDED ROCKLING Gaidropsarus vulgaris M.
Ir. Langa carraige; Fr. Motelle A trois barbillons; Ge. Dreibdrtelige Seequappe; Du. Driedradige meun; It. Motella; Sp. Lota.
Sometimes called Spotted Rockling. Superficially suggestive of a small ling. A single dorsal fin, with a low vibratile membrane in front of it, set in a chink in the back. One anal fin. Two barbels on snout and one under chin. Yellow-brown to reddish in colour, dappled with dark brown spots or blotches. Grows to about 2 lb .

Nоте: Several other species of rockling occur between and beyond tidemarks. They vary in size, colour and number of " beards".

three bearded rockung


## LESSER FORKBEARD, TADPOLE FISH Raniceps raninus M.

Fr. Trident; Ge. Froschdorsche; Du. Vorschkwal;It. Mustello; Sp. Bratola de roca. Two dorsal fins, the first minute, a single anal fin. Head and anterior part of body rather bulky; mouth large, with a tiny chin barbel. Dark brown. Grows to about 12 inches.

## TORSK Brosme brosme M.

Fr. Brosme; Ge. Lumb; Du. Lom; It. Brosmio; Sp. Brosmio.
Somewhat like a ling, but shorter and stouter and with a single dorsal; one anal fin; tail fin rounded and continuous with dorsal and anal. Barbel present. G.rey or brown with pale margins to fins. Grows to about 3.5 feet. Rare in Irish waters.

## BASS Dicentrarchus labrax M. \& B.

Ir. Doingean; Fr. Bar; Ge. Meerbarsch; Du. Zeebaars; It. Spigola; Sp. Lubino. Blue-backed, silvery hard-scaled fish with two adjacent dorsal fins of about equal size, the first with strong spines. Anal fin short, tail fin forked, pelvic fins (each with a spine and five soft rays) under pectorals. Corner of gill-cover spinous; edge of pre-operculum (cheek- bone) serrated. Grows to about 20 lb.

STONE BASSE Polyprion, americanus M
Fr. Cernier brun; Ge. Wrackbarsch; Du. Reuzeribaars; It. Cernia di fondale; Sp . Cherna.
A single dorsal fin, with strong spines anteriorly; anal fin short; bases of soft dorsal and anal fleshy. Tafl-fin rounded or square-cut. A ridged spine running across gill-cover; preoperculum serrated. Form changes with growth. Young examples may be variegated; big examples usually greyish. Young (up to 201b. or so) sometimes encountered at surface near floating wreckage; Adults, which may grow to 100 lb , keep near bottom in deep water.

## COMBER Serranus cabrilla M.

Fr. Serran cabrille, Serran petite chevre; Ge. Sagebarsch; It. Perchia; Sp. Cabrilla.
A single dorsal fin with strong spines anteriorly; anal fin short; tail-fin square-cut or slightly concave. Corner of gill-cover spinous. Preoperculum serrated. Brownish, with dark vertical bars and bluish or greenish lengthwise streaks on head and along body (Note: do not confuse with male cuckoo wrasse!). Grows to about 10 inches. Rough ground in shallow water; rare on the Irish coast.


[^1]http://www.cfb.ie

THICK-LIPPED GREY MULLET Crenimugil labrosus M. and B.
Ir. Lannach; Fr. Muge noir, Mulet A grosses levres; Ge. Meerdsche; Du. Herder. Back broad; head short and broad; small, triangular mouth. Dorsal fins small, well separated, the first with four strong spines. Tail fin forked; pelvics set some distance behind pectorals. Large hard scales. No spines on head or gill-cover. Greyish in colour with lengthwise dark streaks. Upper lip thick, with papillae; its greatest depth more than half the diameter of the eye, jugular interspace (see illustration) narrow and parallel when gills closed. Grows to more than 10 lb . Common on the Irish coast.

## THIN-LIPPED GREY MULLET Liza ramada M. and B.

Fr. Muge, Mulet ramada; Ge. Grosskopf meedische;
Differs from previous species in thinner upper lip (greatest depth less than half diameter of eye) and broader, oval-shaped jugular interspace. Grows to over 10 lb . Recorded from England but not from Ireland.

## GOLDEN GREY MULLET Liza auratus M. and B.

Fr. Muge dore; Ge , Goldiische; It. Cefalo dorato; Sp. Lisa dorada. Upper lip less than half diameter of eye; jugular interspace oval. A well defined golden spot behind eye and another on gill cover (not to be confused with the golden reflection sometimes seen on gill-covers of other species). Grows to about 18 inches. Recorded from Ireland in recent years. Now on the Irish Specimen Fish Committee list.

RED MULLET Mullus surmuletus M.
Ir. Millead dearg; Fr. Rouget; Ge. Streifenbarbe.,Du. Zee barbeel; It. Triglia di scoglio; Sp. Salmonete de roca.
Two dorsal fins, well separated, the first with 7 or 8 spines, the second short. Tail-fin forked; anal short; pelvics under pectorals. Large, hard scales. Two stiff barbels under chin. Red with golden markings. Grows to about 15 inches.


## SEA BREAM, RED BREAM Pagellus bogaraveo M.

Ir. Dearghn; Fr. Rousseau, Dorade (also applies to Sparus aurata);
Ge. Nordischer Meerbrassen; Du. Roode zeebrasem; It. Pagello; Sp. EspArido. Body rather deep, profile steep, eye large. Single dorsal fin with spinous anterior portion. Anal fin of moderate length with spines anteriorly. Tail-fin forked, pectorals long and pointed. No spines on head or gill-cover. Conical teeth in front of laws, rows of molars behind. Red or reddish on the back, more silvery on the sides. Adults with a conspicuous black patch on the shoulder. Grows to over 9 lb .

BLACK BREAM Spondyliosoma cantharus M.
Fr. Breme de mer; Ge. Seekarpfen, Streifen brassen, Du. Zeekarper; It. Tanuta; Sp. Chopa.
Shape and fins not unlike previous species, but jaws with a single row of sharp-pointed teeth; no molars. Grey or purplish grey, often with dark vertical bars and with longitudinal markings on the sides. Grows to about 6 lb . Not common on the Irish coast.

