



**Will you dabble a toe...  
...or take the plunge?**



**READ ME!** And if you are not sure why you should, read pages 1 and 5!

First wave - activities for you to use on their own or as an introduction to a marine-themed meeting. Useful for the start of meetings (eg for earlybirds to do while waiting for the rest to arrive) and as fillers.



Second wave - a selection of 'old favourites' given a new marine flavour.  
Third wave - games and activities that require a bit more preparation.  
Fourth wave - ideas for integrating the sea more fully into your Watch programme.



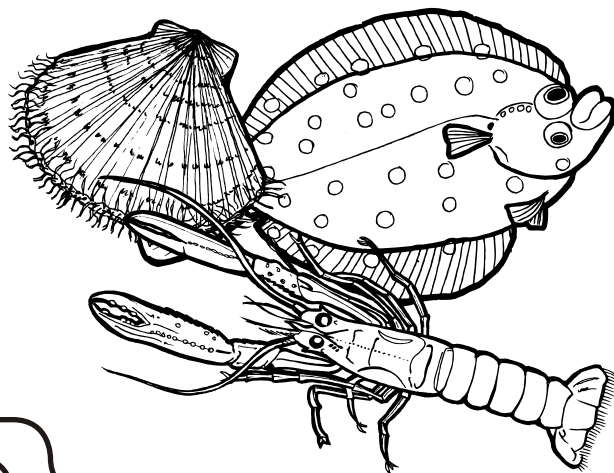
## Wildlife for tea?

Food for thought.

These days people in the UK don't eat wildlife on a regular basis, with two important exceptions: fish and shellfish. 90% of the seafood consumed around the world is wild-caught rather than farmed (though the proportion of farmed seafood is growing as techniques and technology improve). You could use the questions here to prompt discussion of where we get our food from and why. Depending on the knowledge and abilities of group members, try working in pairs or in small groups or all together.

- Q Why don't we eat much wildlife from the land these days?
- Q What wild species are still consumed?
- Q Who has eaten wild rabbit, wild deer, pigeon etc.?
- Q Why do we catch wildlife from the sea?
- Q What are the problems associated with killing wildlife for food? (e.g. we might take too much, we upset the food chain, we might damage habitats or accidentally kill the wrong species).

- Q Are there problems especial to catching marine wildlife?
- Q What kind of things might we do to lessen any problems?



## Commercial fish detectives

This list includes many of the common commercial species. It can be used: as a checklist for a group visit to an aquarium; fishmonger or supermarket; for a group activity browsing through cookery books or magazines; to give out whole or in sections to group members to try and spot in their own time, before reporting back to the group. Is any other information available, such as whether items are farmed or wild, or where and how they are caught?

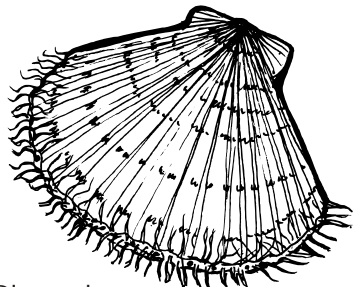
### tick as you spot them

<input type="checkbox"/> Black Sea Bream	<input type="checkbox"/> Dublin Bay Prawn (scampi)	<input type="checkbox"/> John Dory	<input type="checkbox"/> Razor shell
<input type="checkbox"/> Brown Crab	<input type="checkbox"/> Flounder	<input type="checkbox"/> Lobster	<input type="checkbox"/> Red Gurnard
<input type="checkbox"/> Cockle	<input type="checkbox"/> Grey mullet	<input type="checkbox"/> Mackerel	<input type="checkbox"/> Skate
<input type="checkbox"/> Cod	<input type="checkbox"/> Haddock	<input type="checkbox"/> Mussel	<input type="checkbox"/> Sprat
<input type="checkbox"/> Conger eel	<input type="checkbox"/> Hake	<input type="checkbox"/> Native Oyster	<input type="checkbox"/> Squid
<input type="checkbox"/> Cuttlefish	<input type="checkbox"/> Halibut	<input type="checkbox"/> Plaice	<input type="checkbox"/> Turbot
<input type="checkbox"/> Dab	<input type="checkbox"/> Herring	<input type="checkbox"/> Pollack	<input type="checkbox"/> Whiting
<input type="checkbox"/> Dover sole	<input type="checkbox"/> HUSS (Lesser Spotted Dogfish)	<input type="checkbox"/> Prawn	

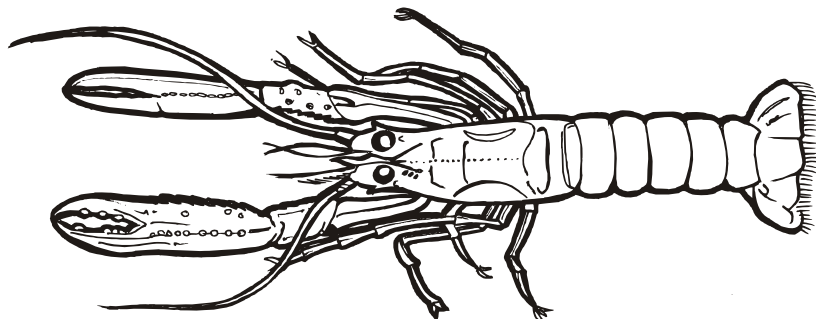


## Fish-a-grams

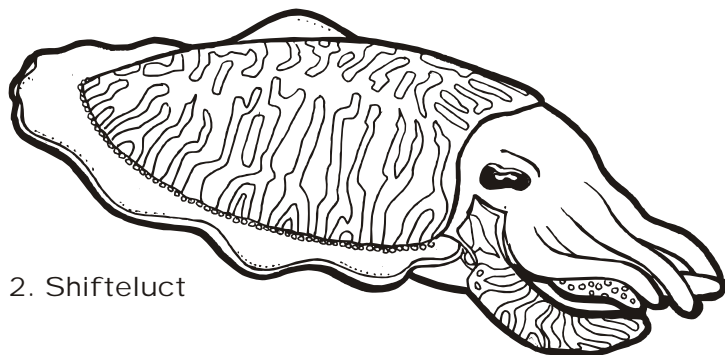
Solve these anagrams to identify sea creatures that you're more likely to see on a plate than in the wild.



