

## Birds of the Coast

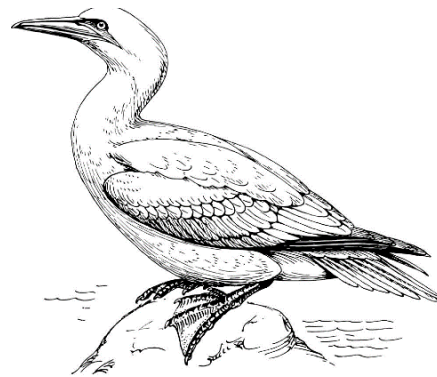
Coastal birds are found from the poles to the equator and are masters of their environment. Many can migrate for long distances and travel from one hemisphere to the other. Migratory birds cannot nest at sea, and so return to land to breed and raise their young. These coastal birds can be further divided into groups of shorebirds and seabirds, depending on their lifestyle. Shorebirds or waders are found in coastal habitats and mudflats that wade through saltwater and look for food in the sand or mud. Seabirds spend much of their time in the ocean, will generally have webbed feet and find food on the surface of the ocean as well as below the waves. There are also wetland birds and birds of prey, such as hawks and kestrels, that spend time and feed on the coast.

### All That Salt

Seabirds have different body systems to land birds because they need to conserve water. Seabirds drink salt water and process it into drinking water by getting rid of excess salt through their nostrils.

### Sight

Seabirds must be able to see well both in air and under the water. Birds that see well in air have binocular vision, like us, to help them dive from great heights to pounce on fish under the surface.



### **South Australian seabirds include:**

- Pied Cormorants
- Pacific Gulls
- Little Penguins
- Crested Terns

### **South Australian shorebirds include:**

- Hooded Plovers
- Sooty Oystercatchers
- Eastern Great Egret

### Keeping Warm

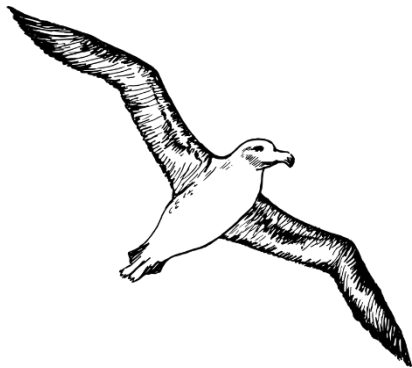
Birds are warm-blooded animals and their body temperature ranges between 39 – 41 degrees Celsius. To maintain this temperature, they need to insulate their bodies from the cold. Seabirds trap air beneath their feathers in the same way that a quilt keeps you warm on cold nights.

### Staying Afloat

The bodies of seabirds contain a lot of fat and oil to keep them buoyant in the water. They have special glands near their tails which secrete an oil known as preen. Seabirds constantly apply this preen to the rest of their bodies by rubbing their beaks in the oil and spreading it over their feathers. The preen coats the feathers and traps a layer of air against the birds' bodies which helps them float.

### Diving for Food

The sea is a three-dimensional space which makes hunting for food difficult. On land, a prey can only move horizontally, however a fish in the ocean can move up, down, sideways and diagonally. Seabirds must be adapted to flying in the air as well as hunting underwater.



These birds must also be able to reduce their buoyancy when they dive underwater. To do this, they exhale air from their lungs, squeeze air out from under their feathers with their wings, tuck their feathers in close to streamline their bodies, slow their heart rates and squeeze oxygen out of their blood to supply their brains.

Pacific Gulls capture prey while walking, swimming or shallow dives. These birds feed on fish, squid, molluscs, crustaceans and sea urchins. In order to get inside snails and other hard-shelled prey, they will fly up into the air and drop them from a height onto rocks until they are broken.

Cormorants will sit on top of the water and then quickly 'duck dive' and use their webbed feet and wings to chase their prey through the water. Their feathers are not waterproof, so you will often see these birds perched on trees or poles with their wings stretched out to dry after diving. This kind of feathered covering means they can dive deeper than other seabirds.

### Baby Birds

In general, seabirds live longer, breed later and have fewer young than other birds do, and they invest a great deal of time in their young. Most coastal bird species will build their nests in colonies, sometimes in the millions, while many shorebirds and some seabird species stick to smaller groups or their mating pairs. Many seabirds will return to the same nesting site year after year to raise their babies. These nesting colonies are generally on offshore islands or cliffs for safety, as many land animals will not be able to access these areas. Like other bird species, coastal birds will feed their chicks by regurgitating food after fishing or looking for food.

### Marvellous Migration

Many coastal birds, especially shorebirds, travel long distances each year between their feeding habitats and breeding habitats. This process is called migration. Some will travel within Australia, while others fly for thousands of kilometres at a time, resting along the way, until they reach their breeding grounds in the Northern Hemisphere.

A large area north of Adelaide containing mangroves, saltmarshes and mudflats was made a protected area in 2016. This protected area is called the Adelaide International Bird Sanctuary. It protects habitats and feeding areas for thousands of birds which use our coastline along their migratory journeys. Shorebirds fly from as far as Siberia and Alaska, passing through 22 countries, to feed and roost for more than six months every year in this coastal area, before returning to their Arctic breeding colonies.