## BOGUE Boops boops M.

Fr. Bogue; Ge. Gelbstriemen; It. Boga; Sp. Boga.
One of the sea breams, but body much less deep than in most species. Teeth-a single row of notched incisors; no molars or conical teeth. Blue-grey above, more silvery on the sides, which have yellow, lengthwise streaks. Grows to about 14 inches. Not common on the Irish coast.

## RAY'S BREAM Brama brama M.

Fr. Castagnole; Ge. Brachsenmakrele; Du. Praam; It. Pesce castagna;
Sp . Castaileta.
Body deep and compressed, profile steep and rounded. A single long dorsal and a single long anal fin, with short rays without protruding sharp tips. Tail-fin crescentic, pectorals long and pointed. Silvery in life; fades to grey after death. Grows to more than 6 lb .

## JOHN DORY Zeus faber M.

Ir. Dormchad na sul mor; Leathog De; Fr. Doree, Saint-Pierre; Ge. Heringskbnig;
Du. Zonnevisch; It. Pesce san Pietro; Sp. Pez de san Pedro.
Body deep and strongly compressed. Head large; huge, protrusible mouth. Body edges with spines; spiny first dorsal and anal fin preceded by a spiny, separate fin. Dorsal fin membrane produced as "streamers" between the spines. Yellowish-olive, with a dark spot on the side. Grows to more than 8 lb .


BALLAN WRASSE Labrus bergylta M.
Ir. Ballach; Fr. Vielle commune; Ge. Gefleckter Lippfisch; Du. Clevlekte lipisch; It. Tordo marvizzo; Sp . Maragota.
In this and most species of wrasse the body is fairly deep, but not excessively compressed and is covered with hard scales. There is a single long dorsal fin, with spines in the anterior portion; anal fin of moderate length, with spines anteriorly. Tail broad and somewhat rounded; pectorals broad and rounded. No spines on gill cover; lips thick and fleshy; jaws with powerful conical teeth. In the ballan wrasse, the fin-ray formula is $D \mathrm{M}-\mathrm{XX} / 9-11$, A 111/8-10 and the edge of the preoperculum (cheekbone) is smooth. Coloration very variable, not related to sex; usually some shade between brown and green, may be mottled, with red or orange on throat and fins. Grows to over 10 lb . Common.

## CUCKOO WRASSE Labrus mixtus M.

Ir. Ballach Muire; Fr. Labre mele; Ge. Lippfisch;
Fin-ray formula D XVI-XVIII/11-14, A III/9-11. Coloration:males orange, vivid blue heads and vivid blue lines across the gill covers and along the sides; females red, with three dark spots on the back, under and behind the soft dorsal. Grows to about 2 lb .

## GOLDSINNY Ctenolabrus rupestris M.

Fr. Ctenolabre; Ge. Klpipenbarseh; Du. Klip-Lipvisch.
Fin-ray formula D XVI-XVIII/SA0, A 111-1V/7-8. Teeth in the jaws in several rows. Sepia to reddish, with a dark spot on the spinous dorsal and another on the upper edge of the tail, just in front of the tail-fin. Grows to about 7 inches. Common but infrequently captured.

CORKWING WRASSE Crenilabrus melops M.
Ir.Bod gorm;Fr. Crenilabre melops;Ge. Schwarzdugigerlippfisch;Du. Zwartoog-Lipvisch Fin-ray formula D XV-XVIII/8-10, A 111/8-10. Edge of preoperculum serrated. Coloration very variable, not related to sex, varies from brown to green, sometimes with bars or other markings; throat may be streaked or netted with orange and/or blue; fins may be spotted. Often a small dark spot near the end of the lateral line, but this may be absent in large examples. Grows to about 1 lb . Common.

ROCK COOK Centrolabrus exoletus $M$.
Resembles corkwing in form and variable coloration, mouth small; preoperculum serrated; more than 3 spines in anal fin; teeth in a single row in jaws. DXVI11-XX/5-7, A W-VI/6-8. Grows to about 6 inches. Not common.


[^2]http://www.cfb.ie

## RAINBOW WRASSE Coris julis M.

Fr. Girelle; Sp . Doncella.
Fin-ray formula DVIII-IX/ 12, A 111/ 11-12. Body elongated.
Coloration variable and striking. Brownish above, yellow orange beneath, with a band along the side. In males, this band is zig-zag stripe of red or orange, bordered with blue. Grows to about 10 inches. Rare.

## MACKEREL Scomber scombrus M.

Ir. Ronnach; Fr. Maquereau; Ge. Makrele; Du. Makreel; It. Maccarello, Sgombro; Sp. Caballa.
First dorsal fin well separated from main portion of second dorsal.
Two small keels on each side at base of tail-fin. Back with characteristic wavy stripes (rarely with spots or scribblings); a line of longitudinal blotches below lateral line, but no, spots or blotches on lower sides. Grows to about 6 lb . No swim-bladder.

SPANISH MACKEREL, COLIAS MACKEREL Scomber colias M. Ir. - (Ronnach Spainneach =garfish); Fr. Maquereau espagnol; Ge. Kolios; Du. Spaansche mackreel; It. Lanzardo, Sgombro cavallo; Sp. Estornino. Generally similar to mackerel but with a larger head. Dorsals well separated; two small keels on each side at base of tail-fin. Scales in the pectoral region larger than elsewhere. Coloration much as in mackerel, but with dark spots or blotches on the lower sides. Grows to about 2 feet. Uncommon. Swim-bladder present.

FRIGATE MACKEREL, PLAIN BONITO Auxis thazard M.
Fr. Thazard; It. Tombarello; Sp. Melva.
Dorsal fins well separated. On each side, a well-defined keel an the tail column, in addition to the two small keels at the base of the tail-fin. Corselet of enlarged scaled in the pectoral region. Vague wavy markings on back. Grows to about 2 feet. Not common.


MACKEREL


SPANISH MACKEREL


FRIGATE MACKEREL

## OCEANIC BONITO Ka,tsuwonus pelamis M.

Fr. Bonite, Ge. Echter Bonito; It. Tonetto striato; Sp. Listado. Body rather stout. Dorsal fins separated by only a short gap; the first begins high and then, dips sharply. Keel on side of tail column and two keels at base of tail-fin. Longitudinal stripes on lower sides, parallel with curve of belly. DXV- $1 / 11-12+8$ finlets. Grows to about 40 lb. Not common.

