

15. SEASONAL BREEDING IN A VICTORIAN POPULATION OF THE SWAMP WALLABY (*WALLABIA BICOLOR*)

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The swamp wallaby (*Wallabia bicolor*) is a common though unique macropodid marsupial, but much of its basic biology is unstudied. In Victorian populations, seasonal breeding was inferred from pouch young measurements of a small number of animals (1,2). The only other published information about seasonality is for two NSW populations, only one of which appeared to breed seasonally(3). In this study, data was obtained from 253 adult swamp wallabies collected from culled animals throughout the year in south-eastern Victoria from 2000 to 2003. The sex ratio was 1 female:1.84 males, which is comparable to the NSW populations. Both studies are based on shot specimens so it is uncertain whether the sex ratio bias reflects true population trends or a shooting bias. 75.3% of females were pregnant (66.3% blastocysts in diapause, 8.5% early embryos and 3.9% were near-term fetuses). Pregnancies other than blastocysts in diapause were found only in spring or summer. 86.5% of adult females had pouch young. Date of birth was interpolated from pouch young head length. The number of pouch young born in summer ($n = 23$), as well as the number of pouch young born in spring ($n = 23$) was significantly higher than the number born in winter ($n = 11$) ($P < 0.05$ for both). Correspondingly, males had relatively larger testes and prostates in summer than winter ($P < 0.05$). These results indicate that swamp wallabies in south-eastern Victoria have a seasonal pattern of reproduction.

(1) Moyle R (1997) *unpubl. Hons. thesis*, Department of Zoology, The University of Melbourne. (2) Edwards GP and Ealey EHM (1972) *Aust Mammol.* **1**: 307–317. (3) Robertshaw JD and Harden RH (1986) *Aust. Wildl. Res.* **13**: 141–63.