

# Biology of the Fat-tailed Dunnart

(*Sminthopsis crassicaudata crassicaudata*)

One of the most common of dunnarts in Australia, the Fat-tailed Dunnart (*Sminthopsis crassicaudata crassicaudata*) is widespread throughout the semi-arid and arid grasslands and shrublands of the southern half of Australia.

Morton (1978) describes its habitat as follows . . . "The habitat of *S. crassicaudata* includes open woodland, stony plain, saltbush steppe and grassland . . . grassy farmland and semi-arid and arid grassland and low shrubland . . . sparsely vegetated sandplain and gibber plain." Morton also suggests that there is considerable evidence that the Fat-tailed Dunnart has expanded its range in south-western Australia. "The first collector of *S. crassicaudata* in this area, John Gilbert, noted that it was a very rare local species." Whereas today . . . "as evidenced by the numerous specimens of *S. crassicaudata* donated to the Western Australian Museum within the past 10 years, the species is common throughout the wheatbelt and extends on to the coastal plain north of Perth."

As its name suggests, the Fat-tailed Dunnart usually has a characteristic short, spindle tail although this can vary considerably, depending on available food supplies and whether the animal is breeding or not. Breeding animals store little fat because of the energetic demands of reproduction, and only during autumn when breeding has ceased and food is still relatively abundant, do the fat reserves increase noticeably.

In addition to variable tail 'fatness', *S. crassicaudata* displays considerable geographic variation over its large range, primarily in coat colour, tail length, ear length and foot-pad configuration. Most animals weigh between 10-20g when mature.

The Fat-tailed Dunnart is one of the few dunnarts whose behaviour has been studied in detail. Dr R. F. Ewer has shown that females may start to breed at four months and produce litters continuously at intervals of about 82 days for at least six months. However, field studies indicate that females produce only two litters each season.

The breeding period is generally between July and February. According to Morton (1978) the Fat-tailed Dunnart usually nests solitarily in the breeding season, but up to 70 per cent of individuals share nests in groups of from two to eight during the non-breeding period (March-June). These nest sharing groups are impermanent and appear to be random aggregations of individuals.

The Fat-tailed Dunnart is nocturnal and its diet has been seen to include grasshoppers, beetles, moths and even earthworms. Spiders seem to be a particularly important year-round food source. Some splintered remnants of vertebrate bones have, on occasion, been found in faecal material, and it seems likely that they were from frogs or small reptiles. However, vertebrate remains are very rare and it seems clear that *S. crassicaudata* is almost completely insectivorous.

—Compiled by N. McKenzie and C. Young

## REFERENCES:

- Morton S. R. 'An Ecological Study of *Sminthopsis crassicaudata*' *Aust. Wildl. Res.* 1978.  
Ride W.D.L. *A Guide to the Native Mammals of Australia* Oxford University Press 1970.