## BELTED BONITO Sarda sarda M.

Fr. Pelamide; Ge. Pelamide; It. Palamita; Sp. Bonito.
Not so stout as previous species. Dorsal fins separated by only a short gap; the first highest anteriorly and decreasing in height progressively. Keel on side of tail column and two keels at base of tail-fin. Slanting stripes on sides and/or' dark vertical bands, but one or other of these sets of markings may fade away. DXXIXXIV-15-$16+7-10$ finlets. Grows to about 12 lb . Not common.

## ALBACORE Thunnus alalunga M.

Fr. Germon, Thon blanc; Ge. Germon; It. Tonno bianco, Alalonga; Sp. Albacora. Dorsal fins separated by only a narrow gap. Keel on side of tail column and two keels at base of tail-fin. Pectoral fin very long, reaching back beyond origin of anal fin. Grows to about 70 lb . Not common.

## TUNNY, BLUEFIN TUNA Thunnus thynnus M.

Ir. Tuinnin; Fr. Thon rouge; Ge. Thunfisch; Du. Tanijn; It. Tonno; Sp. Atun. Dorsal fins separated by only a narrow gap; main portions of second dorsal and anal not greatly elevated and dark in colour. A keel on side of tail column and two keels at base of tail-fin. Pectoral fins short. Grows to over $1,000 \mathrm{lb}$. Not common.
oceanic bonito
belted bonit

alBacore


GREY GURNARD Eutrigla gurnardus M.
Ir. Cnudan glas; Fr. Grondin gris; Ge. Grauer Knurrhahn; Du. Kleine poon;
It. Capone gorno, Sp. Borracho, Perlon.
Lateral line a prickly ridge. Greyish or reddish grey, head usually somewhat orange. Body and head sprinkled with pale spots. Pectorals without conspicuous markings. Grows to over 3 lb . Common.

RED GURNARD Aspitrigla gurnardus M.
Ir. Cnudan dearg; Fr. Grondin rouge; Ge. Roter Knurrhalm; Du. Engelesche poon;
It. Capone imperiale, Capone coccio; Sp. Arete, Eseacho.
Lateral line crossed by plates which produces a ribbed effect. Intense red; pectorals may have greyish or greenish streaks, but are without a blue border on inner surface; "fingers" not banded. Grows to over 3 lb. Common.

## TUB GURNARD Trigla lucerna M.

Ir. Cnudan gorm; Fr. Perlon; Ge. Seeschwalbe; Du. Groote poon; It. Capone gallinella; Sp. Bejel.
Lateral line a raised seam, not prickly or crossed by plates. Reddishbrown; pectorals very large, their inner sides with a vivid blue border at the tip (young may have a blue patch, with pale 11 polka dots," on the inner aspect of the pectorals). Grows to over 10 lb . Common.

## STREAKED GURNARD Trigloporus lastoviza M

Ir. Feochadan; Fr. Rouget camard; Du. Gestreepte poon; It. Capone ubriaco. Skin along sides vertically ridged. Reddish; pectorals with blue bands and "fingers" conspicuously banded. Grows to about 14 inches. Not common.

GREY GURNARD


RED GURNARD


TUB GURNARD


## ATHERINE, SAND SMELT Atherina presbyter M.

Ir. Traslan; Fr. Pratre; Ge. Ahrenfisch; Dw Schrapper; It. Lattarino; Sp. Pejerreyes. Small, slender, fork-tailed fish, with a brilliant silvery stripe along the side and a dark streak beneath it. Two dorsal fins, well separated, the first with 7 or 8 slender spines, the second with two slender spines and $10-13$ jointed rays. Grows to about 7 inches. Distantly related to grey mullet. Harbours and lower reaches of estuaries.

## SMELT Osmerus eperlanus B.

Fr. Eperlan; Ge. Stint; Du. Spierling; It. Sperlano, Eperlano; Sp. Eperldno. Another small, slender forked-tailed fish, with a brilliant silvery stripe along the side. A short but rather high-dorsal fin on the middle of the back; a small adipose fin some distance behind it. Long, sharp teeth. Grows to about a foot, usually 5-8 inches. Often confused with the previous species, but is related to the salmon and trout rather than the grey mullets. Smells strongly of cucumber. Estuarine; ascends to tidal limits in spring to spawn. Landlocked (freshwater) populations occur on the continent.Abundant in the Shannon; not recorded elsewhere in Ireland.

## LESSER WEEVER Trachinus vipera M.

Ir. lasgan an ghaith nimhe; Fr. Petite vive; Ge. Kleiner Petermann;
Du. Kleine Pieterman;
Body rather elongated and compressed; skin with diagonal pleating. Two dorsal fins, the first short, the second long and low; and long and low. D V-VII-21-24. A 24-26. Gape of mouth directed upwards. Golden-brown in colour; first dorsal fin black. The dorsal spines and a large spine on each gill-cover have poison glands at their bases and can inflict painful and potentially dangerous wounds requiring medical attention. Grows to about 6 inches. Common in many places on sandy bottoms in shallow water along beaches.

## GREATER WEEVER Trachinus draco, M.

Fr. Grande vive; Ge. Petermann; Du. Groote Pleterman; It. Trachina drago; Sp.Araila.
Essentially similar to previous species but body more elongated. Dark on the back, yellowish on the sides with dark markings; first dorsal with most of the membrane black. D V-VIII-29-32; A 11/28-34. A larger species, growing to about 16 inches. Just as dangerous as the previous species, but lives further from shore and is less often captured.

[^3]http://www.cfb.ie


## PLAICE Platmsa platessa M.

Ir. Leathog bhreac; Fr. Plie, Carrelet; Ge. Scholle; Du. Schol; It. Passera; Sp. Solla. The plaice, like other flatfishes, lies and swims on its side. During post-larval development, the skull bones twist, so that both eyes are on the same side of the head. This is the side which is upper-most and pigment is confined to this side. The plaice has the eyes on the right side and there is a row of bony knobs on the head ridge behind the eyes. Scales smooth. Colour, brownish with well defined red or orange spots. Grows to more than 7 lb .

## FLOUNDER Plathithys flesus. M, B, F.

Ir. Dubh-leatha; Fr. Flet; Ge. Flunder; Du. Bot; It. Passera pianuzza; Sp. Platija. Eyes and colour normally on the right side, but "reversed" examples are commoner amongst flounders than amongst other flat fishes. Conspicuous eniarged, rough, hard scales on head ridge, anterior part of lateral line and along bases of dorsal and anal fins on the eyed side. Dark brown to greenish-grey, sometimes with vague orange spots, blind side uniform opaque white. Grows to about 5 lb . Often occurs in fresh water well above the limits of the tide.

