

Fishery habitat

Having different habitats in your fishery such as trees and bushes on the bankside, aquatic plants in the water, areas of deep and shallow water and islands will not only improve the appearance of the site but also the health of the fish. They help to reduce competition between fish, not only for food, but for space and cover as well. They also provide areas where fish can hide if they feel threatened, reducing their stress levels. The habitat within a fishery affects water quality, which is also very important in preventing fish disease.

Main considerations for fishery habitat

Depth

Changes of depth in a fishery create a varied environment:

- Shallow waters warm up faster. Having areas of deep water will provide shelter for fish when the shallower water gets too warm.
- Shallow waters provide good spawning sites and are excellent for the growth of juvenile fish.
- Deeper water gives the fish somewhere to hide out of the reach of predators (such as otters and birds), especially if underwater features are added.

Aquatic plants

Aquatic plants are very important in a fishery as they put oxygen into the water. But they also provide food and shelter for fish and invertebrates, and can provide suitable spawning sites for fish. A lot of fish (such as carp, roach and bream) feed on the plants and invertebrates living on and around them, while others (such as tench and crucian carp) feed mainly on the invertebrates.

Having different types of plants within your fishery can also have added benefits:

- Floating reed beds can be used to provide more shelter (especially from birds) and more habitat.
- Marginal reed beds also provide good cover and habitat for juvenile fish.



Aquatic plants within a fishery, including bankside vegetation, reed beds and water lilies.

The roots of plants are also very important as they can:

- help to stabilise the banks and beds of fisheries;
- take up nutrients (such as phosphate and nitrates) from the soil, surrounding water and from the waste produced by fish.

If you have a high stock density in your fishery then having aquatic plants can help to improve water quality by removing un-needed nutrients and reducing the amount of suspended solids in the water.

Bankside vegetation

Bankside vegetation can bring many benefits to a fishery, but it does need to be carefully managed to avoid problems. The presence of trees and shrubs on the bankside provides shade and shelter. This reduces the effects of temperature extremes. They also increase the stability of the bank, reducing the amount of suspended solids in the water (this reduces aquatic plant growth and can damage the gills of fish).

Too much shade will reduce the number of aquatic plants, while leaf litter will increase the amount of decaying material in the water. The type of trees and plants can also affect water quality by changing the pH of the water (for example the run-off from coniferous tree plantations makes the water acidic). Bankside vegetation is easy to manage and the benefits of having some, outweigh the effects of not having any.



Areas of bankside vegetation at a fishery.

Reducing silt levels

The build-up of silt on the bottom of a pond is caused by the breakdown of plant litter and uneaten food, including anglers bait. It is low in oxygen and is acidic and not much will grow in it. A build-up of silt in a fishery can:

- reduce the number of plants and invertebrates in the water. This will reduce the amount of food and habitat for fish;
- reduce the depth of the pool. This will cause increased temperature changes and will reduce the amount of habitat;
- affect water quality, especially by lowering dissolved oxygen levels.

Removing silt can be very expensive so it is best to avoid the problem in the first place. A balanced environment should prevent the build up of silt, however, by having reed beds, pools and ditches within your fishery to trap the silt, you can help prevent it occurring. Marginal plants will also help to stabilise the banks, reducing the

amount of soil and debris falling into the water. Trying to reduce the amount of plant litter and uneaten food entering the water is also important.

What to think about when creating a new fishery

A new fishery should always be allowed to mature and the water quality stabilised before fish are introduced. This will also help habitat development, which will provide natural food sources for the fish. A new fishery should ideally be left for a year before any fish are introduced. However, as a minimum, the fishery should be left for a full spring and summer season to allow the number of plants and invertebrates to grow.

The added benefits of good fishery habitat

Remember that if you have lots of different types of habitat in your fishery, it will attract other wildlife, such as insects, birds and mammals. Having lots of wildlife will make the fishing experience more pleasurable. It can provide a relaxing atmosphere and may encourage anglers to return.



Some of the other types of wildlife that you can attract to your fishery by having lots of good, varied habitat (from left to right: swan and cygnets, damselfly and frogs).

This fact sheet has been produced by:

Fisheries Technical Services – Fish Health, Ageing and Species
Environment Agency, Bromholme Lane, Brampton, Huntingdon, PE28 4NE
Tel: 01480 483802; Fax: 01480 433873
Email: fish.health@environment-agency.gov.uk

customer service line

08708 506 506

www.environment-agency.gov.uk

incident hotline

0800 80 70 60

floodline

0845 988 1188