

ARTICLES

BIRD WEIGHTS FROM THE ORANGE FREE STATE (PART II: PASSERINES)

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[Part I appeared in Safring News Vol. 17(1) pp 3,14]

All weights are presented in grams. Pesola spring balances as well as a triple beam balance were used and are believed to be accurate to the nearest 0,5g. In some cases (where weight data were available for six or more months), samples are given by month. Samples are, however, mostly too small to draw any conclusion. All birds were adults (M = males; F = females; U = unsexed), except those specifically referred to as juveniles (Juv). Weights for five or more birds of the same species are described in terms of the mean, range, S.D. and sample size.

The lack of data on sex is a major shortcoming in most papers on weights (e.g. Day 1975; Skead 1977). In sexually monomorphic species the sex was determined only in the specimens dissected for scientific purposes, whilst birds netted are listed as adults or juveniles. As most of the weights listed here are from collected specimens, the above mentioned problem is of little importance in this paper.

Species marked with an asterisk (*) or a plus sign (+) are, respectively, those for which Maclean (1985) provides few or no weights or provides weights of unsexed birds only.

ALAUDIDAE

* Clapper Lark <i>Mirafra apiata</i>							
M	29,1;	29,6;	34,2	U	26,0;	29,5;	32,6; 33,8
+ Sabota Lark <i>Mirafra sabota</i>							
M	21,3;	25,0		U	26,0		
Spikeheeled Lark <i>Chersomanes albobasciata</i>							
M	28,7;	31,5;	32,0	F	27,6		
+ Redcapped Lark <i>Calandrella cinerea</i>							
F	22,4			U	27,0		
* Chestnutbacked Finchlark <i>Eremopterix leucotis</i>							
M	20,0;	21,0		F	23,8		

+	Greybacked Finchlark	<i>Eremopteria verticilis</i>	
M	Mean	18,8	S.D. 1,4
	Range	17,3 - 21,2	n = 7
F	Mean	18,0	S.D. 1,3
	Range	16,4 - 20,5	n = 7

HIRUNDINIDAE

	Brownthroated Martin	<i>Riparia paludicola</i>	
U	Mean	13,4	S.D. 1,0
	Range	11,0 - 15,0	n = 61

DICRURIDAE

	Forktailed Drongo	<i>Dicrurus adsitellus</i>	
Juv	44,5; 46,0		

PARIDAE

*	Ashy Tit	<i>Parus cinerascens</i>	
U	18,5; 19,6; 20,1		

TURDIDAE

+	Olive Thrush	<i>Turdus olivaceus</i>	(Table 1 opposite)
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From the limited sample it seems that the birds are heaviest in spring.

	Groundscraper Thrush	<i>Turdus litsitsirupa</i>	
U	75,9		

*	Cape Rock Thrush	<i>Monticola rupestris</i>	
F	60,0		

*+	Mountain Chat	<i>Oenanthe monticola</i>	
F	35,5; 38,5		

*+	Capped Wheatear	<i>Oenanthe pileata</i>	
F	23,9		

+	Familiar Chat	<i>Cercomela familiaris</i>	(Table 2 opposite)
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The sample sizes are too small to allow any conclusions.

*	Sicklewinged Chat	<i>Cercomela sinuata</i>	
F	17,4; 19,7		

*	Mocking Chat	<i>Thamnodaea cinnamomeiventris</i>	
F	47,5; 51,1		

+	Anteating Chat	<i>Myrmecocichla formicivora</i>	
M	Mean	46,9	S.D. 2,5
	Range	43,7 - 49,5	n = 5
F	Mean	44,8	S.D. 3,6
	Range	40,5 - 49,3	n = 5

TABLE 1
MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
OLIVE THRUSH *TURDUS OLIVACEUS*

		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mean	M		65.2	67.2	88.0	78.8		70.8	77.6	86.1		75.0	80.8
	F	67.0								79.5			
	U	72.6	73.1	74.5			75.6		73.0	79.8			
Range	M		61.5- 68.8	63.1- 75.2					75.3- 79.8				80.0- 81.5
	F	65.5- 68.5											
	U	64.2- 81.0	60.8- 79.0	73.0- 76.0					67.5- 79.5	78.5- 81.0			
n	M		2	4	1	1		1	2	1		1	2
	F	2								1			
	U	2	9	4			1		6	2			