1. Plascol



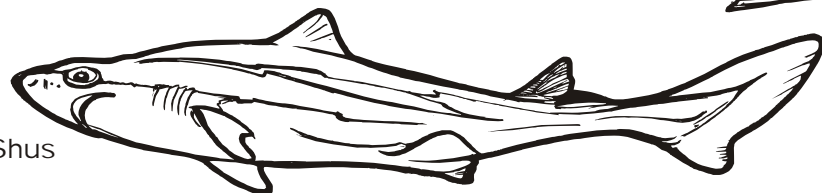
5. Blindu ayb arnpw



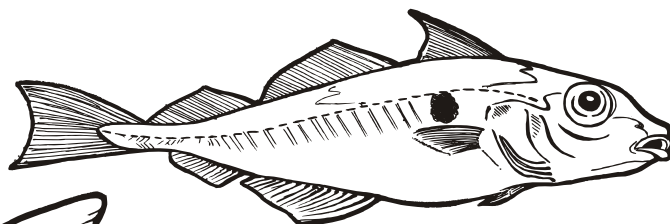
2. Shifteluct



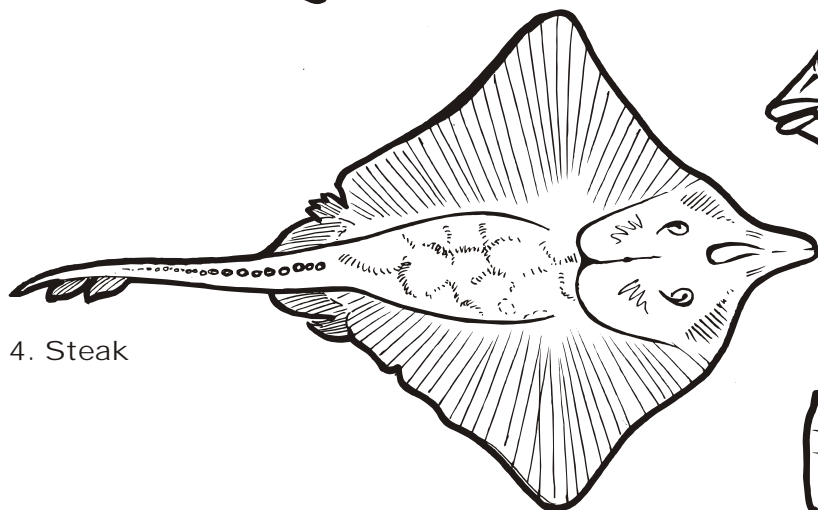
6. Slumse



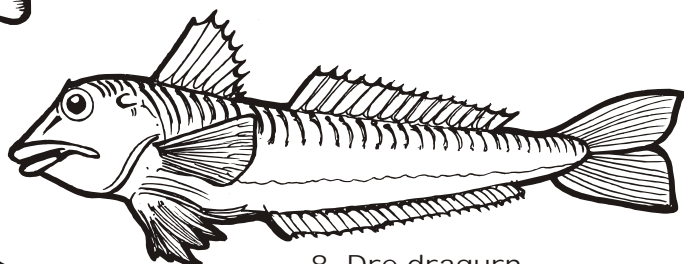
3. Shus



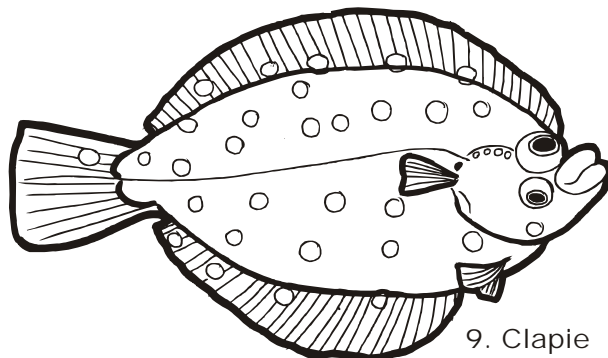
7. Oddchak




4. Steak



8. Dre dragurn



9. Clapie

 **Answers**  
1. Plascol (scallop) 2. Shifteluct (cuttlefish) 3. Shus (huss) 4. Steak (skate)  
5. Blindu ayb arnpw (Dublin bay prawn) 6. Slumse (mussel)  
7. Oddchak (haddock) 8. Dre dragurn (red gurnard) 9. Clapie (plaice)

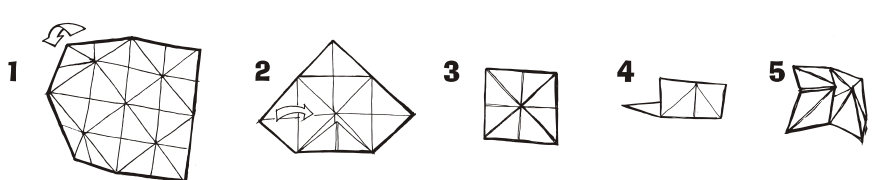


## Table manners

This 'fortune teller' describes the feeding habits of a selection of creatures found on the seashore. Once coloured, cut out and folded (see illustration), it can be used in a number of ways. One option is for the person with the fortune teller to spell out the name of someone in the group, opening and closing the fortune teller with each letter to swap from one set of clues to another.

When the last letter is reached, the named person is asked to choose from one of the 4 clues listed (e.g. Driller Killer, Big Licker etc.) The corresponding panel is lifted up and the description and animal name read out. The named person then has to act out the feeding behaviour described. Miming works but sound effects are great too! This is lots of fun - encourage drama and imagination but try and stop short of the offensively unpleasant and unhygienic!

	<p><b>Crusty Crusher</b></p> <p>The lobster has its own cutlery - one claw for crushing its food and one for cutting.</p>	<p><b>Nibbler</b></p> <p>The sea urchin nibbles phis off the rocks using its delicate teeth.</p>	
<p><b>Deadly Stinger</b></p> <p>The sea anemone fires poisonous harpoons to kill small fish and shrimps.</p>			<p><b>Driller Killer</b></p> <p>The dog whelk drills a hole in the shell of its prey and sucks it out!</p>
<p><b>Tummy Turner</b></p> <p>The starfish turns its stomach inside out through its mouth and pokes it into a cockle to digest the meat!</p>			<p><b>Super Sieve</b></p> <p>The mussel sucks in water and spits out the rest!</p>
	<p><b>Big Licker</b></p> <p>The limpet has a spiky tongue which it uses a bit like a cheese-grater to scrape algae off the rocks.</p>	<p><b>Leg-waver</b></p> <p>The barnacle sticks its feathery legs out through its shell and uses them to trap food.</p>	







Here is a collection of ideas gleaned from Watch leaders and other environmental educators when asked to give their favourite activities a marine flavour. The activities include a range of themes and moods, and are presented in no particular order.