## DAB Limanda limanda $M$.

Ir. Leathog; Fr. Limande; Ge. Kliesche; Du. Schar; It. Limanda; Sp. Limanda. Eyes and colour on the right side, on which the scales are rough when rubbed towards the head. Lateral line strongly curved over the pectoral fin. Sandy with black and orange. flecks on the eyed side. Except in the body cavity region, the blind side is translucent bluishwhite even in large examples. Grows to about 2 lb .

## SOLE Solea solea M.

Ir. Sol; Fr. Sole; Ge. Tunge; Du. Tong; It. Sogliola; Sp. Lenguado.
The soles are distinguishable by their footprint-like outline, very flexible bodies and the projection of the snout beyond the, small, downcurved mouth. In this species, the nostrils on the blind side of the head are not enlarged; the pectoral on the blind side is developed to nearly the same extent as that on the eyed side; and there are no regularly-recurring black rays in the dorsal and anal. Greyish, with, in life, dark and light variegations. Grows to about 5 lb .


## TURBOT Scophthalmus maximus $M$.

Ir. Turbard; Fr. Turbot; Ge. Steinbutt; Du. Tarbot; It. Rombo chiodat; Sp. Rodaballo, Eyes and colour on the left side, which is vareigated brownish with numerous bony tubercles. Body diarnGnd-shaped. Grows to about 50 lb .

## BRILL Scophthalmus rhombus M.

Ir. Broit; Fr. Barbue; Ge. Glattbutt; Du. GTiet; It. Rombo liscio; Sp. Ramol. Eyes and colour on the left side, which resembles the turbot in colour, but is covered with smooth scales and lacks the tubercles. Outline more rounded than in the turbot. Grows to over 15 lb .

## MEGRIM Lepidorhombus whiffiagonis M.

Ir. ScioltAn; Fr. Cardine; Du. Scharretong; It. Rombo giallo; Sp. Lliseria, Gallo. Eyes and colour on left side. Outline narrower than in turbot or brill and body very thin. Pinkish brown, occasionally with some temporary mottlings. Grows to about 2 feet.
NOTE : In Ireland, this species is often called "witch" a name that properly belongs to the craigfluke, Glyptocephalus cynaglossus which is a right-handed flatfish. Both species are marketed as "white sole."

## HALIBUT Hippoglossus hippoglossus M.

Ir. Bo-leatha; Fr. Wtan; Ge. Heilbutt; Du. Heilbot; It. Halibut; Sp. Halibut. Outline norrower but body thicker through than in most flat fishes. Mouth larger, with jaws equally developed on blind and eyed side. Brownish on the eyed side, white on the blind side. Grows to over 600 lb .


## COMMON TOPKNOT Zeugopterus punctatus M.

Ir. Leathog lice; Fr. Targeur; It. Cornetto; Sp. Caracol gris.
Eyes and colour on the left side. Might be mistaken for a young turbot or brill, but the anal fin is united with the pelvic fins, and both dorsal and anal are continued under the tail on the blind side. Brownish, with dark patches and spots: one spot on the middle of the side is particularly prominent. Grows to about 10 inches. Common but seldom captured.

## ECKSTROM'S TOPKNOT Phrynorhombus regius M.

Eyes and colour on the left side. Pelvic fins not connected to anal, but both anal and dorsal continued under blind side of tail. Brownish, with dark blotches and regularly-recurring dark rays in the dorsal and anal fins. Grows to about 8 inches. Infrequently captured but probably not uncommon.

MONKFISH, ANGEL RAY Squatina squatina M.
Ir. Brathair; Fr. Ange de mer; Ge. Meerengel; Du. Bergelote; It. Squadro, Sp. Angelote. Sometimes confused with the angler fish (which is marketed as "monkfish") but this species is a cartilaginous fish. Looks like a cross between a shark and a skate., but is more closely allied to the former. Mouth terminal, instead of back behind snout as in sharks and skate. Grows to about 100 lb .

ANGLER FISH Lophius piscaterius M.
Ir. Lairnhineach, lasgaire; Fr. Baudroie; Ge. Seeteufel; Du. Zeeduivel; It. Rana pescatrice; Sp. Rape.
Skin naked, with numerous lappets, especially around the mouth. Huge head and wide mouth with numerous long teeth. Pectoral fins with fleshy bases; the gill opening behind the pectoral. First dorsal fin on the head, the rays separate; the anterior ray over the mouth and tipped with a " lure.." Grows to 150 lb .

A second species (Lophius budegassa) has recently been identified in Irish waters. The chief identifying feature is the lining of the stomach cavity. In Lophius piscatorius it is white and in Lophius budegassa it is black


ECKSTROM'S TOPKNOT


MONKFISH


ANGLERFISH


GARFISH Belone bellone M.
Ir. Ronnach Sphinneach; Fr. Orphie; Ge. Hornhecht; Du. Geep; It. Aguglia; Sp. Aguia.
Long, slender, sand eel-like fish with a long, toothed, snipe-like bill. Green-backed, silvery-sided. Dorsal and anal fins rather short, both placed far back, not divided up into finlets. Tail-fin forked; pelvic fins on middle of belly. Bones bright green. Grows to over 3 lb .

SKIPPER, SAURY PIKE Scomberesax saurus M.
Fr. Orphie maquereau; Ge. Makrelenhecht; Du. Makreelgeep; It. Costardella; Sp. Paparda.
Like garfish, but body proportionately deeper; bill proportionately shorter; dorsal and anal each divided up into a principal portion followed by a row of [inlets. Grows to about 18 inches.

GREATER SAND EEL Hyperoplus lanceolatus M.
Ir. SeadArt gainmhe, Guibin; Fr. Lan~ori; Ge. Grosser Sandaal (Tobiasfisch =lesser sand eel); Du. Groote Zandaal. It. Cicerello; Sp. Pion.
Slender, eel-like fish; dorsal and anal long and low; tail-fin small, forked, separate from dorsal and anal. No pelvic fins. Green backed, silvery. Grows to over 12 inches. Four other smaller species occur in Irish waters.

