

Basic Identification Guide of Common Bycatch Species

Fishing Intensity Trial- 2014

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Contents

Mollusca – Bivalvia	3
Mollusca- Gastropoda	7
Molluscs – Cephalopoda.....	9
Crustacea – Brachyura.....	11
Echinodermata	17
Fish	23
Elasmobranchii	32
Cnidaria	34
Hydrozoa - Hydroida.....	37
Annelida	39
Porifera.....	40

Mollusca – Bivalvia

Aequipecten opercularis (Queen scallop)



80mm

- Shell is light pink/brown to yellow/orange with approximately 20 radiating ribs.
- Left valve more convex than right.
- Up to 90mm but frequently less, as long as deep.

MAIN FEATURES:

- **Both shells are round**
- **Often covered with orange sponge**

Pecten maximus (Great scallop)



130mm

- Right valve off-white/yellowish, left valve light pink/reddish-brown with approximately 16 bold radiating ribs.
- Left valve flat, right valve strongly convex.
- Up to 150mm, slightly longer than deep.

MAIN FEATURES:

- **Bottom shell round and whitish**
- **Top shell flat and pink/brown (sometimes, rarely, white)**

Glycymeris glycymeris (Dog cockle)



65mm

- Dull brown, yellow or light purplish red, uniformly coloured or in irregular concentric zigzag on a cream background;
- Shell thick, robust, almost circular
- In fine shell gravels

MAIN FEATURES:

- **Round / circular**
- **Zig-zag pattern of colours**

Ensis ensis (Common razor shell)



130mm

- Dull white/cream, periostracum glossy, light to dark olive/green
- Up to 130mm long.
- Dorsal and ventral margins of shell symmetrically curved about mid-line, anterior margin rounded.
- Burrows in fine sand

MAIN FEATURES:

- **Can not be confounded with any other species**

Mytilus edulis (Blue/common mussel)



50-100mm

- Light horn to blue/purple, periostracum deep blue to black.
- Oval, pyriform or subtriangular, with umbones at apex.

MAIN FEATURES:

- **Can be confused with Modiolus. Look where the umbones are.**
- **Modiolus they are anterior but subterminal = it looks truncated**
- **Mytilus looks pointed as umbones at apex.**

Modiolus modiolus (Horse mussel)



50-100mm

- Dark blue/purple, adults can look yellow/dark brown.
- Oblong or irregularly triangular in shape, with blunt umbones.
- In young animals the shell appears bluish and the periostracum is extended into long, smooth spines.

Clausinella fasciata (Banded venus)



25mm

- Colour very variable, white through stages of yellow/brown, typically with bands, rays/streaks of colour.
- Shell subtriangular, relatively flat, umbones prominent.
- Up to 15 broad, bold, concentric ribs, round in section with fine concentric striations between.

MAIN FEATURES:

- **White with pink rays**
- **15 concentric ribs**

Can be confused with *Astarte sulcata* (Furrowed astarte): main difference is colour and number of ridges

- Shell broadly oval
- White or pink but with a thick, brown periostracum, often encrusted.
- Approximately 20 bold concentric ridges on valves.

MAIN FEATURES:

- **Often shiney brown**
- **20 concentric ridges**

Astarte sulcata (Furrowed astarte)



30mm

Laevicardium crassum (Norway cockle)



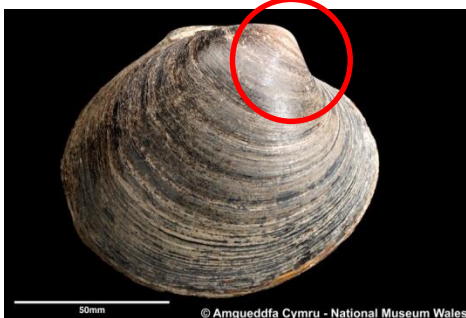
70mm

- Cream, light yellow/fawn with blotches of brown near the umbones.
- Obliquely oval with numerous (approximately 50) faints ribs.

MAIN FEATURES:

Often smooth in Cardigan Bay (no ribs)

Arctica islandica (Ocean quahog)



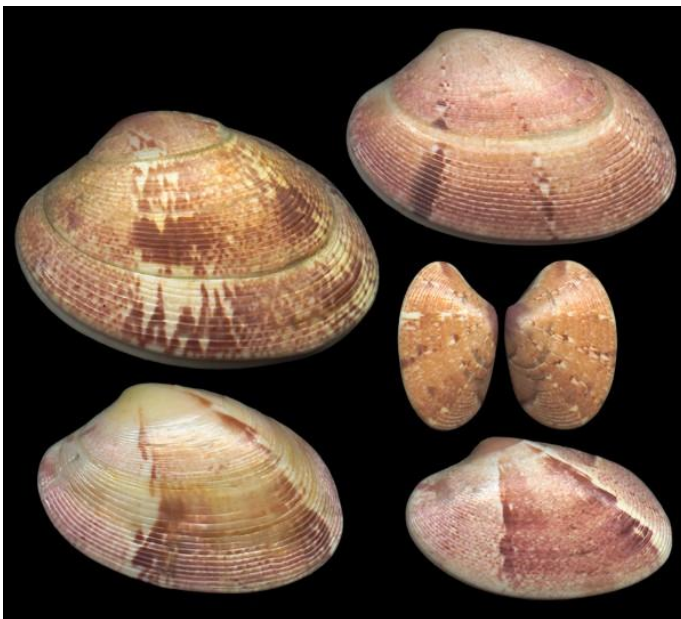
120mm

- Dull white with thick periostracum; glossy chestnut brown in smaller individuals and deep green/brown in large specimens
- Broadly oval, anterior hinge line strongly curved.
- Concentric shell increments coincide with annual growth.

MAIN FEATURES:

- **Can be carried colours**
- **Prominent umbo and beaks projecting forward**

Tapes rhomboides (Banded carpet shell)



65mm

- Sculpture consisting of thin concentric ridges and grooves.
- Cream/yellow/pink-brown/pink-cream coloured, but with reddish brown/mid-brown rays/blotches/zigzags. Sometimes has no pattern.

