

11. Fisheries

Who does what?

- The Ministry of Agriculture, Fisheries and Food (MAFF) and the Welsh Office (WO) have overall responsibility for the conservation of fish stocks and the management of marine fisheries in UK waters.
- Sea fisheries authorities regulate sea fisheries in the estuary. These are usually sea fisheries committees, but in areas where there is no sea fisheries committees the Environment Agency may act as the sea fisheries authority.
- Sea fisheries authorities can establish byelaws for fisheries management and general protection of the marine environment. Byelaws must be confirmed by MAFF and the Welsh Office as appropriate.
- The Environment Agency is responsible for regulating fisheries in the estuary and tributary rivers.

Stated Government aims

- To conserve and manage fish stocks.
- To promote a safe and efficient fishing industry whose capacity and effort are in line with what stocks will bear.
- To ensure that fisheries management takes proper account of the impact of fishing on the marine environment, and preserves its bio-diversity.

Background

There are many species of fish in the estuary including marine, estuarine, freshwater and migratory species. Commercially, the two most important species are eels and salmon. Many thousands of young eels (elvers) come into the estuary each spring from the Sargasso Sea and most of the rivers draining into the estuary have good eel populations. Several thousand salmon pass through the estuary each year to spawning grounds in the Severn, Wye and Usk. Large numbers of salmon on their way to these rivers are also attracted into Bridgwater Bay, the Bristol Avon estuary and a few go up rivers such as the Parrett, the Bristol Avon and Taff.

The estuary and its tributaries, the rivers Usk, Wye and Severn are important conservation areas for the nationally rare twaite shad. A few allis shad are also found, although the Severn Estuary is not one of the species' main breeding areas at the moment.

There are also many marine species which depend on the estuary, mainly as a nursery area. The most common are: sand gobies, whiting, flounder, sole, bass, sea snail, cod, poor cod, thin-lipped grey mullet, herring, sprat and bib.

The main fisheries areas are shown on **Map 11**.

Map 11: Fisheries

Angling

Anglers fish from the shore and from boats within the estuary. There is shore fishing for a variety of species including cod, whiting and bass along most of the coast and there are several sea angling clubs. Angling from boats is a very popular and rapidly growing activity in the estuary, with privately owned boats and charter boats operating from many of the ports and harbours from Barry around to Minehead.

Salmon

There is a very important and productive commercial salmon fishery in the estuary. Whilst salmon is by far the most common species caught, a small number of sea trout are also taken. Salmon are caught using drift nets, fixed engines (putts and putchers), hand held lade nets and occasionally using seine nets. There are 8 licensed boats using drift nets operating from Newport. They fish within the area ten miles upstream and downstream of Newport, and within two miles of the coast. There are also fixed engines in the estuary, though this technique appears to have declined in recent years.

There has been a long-term decline in the number of salmon caught in the rivers Severn, Wye and Usk. However, despite the general decline, populations of salmon in some of the South Wales rivers, notably the Taff, Rhymney and Ebbw, have been increasing over the past 15 years due to the decline in heavy industry and associated pollution.

The proportion of spring salmon in the catch has also declined - a phenomenon which has been observed throughout the North Atlantic range of the salmon. Spring salmon are Atlantic salmon which return to freshwater in the spring having spent two or more winters at sea. They are highly prized by anglers because they are bigger than the later migrating grilse, which are younger fish of the same species. The factors that have caused the decline of the spring salmon are complex and affect all life stages of the fish. They include environmental conditions and over-exploitation in home waters and distant waters. Distant water fisheries are outside the UK's jurisdiction, but where over-exploitation within the estuary and its tributaries can be demonstrated, the Environment Agency will introduce byelaws to control fishing effort. The Environment Agency can only introduce measures to control exploitation for conservation reasons or to protect individual fish stocks.

Within the estuary, tagging studies have shown that some of the salmon caught in the commercial fishery are from mixed stocks, i.e. destined for more than one river. The Environment Agency's policy is that exploitation of salmon should take place, as far as possible, where the stock of salmon is from a single river. Where a commercial fishery can be shown to be exploiting predominantly mixed stocks, fishing will be phased out over an appropriate timescale.

Whitefish

In the lower parts of the estuary, there is a little commercial fishing for white sea fish. This includes some trawling and the use of beach nets for cod, whiting, bass, sole, plaice and mullet.

Eels and elvers

There are established elver fisheries on the rivers Parrett, Severn, Wye and Usk. In the spring large numbers of elvers ascend the Severn and its tributaries and they are fished for commercially using hand nets. Silver eels are caught commercially in the River Severn in the Gloucester area. Yellow eels are caught in the River Severn and other tributary rivers using fyke nets and putcheons.