## Hermit House Hunt

To evoke the 'race' for good shells, gather a large selection of boxes ('shells') of different sizes. Divide the shells into 5 size groups (1-5) from small to large and number each one clearly with its size class. Scatter them around a large play area. Each player is a hermit crab, and starts at the edge of the area. On 'go', all the crabs have to go on all fours in a crab-like fashion to find a shell with '1' on it. When they find one, they put it on their back (using one hand to hold it in place) and then set off to find a '2' shell. If they are successful, they leave the '1' shell and swap it for the '2'. They must continue until they have a '5' shell, and then race to a designated finishing line. Crabs must follow the sequence 1-5 without skipping any, and must wait for a suitable shell if they are all taken. The number of boxes can be varied to make the game more or less difficult. Alternatively this can be played as a team game, with each team member having to complete the challenge before the next one begins. This requires fewer boxes.

*Unlike most crabs, which have their own strong shells, hermit crabs rely on the abandoned shells of sea snails for protection. As the crab grows, it has to find larger and larger shells to live in. Crabs will sometimes fight over a desirable shell, and one crab may try to evict another and steal its home.*

## The great cod run

This is an adaptation of 'British Bulldogs'. The aim of the game is for the players ('cod') to get from one side of the play area to the other without getting caught and is best played on a large grassy area. One player is a 'fisher' and has to try to catch the cod on their journey. Any cod that are caught are out of the game until the next run, when they become fishers in the middle. Additional hazards can be included for example by getting uncaught players to draw cards that may make them victim to other threats such as global warming (cod only like cold water), a prey shortage or a pollution incident (which could even be gender-specific and wipe out just males or females in a particular area). A No Take Zone (a fishing free area) could be marked out, in order to give the cod a refuge from fishing pressure (but not other threats) on their travels.

*Cod are in trouble from a number of threats, many of which are in our (human) power to resolve.*

## Gravel bed gamble

This activity is musical chairs with a marine habitat loss message! Put a piece of paper on the floor for every two players. Each one represents a seabed gravel patch. Players ('herring') run around the outside of the play area to music (or seascape sounds if you have them). When the music/sounds stop, players race to the gravel beds. In order to breed (and survive to the next round), two (but no more) must occupy each gravel patch. Remove a gravel bed after each round. Any fish without a gravel bed or on their own are out. The last pair wins. To make it more difficult, allocate the group as males and females. Now one of each gender is needed for successful spawning!

*Herring lay their eggs on areas of gravel seabed off our coast, but their habitat is at risk from trawling, commercial gravel extraction and pollution.*

## Sea anemone attack!

Assemble the group in a tight circle, with one (the 'anemone') in the middle. The 'shrimp' is a beanbag or ball that is thrown from person to person across the circle. The anemone must try to intercept the shrimp, and is able to reach out (including to retrieve fallen shrimps) but may not move their feet (anemones don't move around to feed). When the anemone catches the shrimp, the person that threw the beanbag is 'eaten' and becomes part of the anemone in the centre (representing growth).

*Sea anemones catch small shrimps and other animals by stinging and grabbing them with their tentacles*

## Crab eyes

As a group, create masks/spectacles for each person made from bubble wrap. When worn, these simulate the vision of an animal with compound eyes. You can now play a game of tag with one or more predators and the rest of the group as prey (no running allowed, for safety reasons).

*The best ways to avoid predation by a compound-eyed predator such as a crab, shrimp, lobster, starfish (with eyes on the ends of its legs) are to blend in with the background or stay still.*





## Build a sponge!

The tried and tested 'build a tree' game, in which the children represent different parts of a tree (roots, bark, phloem etc.) can be easily adapted to represent the structure of a sponge. Assemble the sponge from the inside out, using children to represent:

- feeding cells (wiggling arms to generate water currents, and passing food to digesting cells)
- digesting cells (gurgling digestive noises and passing sugar to all other cells)
- the skeleton layer (supporting the sponge by linking hands)
- the outer layer (including the pores that the water comes in through, making circles with their arms).

*Sponges are very simple animals. They are living sieves, sucking in sea water, filtering out the edible matter and ejecting the filtered water. For all their simplicity, they are extremely successful: they have been around 200 million years and there are 9,000 species alive today.*

*Some sponge species have suffered from over-collection for use as 'natural' bath sponges (the dried, fibrous 'skeleton' is used for this purpose). In some parts of the world these animals are now farmed. You should always check that they are from a sustainable source before you buy.*

## Hungry Dolphin meets bat and moth

This game is the classic 'Bat and Moth' with a marine theme. The children stand in a tight circle, facing inwards. In the middle of the circle are a 'dolphin' wearing a blindfold (dolphins can hunt in the dark and in murky water) and a 'fish'. In order to locate its prey, the dolphin has to shout 'click' very loudly and frequently. These represent the echolocation clicks that a dolphin makes. Whenever the fish hears the dolphin's click, he or she must shout 'click' in reply, representing the echo reflecting back. The dolphin must listen out for the echo clicks and try to catch the fish. Repeat the game, varying the number of dolphins and fish and amount of space available. For a final twist, encourage the children in the circle to make loud boat engine noises. Can the dolphin still catch the fish in the midst of all this noise pollution?

*Like bats, dolphins hunt and navigate using echolocation - a form of sonar. This can be disrupted by human activity.*

## And finally...

How about animal charades and drama games, name games, treasure hunts, orienteering trails, food chain games, sensory games, sorting games, beach comber Kim's game, poetry, art, music - the world's your oyster!

## Eel's Sargasso Survival Swim



This activity illustrates the marathon 4000 mile swim that eels make from their breeding ground - the Sargasso Sea in the Caribbean - to the rivers of the UK. The cards on the following five pages can be used either as an outdoor trail or a board game. In either case, each pair or group of children needs:

- a set of eight 'eels' (pieces of string or wool, candy or jelly worms, or eel shapes made from plasticine)
- a two-pence coin
- two plastic pots (or a pot with two chambers eg a 'yoghurt corner' pot). One pot (or chamber) must be marked 'alive' and the other 'dead'.

For the outdoor trail, make one copy of each of the 20 cards (enlarged to A5 or A4 if possible). To make them re-usable, laminate the sheets or use plastic sleeves. Locate the cards, in numerical order, around a large play area (eg a circular woodland trail or a large

grassy area). They can be attached to trees, bushes or fenceposts using twine, wire or rubber bands. Starting at the first card, with all of their eels in the 'alive' pot, the children must make their way around the trail, following instructions along the way. Every time they have to throw the coin, 'heads' means 'move on one' and 'tails' means 'move on two' (ie skip a card). Each time they lose an eel it has to be moved into the 'dead' pot. There is no way to bring the dead eels back to life! At the end, find out how many surviving eels each pair has left. Discuss the hazards that eels face, and the impacts humans are having on them.