MAIN FEATURES:

- **Rhomboid shape**
- **If there, red zig-zag/blotches distinctive**

Mollusca- Gastropoda

Buccinum undatum (Common whelk)



110 x 68 mm

Neptunea antiqua (Red whelk)



200 x 50 mm

- Solid shell, spire of 7/8 tumid whorls; last whorl large (about 70% of shell height). Strong concentric ribs, spiral ridges and growth lines.
- Aperture broadly oval, tapering to a point.

MAIN FEATURES:

- **Large gastropod, with ribbed shell**
- **Can be confused with *Neptunea antiqua* (the Red whelk)**
- **Red whelk is smoother, has orangey/yellow inside the aperture and a narrow tapering aperture entrance and is generally larger.**
- *** look for difference in aperture***

- Yellowish, sometimes with reddish tinge.
- Slightly concave spire of 7 tumid whorls, protoconch rather bulbous with last whorl about 70-80% of shell height
- Numerous, fine spiral ridges and flexuous growth lines; thick spiral keel runs from shell base to umbilical region.
- Aperture broadly oval/ egg-shaped and pointed apically.

Colus gracilis (Slender colus)



70 x 28 mm

- White with horn-coloured periostracum.
- Fusiform with 8-10 almost flat-sided whorls, numerous narrow, strap-like spiral ridges and growth lines.
- Aperture elongate-oval, pointed apically with slight anal sinus drawn out into broad, rather shirt siphonal canal. Canal inclined sharply to left.

MAIN FEATURES:

- **tall & slender, white, pointed shell**

Apporhais pespelecani (Pelican's foot)



42 x 28 mm

- Cream/ sandy coloured, sometimes with purplish stain on back of last whorl.
- Spire tall, whorls tumid with crescentic ribs and fine, flat spiral ridges, apical whorls finely decussate.
- Aperture in mature shells dominated by webbed outer lip, uppermost process fuses with lower part of spire but does not reach apex. In juveniles this is only resembles a sharply pointed siphonal canal.

MAIN FEATURES:

- **Webbed outer lip makes this an obvious species**

Chiton



30 mm

- Distinctive oval mollusc
- 8 interlocking dorsal plates

MAIN FEATURES: Not easily confused

Molluscs – Cephalopoda

Loligo forbesii (Long finned squid)



Up to 900 mm

- Dorsal surfaces densely pigmented reddish-brown, ventral surfaces lighter.
- Mantle long, moderately slender, cylindrical, with pronounced stripes
- Fins are rhomboid $\frac{3}{4}$ mantle length, posterior border slightly concave
- Tentacle club with median suckers of the middle region only slightly larger than those at edges.

MAIN FEATURES:

- **Similar to *Loligo vulgaris* (Common squid).** Distinguishing feature is the tentacle club. Median suckers are much larger than the edge suckers in the common squid.

Loligo vulgaris (Common/European squid)



Up to 540 mm



- Pink to white with purple mottling
- Mantle long, slender, cylindrical
- Fins rhomboid, $\frac{2}{3}$ mantle length
- Distinguished by the tentacle club: median suckers of the middle section are 3-4 times the diameter of the adjacent marginal suckers.

Octopus vulgaris (Common Octopus)



← Up to 1300 mm →

- Colouring highly variable (grey, yellow, brown, green), can become white but is most commonly mottled reddish-brown.
- Body distinctly warty
- Arms thick and stout, bearing 2 longitudinal rows of suckers. Dorsal pair of arms slightly shorter.

MAIN FEATURES:

- Southern species. If found it is at the very limit of its range. More likely is the smaller *Eledone cirrhosa* (Curled octopus)

Eledone cirrhosa (Curled octopus)



← Up to 500 mm →

- Red-brown dorsally and white ventrally but change colour quickly.
- Body smooth or finely tuberculate
- Arms slender, finely distally tapered and curled when at rest with 1 longitudinal row of suckers.

Sepia officinalis (Common cuttlefish)



← Up to 450 mm →

- Rapidly change colour
- Dorsal anterior mantle edge fused to dorsal surface of head, between eyes, ventral edge of mantle with straight thickened edge
- Arms short with 4 rows of suckers, tentacular clubs 5-6 suckers.

MAIN FEATURES:

- Ventral edge of mantle straight thickened edge.

Sepiola atlantica (Little cuttlefish)



Up to 60 mm

- Colour variable, black/brown to pale.
- Body is smooth, translucent, with variably sized pigment blotches.
- plump, rounded shape
- Arms rounded with 2 longitudinal rows of suckers, tentacular club with 8 suckers in transverse rows.
- Dorsal mantle edge fused to head.

MAIN FEATURES:

- **Small round cuttlefish, max. 6cm long**
- **8 suckers on tentacular club**

Crustacea – Brachyura

Cancer pagurus (Edible brown crab)



Up to 250 mm

- Reddish-brown with black pincers.
- Carapace marked with 10 distinct rounded lobes, like a pie crust.

MAIN FEATURES:

- **Pie crust edge**
- **Reddy brown**
- **May have black spot disease**

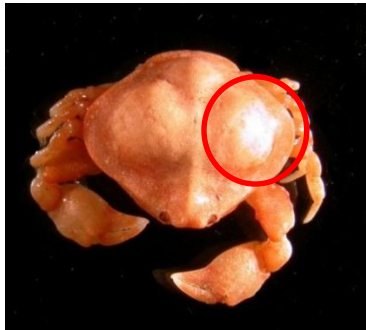
Nut crabs – Species given for reference but just *Ebalia spp.* Will be fine for our purposes

Ebalia tuberosa (Pennant's nut crab)



- Colour variable, reddish to yellowish-grey, often spotted red, otherwise varied brown/black or banded pink/orange.
- Tuberculate carapace

Ebalia tumefacta (Bryer's nut crab)



- variable
- Distinctive inflated carapace

Ebalia cranchii (Cranch's nut crab)



- Reddish-yellow to reddish-white with dark red spots and yellowish legs.
- Granulated carapace

Ebalia granulosa



- Yellowish colour with x2 red spots
 - Granulated carapace, with lateral swellings
- MAIN FEATURES:**
- **Small diamond shaped crabs, will often have their limbs folded under**



All up to ~ 11mm

Liocarcinus depurator (Harbour crab)



Up to 40mm

- Pale reddish-brown
- Purple tinge to swimming paddles
- Carapace rough to touch
- 3 anterior teeth between the eyes on the carapace all roughly same length

