

CORELLA

Journal of the Australian Bird Study Association

VOLUME 11

DECEMBER, 1987

NUMBER 4

Corella, 1987, 11(4): 97-110

THE POPULATION STATUS, LONGEVITY AND MORTALITY OF THE WHITE-RUMPED SWIFTLET IN FIJI

M. K. TARBURTON

Department of Botany and Zoology. Massey University. Palmerston North, New Zealand

Received 25 November, 1984; revised 10 March, 1987

The population size of the White-rumped Swiftlet *Aerodramus spodiopygius* in five Fijian caves has been estimated by up to five methods. The averages of these methods for 1974 are: Dry Cave, 413; Waterfall Cave, 20 994; Ono Cave, west entrance, 345; east entrance, 10 365; Waiyala Cave, 8 430; Cikobia-i-lau, 210. The largest annual average estimated population was 32 526 for Waterfall Cave in 1975. Although the population of Dry Cave declined between 1974 and 1984 the recapture rate of marked birds remained high. These data show an average survival rate of 64%, though a survival rate of 73% (which is determined when data taken in the abnormal years of 1976 and 1982 are deleted), may be more realistic. The higher rate, which gives an adult further life expectancy of 3.2 years is higher than most passerines, some seabirds and one other species of swift. Higher adult life expectancies have been shown for four other swift species. Juvenile mortality is shown to be too high to replace the adult population and it is reasoned that human interference in Dry Cave is responsible for the high juvenile mortality. Adult mortality is low and arises from predation and accidents caused by conspecifics. The current longevity record in this study is at least 12 years.