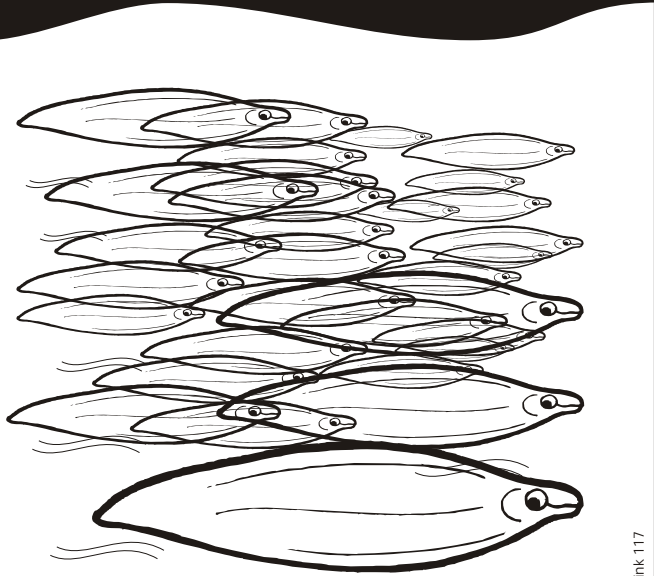
For the indoor game, copy and cut out several sets of cards (one set between two to four people). Lay each set out in a wiggly, eel-shaped line of the floor. The pairs then play the game, following the rules as above.

**PTO** ➔



### Card 1

The Sargasso Sea is full of baby eels (called larvae). There is safety in numbers.



Move on one

Wildlife Watch Link 117

### Card 3

Dolphins, turtles, fish and sea birds all eat baby eels - look out!



Lose an eel  
Throw the coin

Wildlife Watch Link 117

### Card 2

You have to start your 4000 mile journey to the UK, catching a ride on an ocean current.

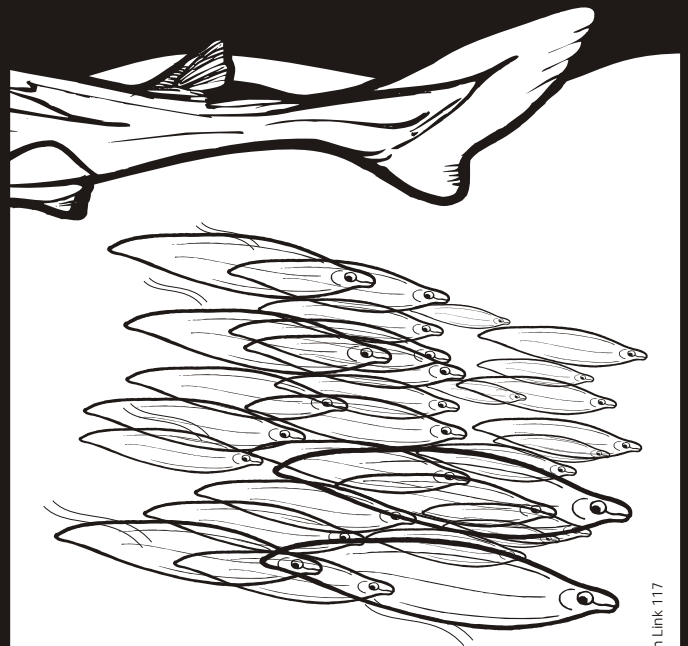


Throw the coin

Wildlife Watch Link 117

### Card 4

You have a lucky escape from a big fish!



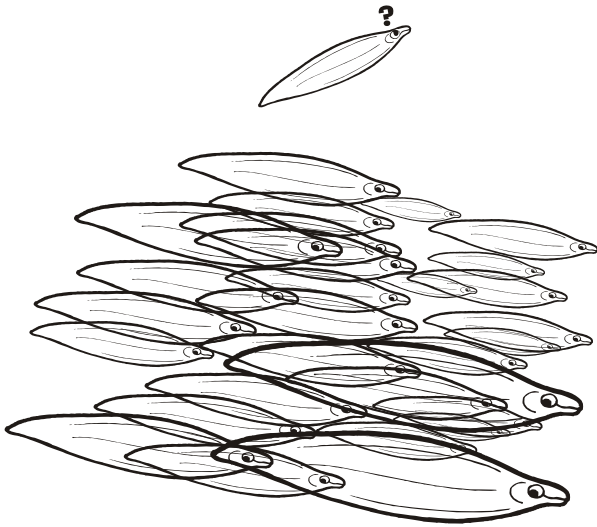
Throw the coin

Wildlife Watch Link 117



Card 5

Global warming has caused the ocean current to stop flowing. You are stranded!

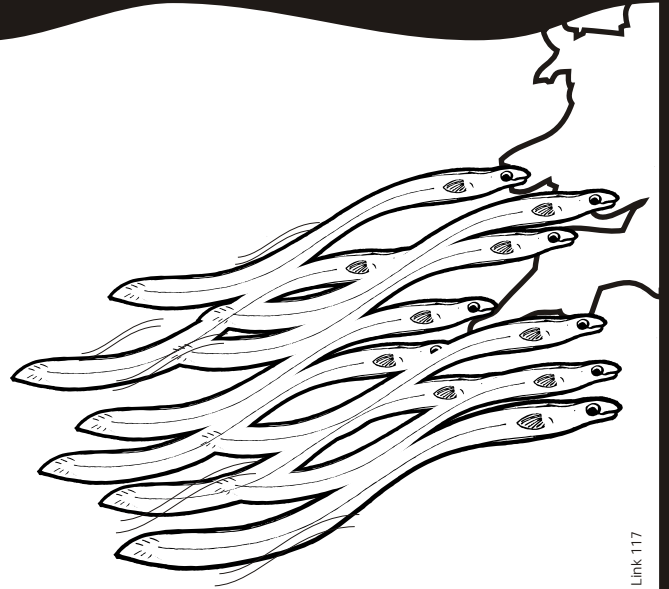


Lose an eel  
Move on one

Wildlife Watch Link 117

Card 7

There's lots of food in these coastal waters. You grow fast.