RED BANDFISH Cepola rubescens M.
Fr. Cepole; Ge. Roter Bandfisch;
Body long, compressed, band-like. A single long dorsal and a single long anal fin, tail tapers to a point. Pelvic fins under pectorals. Rosy red, with yellow markings. Grows to over 2 feet.

## CONGER Conger conger M.

Ir. Eascon mara; Fr. Congre; Ge. Meeraal; Du. Kongeraal; It. Grongo; Sp. Congrio. Dorsal, caudal and anal fins continuous; no pelvic fins. Dorsal begins about level with tip of pectoral. Body rather stout and muscular. Mouth large; the upper jaw the larger. Grows to over 100 lb . Offshore, inshore and in lower reaches of large estuaries.

EEL Anguilla anguilla E, B, M.
Ir. Eascon; Fr. Anguille; Ge. Aal; Du. Paling; It. Ariguilla; Sp. Anguila. Slimmer than conger. Dorsal begins well behind peciorals. Mouth rather small; the lower jaw the longer. Grows to about 10 lb . In estuaries and even salt water as well as lakes and rivers.


## LUMPSUCKER Cyclopterus lumpus M.

Ir. Leasan lice; Fr. Gros mollet; Ge. Seehase; Du. Snotdolf. It. Cicloterro. Body bulky, with rows of tubercles. First dorsal, in adult, overgrown by fleshy ridge; second dorsal free with soft rays. A flatsucking disc of complicated structure on the breast. Females variegated brownish or greenish; breeding males bluish above, red beneath. Grows to about 20 lb . Nоте: The young, less than 4 inch long, have the first dorsal free (though it is covered by skin) and lack the tubercles.

DRAGONET Callionymus lyra M.
Ir. lasgan nimhe; Fr. Callionyme Iyre, Lavandiore; Ge. Leierfisch; Du. Pitvisch. Head and anterior part of body depressed (flattened from above downwards); hind part of body slender. Two dorsal fins, the first triangular. Pelvic fins large, fan-like, in advance of pectorals. A group of claw-like spines on the cheek. Females and young males are sandy-brown with variegated markings; the first dorsal is about the same height as the second. Adult males have the first dorsal greatly elongated and are vividly marked with blue and yellow. Grows to about 12 inches. Nоте: Two other species have been recorded from the Irish coast. They are smaller and the males have the first dorsal less elongated. The colour pattern of males is different, though not less vivid.

SHORT-SPINED SEA SCORPION Myoxocephalus scorpius M.
Ir. Greasaidhe chladaigh; Fr. Chabot, It. Seazzone.
Skin naked. Two adjacent dorsal fins of about equal size. Pectorals very large, none of the rays separated. Pelvics contain one stiff and some soft rays. Head large and wide; mouth large; gill-membranes united across the throat, forming a pocket of skin on the under side of the head. Head with numerous spines, some of which can be erected. Variegated brownish or red-brown, mottled orange and blue beneath. Grows to about 3 lb . Mainly beyond tide marks, young examples in pools. A related but smaller species is common in tide pools.

SCAD Trachurus trachurus M.
Ir. Scadan carraige; Fr. Saurel; Ge. Bastardmakrele; Du. Horsmackreel; It. Suro, Sugarello; Sp. Jurele..
Shape somewhat like a mackerel, but body more compressed. First dorsal short, spiny, second dorsal and anal long, with two spines in front of the anal. Tail-fin deeply forked; pectorals long and pointed. Lateral line, with keeled plates, conspicuous and spiny posteriorly. Blue green above, steel blue on sides. Grows to about 3 lb .

[^4]http://www.cfb.ie


SCAD


## ATLANTIC SALMON Salmo salar M. and F.

Ir. Bradan; Fr. Saumon; Ge. Lachs; Du. Zalm; It. Salmone de reno; Sp. Salmon. In the salmon, the eye is intersected by or is below a horizontal line through the tip of the snout. The caudal peduncle or "wrist" of the tail narrows in and then swells out again at the base of the tail-fin.
Fresh-run salmon are blue and silver. At spawning time, the females are dull leaden coloured; the males, which develop a hook in the lower jaw, become mottled with red and orange (and are sometimes mistaken for large brown trout). Grows to 100 lb . in weight.

## SEA TROUT Salmo trutta M. and F.

Ir. Breac geal; Fr. Truite de mer; Ge. Meerforelle; Du. Forel. It. Trota di mare; Sp. Trucha.
Eyes above the level of a horizontal line through the tip of the snout. The "wrist" of the tail does not narrow in and then expand again as distinctly as in the salmon. Fresh-run sea trout are blue or green and silver with small, x-shaped black spots. Fish which have been up in fresh water for a long time may become dark and heavily spotted like brown trout. Microscopic examination of the scales is sometimes necessary to distinguish with certainty between salmon, sea trout and brown trout (it reveals differences in age, growth and migration history).

## SALMON PARR

Young salmon spend one to three years in fresh water before turning silvery (becoming smolts) and migrating to the sea. The young premigration salmon are known as parr and are sometimes mistaken for young brown trout. They may be distinguished as follows: -

|  | Parr | Young Brown Trout |
| :--- | :--- | :--- |
| Maxillary bone | does not reach beyond pupil <br> of eye | reaches beyond pupil; may <br> reach hind margin of eye. |
| Cadual peduncle | Slender | Stout |
| Tailfin | Forked | Slightly forked |
| Adipose fin | No red on fin | Red spot and/or margin. |
| Spots on cheek <br> and gill cover | 2 or 3, in line | Numerous, not regularly <br> arranged. |
| Spots on sides | Few or none below lateral <br> line. | Numerous spots below <br> lateral line |
| Parr marks | Well defined | Less well defined; usually <br> absent in larger juveniles. |

It is very difficult to distinguish between young sea trout and young brown trout, since both belong to the same species.


YOUNG BROWN TROUT


BROWN TROUT Salmo trutta F. and B.
Ir. Breac; Fr. Truite; Ge. Forelle; Du. Forel ;It. Trota; Sp. Trucha. Build varies according to feeding. Coloration very variable. In acid waters, usually olive, bronze and gold, with numerous black and red spots; dark spots more or less round and often surrounded with a pale ring (ocellated). In limestone waters, often silvery, with x-shaped black spots and few or no red spots (except foradipose fin).
Numerous spots on gill-covers and cheeks, not regularly arranged. Tail-fin usually not spotted, but spots may be present, especially on the upper lobe, in some large lake trout. Size very variable, from 2 oz. to over 20 lb . according to habitat and food supply.

