Improvement of Seabird Nesting Habitat on Bowen Island, New South Wales by Eradication of Rabbits

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The detrimental effects of rabbit *Onyctolagus cuniculus* grazing on the vegetation of off-shore islands has led to attempts to eradicate rabbits from islands. In Western Australia and in Victoria the rabbits on a number of islands have been eradicated using 1 080 poison (Sodium monufluroacetate) and carrot bait (Young 1981; King 1981 and King, Oliver and Mead 1981; Edmonds pers. comm.). Not all poisoning efforts have been successful and repeated poisoning is often required to ensure eradication (Young 1981). Using a different approach rabbits were eradicated from St. Helens Island off Tasmania by introducing European Rabbit Fleas *Spylopsyllus cuniculi* and a virulent strain of Myoma virus (McManus 1979).

The comprehensive description of Bowen Island in Jervis Bay, Southern New South Wales by Lane (1976) lacks only the following very sketchy history of rabbit introduction. Domestic Chinchilla Rabbits were introduced onto the island about 1954 (Ingwersen 1976); heresay reports that wild agouti rabbits were already on the island have not been verified. Rabbits, usually grazing on the lawns of the holiday cottages on the island, were observed by the caretaker and visitors to the island.

Prompted by rabbit damage to vegetation, confirmed by exclosures, staff of the Conservation and Agriculture Section of the Department of the Capital Territory began a control programme on Bowen Island in 1979. Poisoning with carrots and 1 080 with three free feeds was carried out in October 1979 and September 1980. Rabbits were not seen following either poisoning but rabbit scratching and fresh faecal pellets were evident about five months after each poisoning. Early in 1981 it was decided to use European Rabbit Fleas and Myxomatosis in an attempt to eliminate the few elusive rabbtis remaining on the island. Diced carrots were laid in small heaps on 4, 8 and 11 June 1981 wherever signs of rabbit activity were visible. On 11 June a total of 6 000 fleas innoculated with the virulent Lausanne strain of Myxoma virus were distributed beside carrot heaps. Since the flea release the island has been inspected on four occasions, July 1981, November 1981, February 1982 and July 1982 and no fresh signs of rabbits could be found. Burrows on a small area on the northern end of the island which were previously occupied by rabbits have been taken over by Little Penguins *Eudyptula minor* and shearwaters *Puffinus* sp. and new burrows were evident in the area. It seems likey lhat the rabbits have been eradicated from Bowen Island and that the Little Penguins and shearwaters at least are benefitting from their demise.

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