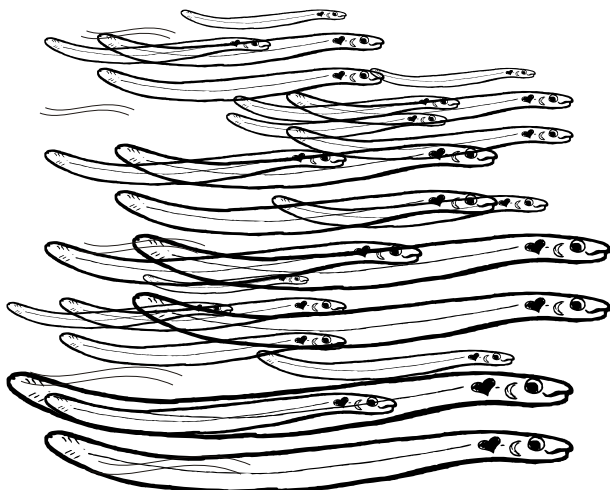


Throw the coin

Wildlife Watch Link 117

Card 6

One year and 3500 miles later, you're approaching the UK coast. You've grown and turned into a 'glass eel'.

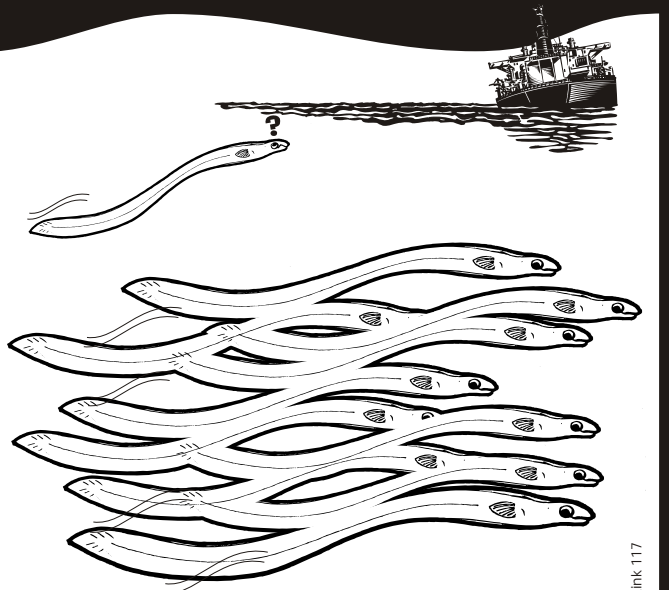


Throw the coin

Wildlife Watch Link 117

Card 8

Two ships collide. Chemicals poisonous to eels are spilled into the water.



Lose an eel  
Move on one

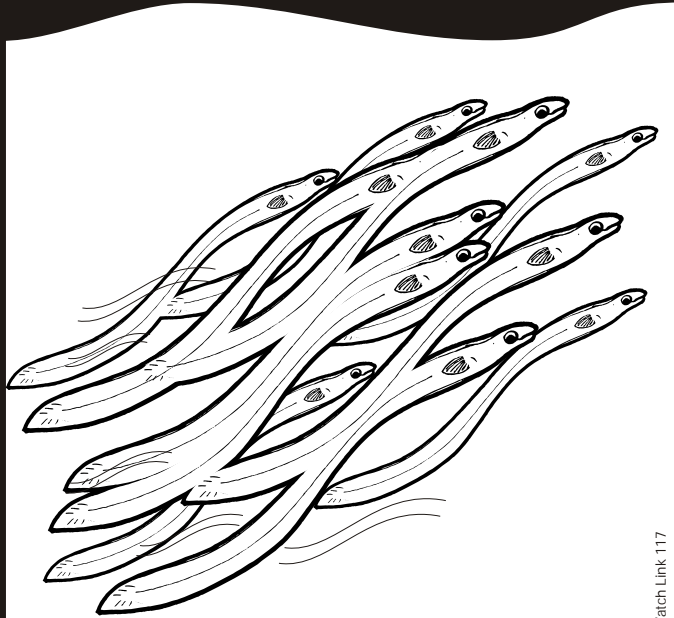
Wildlife Watch Link 117





### Card 9

You turn green. You're known as an 'elver'

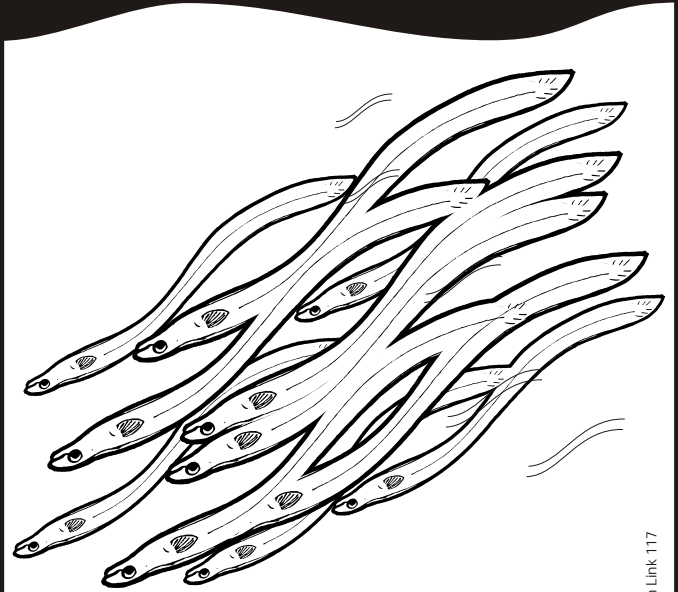


Wildlife Watch Link 117

Move on one

### Card 11

The tide goes back out, the current is too strong and you're swept back out to sea.

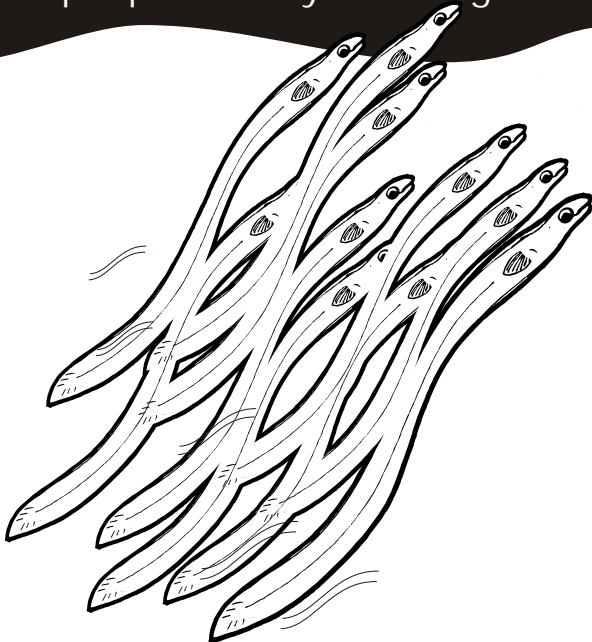


Wildlife Watch Link 117

Go back one

### Card 10

You can smell a river nearby and you start to swim towards it. You're swept upstream by the rising tide.

