

# Water and the ENVIRONMENT

Following on from last month with summer activities based around water, we thought it would be a great opportunity to use water as the basis to develop interest in the environment. Here are a few things you can look out for during that Summer camp or activity. Keep your eyes open and follow up by reading books on the various subjects.

The first thing we will talk about is **WATER BIRDS**. There are many different kinds of birds to be seen in, on, or near all sorts of waterways from ocean to lake, from stream to tiny pond. Some water birds are the largest birds found in Australia. Others are among the most beautiful found in this world. Some water birds fly amazingly long distances as they migrate north in spring and south in winter. Some of them, too, are the most graceful fliers of all birds. Almost all birds seen on or near water are interesting to watch and to know.

## Meet the birds.

First, let's meet some of these birds. Right now we won't be concerned with their individual names it's fun to know their names, but, first, let's just find out what family or general group they belong to.

### Terns

These are slender birds that resemble gulls, but their bills are smaller and more pointed. Their wings are narrow and they are very graceful in flight. They frequently plunge headfirst into the water to catch small fish.

### Pelicans

Pelicans are large birds with a peculiar bill. They are graceful fliers and can dive from great heights to catch fish.

### Cormorants and grebes

Cormorants are large swimming birds, larger than most ducks, and have pointed bills. They are found along the oceans and on northern lakes. They are expert divers. Grebes are small birds that look a little like ducks, but they, too, have pointed bills. Like Cormorants, they are expert divers.

### Rails, coots

Rails look something like small chickens and live in marshes. Coos look like ducks but their bill resembles that of a chicken. They live in marshes and on ponds and lakes.

### Hérons and bitterns

These are large, long-legged and long-necked birds with pointed bills. They are among the most beautiful birds in the world, and you usually see them filing over a marsh or water, or standing in shallow water watching for a fish to swim by.

### Other birds

Other birds seen near water are ospreys and kingfishers. Ospreys and sea eagles nest in dead trees near water, or sometimes on the top of telephone poles. Kingfishers are blue in colour and live along streams and lakes. They dive into the water to catch fish. Some other common

### **Geese and Swans**

Swans are common on many park lakes. Both geese and swans resemble large ducks. They have long necks, duck like bills, and swim easily on lakes or ponds in order to fly; they must run and flop along the water for a long distance.

### **Gulls**

Gulls are large, long-winged birds and are strong, graceful fliers. They fly over ocean, lake, river, or marsh and drop down on land or water to food. Around cities they flock to garbage dumps in some places they follow farmers who are ploughing fields and eat grubs turned up by the plough

### **Shore birds**

These small birds with long legs run along the edge of the ocean or lake, sometimes in the water and sometimes on land. They pick here and there searching for food. Sandpipers and plovers are in this group. Many of these birds migrate great distances each year.

### **Duck**

Ducks are found on oceans, bays and large lakes, although some use small ponds. They patter along the surface to take off and feed by diving under water. A number of these birds are endangered species.

birds found along the water or in swamp or marshes are marsh hawks, owls, and smaller songbirds such as silver eyes, marsh wrens, honeyeaters etc.

### **Fun with the birds**

Just watching birds and getting to know them is fun. Get a well-illustrated bird book and find out what the different birds are like. Find out, too, which birds are likely to be seen in your area in each season of the year. A visit to a natural history museum is a big help. But don't stop with just knowing birds' names. Try to find out where they nest, where they spend the winter, their migration route, what they eat, and what laws there are to protect them in your state.

Next, go out and look for water birds. Ride or walk near the ocean, bay, river, lake, stream, marsh, or swamp. Look for tracks in the mud or sand. Many park ponds that have tame ducks on them are excellent places to visit. Wild birds come in to feed with the tame ones, and soon become tame themselves. Take along some stale bread or corn and many times you can get these wild birds to come up quite close to feed.

Many birds' - cormorants, grebes, coots, and some of the ducks -dive for their food. They stay under water for a considerable length of time and swim long distances. Try to find out how long they stay under by counting or by timing them with a watch. Try to find out which one stays under the longest. Remember that birds cannot breathe underwater any more than humans can.

Public fishing piers are excellent places to watch for water birds, since they come thereto feed on fish scraps. Boats, such as ferries that ply a regular route across a river, a bay or a lake, are good places from which to watch. Frequently birds will follow a ferry-boat to feed on crackers and other food thrown overboard for them. Boat yards, too are likely places to visit. A marsh or swamp in the spring seems to teem with all sorts of bird life, from tiny warblers flitting about, to large herons flying overhead. Even in winter, lakes, ponds, and marshes seem to have more birds than does the bush. These are only some ways to have fun with birds. The more you and your patrol watch them, the more fun you will have.

### **Taking pictures**

Almost any kind of folding camera, from an inexpensive box camera to an expensive folding one, can be used to get interesting water bird pictures. Here is how to do it -First, find a place where ducks or gulls feed regularly - a place on a park lake, along the ocean, or on a pier or dock. Set the camera on a tripod or fasten it securely to a sturdy post. Focus it or aim it at a point on the ground six or eight feet away. Mark the area covered by the camera with stones or small sticks. Tie a long piece of string to the shutter release so you can stand fifty feet away and take a picture. Place some food on the ground where the camera is pointed, and walk back to the end of the string. When the birds come to feed, pull the string carefully. This is a crude but effective way of getting bird pictures.

Watch a nest If you find a bird nest that can be observed without disturbing the birds, try this: When the young are hatched and the parents are feeding them, watch the nest carefully for an hour a day for three days. You may have to set up a small tent or conceal yourself in a blind so the bird cannot see you while you watch it. For an hour keep track of the number of times the adult birds fly away from the nest to capture insects and return to feed their young. Then figure how many insects the birds catch during the time the young are in the nest, if they catch only

one at a time. Suppose a bird catches twelve insects in one hour. It feeds its young for at least twelve hours a day and the young are in the nest for about twelve days. That's a lot of bugs. And there are lots of birds.

**Make casts of tracks**

Another good activity is to make plaster casts of birds' tracks you find in sand or mud. It is easier to identify tracks if you see the bird make them, but if you cannot pictures of tracks may be found in one of several books in your public library.