

## Shifting age structure of house mice during a population outbreak

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### **Abstract**

A technique to age wild house mice, *Mus domesticus*, in Australia using the dry weight of the eye lens based on known-age mice from semi-natural enclosures is described and presented for 3-32-week-old mice. At four sampling periods from November 2000 to September 2001, the age frequency distributions of free-living house mice were determined using this relationship. The distributions of ages shifted between seasons from relatively young animals at the beginning of the breeding season (November 2001), coinciding with low mouse abundance, to progressively older distributions in each sample as breeding continued, ending with the cessation of breeding and a population crash before the last sample. No significant difference was detected between the sexes at any of the four periods. These results are consistent with the suggestion that the formation of mouse outbreaks requires a shift in age structure towards younger mice.

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