## RAINBOW TROUT Salmo gairdneri F.

Ir. Breac ioldaite; Fr. Truite are-en-ciel, Ge. Regenbogenforelle;
Du. Regenboogforel; It. Trota iridea; Sp. Trucha arco-iris.
Coloration variable according to habitat. In acid waters, greenish on the back, with a vivid rosy flush on the gill cover and along the side. In alkaline waters, rainbows are more silvery and the bar along the side is, at most, slightly pink. Black spots only, absent from cheek and gill-cover and also, for the most part, along the mid-line of the sides. Tailfin heavily spotted. Sometimes faint spots on anal and pelvic fins also. In Irish waters, grows to, about 10 lb .

## CHAR Salvelinus alpinus F.

Ir. Breac dearg; Fr. Omble-chevalier; Ge. Seesaibling It. Salmerino; Sp. Salvelino. Troutlike fish, occurring in some deep lakes. Coloration variable, according to habitat, sex and breeding conditions. Olive or bluegrey above, becoming lighter on the sides. Some fish, especially breeding males, become red or orange on the belly and have the lower fins pink or red, with cream or white edges. Char have pale spots on a dark ground, whereas trout and salmon have dark spots on a light ground. In Irish waters, char grow to about 1.5 lb . but are often much smaller. Several types of Irish char have been recognised.

## POLLAN Coregonus albula F.

Blue-backed, silvery, fork-tailed, herring-like fish occurring in shoals in Lough Neagh, Lough Ree, Lough Derg and the Erne lakes. Allied to trout and salmon it has an adipose fin, but no spots. Grows to about 1.5 lbs .

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CHAR


POLLAN


## PIKE Esox lucius F.

Ir. Lius; Fr. Brochet; Ge. Hecht; Du. Snoek; It. Luccio; Sp. Lucio.
Torpedo shaped body; shovel like snout; large mouth with many sharp teeth; single dorsal fin set far back, over the anal fin. Greenish olive, mottled with lighter patches; the young have a more barred coloration. Grows to about 60 lb .

## PERCH Perca fluviatilis F.

Ir. Peirse; Fr. Perche; Ge. Baarsch; Du. Baars; It. Pesce Persico; Sp. Perea.
Two dorsal fins set close together, the first with sharp spines. Spines also in the origin of the anal fin and in the origin of the pelvic fins, which are placed under the pectorals. Greenish-olive, with black bars on the sides; pelvics, anal and tail-fin red or orange. Grows to about 6 lb .

## DACE Leuciscus leuciscus $F$.

Fr. Vandois; Ge. Hasel; Du. Serpeling.
More slender than roach or rudd (which see). Olive on the back, silvery on the sides; pelvics, anal and tail-fin pinkish-brown or sepia. From the chub (which does not occur in Ireland) the dace is distinguished by its smaller head and concave dorsal and anal fins (convex in the chub). Grows to about 1 lb . In Ireland, found in the Cork Blackwater system, the River Barrow, Doon Lake and the Lower Shannon.

## CARP Cyprinus carpio F.

Ir. Carban; Fr. Carpe; Ge. Karpfen; Du. Karper; It. Carpa; Sp. Carpa.
Mouth inferior, with thick lips and two pairs of barbels, one pair long. Tail-fin forked; dorsal fin long; a barbed, bony ray in the origin of the dorsal and in the origin of the anal fin. Several varieties, differing considerably in scaling and height of body, including (a) common carp,fully scaled carp; (b) mirror carp, with some greatly enlarged and shining scales (sometimes in rows, sometimes haphazardly distributed) on otherwise naked bodies; (c) leather carp, with a thick skin and only a few scales or none; (d) a leaden-coloured form, which appears naked, but really has a.full covering of very thin scales entirely devoid of pigment. Carp grow to over 40 lb . Localised.

## TENCH Tinca tinea F.

Fr. Tanche; Ge. Schleie; Du. Zeelt; It. Tinca; Sp. Tenea.
A thick-set fish with strong fins. Dorsal short, rounded, tailfin only slightly concave. Pelvic fins very large, spoon shaped and with greatly thickened anterior rays in adult males. A pair of minute barbels attached to mouth. Greenish olive. with orange-red eyes. Grows to about 10 lb.

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ROACH Rutilus rutilus $F$.
Fr. Gardon; Ge. P16tz, Rotauge; Du. Blankvoorn; It. Triotto; Sp. Bermejulea. Mouth inferior; dorsal fin noticeably large, with its origin over the insertion of the pelvic fins. Anal fin short, with 9-12 branched rays (excluding the unbranched ray at the leading edge of the fin and the short rays fused with it). 40-46 scales along lateral line. Blue on the back, silvery on the sides (sometimes with a bronze lustre in big fish); dorsal, brownish red; pelvics, anal and tailfin red. Grows to about 4lb. Now spreading through most major river systems.

## RUDD Scardinius erythrophthalmus F .

Ir. Talog or Roiste; Fr. Rotengle; Ge. Rotfeder; Du. Ruisvoorn; It. Scardola. Cleft of mouth directed obliquely upwards; dorsal fin small, its origin well behind insertion of pelvic fins. Anal fin short, with 10-13 branched rays. 39-44 scales along lateral line. Young blue and silver; large fish green-backed, with a golden lustre, on the sides. Dorsal reddish-brown; pelvies, anal and tail-fin red. Grows to about 4 lb . Commonly miscalled "roach."