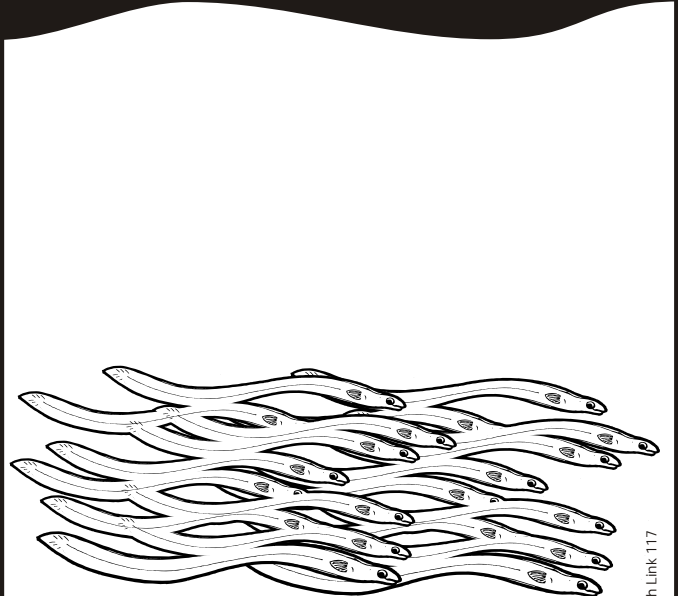


Wildlife Watch Link 117

Throw the coin

### Card 12

As the tide goes back out, you shelter at the bottom of the river to avoid getting swept out.



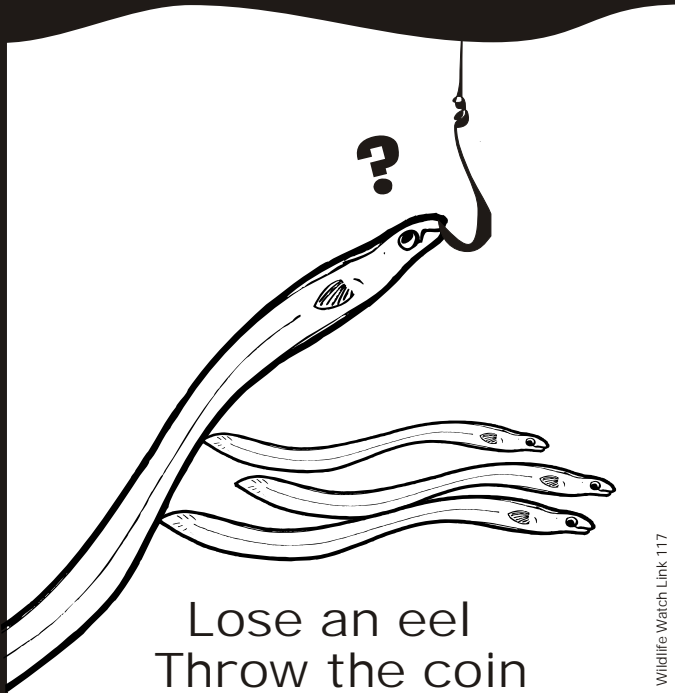
Wildlife Watch Link 117

Throw the coin



Card 13

You're caught by an angler.

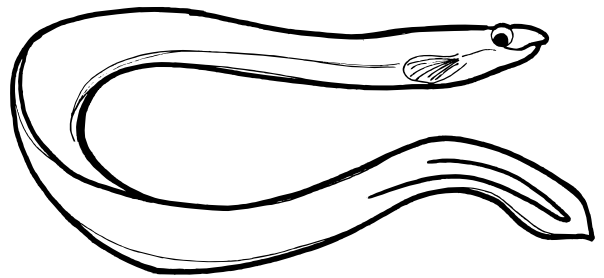


Lose an eel  
Throw the coin

Wildlife Watch Link 117

Card 15

Another change - you've grown bigger and paler and you're now called a 'yellow eel'.

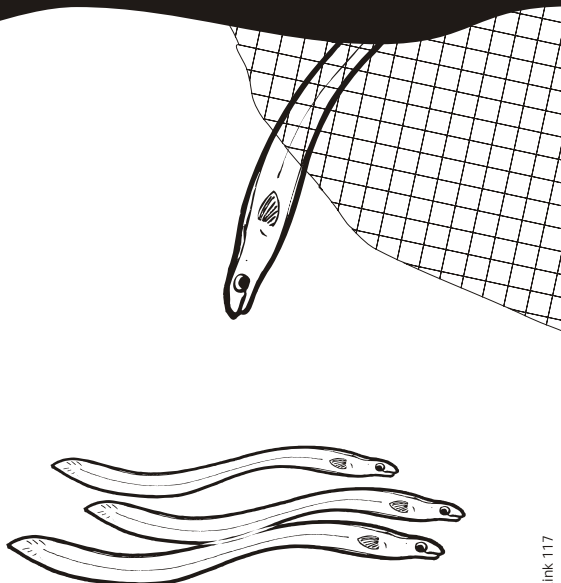


Throw the coin

Wildlife Watch Link 117

Card 14

Some children catch you in a net, but they have a good look and put you back.



Move on one

Wildlife Watch Link 117

Card 16

You reach a weir (a man-made waterfall) and can't find a way around it.



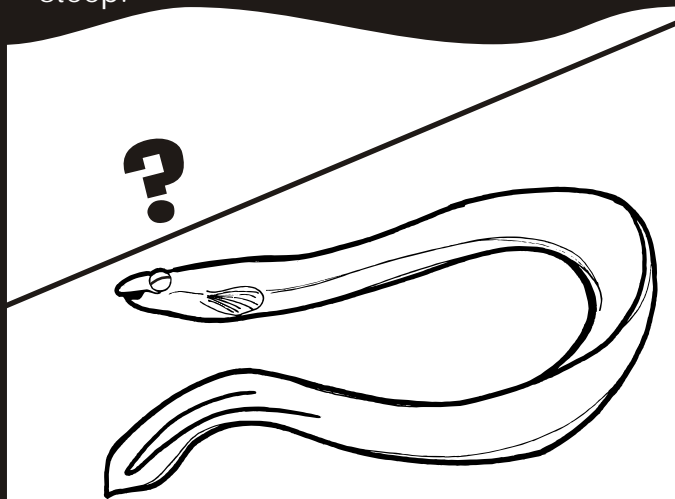
Lose an eel  
Throw the coin

Wildlife Watch Link 117



### Card 17

The river dries up. You try to climb out to find a new river, but the banks have been covered in concrete and are too steep.

