Aquatic Habitats

A habitat is where a fish lives. It must contain: adequate oxygen, tolerable temperature, adequate food and hiding places (cover). A suitable spawning habitat must also be available for fish to reproduce.

Freshwater Lakes And Ponds

Many lakes were formed thousands of years ago by glaciers, massive "rivers" of ice, which carved valleys and holes into the earth. These valleys and holes were filled with melting water from the glaciers and became lakes. Dams built to block the flow of rivers have also formed lakes, often called reservoirs or impoundments.

Ponds are tiny lakes and many are shaped like a bowl. Many farm ponds are used to store rainwater for crops or livestock. They are often great places to fish!

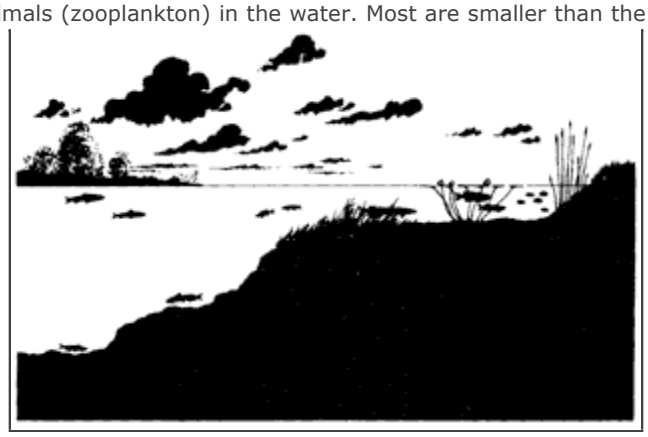
The Water's Surface

Many tiny creatures live right on the water's surface in lakes and ponds. If you look very closely, you may be able to see these dust-size creatures.

For some fish, the surface is a good place to feed. Bass, bluegill, and trout often eat insects that fall on the water. Anything that makes a disturbance on the water's surface attracts the attention of fish. Small fish swimming near the surface can be an easy meal for larger fish.

Open Water

"Plankton" are tiny plants (phytoplankton) and animals (zooplankton) in the water. Most are smaller than the head of a pin! Small fish like to roam open areas of a lake and feed on zooplankton. Larger fish often follow these small fish and feed on them. Then anglers try to catch the larger fish. This is called a "food chain."



Larger fish usually lurk below the small fish, forcing them toward the surface. Whenever you see small fish on the surface in open water, it usually means that larger fish are feeding. While feeding on these fish, they may make splashes you can see.

Other signs that larger fish are nearby are the frantic movements of the small fish. The small fish may even jump out of the water while trying to escape!

The Shoreline Shallows

The shallow water along the shore (littoral zone) is important. This is where many rooted plants, such as cattails, rushes, lilies, pondweed, and marsh grasses, grow.

Some lakes also have areas covered by rootless floating plants that make it difficult to fish. All of these plants are important because they produce the oxygen that fish need to live. They also provide a place for fish to find food and shelter from other hungry fish.

Shallow water attracts both small and large fish. Small fish, like bluegill, spawn, feed and hide in the plants, brush-piles, and logs in the shoreline shallows. Larger fish come to the shallows to feed on the smaller fish and also to spawn. Northern pike and bass often hide in the weeds and ambush smaller fish as they swim by. Larger fish often come to the shallows when there isn't much light. That's why early morning and evening are some of the best times to fish shallow areas.

Deep Water

Deep water is a home for many types of aquatic life. There is little light, no current, and the water temperature changes less than at the surface. Deep water is a good place for aquatic animals to hide, but there may be too little oxygen to sustain life, especially in late summer.

Freshwater Rivers And Streams

Flowing rivers and streams are always changing. Water currents constantly carry sediment (sand, rock and soil) downstream. The shape of a riverbed controls the amount of water and sediment the river can carry.

During or after a heavy rainfall, the water level and the speed of a water current increases. This enables the river to carry suspended sediments and results in the "murky" or muddy water you often see.

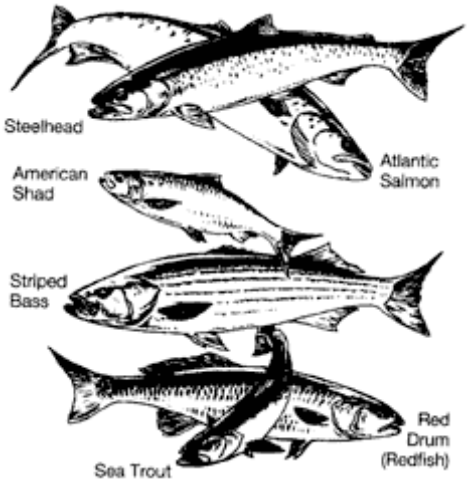
The water level in a river can drop quickly in very dry weather. During a drought a river can be reduced to a series of pools. This forces fish and other creatures to adjust to the new conditions if they are to live.