## BREAM, BRONZE BREAM Abramis brama F.

Ir. Bran; Fr. Breme; Ge. Blei, Brachsen; Du. Brasom. It. Brama.
Mouth inferior. Dorsal short-based, but high and 'peaked', its origin some distance behind insertion of pelvic fins. Anal fin very long, with 23-29 branched rays. Tail-fin large, deeply forked, the lower lobe the longer. 49-57 scales along the lateral line. Very slimy. Young fish (up to about 12 inches) greyish above, silvery on the sides, fins grey. Large fish bronze, with very dark fins. Grows to over 12 lb.

| HYBRIDS |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Roach x Rudd | Roach x Bream | Rudd x Bream |
| Mouth | Terminal | Inferior | Terminal |
| Dorsal <br> fin | Large, some <br> distance behind <br> pelvics | Large, short distance <br> behind pelvics | Rather small <br> somewhat "peaked" <br> well behind pelvics |
| Anal <br> fin | Short, 9-13 <br> branched rays | Intermediate length, <br> I5-20 branched rays | Intermediate length, <br> $15-21$ branched rays. |
| Lateral <br> line | $39-46$ scales. | $42-54$ scales. | $46-50$ scales. |
| Colour <br> (Young) | Blue and silver, <br> red fins | Blue-grey and silver, <br> pinkish brown fins | Blue-grey and silver, <br> pinkish brown fins. |
| (Adults) | Blue and silver, <br> sometimes <br> golden lustre, <br> red fins. | Olive, silvery with bronze <br> lustre, blackish red fins | Olive, silvery with a <br> bronze or <br> brassy-bronze lustre, <br> blackish red fins. |



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MINNOW Phoxinus phoxinus F.
Ir. Libin; Fr. Vairon; Ge. Elritze; Du. Elrits; It. Sanguinerolla; Sp. Piscardo. Dorsal fin base overlaps origin of anal fin. Mottled brownish, with a dark band along the side, ending in a black spot at boe, of tail. At spawning time, the dark bar becomes greenish rather than black and black and red pigment develops on the throat and belly. Grows to 4 inches, rarely longer.

## STONELOACH Noemacheilus barbatulus F.

Ir. Cailleach Ruadh; Fr. Loche franche, Ge. Bartgrundl; Du. BermpJe; It. Barbatello; Sp . Lobo.
Rather elongated body; three pairs of barbels around mouth; tailfin square-cut or slightly concave; eye very small. Mottled olive or greenish-olive. Grows to about 5 inches, usually much smaller.

## GUDGEON Gobic, gob,io F.

Ir. Gaistoin, bronag; Fr. Goujon; Ge. Grundling; Du. Grondel; It. Gobione; Sp. Gobio.
A single pair of barbels; tail-fin forked; eye fairly large. Yellowisholive, with blackish patches; fins with rows of dark spots. Grows to about 4 oz.

EEL Anguilla anguilla F, B. M.
Ir. Eascon; Fr. Anguille; Ge. Aal; Du. Paling; It. Anguilla; Sp. Anguila. Dorsal, anal and tail-fin continuous; dorsal begins well behind pectorals. No pelvic fins. Mouth small, with lower jaw the, longer. Growing eels are greenish-olive on the back, yellowish on the sides and have a small eye. Mature eels, when ready to migrate to the sea to spawn (and subsequently die), become dark on the back and silvery on the sides and the eye becomes much bigger. Eels grow to about 10 lb . See also Conger Eel.

SEA LAMPREY Petromyzon marinus F. and M.
Ir. Loimpre; Fr Lamproie marine; Ge. Meereunauge; Du. Zeeprik; It. Lampreda di mare; Sp. Lamprea de mar.
Eellike but lacks pectoral or pelvic fins and gill covers. Has a row of seven circular gill openings behind the eye. Two dorsal fins on hind part of the body. Mouth eliptical when open, closes to a slit, with numerous hooked teeth arranged in rows. Olive brown above with black mottling, whitish grey beneath. Grows to about 40 inches. Migrates to sea, returns to freshwater to spawn and die. Parasitic on other fishes in adult stage.

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There are two other Irish species of lampreys:

RIVER LAMPREY Lampetrafluviatilis F. and M.
Ir. Peist da shuil deag; Fr. Lamproie de riviere; Ge. Flussneunauge; Du. Rivierprik;
It. Lampreda di Fuime; Sp. Lamprea de rio.
Both parts of the dorsal fin separated by a distinct space. The sucker disc with few, strong, well developed teeth. Colour grey, creamy beneath. Grows to 12-15 inches. Parasitic on other fishes.

## BROOK LAMPREY Lampetra planeri F.

Fr. Petite lamproie; Ge. Bachneunauge; Du. Beekprik; It. Lampreda minore; Sp. Lamprea de arroyo.
The dorsal fins are continuous with a dip in the margin of the fin near the tail. The fins are unpigmented except close to the body. The sucker disc, small with few weakly developed blunt teeth. Colour grey or brown dorsally, white or creamy beneath. Grows to about 8 inches. Non-migratory; non-parasitic; common.



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| SCHEDULE OF SPECIMEN Weghts 2003 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FRESHWATER FISH | IRISH RECORD |  | SPECIMEN WEGHT |  |  |
|  | lbs | ozs | lbs | ozs | kg |
| Bream(Abramis brama) | 12 | 3 | 7.5 |  | 3.402 |
| Carp (Cyprinus carpio) | 29 | 13 | 12 |  | 5.443 |
| Dace (Leuciscus leucisus) | 1 | 2 | 0.772 |  | 0.35 |
| Eel (Anguilla anguilla) | 6 | 15 | 3 |  | 1.361 |
| Perch (Perca fluviatilis) | 5 | 8 | 2.646 |  | 1.2 |
| Pike (Esox lucius) (Lake) | 41 |  | 30 |  | 13.608 |
| Pike (Esox lucius) (River) | 42 |  | 20 |  | 9.072 |
| Roach (Rutilus rutilus) | 1.425 kg |  | 2 |  | 0.907 |
| Roach/Bream Hybrid | 7 |  | 3.528 |  | 1.6 |
| Rudd (Scardinius erythrophthalmus) | 4 | 8 | 2.25 |  | 1.021 |
| Rudd/Bream Hybrid | 7 | 10 | 3 |  | 1.361 |
| Tench (Tinca tinca) | 8.15 |  | 6 |  | 2.722 |
| Salmon (Salmo salar) | 57 |  | 20 |  | 9.072 |
| Brown Trout (Salmo trutta) (Lake) | 26 | 2 | 10 |  | 4.536 |
| Brow n Trout (Salmo truta) (River) | 20 |  | 5 |  | 2.268 |
| Sea Trout (Salmo trutta) | 16 | 6 | 6 |  | 2.722 |
| Slob Trout (Salmo trutta) | - |  | 10 |  | 4.536 |