MAIN FEATURES:

- **Purple swimming paddles**
- **Rough feel to carapace**
- **Teeth between eyes same length**

*** can be confused with *Liocarcinus holsatus****

Liocarcinus holsatus (Flying crab)



Up to 40mm

- Brownish-grey, tinged with green.
- Carapace smooth
- Middle of the 3 anterior teeth between the eyes longest

MAIN FEATURES:

- **Middle tooth of the front three longer**
- **smooth carapace**

*** can be confused with *Liocarcinus depurator****

Necora puber- (Velvet swimming crab)



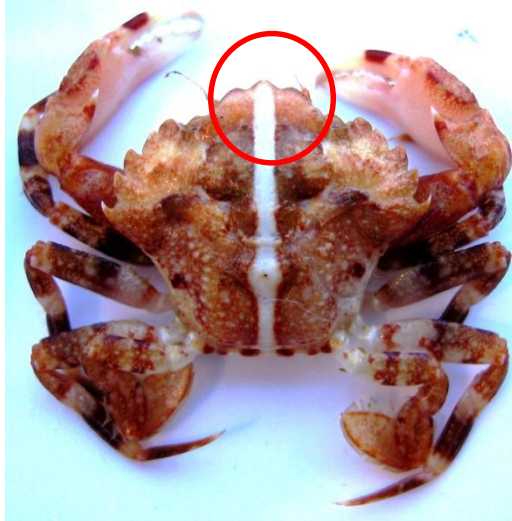
Up to 80mm

- Aggressive swimming crab
- The dorsal surface has a finely velvety texture
- Red eyes
- Between the eyes ~ 10 teeth, middle two often larger.

MAIN FEATURES:

- **Red eyes**
- **Aggressive**
- **Bright orange/red at joints**

Liocarcinus pusillus



Up to 23mm

- Protruding carapace

Liocarcinus corrugatus



Up to 43mm

- V rough carapace, no purple paddles

Maja squinado (Common spider crab)



Up to 210mm

- Red, brownish-red or yellowish
- Very large crab often covered with attached algae
- Circular, convex carapace bordered by strong tapered spines

MAIN FEATURES:

- **Big crab with long legs**
- **Spiny and red/orange**

Corystes cassivelaunus
(Masked crab)



Up to 40mm

Goneplax rhomboides
(Angular crab)



Up to 40mm

Eurynome aspersa
(Rough crab)



Up to 19mm

Inachus sp.



Up to 35mm

- Brownish yellow, depending on sponge covering
- *Inachus dorsettensis* most commonly found.

MAIN FEATURES:

- Often covered in sponge
- Outspread arms
- small with long spindly legs

Confused with *Macropodia sp.* – look for sponge covering

Macropodia sp.



Up to 30mm

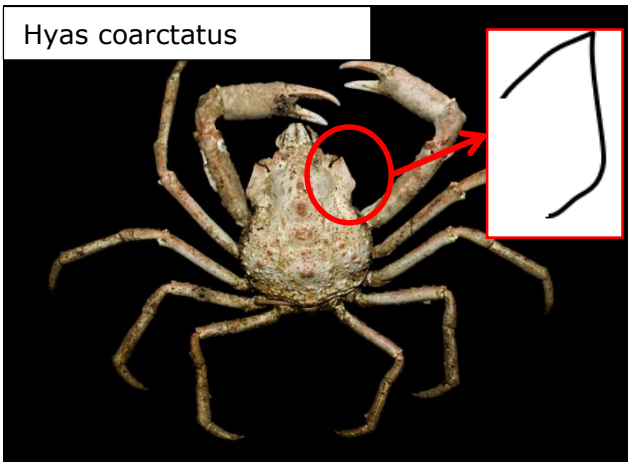
- Brownish red, depending on algae covering
- *Macropodia rostrata* most commonly found.

MAIN FEATURES:

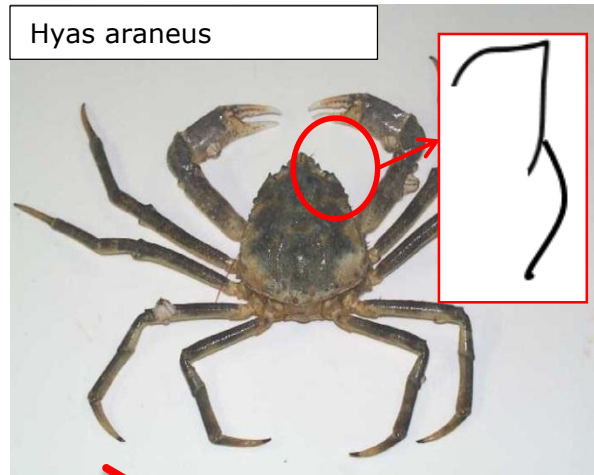
- Often covered in algae
- small with long spindly legs

Confused with *Inachus sp.* – look for algae covering

Hyas sp.



Up to 60mm



Up to 105mm

Difficult to tell apart – look at shape of post-orbital teeth. Carapace reddish/brown

Nephrops norvegicus (Dublin Bay Prawn/ Norway lobster/ scampi)



- Pale orange in colour
- First 3 pairs of legs with claws

MAIN FEATURES:

- **Not easily confused. Large and orange relative to common prawn/shrimp**



Up to 250mm

Pagurus bernhardus (Common hermit crab)



- Red/orange in colour, often blue at joints.
- Occupies any small gastropod shell. Larger individuals usually found in *Buccinum undatum* shells.
- The sponge *Suberties domuncula* is often found growing on its shell.



MAIN FEATURES: relatively large hermit



Up to 35mm

Pagurus prideauxi (Anemone hermit crab)



- Muddy red in colour with paler spots, chelae salmon pink.
- Upper surface of right chela regularly convex with a slight protrusion.
- Adults often accompanied by commensal cloak anemone *Adamsia carciniopados*.