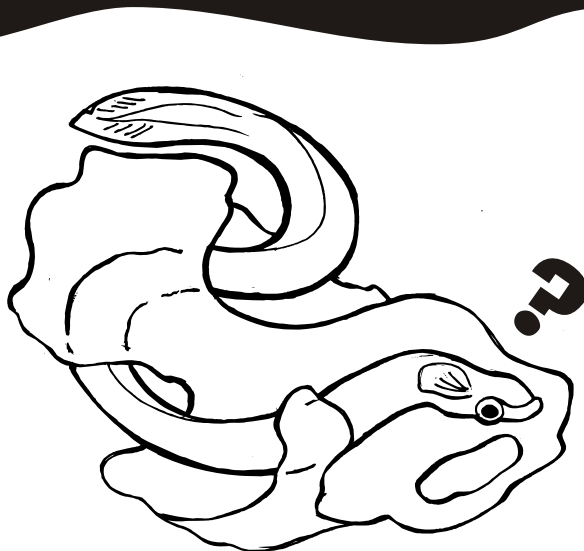


Lose an eel  
Throw the coin

Wildlife Watch Link 117

### Card 19

You get tangled up in a plastic bag.

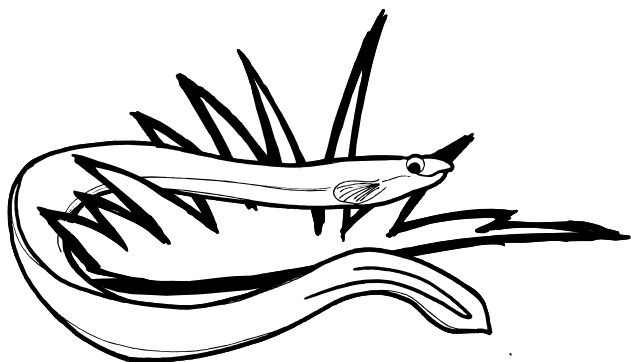


Lose an eel  
Throw the coin

Wildlife Watch Link 117

### Card 18

The river dries up. You slither up the bank and across the land until you reach another river.

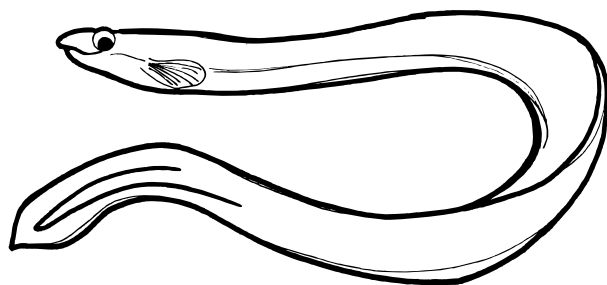


Move on one

Wildlife Watch Link 117

### Card 20

Congratulations! You have survived your incredible journey and can now grow and make your final change into a 'silver eel' in a few years' time. Then you'll be ready to swim all the way back to the Sargasso Sea to breed!



How many eels  
do you have left?

Wildlife Watch Link 117



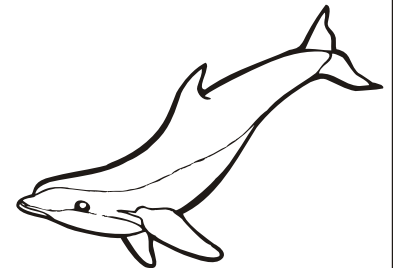


## Land to Sea

No one in the UK lives more than 80 miles from the coast as the crow (or seagull) flies. This is a mapping activity looking at the paths that water and wildlife take between the land and the sea. As a short and simple activity, give pairs of children a photocopy of a suitable map that shows the local area, rivers and nearest stretch of coast. Using a piece of string, the pairs measure and calculate the shortest distance from their location to the coast, both by river and 'as the crow flies'. Using the maximum swimming and flying speeds below, work out how long it would take the different animals to reach you (ignoring currents or winds). Alternatively choose several different rivers that run

through your area to measure, or measure to different coasts.

To add to the local interest, you might call your local Environment Agency, Scottish Environmental Protection Agency or Environment and Heritage Service office (see end of activity section for web addresses). Ask how far up your local river the tide reaches, how far up the river is still salty, and whether your river is home to any of the fish that migrate between the rivers and sea (e.g. salmon, sea trout, eel, sea lamprey, river lamprey, allis shad, twaite shad).



Animal	Speed (mph)	Speed (km/h)
Common eel*	2.5	4
Human swimmer	5	8
Salmon*	8	13
Bottlenose dolphin	20	32
Common dolphin	24	38
Leatherback turtle	22	35

## Speed

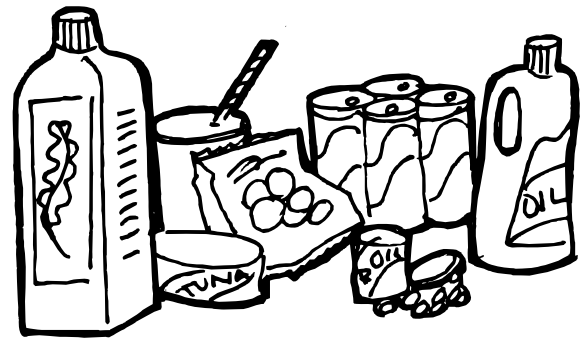
Brent goose (flying)	43	69
Eider duck (flying)	47	75

\*typical swimming speed, maximum unknown

## The great provider

Prepare a shopping bag full of as many products from the sea as you can find. The bag might include some or all of the following:

- Tuna
- Prawn crackers (most contain real prawn - check the label)
- Shrimp paste
- Cockles
- Sea salt
- Worcestershire sauce (it contains anchovies)
- Edible seaweed (eg with sushi)
- Thick milk shakes, ice cream, certain chocolates and sweets and toothpaste (look on the label for carageenan, a seaweed extract that is used as a thickener!)
- Lager (many alcoholic drinks are cleared using isinglass, a product made from fish bladders)
- Welsh laver bread (made with seaweed)
- Cod liver oil
- Seaweed bubble bath or other beauty treatments
- Natural bath sponge (please check that it is farmed rather than taken from the wild)
- Organic garden fertiliser (look out for one with fish blood and bones in it)
- Garden sand and gravel (these may be dredged from the seabed)



- A can or bottle of fuel oil or petrol
- A plastic toy or bag (plastics are made from oil, extracted from and transported via the sea)
- Plastic food packaging
- A bag of air (marine plants produce half of the oxygen in the air that we breathe)
- A small jar of water labelled 'rain' (the oceans regulate our climate and weather)

You may choose to include non-marine produce in your bag, or for all of the contents to be derived from the sea. Either way, get the children to sort the produce into what they think are marine and non-marine products. Discuss their selection, emphasising our dependence on the sea.



