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Behaviour and ecology of monotremes

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Summary

The extant monotremes share a number of general features that must reflect their common ancestor and constrain their ecology and behaviour. All of the extant monotremes have diets which consist principally of invertebrates: platypuses feed mainly on benthic macroinvertebrates; long-beaked echidnas feed on invertebrates in the soil, leaf litter and decaying logs; and short-beaked echidnas, although principally feeding on ants and termites, also eat a range of other soil invertebrates. Platypuses and long-beaked echidnas are predominantly nocturnal, and although the short-beaked echidnas are often seen during the day, most of their activity occurs during the night. The long-beaked echidnas, apart from a possible recent population in the Kimberley region in northwest Australia, are restricted to New Guinea, and platypuses occur in freshwater environments in eastern Australia, but short-beaked echidnas occur throughout Australia and in New Guinea.

Monotremes are solitary and females have well-established home ranges, while males have larger home ranges and compete for matings. All of the monotremes have very large testes, indicating strong competition between males, and adult males have a crural or femoral gland connected by a duct to a spur on the ankle. The glands increase in size during the breeding season and are clearly important in breeding behaviour. The platypus and short-beaked echidnas are seasonal breeders, but the data for long-beaked echidnas are equivocal. Gestation is very short compared with lactation, and late in the gestation period a pregnant female echidna will enter a nursery burrow to lay her single egg, while the