MAIN FEATURES: Smaller than *Pagurus bernhardus*, associated with cloak anemone



Up to 14mm

Echinodermata

Anseropoda placenta (Goose foot starfish)



- Red on dorsal, yellow on ventral side
- subpentagonal, very thin and flat
- No pedicellariae but covered dorsally and ventrally with fine radiating rows of spine groups

MAIN FEATURES:
Not easily confused



Up to 200mm

Astropecten irregularis (Sand star)



- Sandy yellow/orange/pink/brown
- Stiff star shape
- 5 short tapering arms
- Horizontal row of long pointed spines along edge of arms

MAIN FEATURES:
Not easily confused.
- spines along edge of arms



Up to 200mm

Luidia ciliaris (Seven armed starfish)



- Brick red/ orange-brown
- body with small disc
- 7 long arms, only tapering in outer part
- spines on arm margins

MAIN FEATURES:
Can be confused with *Astropecten irregularis* – count arms
- 7 arms



Up to 400mm

Crossaster papposus (Common sunstar)



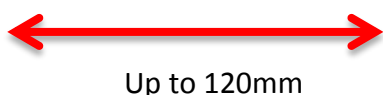
- Purplish-red/arms whitish with a broad red transverse band, oral side coloured whitish
- Body with large disc and 10-12 tapering arms (rarely 8-16)

MAIN FEATURES:

Not easily confused

- **10-12 arms, large central disc**

Henricia oculata (Bloody Henry)



- Red, pink/yellow with whitish tips to arms
- very small disc
- cylindrical tapering arms

MAIN FEATURES:

*** can be confused with *Stichastrella rosea* – different texture and colour***

- **Vibrant red/purple colour**
- **sandpaperly texture**

Stichastrella rosea (Rosy starfish)



- Orange/yellow
- body with very small disc
- 5 long stiff tapering arms
- Reticulated plated appearance to arms

MAIN FEATURES:

*** can be confused with *Henricia oculata* – different texture and colour***

- **Reticulated plated surface**
- **orange/yellow**

Asterias rubens (Common starfish)



~ 300mm

- Orange/pale brown/violet
- Body flexible with small disc, 5 short, tapered arms

MAIN FEATURES:

Most commonly found starfish

- **often loses legs**

Marthasterias glacialis (Spiny starfish)



Up to 700mm

- Pale grey-green with purple/orange/red
- body with small disc
- 5 evenly tapered long arms
- 3 rows of white spines with purple tips on each arm

MAIN FEATURES:

Can be confused with *Asterias rubens* – Look for spiny arms

- **Spiny arms**

Porania pulvillus (Red cushion star)



Up to 120mm

- Red/yellow/purple/orange with white/yellow spots/streaks
- Large disc
- 5 short, tapering arms
- Dorsal surface smooth with only scattered groups of papulae

MAIN FEATURES:

Not easily confused

- **large disc**
- **5 short arms**

Antedon bifida (Feather star)



Up to 100mm

- Reddish/brown/pink/orange, banded
- 5 pairs of feathery arms coming from a basal disc
- 20-25 cirri under disc to attach to rocks/algae

MAIN FEATURES:

Not easily confused

- feathery arms

- brittle

Ophiura ophiura (Serpent star)



Disc up to 35mm

- Upper side red-brown, lower side pale
- Arms 4 times diameter of disc
- Dorsal and ventral surface of disc covered with plates

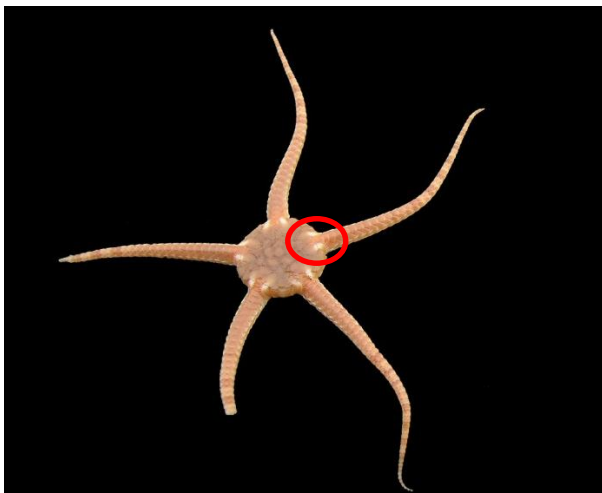
MAIN FEATURES:

- Red/brown colour

- Commonly found

- Larger than *Ophiura albida* and without white shields at base of arms

Ophiura albida (Serpent's table brittlestar)



Disc up to 15mm

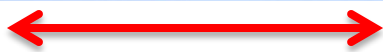
- Reddish brown conspicuous white radial shields
- body with central disc, 5 short, straight arms, approximately 4 times the length of body.
- Scales on disc rather coarse, small radial shields

MAIN FEATURES:

- Red/brown colour

- Smaller than *Ophiura ophiura* and with white shields at base of arms

Ophiothrix fragilis (Common brittle star)



Disc up to 20mm

- Varied in colour, brown/grey also purple/red/orange/yellow/white
- 5 spiny arms, x5 size of disc, plain or banded. Fragile/often broken
- Upper disc surface 5-rayed pattern of spines.

MAIN FEATURES:

- **Spiny arms, often banded**
- * **Can be confused with *Ophiocomina nigra* which has much darker colouration and granular disc surface***

Ophiocomina nigra (Black brittle star)



Disc up to 25mm

- Black-brown, grey/pink, can be spotted
- Fine scales on dorsal disc surface completely covered with granules
- 5 spiny arms.

MAIN FEATURES:

- **Smooth disc**
- * **Can be confused with *Ophiothrix fragilis* which has lighter colouration, arm banding and spiny disc surface***

Echinus esculentus (Common/edible sea urchin)



120mm

- Pink/purple, radial bands tinged green/purple.
- Domed

MAIN FEATURES:

- Not easily confused**
- **common urchin**
- **pink/purple**

Psammechinus miliaris (Shore sea urchin)



- Green, spines with purple tips

- MAIN FEATURES:**
Not easily confused
- common urchin
 - green/purple
 - small

Spatangus purpureus (Purple heart urchin)



- Purplish
- Heart-shaped

- MAIN FEATURES:**
***Could be confused with *Echinocardium cordatum** -**
Look at colour.
- Purplish

Echinocardium cordatum



- White/cream
- Heart-shaped

- MAIN FEATURES:**
***Could be confused with *Spatangus purpureus** -**
Look at colour.
- Cream/white

Fish

Agonus cataphractus (Pogge)



