

## A NOTE ON MEASUREMENTS OF THE HARRIER

### *Circus approximans*

By A. L. K. CARROLL

*Wildlife Service, Department of Internal Affairs  
Wellington, New Zealand*

In the course of a study of the food of Harriers (Carroll 1968), 134 adult and fully-grown first-year (juvenile) birds, collected between October 1963 and July 1967, were weighed, sexed and measured.

Excluding three birds in which damage prevented sex being ascertained, there were 61 males (40 adults, 21 juveniles) and 70 females (30 adults, 40 juveniles).

In following seasonal changes in weight, the small number of specimens necessitated condensation of results into one composite year. As there were no statistically-significant differences between the weights of adults and juveniles, both sets of data have been combined. Table II shows mean monthly weights for each sex. Exclusion of two incomplete specimens reduced the total number to 129. Despite gaps in August and September and the small size of many samples, mean weights followed a similar pattern for both sexes — a mid-winter maximum and mid-summer minimum. Monthly mean weights invariably were greater for females than males and the female mean for the year exceeded the male by 195.2 gms. The table implies an unbalanced sex ratio, with an excess of females, particularly in summer (December to February inclusive). However, as the data are for two age-groups and for more than one year, the results should be interpreted cautiously until more become available.

TABLE I — Measurements of Harriers

Sex	MEAN		RANGE		STANDARD DEVIATION		NUMBER OF SPECIMENS	
	Female	Male	Female	Male	Female	Male	Female	Male
Culmen	36 mm.	33mm.	39-32mm.	35-30mm.	1.4	1.2	66	58
Mid-toe and Claw	59mm.	54mm.	66-50mm.	59-48mm.	3.1	2.5	70	57
Tarsus	93mm.	90mm.	102-84mm.	99-77mm.	3.5	3.5	71	60
Tail	239mm.	231mm.	258-224mm.	251-211mm.	8.7	8.3	70	61
Wing	408mm.	402mm.	455-390mm.	429-381mm.	11.7	10.5	66	58
Weight	800gm.	605gm.	999-615gm.	770-470gm.	10.3	6.5	69	60

Table I shows mean, range and standard deviation of external measurements and weights for males and females (both age classes combined). Variations in sample sizes occurred because of damage to several specimens. Mean measurements of females were in every

instance greater than those of males, although in wing length the difference was small. The difference between the sexes for each set of measurements is statistically significant (at the 5% level, or better).

TABLE II — Mean Monthly Weights of Harriers

	Female		Male	
	No.	Wgt.(gms.)	Wgt.(gms.)	No.
January	19	744.0	544.2	13
February	9	760.0	600.2	4
March	2	780.0	590.0	2
April	3	870.0	628.7	6
May	9	871.8	644.6	12
June	4	940.8	648.3	6
July	5	912.6	653.8	6
August	-	-	662.0	1
September	-	-	-	-
October	3	761.7	615.0	2
November	3	788.3	586.6	3
December	12	776.6	532.0	5
Year	69	800.0	604.8	60

## REFERENCE

CARROLL, A. L. K., 1968: Foods of the Harrier. *Notornis* 15, 1: 23-28.