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| SEA FISH | lbs | ozs | lbs | ozs kg |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Angler Fish (Lophius piscatorius) | 42.985 kg |  | 40 |  | 18.144 |
| Bass (Dicentrarchus labrax) | 17 | 13 | 10 |  | 4.536 |
| Black Sole (Solea solea) | 6.32 |  | 2 |  | 0.907 |
| Bluemouth (Helicolenus dactylopterus) | 2.4 |  | 1.9845 |  | 0.9 |
| Brill (Scophthalmus rhombus) | 9 | 8 | 5 |  | 2.268 |
| Coalfish (Pollachius virens) | 31.45 |  | 15 |  | 6.804 |
| Cod (Gadus morhua) | 42 |  | 20 |  | 9.072 |
| Conger (Conger conger) | 72 |  | 40 |  | 18.144 |
| Dab (Limanda limanda) | 2 | 5.5 | 1.5 |  | 0.68 |
| Dogfish - Greater Spotted (Scyliorhinus stellaris) | 23 | 12 | 16 |  | 7.257 |
| - Lesser Spotted (Scyliorhinus caniculus) | 4 | 4 | 3.25 |  | 1.474 |
| - Spur (Squalus acanthias) | 21.25 |  | 12 |  | 5.443 |
| Flounder (Platichthys flesus) | 4.91 |  | 3 |  | 1.361 |
| Garfish (Belone bellone) | 3 | 10.5 | 2.25 |  | 1.021 |
| - (Belone svetovidovi) | 1.11 |  | 0 | 14 | 0.355 |
| Gurnard - Grey (Eutrigla gurnardus) | 3 | 1 | 1.5 |  | 0.68 |
| - Red (Aspitigla cuculus) | 3 | 9.5 | 2 |  | 0.907 |
| - Tub (Trigla lucerna) | 12 | 3.5 | 5 |  | 2.268 |
| Haddock (Melanogrammus aeglifinus) | 10 | 13.5 | 7 |  | 3.175 |
| Hake (Merluccius merluccius) | 25 | 5.5 | 10 |  | 4.536 |
| Halibut (Hippoglossus hippoglossus) | 156 |  | 50 |  | 22.68 |
| Herring (Clupea harengus) | 0.425 kg |  | 0.75 |  | 0.34 |
| John Dory (Zeus faber) | 7 | 8 | 4 |  | 1.814 |
| Ling (Molva molva) | 48 | 8 | 25 |  | 11.34 |
| Mackerel (Scomber scombrus) | 4 | 2 | 2.5 |  | 1.134 |
| Megrim (Lepidorhombus whiffiagonis) | 1.85 kg |  | 1.75 |  | 0.794 |
| Monkfish (Squatina squatina) | 73 |  | 50 |  | 22.68 |
| Mullet - Grey, thick lipped (Crenimugil labrosus) | 9.1 |  | 5 |  | 2.268 |
| - Red (Mullus surmuletus) | - |  | 1 |  | 0.454 |
| Plaice (Pleuronectes platessa) | 8.23 |  | 4 |  | 1.814 |
| Pollack (Pollachius pollachius) | 19 | 3 | 12 |  | 5.443 |
| Pouting (Trisopterus luscus) | 4 | 13.5 | 3 |  | 1.361 |
| Ray - Blonde (Raja brachyura) | 36 | 8 | 25 |  | 11.34 |
| - Cuckoo (Raja naevus) | 5 | 11 | 4.5 |  | 2.041 |
| - Bectric (Torpedo nobiliana) | 40 kg |  | 20 |  | 9.072 |
| - Homelyn (Raja montagui) | 8.28 |  | 5 |  | 2.268 |
| - Painted (Raja microcellata) | 17.21 |  | 10 |  | 4.536 |
| - Sting (Dasyatis pastinaca) | 33.2 kg |  | 30 |  | 13.608 |
| - Thornback (Raja clavata) | 37 |  | 20 |  | 9.072 |
| - Undulate (Raja undulata) | 18 |  | 14 |  | 6.35 |
| Ray's Bream (Brama brama) | 6 | 4.25 | 5 |  | 2.268 |
| Red Sea Bream (Pagellus bogaraveo) | 9 | 6 | 4.5 |  | 2.041 |
| Rockling, Three Bearded (Gaidropsarus vulgaris) | 3 | 1 | 1.75 |  | 0.794 |
| Scad (Trachurus trachurus) | 1.97 |  | 1.5 |  | 0.68 |
| Shad - Allis (Alosa alosa) | - |  | 4 |  | 1.814 |
| - Tw aite (Alosa fallax) | 1.54 kg |  | 2.4255 |  | 1.1 |
| Shark - Blue (Prionace glauca) | 206 |  | 100 |  | 45.359 |
| - Mako (Isurus oxyrinchus) | - |  | 200 |  | 90.718 |
| - Porbeagle (Lamna nasus) | 365 |  | 150 |  | 68.038 |
| - Six-Gilled (Hexanchus griseus) | 154 |  | 100 |  | 45.359 |
| - Thresher (Alopias vulpinus) | - |  | 120 |  | 54.431 |
| Skate - Common (Raja batis) | 221 |  | Suspended |  |  |
| - Long Nose (Raja oxyrinchus) | - |  | 80 |  | 36.287 |
| - White (Raja alba) | 165 |  | 120 |  | 54.431 |
| Smooth Hound (Mustelus asterias) | 16.58 |  | 7 |  | 3.175 |
| Stone Basse (Polyprion americanus) | 10 | 13 | 8 |  | 3.628 |
| Tope (Galeorhinus galeus) | 66 | 8 | 40 |  | 18.144 |
| Torsk (Brosme brosme) | 10 | 11 | 6 |  | 2.721 |
| Trigger Fish (Balistes carolinensis) | 4.83 |  | 3.25 |  | 1.474 |
| Tuna - Albacore (Thunnus alalunga) | - |  | 26.26 |  | 12 |
| -Bluefin (Thunnus thynnus) | 440 kg |  | 330.75 |  | 150 |
| Turbot (Scophthalmus maximus) | 34 |  | 18 |  | 8.165 |
| Whiting (Merlangius marlangus) | 4 | 14.5 | 3 |  | 1.361 |
| Wrasse - Ballan (Labrus bergylta) | 4.3 kg |  | 4.75 |  | 2.154 |
| - Cuckoo (Labrus mixtus) | 2 | 7 | 1.25 |  | 0.567 |


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