



# Short-tailed shearwater

## *Puffinus tenuirostris*



Photo: Steve Johnson (PWS)

### Description

The short-tailed shearwater is a member of a group of 100 medium to large seabirds in the family Procellariidae. This group of birds have tube like nostrils on the top of their upper beak. The beak is long and made up of separate horny plates. It is hooked on the end to help hold prey. The chicks produce large amounts of oil in their stomach which is high in energy content and sustains them while the parents are away. Adult birds have a wing span of about 1 m and weigh approximately 500 g. Shearwaters are good swimmers and have webbed feet. Their legs are placed well back on their body and their wings are long and narrow for efficient high speed gliding. These features suit an oceanic existence so the shearwater has difficulty moving on land or taking flight in windless conditions.

Shearwaters are often seen floating in large 'rafts' while feeding off the shores of Tasmania. The birds get their name from their graceful shearing flight moving from centimetres above the water's surface to high in the sky.

### History

The short-tailed shearwater was first formally described by a Dutch ornithologist — Jacob Temminck in 1835. He named it *Puffinus tenuirostris* (tenui — slender, rostrum — bill). The shearwater was recorded much earlier in 1778 by members of Captain Cook's Third Expedition while sailing in the Arctic Ocean. William Ellis, an artist on the 'Discovery', painted the bird.

The name 'muttonbird' was first used by the early settlers on Norfolk Island, who each year harvested adult providence petrels (*Pterodroma solandri*) for food. The petrels were similar to but larger than the short-tailed shearwater. An officer in the Royal Marines called them 'the flying sheep'. Unfortunately, the providence petrels became extinct following massive harvesting (171,000 birds one year) and the introduction of pigs to the island. The name 'muttonbird' has been applied to the short-tailed shearwater ever since.

### Harvesting

Tasmanian Aborigines have harvested muttonbirds and their eggs for many generations, and a number of families continue this important cultural practice. The muttonbird is one of the few Australian native birds that is commercially harvested. During the muttonbird season, chicks are taken for their feathers, flesh and oil. The industry was established by early European sealers and their Aboriginal families. The recreational harvesting of Short-tailed Shearwaters is limited to the period of the open season that is declared each year. A muttonbird licence must be obtained.

### Distribution and migration

Approximately 23 million short-tailed shearwaters breed in about 280 colonies in southeastern Australia from September to April. Eighteen million of these arrive in Tasmania each year. Their colonies are usually found on headlands and islands covered with tussocks and succulent vegetation such as pigface and iceplant. Headlands allow for easy take off and landing. The largest colony is on Babel Island which has 3 million burrows.

Their migratory path is difficult to define because they don't come to shore during the months of the migration. Exhausted and starved birds are often washed up on beaches of Japan, the Aleution Islands, North America and Australia. Originally this led scientists to believe that the birds flew a figure of eight course across the Pacific Ocean. Recent studies suggest the majority of birds merely fly north along the western part of the Pacific Ocean to the Arctic region and return southwards through the centre of the ocean. Either way the birds travel about 15,000 kilometres in each direction annually.

## Breeding

The breeding period occurs between September and April. Each year the length of time spent at the breeding grounds increases until the birds are five years old, when they become involved in breeding. As pre-breeders, the birds fly in with the breeding adults in preparation for the following breeding season.

On arrival in September/October at the colony the birds meet with their chosen mates and begin tidying up old burrows or excavating new ones. The burrows are about 1 m long. In early November they leave the colony to spend some time feeding before returning to lay a single white egg in late November. The young chicks hatch in January. Both parents participate in feeding the chick. The chick quickly puts on weight and before the departure of the parents, is almost twice the weight of an adult. The adults depart from early April, leaving behind the young birds still covered in down. From this time until early May the chicks do not eat at all. They rapidly lose weight and acquire their flight feathers. Two to three weeks after the parents have left, the young birds begin their migratory flight unassisted by experienced birds.

## Food and feeding

Shearwaters feed on krill, squid and fish. Their main methods of feeding are plunging into the water, pursuing underwater, surface seizing, scavenging, hydroplaning and bottom feeding. During the breeding season the adults feed in the locality of the colony. During migration they feed whenever food is available.

## Threats and mortality

Although there appears to be a huge number of short-tailed shearwaters, they are still vulnerable to over-

harvesting and habitat destruction. In places, pigs, cattle and sheep have destroyed whole colonies. Soil erosion after fire can destroy suitable sites for burrowing.

Gillnet fisheries in the North Pacific accidentally drown up to 50,000 birds annually. Approximately 200,000 chicks are presently harvested and sold annually in Tasmania by commercial operators. Birds also ingest small plastic particles while at sea which may limit their ability to maintain condition and contribute to deaths during migration. Feral cats are also a problem, as they find shearwater chicks easy prey.

Natural mortality occurs mainly during the first migration due to exhaustion and starvation. The average lifespan is 15-19 years, but birds can live up to 38 years.

## International treaty

Because of the shearwater's international migratory habitats it has become the subject of a joint protection project between Japan and Australia — the Japan Australia Migratory Bird Treaty. Both countries monitor the shearwater population while the birds are in their area. In Tasmania, harvesting limits are imposed to prevent over-harvesting and a number of wildlife sanctuaries protect shearwater colonies. Japan and other countries, are attempting to minimise the number of birds drowned by their fishing operations. It is hoped that these conservation methods will ensure the survival of one of the world's most amazing migratory birds.

## Contact

Biodiversity Conservation Branch: DPIWE  
134 Macquarie Street, Hobart. 7000  
Phone: (03) 6233 6556  
Fax: (03) 6233 3477