The European eel has a life cycle opposite to the salmon, whereby its spawns in the sea and then the young migrate to develop and mature in freshwater. Elver catches in the rivers of the estuary have declined in recent years, as they have throughout Europe. This is thought to be caused by factors such as changes in oceanic currents in the Atlantic. However, it appears from research work that there are still more than enough elvers arriving in the estuary to fully populate the upper river systems and the tributaries of the estuary. Unfortunately, there are some barriers to migration, such as weirs, which prevent the elvers reaching some watercourses and so the Agency restocks in the upper reaches to extend the eel's range. The Environment Agency has, and will continue to install eel and elver passes to allow easy upstream movement where it is considered necessary to increase dispersal and enhance stocks of adult eels.

Shellfish

There are no designated shell fisheries within the estuary though there is a small commercial brown shrimp fishery in the estuary downstream of Lydney in late autumn.

Many issues in this report are related to one another. Issues raised in this chapter have particular links with those in chapters 6 and 15.

F1 Decline of salmon catches

There has been a long-term decline in the number of salmon caught in the rivers Severn, Wye and Usk. The proportion of spring salmon in the catch has also declined. These declines have been observed throughout the North Atlantic range of salmon. The factors that have caused the decline salmon are complex but they affect all life-stages of the fish in both home waters and distant waters.

Who is involved: Environment Agency and research organisations.

What is happening: The Environment Agency monitors salmon in the estuary and rivers and collects information on catches from fishermen. The Agency is also working to improve water quality to protect the salmon. The Agency is developing a Salmon Strategy to protect and improve the salmon fishery.

Some suggestions: The Environment Agency can introduce byelaws to further control salmon fishing in the estuary and its tributaries.

F2 Phasing out of mixed stock salmon fisheries

The salmon population exploited in the lower part of the estuary, where the main commercial salmon fishing takes place, comprises fish destined for more than one river. Exploitation of such mixed stock fisheries can adversely affect stocks in some of the rivers. The Environment Agency wishes to phase out the exploitation of such fisheries and therefore commercial salmon fishing in the lower parts of the estuary. However, some of these commercial fisheries employ the historic methods which are described in issue F3.

Who is involved: Environment Agency and licence holders.

F3 Future of heritage fisheries

Some of the salmon fishing techniques, such as fixed engines with withy putchers, have been used in the estuary for centuries and have a cultural significance. Fewer people now use these techniques, in part because their financial viability is declining. The value of their catches has declined because of large scale salmon farming reducing the price of salmon. The cost of licences to fish salmon has risen. In addition, some of these fisheries exploit mixed stocks and may be adversely affecting the stocks. See issue F2.

Who is involved: Environment Agency and licence holders.

Some suggestions: The Environment Agency could consider ways to ensure that the historic putchers and other heritage fisheries are not lost whilst ensuring that the salmon stocks are protected.

F4 The effects of fishing on other users of the estuary

Some fishing activity, both recreational and commercial, affects other users of the estuary. In particular there is conflict in some places between anglers and conservationists and with recreational users. For example bait digging is a concern in some areas.

Who is involved: Environment Agency and user groups, English Nature, Countryside Council for Wales, Sports Council, Sports Council for Wales, etc.

Some suggestions: Improve dialogue between the interested groups to resolve conflicts and strike the balance between protecting the fish stocks from mixed stock exploitation and preserving the heritage fisheries.

F5 Complexity of fisheries regulation

The management of fisheries in the estuary is the responsibility of the South Wales Sea Fisheries Committee and three regions of the Environment Agency. Each authority operates different byelaws and this can cause confusion.

Who is involved: Environment Agency and South Wales Sea Fisheries Committee, MAFF.

Some suggestions: Regulatory authorities could harmonise fisheries byelaws.

F6 Eel and elver fishery management

Eel and elver fisheries make a significant contribution to the local economy and are ecologically important. There is evidence from both the UK and Europe that the elver run has decreased significantly in the last decade and there is increasing concern about the status of fish stocks. There is, however, insufficient information currently available for the Ministry of Agriculture Fisheries and Food (MAFF) or the Environment Agency to develop policies for effective regulation and management of these fisheries in a consistent, logical and sustainable way.

Who is involved: Environment Agency, MAFF, eel and elver fishermen and commercial buyers/dealers.

Some suggestions: Further research could be carried out to better assess the status of eel stocks in the Severn and other UK rivers. More work could be instigated to check the effects of fisheries (eel and elver) upon them. If necessary, existing controls could be improved.

F7 Access to the shore for anglers

Some anglers believe that they do not have adequate access to the shore to fish. Sometimes this access is blocked by physical obstructions such as flood defences and sometimes by landowners withholding consent.

Who is involved: Angling groups, landowners and the Environment Agency.

Some suggestions: These groups could get together to identify problem areas and ways of resolving the conflicts.