Note 3 — 1999



echidnas

HELPING THEM IN THE WILD

where are echidnas found?

For most of the year the short-beaked echidna (*Tachyglossus aculeatus*) is a solitary animal, although each animal's territory is large and often overlaps with that of other echidnas. The short-beaked echidna is protected in NSW and although relatively abundant and widely distributed within NSW and Australia it is not readily seen in the wild because of its quiet, reclusive nature.

In temperate climates, echidnas are most often seen

during early morning and in the late afternoon, as they tend to avoid temperature extremes. Similarly, in arid regions echidnas may forage during the night, and in the hotter part of the day shelter in rock crevices or caves.

The distribution of the echidna ranges from undisturbed to disturbed habitats, and includes forests, woodlands, shrublands and grasslands, rocky outcrops and agricultural lands. Echidnas are usually found among rocks, in hollow logs, under vegetation or piles of debris, under tree roots or sometimes in wombat or rabbit burrows (Hyett & Shaw 1980).

During rainy or windy weather they often burrow into the soil or shelter under tussocks of grass or under bushes.

other facts about echidnas

WHAT DO THEY LOOK LIKE?

There are two species of echidna—one confined to the highlands of New Guinea and one smaller species, the short-beaked echidna, found in New Guinea and throughout Australia. Echidnas are easily recognised by their coverage of spines. Although not as conspicuous, hair is present between the spines of the short-beaked echidna. Echidnas range in colour from light brown in the northern, hotter parts of Australia to black in Tasmania. Hair is thicker in the colder, southern regions of Australia.

The snout is 7–8 cm long and is rigid in order to enable the animal to break up logs and termite mounds when searching for food. An echidna's mouth is on the underside of the front of the snout. This allows the animal to feed easily, especially when suckling. The short, stout limbs of echidnas are well suited for scratching and digging the soil. The front feet have five flattened claws which are used to dig forest litter, burrow, and tear open logs and termite mounds. The back feet point backwards and help to push the soil away when the animal is burrowing. Two of the claws on each back foot are used for grooming. An echidna's tail is short, stubby and hairless underneath.

SIGNS OF AN ECHIDNA'S PRESENCE

Although echidnas are not readily glimpsed in the wild due to their quiet nature, they can be identified by their



droppings, as well as the markings left after foraging for food.

Echidna droppings are about 7 cm long, cylindrical in shape, with broken, unrounded ends. Evidence to suggest an echidna has been foraging for food in an area may be half-ravaged termite mounds, which the echidna breaks up with its sharp claws and strong snout.



REPRODUCTION

Along with the platypus, the echidna is the only Australian mammal to lay eggs. This makes them one of the last surviving representatives of the monotremes, one of the major subdivisions of mammals; the other subdivisions are marsupials and placental mammals.

Echidnas breed from the end of June to early September. A particular characteristic displayed by echidnas during the breeding season is the formation of 'trains' (Rismiller 1993). Sexually active males have been known to search out females and form trains which may consist of two to ten male echidnas following one another, the female leading and the youngest male at the end (Rismiller 1993; Rismiller & Seymour 1991). During the breeding season a male echidna may join several separate trains.

A female lays a single egg, which is incubated in the pouch and takes about ten days to hatch. The eggs are round to slightly oval in shape and 13–16 mm long, with a soft, leathery shell (Rismiller & Seymour 1991). When hatched, the young echidna has well-developed forelimbs. It can weigh as little as 380 mg and can measure 1.45 cm—about the size of a jelly bean. The young echidna is suckled by its mother from mammary glands in the pouch, and is carried in the pouch for about three months. During this time the female will sometimes leave the young animal in a burrow, made by the female for its protection.

When the infant leaves the pouch, its spines have started to develop, but it still stays close to its mother and may continue to suckle. The young echidna will leave the burrow at around 12 months of age, weighing 1-2 kg (Strahan 1995). When grown, echidnas measure 30-53 cm long with males weighing about 6 kg and females about 4.5 kg.

Echidnas have been known to live for as long as 16 years in the wild, but generally their life span is thought to be under 10 years (Rismiller & Seymour 1991).

EATING HABITS

Termites and ants are its preferred food and this is why the animal is often called the 'spiny anteater'. However, earthworms, beetles and moth larvae are also part of the echidna's diet.

An echidna will use its fine sense of smell to find food and has a beak which is highly sensitive to electrical stimuli. It tracks down its prey and catches it with its long, sticky tongue. Echidnas do not have teeth and they grind their food between the tongue and the bottom of the mouth. In warm areas echidnas feed during the cooler morning and evening hours and sleep during the day. In southern Australia they often stop eating during the colder months and then eat large amounts during spring.

threats to echidnas

Animals that are known or believed to kill echidnas include feral cats, foxes, domestic dogs and goannas. Snakes may also invade the burrows of echidnas, feeding on young echidnas that have not yet developed spines.

Echidnas are generally shy animals, with a fairly placid nature. If disturbed or approached, an echidna will curl into a ball with snout and legs tucked beneath itself, concealing its head, with its sharp spines sticking out, deterring predators. It burrows itself into the base of grasses and tussocks and is able to wedge itself under rocks or burrow straight down into soft soil to retreat from predators.

The male echidna generally has a hollow spur on one of its back legs. This spur does not inject poison. It is thought that spurs are also present in all young echidnas (Rismiller, 1993).

what you can do to help echidnas

- Habitat loss poses a threat to echidnas. Retaining or restoring echidna habitat, such as fallen logs and branches, tree stumps, rocks, leaf litter and debris, is the most beneficial step you can take and this will also lead to other additional benefits for your property. Retention of the understorey provides cover for echidnas from predators whilst travelling and moving around, and will also provide good protection and habitat for the invertebrates eaten by echidnas.
- Establish native vegetation, such as trees, shrubs and grasses, in shelterbelts, habitat corridors and woodlots as these provide habitat and movement corridors for echidnas.
- Linking habitat areas with corridors of vegetation will assist echidna movement. A 'neighbourhood' approach to the establishment of echidna habitat/corridors with adjoining properties can add to your own efforts.
- Don't let your pets wander unsupervised at night this will help safeguard your pets as well as the wildlife! Domestic dogs and cats, particularly on farms, are both potential predators of echidnas.





- If you find an injured or displaced echidna, contact the National Parks and Wildlife Service or a registered voluntary group, such as WIRES, as soon as possible.
- Don't attempt to pick an echidna up as you may injure it. Never put an echidna into the back of your car or on your car seat, as its ability to hold on and to burrow may tear or damage mats or upholstery.

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For more information on how the NSW National Parks and Wildlife Service can assist, contact the Conservation Partners Co-ordinator, Education and Community Programs National Parks and Wildlife Service, PO Box 1967, Hurstville NSW 1481 Phone: 02 9585 6040 conservation.partners@npws.nsw.gov.au www.nationalparks.nsw.gov.au

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