150mm

- Greyish/brown.
- Head wide, depressed, wider than long
- 2 dorsal fins
- No scales, hard bony plates
- Barbels on chin

MAIN FEATURES:

Not easily confused

- **Barbels on chin**
- **Bony plates**

Callionymus lyra (Common dragonet)



300mm

- Females and immature males pale brown with dark blotches and 3 distinct saddles
- Breeding males blue spots and stripes on body and fins, and first dorsal very long
- flattened head and body
- large pelvic fins
- eyes close together on top of head
- 2 dorsal fins, first triangular shape

MAIN FEATURES:

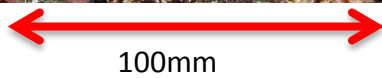
***Can be confused with**

Callionymus reticulatus*

- **Saddles not well defined**
- **Bigger**

- **3 saddles**
- **Flattened, triangular head**

Callionymus reticulatus (Reticulated dragonet)



100mm

- Pale brown with blue spots/red patches in breeding male
- 4 dark saddles with well-defined borders on dorsal
- flattened head and body, large pelvic fins
- eyes close together on top of head
- 2 dorsal fins, first triangular shape

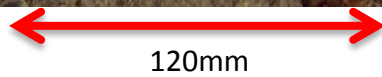
MAIN FEATURES:

***Can be confused with**

Callionymus lyra*

- **4 saddles with defined darker outline.**
- **Smaller <100mm**

Callionymus maculatus (Spotted dragonet)



120mm

- Light brown with dark silvery spots
- 4 longitudinal spots in dorsal of male, 2 in female
- flattened head and body, large pelvic fins
- eyes close together on top of head

MAIN FEATURES:

- Silvery spots

Taurulus bubalis (Long-spined sea scorpion)



200mm

- Variable – marbled reddish/brown with dark banding
- Large spiny head
- White barbels at corner of mouth
- very long spine on cheek

MAIN FEATURES:

***Confused with *Myoxocephalus scorpius** a bigger species (up to 600mm)**

- Look for white barbel

Chelidonichthys cuculus (Red gurnard)



500mm

- Red with pink mottling
- Bony extension below eye to preopercule
- Enlarged pectoral fins
- Large angular head/steep snout

MAIN FEATURES:

***Could be confused with *Trigla lucerna* – look for row of enlarged lateral line scales**

- Red colouring
- Lateral line row of large, plate-like scales

Trigla lucerna (Tub gurnard)



600mm

- Red/pink – yellow/brown/green
- Pectorals have brilliant peacock blue spots on outer rim
- Enlarged pectoral fins
- Large angular head/steep snout

MAIN FEATURES:

***Could be confused with *Chelidonichthys cuculus* – look at lateral line. Should be no enlarged, plate-like scales**

- Red colouring
- Peacock blue edge to pectoral fins

Eutrigla gurnard (Grey gurnard)



450mm

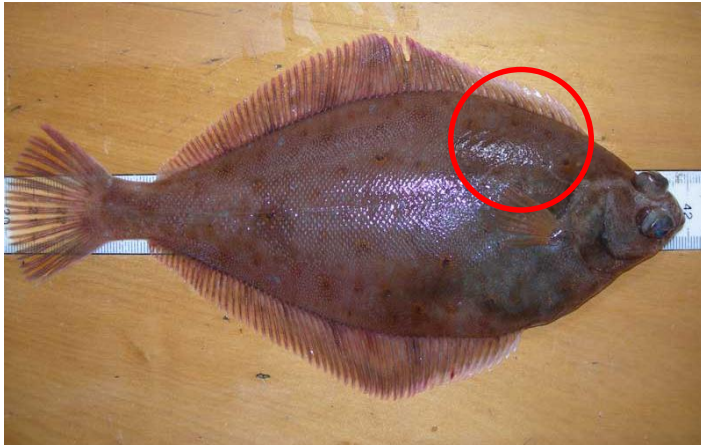
- Grey-greyish/brown, small whitish/cream spots
- Dark spot on first dorsal
- Enlarged pectoral fins
- Large angular head/steep snout
- Scales on lateral sharply spined

MAIN FEATURES:

- Sharp spines on scales on lateral line
- Dark spot on 1st dorsal

Right eyed flatfish

Limanda limanda (Dab)



500mm

- Sandy brown above, white below, often with small rusty-red spots
- Outline oval, head about 0.2 of total length, mouth small, maxilla just reaching right eye.
- Skin on eye side rough
- Lateral line strongly arched above the pectoral fin.

MAIN FEATURES:

***Confusion with**

***Pleuronectes platessa* ***

- **No bony scutes behind eye**
- **Obvious D shaped lateral line**

Pleuronectes platessa (Plaice)



600mm

- Dark brown above, brightly blotched with orange, pearly (not white) below
- Outline oval, head slightly less than 0.25 of total length, mouth fairly small
- Skin smooth without prickles
- Bony scutes on head behind eye

MAIN FEATURES:

***Confusion with *Limanda limanda* ***

- **Bony scutes behind eye**
- **Less obvious D to lateral line**

Pleuronectes flesus (Flounder)



- Brown mottled
- Run finger from head to tail and feel spines along the dorsal edge

MAIN FEATURES:

- **Spines along dorsal edge**

Check this feature as can be confused with Plaice/dab

Microstomus kitt (Lemon sole)
500mm



300mm

- Light brown, often marbles with lighter or darker irregular blotches
- Body oval, greatest about one-half of length, head small, 0.17 total length.
- Mouth small, right eye in advance of left.
- Scales cycloid, skin smooth and slimy.
- Rounded dorsal and ventral fins

MAIN FEATURES:

- **Rounded fins**
- **Large mottled pigment patterns, like mahogany**

Left eyed flatfish

Phrynorhombus norvegicus (Norwegian topknot)



130mm

- Brownish/pink with irregular darker markings, dark brown patches also on fins
- Oval body with distinct gap between anterior end of dorsal fin and upper jaw
- Pelvic fins of equal size, eyed side rough, large scales

MAIN FEATURES:

- **small**
- **large scales**

Scophthalmus maximus (Turbot)



800mm

- Colour variable, often greyish-brown with darker speckles, white below
- Almost round in shape
- Dorsal and anal fins not reaching caudal
- First rays of dorsal branched but just tips free of fin membrane
- scale less body with bony tubercles