## Dolphins in the net

This is a marine-style 'pin the tail on the donkey', designed to represent the accidental capture of dolphins in fishing nets. There are two versions. For the hula hoop version, get the group to draw and cut out 100 or more small paper fish, each no more than 5cm in length. Make a smaller number of dolphins (10-20), each no longer than 20cm. Spread all these randomly on the ground. Divide the group into teams (each representing a different fishing nation). Blindfold a child (the fisher), spin her around, and give her the 'net' (the hula hoop). She must throw the hoop onto the ground to try and catch some fish. For every fish caught in the 'net', the team gets 10 points, but for every dolphin caught the team loses 50 points. The caught animals are removed. Each team takes it in turn to play, until everyone has played. When there's nothing left to catch, the winner is the fleet with the most points. For the whiteboard version, draw the fish and dolphins (same sizes as above) onto a whiteboard. This time the 'net' is an A4 sheet of OHP film, with criss-cross net lines drawn onto it and placed on the board by the blindfolded player. The catch is rubbed out but otherwise the same rules apply.



## Gold Award ideas

Here are some ideas for marine Gold Award projects to get you and your group thinking: Soapbox - write a petition, leaflet and letters

- about unsustainable fisheries or our bycatch campaign. Try to get your local supermarkets to stock fish from certified sustainable sources. Campaign for the restoration of riverbank habitats, to help species like eels.
- Newshound - report on the collapse of the UK cod fishery, the deaths of hundreds of dolphins in fishing nets, or the surprise appearance of a seal or dolphin miles inland.
- Wild Ideas - create an octopus puppet, a dolphin sculpture or a flick book of a hermit crab swapping shells
- Wildlife Action - Tidy up a river used by eels or other migratory species.
- Close-up - study an inland site which has seagulls (eg farm, waste tip)
- Buzzword - Write the autobiography of 'Neil the Eel'!
- X-pert - swot up on sharks, learn about limpets, discover our dolphins or 'gen up' on jellyfish!
- Teamwork - invite a marine scientist to visit your group.

## Seaweed pudding

Use this traditional Scottish recipe with your group if you have suitable facilities. Alternatively, encourage them to take the recipe away and prepare it at home, under adult supervision.

Ingredients:

- 250g dried Irish Moss seaweed (also known as carrageen/carageen/carrageen), washed and soaked for 2 hours. *You can buy carrageen from health food shops and some supermarkets. You could also collect your own, but only if you are sure that local water quality is very good (check with your local Environment Agency, Scottish Environmental Protection Agency or Environment and Heritage Service office).*
- 500 ml milk ● Grated lemon rind ● Sugar to taste

Place the seaweed in a pan with the lemon rind and cover with the milk. Bring to the boil and simmer very gently for 30 minutes. Stir in the sugar, then strain off the seaweed and pour the liquid into a wet mould. Allow to cool. Once set, turn out. To make chocolate seaweed pudding, melt two squares of unsweetened chocolate, add a third of a cup of boiling water and stir until smooth. Add this mixture to the above recipe after straining and pour into mould.

## The Wildlife Trusts' marine work See page 5

Visit [www.wildlifetrusts.org](http://www.wildlifetrusts.org) to find out more about our marine work or to find the address of your nearest coastal Wildlife Trust.

**Celebrate the Sea**  
Every year, World Oceans Day is celebrated on June 8th and Marine Week in August. Look out for details of events happening near you. Perhaps you could organise an event with your group - a seaside or aquarium visit, or a special activity day - to celebrate these dates. Call The Wildlife Trusts on 01636 677711 to find out the dates for Marine Week (it changes from county to county and year to year).

**Beside the Seaside**  
There's nothing quite like a visit to the seashore to inspire your group. For advice on planning seashore visits, see the 'Coast and Ocean' Watch leaders guide. If you're not confident about leading a trip to the seashore, why not contact the Wildlife Trust nearest to your chosen destination and see if a friendly local Watch group might help you plan your visit? You could even have an official 'twinning' arrangement with the coastal Watch group, with annual visits to each other's counties, an exchange programme and more!

## Good sources of information

### Fish and fishing

The Wildlife Trusts - see [www.wildlifetrusts.org](http://www.wildlifetrusts.org) for information about our campaign to stop dolphins dying in fishing nets.  
Seafish Industry Authority - colourful fish posters and teaching packs. [www.seafish.co.uk](http://www.seafish.co.uk). Tel. 0131 558 3331.  
Marine Stewardship Council - MSC have a certification scheme for sustainable seafood. [www.msc.org](http://www.msc.org) Tel. 0207 350 4000.  
The Good Fish Guide - published by the Marine Conservation Society with information

on environmentally-friendly seafood choices. Tel. 01989 566017.

**Marine environment and wildlife**  
Coast and Ocean Watch leaders guide. Available from Wildlife Watch. Tel. 01636 677711.

The Wildlife Trusts - At [www.waterpolicyteam.org](http://www.waterpolicyteam.org) you can download an excellent fact sheet about eels.  
Environment Agency (England and Wales) [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk). Tel. 0845 9333111.

Scottish Environmental Protection Agency [www.sepa.org.uk](http://www.sepa.org.uk). Tel. 01786 457700

Environment and Heritage Service (Northern Ireland). [www.ehsni.gov.uk](http://www.ehsni.gov.uk). Tel. 028 9025 4754  
BBC Blue Planet video and book. Photographic guide to the sea and shore life of Britain and North-west Europe, by Ray Gibson, Benedict Hextall and Alex Rogers. ISBN 0198507097.  
The magic school bus on the ocean floor, by Joanne Cole. ISBN 07885787127