ABSTRACT

This bibliography contains 109 items concerning the heath mouse, *Pseudomys shortridgei*. The list includes published as well as un-refereed and/or unpublished documents bringing their existence to the attention of researchers. The majority of these titles can be viewed in the Wildlife Science Library, Department of Environment and Conservation (DEC). An index to the broad subject areas of Behaviour, Conservation Status, Description, Diet, Disease, Distribution, Ecology, Evolution, General, Genetics, Management, Physiology, Reproduction and Threatening Processes is provided.

INTRODUCTION

This is a bibliography of information about the heath mouse, *Pseudomys shortridgei*. The bibliography is updated as new materials become available. Updates can be obtained from the Wildlife Science Library, DEC on request. Notification of relevant materials for inclusion can also be sent to the Library.

The bibliography was started with titles extracted from CONSLib, the Departmental Library Catalogue. The references contained within these titles were checked and added. This process continued until all relevant references had been included. Internet searches were also performed, and the site specific information printed out. The URLs have been included, but because of the temporary nature of URLs they should not be relied upon. More references from these and other World Wide Web sources were added.

Every effort has been made to obtain a copy of each reference and lodge them in the Library. However in some cases this has not been possible. A Library file has been created to hold a copy of complete articles and cover pages of shelved items.

For ease of use the references are listed alphabetically and have been allocated an item number. This item number can be found under one or more of the 14 broad subject categories.

DESCRIPTION

The heath mouse *Pseudomys shortridgei* also known as dayang (Braithwaite et al. 1995) or heath rat (e.g. Cockburn 1995), is one of the largest pseudomyine rodents in Australia, with a body mass of 55–80 g. Detailed descriptions and illustrations are available in Watts and Aslin (1981), Cockburn (1995) and Menkhorst (1995).

Figure 1. Heath Mouse (*Pseudomys shortridgei*). Photograph courtesy of Brent Johnson, DEC.

Visually similar to the more common bush rat *Rattus fuscipes*, the heath mouse is smaller and thickset. It has
brownish-grey fur flecked with black and dark guard hairs giving it a fluffy appearance. It has bulging eyes and a blunt-nosed face. The tail is shorter than the combined head-body length and has a distinct bi-colouration with darker fur above and pale fur beneath. This furred tail contrasts with the sparsely-haired, annulated tails of the sympatric bush rat and introduced *Rattus* species. It is also sympatric with the swamp rat *Rattus lutreolus* in Victoria with which it can be confused.

**REPRODUCTION AND DIET**

Reproductive information is available for a Victorian population (Cockburn 2000). There, heath mice are thought to be sexually mature at about one year old with breeding occurring in spring and summer. One or two litters of up to three young are produced during that period. Resident mature adults appear to be territorial and the young are forced to disperse into unoccupied territory once weaned. In Western Australia captive heath mice have been known to live for up to five years. Heath mice consume a wide range of plant parts including seeds, flowers, stems and leaf material suggesting that they are generalist herbivores (Meulman 1997). In Western Australia, underground burrows with entrances hidden under shrubs are their most common refuge. (Cancilla & Johnson 2005).

**DISTRIBUTION AND CONSERVATION STATUS**

The heath mouse was first collected by GC Shortridge in 1906 from an area east of Pingelly, Western Australia. The sub-fossil record indicates that, before European colonisation, the heath mouse was present in the southwest of WA from Shark Bay in the north to Eucla in the east. Sub-fossil material has also been found on the Eyre Peninsula and the Nullarbor in South Australia (Baynes 1987). Following its discovery in 1906 and the capture of two individuals in 1931, it was not recorded again in WA until 1987 when specimens were obtained from the Ravensthorpe area (Baynes et al. 1987). A disjunct population in south-western Victoria was first discovered in 1961. This eastern population appears to be restricted to the Grampians and Wannon region of Victoria and just across the South Australian border in the Lower Glenelg region. (Menkhorst 1995; Cooper et al. 2003). A specimen from Kangaroo Island, collected in 1967, was also identified as a heath mouse although it has not been recorded there since. These records suggest that a continuous coastal and sub-coastal distribution may have existed from Shark Bay in Western Australia to the Grampians in Victoria. Since its rediscovery in WA, low numbers of heath mice have been recorded in remnant vegetation within the southern wheatbelt but the most recent studies suggest that it may now be restricted to Lake Magenta Nature Reserve and Fitzgerald River National Park.

Both the eastern and western populations appear to favour floristically-rich, dry heathland although the post-fire age of preferred habitat differs. In Victoria, the species tends to prefer recently burnt areas (Cockburn 1978; Cockburn et al. 1981; Cockburn 2000) whilst in WA, heath mice inhabit long unburnt vegetation (Quinlan 2001). Despite the geographical separation of these populations, the low level of genetic divergence suggests that a single species is involved (Cooper et al. 2003). The heath mouse has suffered a major decline in its distribution and there are serious concerns for its survival. Lee (1995) listed it as ‘Rare and insufficiently known’, it is listed as ‘Vulnerable’ under Commonwealth legislation, in Western Australia it is listed as ‘Schedule 1 – Fauna that is rare or is likely to become extinct’ and in Victoria it is listed as ‘Rare’.

Modification to land management practices and clearing for agriculture have reduced and fragmented heath mouse habitat. Plant pathogens, feral predators and competition with introduced rodents are thought to be other major factors in the decline of the heath mouse. (Burbidge 2004, Burbidge & McKenzie 1989), (Morris 2000). Although Lee (1995) lists recovery objectives and management actions, further information on these potentially limiting factors and additional ecological data are required so that a workable management or recovery plan can be developed.

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**BEHAVIOUR:**

22, 23, 49, 52, 54, 69, 74, 77, 79, 82

**CONSERVATION STATUS:**

11, 18, 19, 20, 38, 40, 48, 49, 59, 64, 66, 75, 91, 99, 103

**DESCRIPTION:**

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**DISEASE:**

22, 23, 67

**DISTRIBUTION:**

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