MAIN FEATURES:

- **Scale less**
- **Round**
- **First rays of dorsal branched but not free of membrane**

Scophthalmus rhombus (Brill)



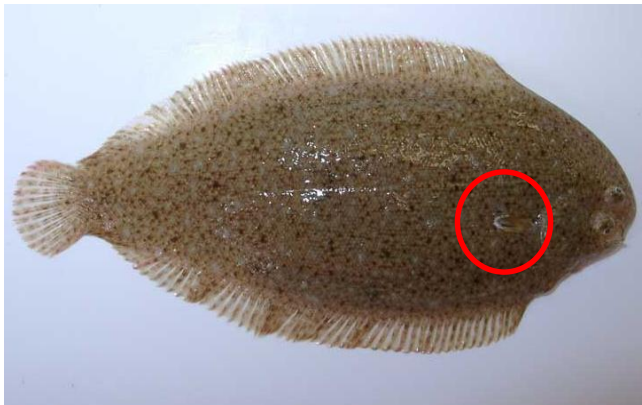
500mm

- sandy-brown, darker flecks and light spots
- Rhomboid/diamond shape
- First rays of dorsal free from fin membrane
- Scales present

MAIN FEATURES:

- **Scales**
- **Rhomboid**
- **First rays of dorsal free from membrane**

Solea solea (Common sole)



400mm

- medium brown/dark brown, pectoral with black spot on upper edge
- Slender, but thick set
- Dorsal and anal fin joined to tail by membrane

MAIN FEATURES:

- **Black spot on pectoral**

Microchirus variegatus (Thickback sole)



330mm

- Chestnut brown with 5 darker brown crossbands ending in dark patches on dorsal and anal fin
- Pectoral fins very small

MAIN FEATURES:

- **Dark brown cross bands**

Pegusa lascaris (Sand sole)



- light brown, irregular speckles
- pectoral with black mark inside cream 'v' middle of fin
- rosette shape on underside nostril



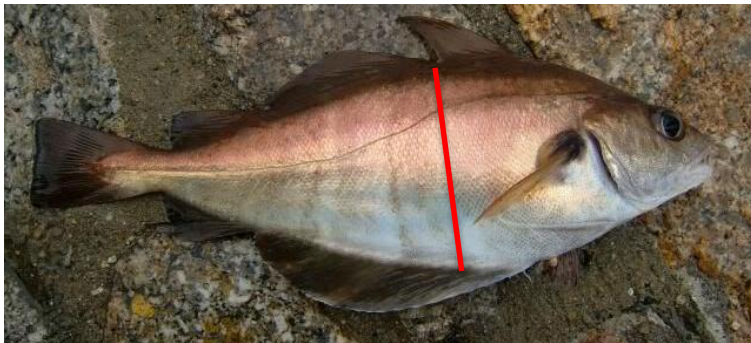
MAIN FEATURES:

- rosette nostril on underside



400mm

Trisopterus luscus (Bib/pout/pouting)



- coppery brown/yellow
- deep bodied
- 3 dorsal, 2 anal fins
- long chin barbel

MAIN FEATURES:

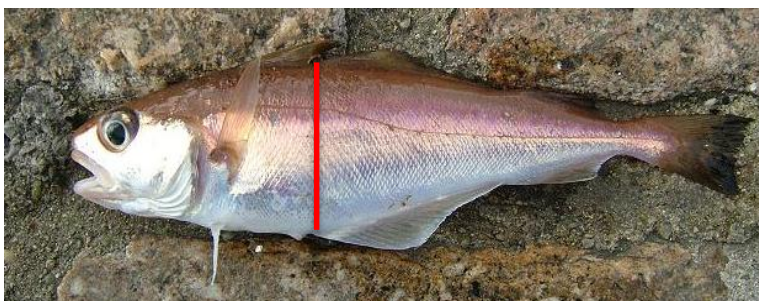
- First dorsal ends after anal fin begins
- dark spot base of pectoral



320mm

These two can get confused, check where the 1st dorsal finishes in relation to the 1st anal fin

Trisopterus minutus (Poor cod)



- coppery brown/yellow
- deep bodied
- 3 dorsal, 2 anal fins
- upper jaw overlaps lower
- long chin barbel

MAIN FEATURES:

- First dorsal ends where anal fin begins
- dark spot base of pectoral



200mm

Blennius ocellaris (Butterfly blenny)



200mm

- greenish-brown, with 5-7 darker bars
- conspicuous eyespot on dorsal fin

MAIN FEATURES:
- **eyespot on dorsal**

Parablennius gattorugine (Tompot blenny)



300mm

- yellowish-brown, with 7+ dark brown bars
- Distinctive 'eyebrows'

MAIN FEATURES:
- **distinctive eyebrows**

Zeus faber (John dory)



400mm

- golden green/grey or silvery/bronze with large yellow edged black spot on flank

MAIN FEATURES:
Cannot easily be confused
- **distinctive shape and dark spot on flank**

Labrus bergylta (Ballan wrasse)



Up to 660mm

- Variable green-brown-red
- No dorsal/tail/anal fin black dots as with most other wrasse species

MAIN FEATURES:

- **largest of all the wrasse and most abundant**

Lophius piscatorius (Angler/Monk fish)



Up to 2000mm

- Variable reddish-brown to greeny-grey
- Ventrally dead white
- broad, flattened head, short thickset tail
- very large mouth with long teeth

MAIN FEATURES:

- Cannot be confused with another species**

Ammodytidae (Sandeels)



Up to 400mm



MAIN FEATURES:

Difficult to confuse with another group of fish but extremely difficult to tell apart with in the family without very close inspection. Call *Ammodytidae spp.*

Elasmobranchii

Raja clavata (Thornback ray)



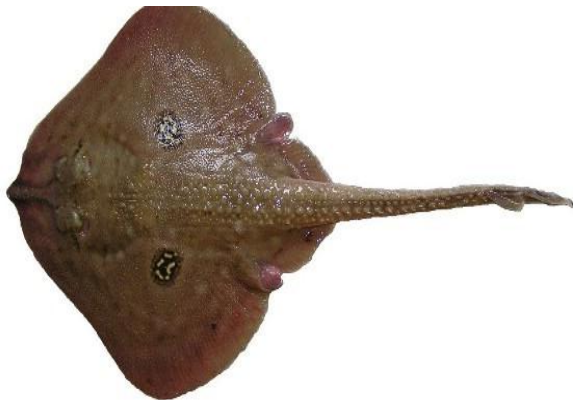
Up to 850mm

- Variable grey/brown/yellowish. Dark spots, yellow blotches, often marbled, white below, tail alternating bands
- Short-snouted
- leading edge of wings fairly straight, tips roughly right-angled, pointed
- Dense prickles over back, large thorns in midline from mid-disc to dorsal fins.