River Banks

In a straight stretch of river, the main force of the current is in the middle. The deepest water is also in the middle and the area near the shore is the shallowest. When there's a sharp bend in the river, however, the strongest current and deepest water is at the outside edge of the bend.

Deep Water

In flowing water, there is less current near the bottom. Because of this, most fish stay with their bellies almost touching the bottom. They like to take advantage of low spots and other structure that have even less current than the surrounding water. They do this to save their energy and to avoid being pushed downstream.



Most fish in a river face the flow of water and wait for food to come to them. Trout and salmon like cold, moving water. Usually, they'll stay near the edge of the current and eat whatever food comes along. At night or when light levels are low, the fish often move to shallow water to feed.

Estuaries

An estuary is the wide lower course of a river where the river's current meets the tides. In most estuaries this is where salty water mixes with the fresh water of rivers or streams. An ocean tide brings in saltwater and carries out some freshwater. As the waters mix, the water with the most salt is near the bottom. The water with less salt, called "brackish" water, is near the surface because it is lighter.

An estuary is exciting for anglers because both freshwater and saltwater species of fish live there. Estuaries are biologically very productive areas, but they are often converted to industrial sites.

Wetlands

A wetland is an area of wet, spongy land where the water

remains near or above the surface of the ground for most of the year. Wetlands are often found between open water and dry land. There are several types of wetlands including marshes, swamps and bogs. Wetlands occur in freshwater, saltwater and estuaries. Almost all are teeming with life.

Many people used to think that wetlands were waste areas. For this reason more than 50% of the wetlands in our country have been drained or destroyed. What a mistake!

Today we understand that wetlands provide vital spawning habitat for numerous fish, and are also important to birds and mammals.

Wetlands are also important because they help to purify our water by filtering out impurities and sediment. Wetlands also help control floods and store large amounts of water for a long time.

Marshes and Swamps

Marshes and swamps are very important areas for fish. Marshes are more open and have grasses, reeds and other non-woody plants. Swamps have many trees and shrubs. Most bogs are found in northern climates. Bogs are areas with acidic soil and a heavy growth of mosses. Peat moss is formed in bogs by the build up and partial decay of plants. Because of the acid water, fish are usually not found in bogs.

Riparian Zones

Riparian areas are a middle zone of vegetation along streams and rivers. Due to the influence of water, the vegetation in a riparian zone is typically larger and denser than the vegetation outside the zone.

In the drier parts of the country, riparian zones are very obvious. Only the small section near the water has any green vegetation. In parts of the country where more rainfall occurs, riparian zones are not as easy to point out, but they do exist.

Like wetlands, quality riparian areas play a vital role in maintaining the quality of the water in streams and rivers. When humans or livestock destroy the vegetation, the quality of the water is not as good.

Riparian vegetation provides food and shade for aquatic plants and animals. Leaf litter and terrestrial insects fall from vegetation into streams, providing a source of food for fish. Elimination of the vegetation along the river can cause the temperature of the river to rise because there is nothing to shade the water from the sun.

Quality riparian zones can cleanse water and act as a sponge in times of heavy rain. This assists in the prevention of flooding. When the rains stop, and water levels drop in the river, the riparian area slowly releases water back into the river. This helps the river or stream to maintain a more stable water supply for fish and other plants and animals that depend on it.

The Oceans

Did you know that land takes up only one quarter of the earth? Oceans cover nearly three fourths of the Earth's surface!

The Intertidal Zone

The intertidal zone is a low, flat area of the shore. It is the area covered by the sea at high tide and exposed at low tide. Crabs, snails and other creatures live here. Predator fish, like sharks, feed in this shallow area at high tide. Their bellies may scrape the bottom while their fins and backs are out of the water. Many other kinds of fish also feed in this zone because it is rich in food. On the West Coast tides can fluctuate 15 to 20 feet. Almost all bank fishing is done in this environment.

Coastal Waters

Coastal or waters near shore, are seldom as clear as the open ocean. Lots of sediments are stirred up by waves. Water temperature affects the variety of creatures in the water. The warmer coastal water has more forms of life than the colder waters of the open ocean.

In coastal areas, the ocean bottom may have sections of exposed rock, but most of it is sand or sediment. Fish live at all depths in this coastal water. Most, however, are found close to the bottom. Many feed near cover such as a rock or a coral reef where they can ambush prey. Other fish roam, searching for an easy meal.

Most saltwater anglers fish in coastal waters, because there are dozens of different fish species to choose from. Many marine fish migrate up and down the coastline seasonally. Smart anglers monitor water temperatures to determine which species they should be fishing for.

The Open Ocean

Most kinds of fish that live offshore grow quickly, at least during their early years. A marlin grows from the size of a pinhead to 9-1/2 pounds in 12 weeks! Catching large fish in the open ocean takes special tackle, great skill, stamina, and large, safe boats.