MAIN FEATURES:

- **Dense spiny back, with thorns**

Leucoraja naevus (Cuckoo ray)



Up to 700mm

- light grey/brown with light patches
- 2 distinct black round marks in center of each wing
- Short-snouted
- Rounded wings
- dorsal covered in fine prickles, except rounded patch on each wing
- 2 parallel rows of curved thorns on each side of midline along tail

MAIN FEATURES:

- **Distinct round black marking on each wing**

Raja undulata (Undulate ray)



Up to 1000mm

- yellowish-brown to deep brown with long distinct wavy bands with white or yellow spots
- Rounded fins
- Short snout, covered in prickles
- prickly back except rear edges of fins
- Mid-line row of spines on back, in older also on sides of tail

MAIN FEATURES:

- **wavy dark pigment bands on wings**

Raja brachyura (Blonde Ray)



Up to 1130mm

- light brown with creamy-white blotches and dense dark spots extending to very edge of wings and onto tail
- short snout
- fins almost right angled
- prickly back in all but juveniles, only front edges in young
- Line of larger spines on tail

MAIN FEATURES:

***Can be confused with *Raja montagui** - Look for spots to very edge of wings**

Raja montagui (Spotted Ray)



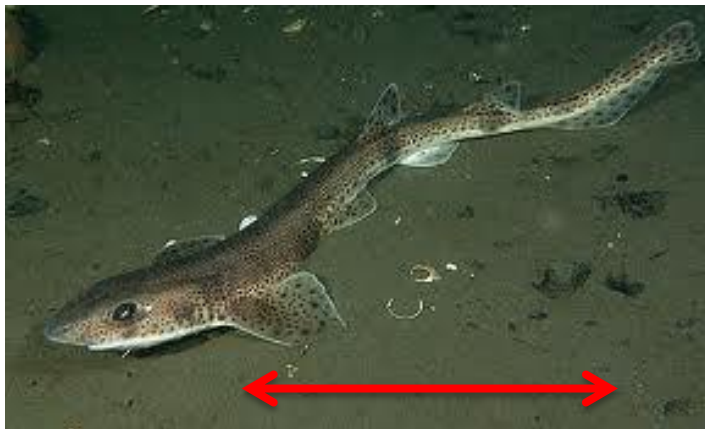
Up to 750mm

- warm brown, numerous black spots, stop 2-3cm short of fin margins
- most wings also have faint ocellus of a blue spot surrounded by ring of black spots
- short snout
- rounded wing tips, but nearly right angled
- fine prickles only anteriorly
- mid line row of large spines, in young fish spines scattered along edge of tail

MAIN FEATURES:

***Can be confused with *Raja brachyura** - No spots for 2-3cm at edge of wings**

Scyliorhinus caniculata (Lesser spotted catshark)



Up to 900mm

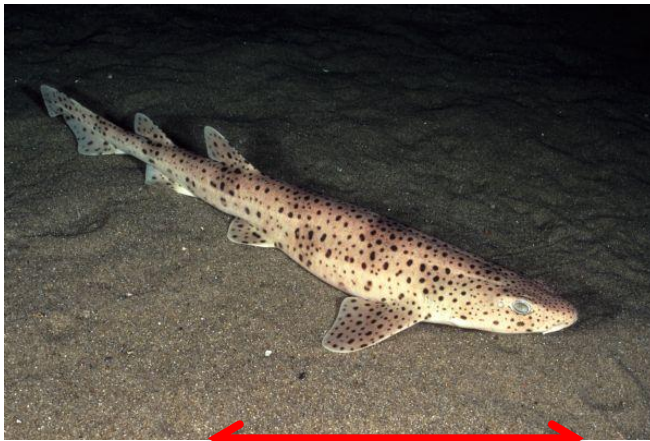


- sandy brown, numerous small brown spots, underside cream, 8/9 distinct dark saddles
- nostrils concealed by broad flaps which reach mouth

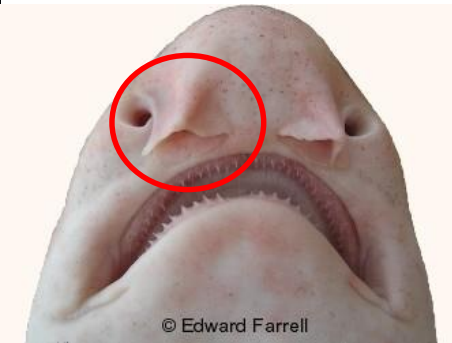
MAIN FEATURES:

- <1000mm
- nostril flaps reach mouth

Scyliorhinus stellaris (Nursehound/bull huss)



Up to 1500mm



- Sandy brown/greyish brown with mix of small dark brown blotches. Underside creamy white
- nostrils concealed by broad lobed flap but does not reach upper lip

MAIN FEATURES:

- **Can be >1000mm**
- **nostril flaps do not reach mouth**

Cnidaria

Alcyonium digitatum (Dead men's fingers)



Up to 150mm

- orange/white
- fleshy soft coral
- grows on rocks/shell
- finger-like lobes, covered in polyps

MAIN FEATURES:

- **fleshy finger like**
- **orange/white**

Archidoris pseudoargus (Sea lemon)



Up to 100mm

- Blotchy yellow/brown/red
- warty texture
- lamellate rhinophores at head end and ring of frilly gills at tail end

MAIN FEATURES:
- **big sea slug with warty surface**

Onchidoris bilamellata



Up to 40mm

- Blotched brown/white
- warty appearance, covered in tubercles
- lamellate rhinophores and frilly gills

MAIN FEATURES:
- **Small brown sea slug**

Metridium senile



Up to 250mm

- White/orange/red
- large anemone found on rocks/shell
- Smooth column
- Plain/unpatterned

MAIN FEATURES:
- **large, plain, smooth**
- **Orange/white**

Urticina felina (Dahlia anemone)



← Up to 150mm →

- Variable - white/pink/red/yellow
- Attached to rocks/shell
- short, stout, warty column sometimes with debris attached

MAIN FEATURES:

- **warty column**
- **Often pink/red**

Adamsia carciniopados



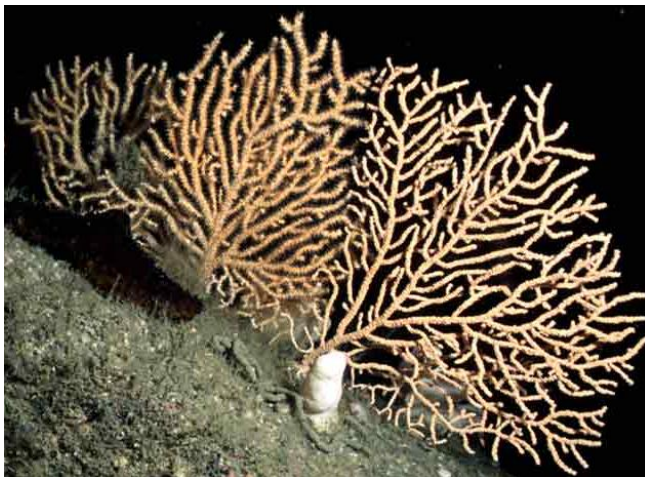
← Up to 50mm →

- Orange/red/cream with scarlet/pink spots
- Found attached to *Pagurus bernhardus*

MAIN FEATURES:

Difficult to confuse with another

Eunicella verrucosa (Pink sea fan)



← Up to 500mm →

- white-deep pink/orange
- branching fan shaped colony
- warty appearance due to polyps

MAIN FEATURES:

Difficult to confuse with another

Hydrozoa - Hydroida

Nemertesia antennina (Sea beard)



- yellow/cream
- Colonial hydroid
- Non-branching
- tangled mass of tough fibrous rootlets

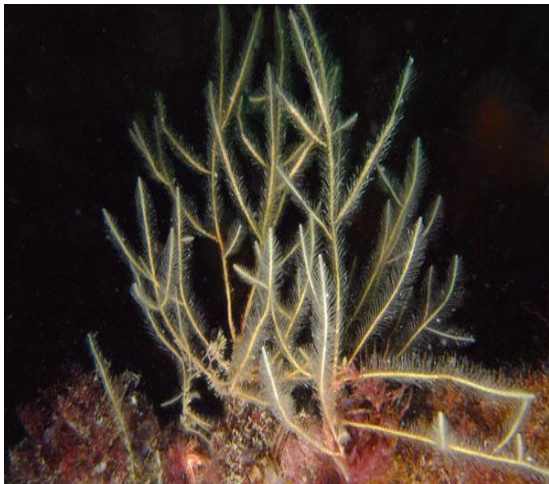
MAIN FEATURES:

- **Non branching**



Up to 250mm

Nermertesia ramosa (Hydroid)



- yellow/cream/orange
- Colonial hydroid
- Irregularly branching
- attached to shell/rock

MAIN FEATURES:

- **Branching**



Up to 150mm

Hydrallmania falcata (Bottle brush)



- Cream/yellow
- slender stem with feather like side branches arranged in a spiral
- Found in clumps
- attached to rock/shell

MAIN FEATURES:

- **Large and spiralling**
- **Very common**



Up to 500mm

Abietinaria abietina



- Yellow/cream
- Branching hydroid
- flat one dimensional
- Short alternate side branches
- relatively stiff

MAIN FEATURES:

- **flat and branching**



Up to 250mm

Bryozoa

Alcyonidium diaphanum



- Brown
- fleshy like a sponge/squirt
- finger like growths webbed/branched

MAIN FEATURES:

- *Often mistaken for sponge/hydroid* - tougher than sponge and oozy when snapped**



Up to 250mm

Cellaria sinuosa



- white/cream
- dichotomously branched and jointed
- forms dense tufts
- Attached to rocks/shell

MAIN FEATURES:

- **White and jointed**



Up to 100mm

Flustra foliacea (Hornwrack)



← Up to 200mm →

- Brown/yellow/cream
- rounded lobes, floppy like seaweed
- Can be found in large quantities
- Rough feel like sandpaper
- Smells of lemon

MAIN FEATURES:

- **sandpapery feel**
- **Lemony smell**

Pentapora fascialis (Ross coral)



← Up to 200mm →

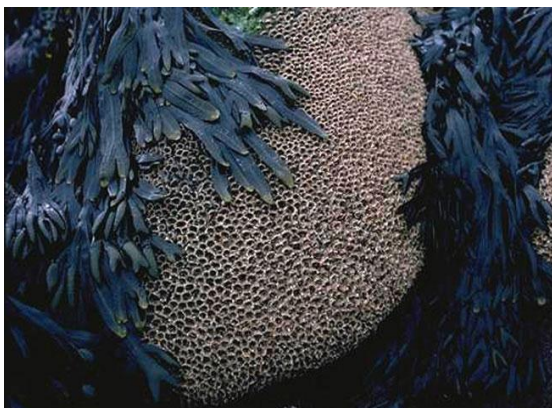
- Orange
- Brittle
- Colonial, growing on bedrock/large boulders
- undulating shape/folds

MAIN FEATURES:

- **Orange**
- **Brittle, will be in pieces on deck, need to pick them up and put them in jug**

Annelida

Sabellaria spinulosa



← Colonial can cover large areas →

- Brown
- crispy texture, like honeycomb
- Similar to *Sabellaria alveolata*

MAIN FEATURES:

- **brown crispy honeycomb-like, either in pieces on deck or attached to rocks**

Porifera

E.g. Halichondria sp.



Up to 150mm

E.g. Suberites sp.



Up to 400mm

- Soft bodied multicellulr organisms
- Soft springy texture like 'sponge'
- Variable in colours ranging from dark browns – fawn – orange/yellow
- Can be branching and erect or attached to rock surfaces

MAIN FEATURES:

- **Soft springy feel – like 'sponge'**