TABLE 2
MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
FAMILIAR CHAT *CERCOMELA FAMILIARIS*

		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mean	M	22.9				22.6							
	F			28.0									
	U	19.9	20.0		24.6	20.4		17.3					24.5
Range	M	22.6- 23.0				22.1- 23.0							
	F												
	U	18.5- 21.5			21.5- 21.6	19.6- 21.5							24.0- 25.0
n	M	3				2							
	F			1									
	U	4	1		2	3		1					2

Stonechat	<i>Saxicola torquata</i>			
M	15,5	F	16,5	
Cape Robin <i>Cossypha caffra</i> (Table 3 opposite)				
* Karoo Robin	<i>Erythropygia coryphaeus</i>			
F	19,7; 22,5; 23,5	U	20,5; 21,0;	
+ Kalahari Robin	<i>Erythropygia paena</i>			
M	18,9; 20,0	F	19,5; 20,8	
U	Mean 19,2	S.D.	1,6	
	Range 17,7 - 21,0	n =	6	

SYLVIIDAE

+ Titbabbler	<i>Parisoma subcaeruleum</i>			
(Table 4 opposite)				
Birds appear to be heaviest in winter.				
* Layard's Titbabbler	<i>Parisoma layardi</i>			
M	14,0; 15,0; 15,5			
* Icterine Warbler	<i>Hippolais icterina</i>			
U	13,7; 14,0			
+ African Marsh Warbler	<i>Acrocephalus baeticatus</i>			
M	Mean 10,3	S.D.	0,7	
	Range 9,3 - 11,2	n =	8	
F	8,8; 10,6; 11,8			
U	Mean 10,3	S.D.	0,9	
	Range 9,0 - 12,0	n =	12	
Willow Warbler <i>Phylloscopus trochilus</i>				
U	Mean 8,3	S.D.	1,0	
	Range 7,0 - 10,0	n =	6	
Longbilled Crombec <i>Sylvietta rufescens</i>				
U	11,0; 12,0; 12,6			
*+ Yellowbellied Eremomela	<i>Eremomela icteropygialis</i>			
M	8,5; 8,6; 9,4	F	6,7; 8,5	
U	7,5; 8,0; 9,0; 9,3			
+ Barred Warbler	<i>Camaroptera fasciolata</i>			
F	13,8			
* Greybacked Cisticola	<i>Cisticola subruficapilla</i>			
F	9,6; 10,0; 12,0			
Levaillant's Cisticola <i>Cisticola tinniens</i>				
U	Mean 11,0	S.D.	1,5	
	Range 9,5 - 13,0	n =	5	

TABLE 3
MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
CAPE ROBIN *COSSYPHA CAFFRA*

		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mean	M	32,1		25,5									
	F	27,4											27,4
	U	27,8	29,9				26,1		28,2	29,6			30,1
Range	M	31,5- 32,6		24,3- 26,7									
	F	25,5- 30,0											26,2- 28,6
	U	24,3- 31,0	26,1- 32,6				25,2- 27,6		26,1- 30,4	29,0- 30,2			27,4- 34,1
n	M	2		2									
	F	4											2
	U	7	4				3		3	2			6

TABLE 4
MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
TITBABBLER *PARISONA SUBCAERULEM*

		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mean	M				15,2					13,2	16,4		16,0
	F					15,7	14,7						15,9
	U	13,9	15,2			13,4	13,5		15,5			15,2	15,2
Range	M												15,2- 16,8
	F					15,3- 16,0							15,5- 16,2
	U	12,2- 15,5	14,9- 15,5			12,6- 14,5			14,0- 17,0			14,0- 16,0	13,5- 16,5
n	M				1					1	1		3
	F					2	1						2
	U	17	3			7	1		7			3	8

- + Neddicky *Cisticola fulvicapilla*
M 8,5; 9,3
U Mean 9,2 S.D. 0,8
Range 8,0 - 10,3 n = 7
- + Blackchested Prinia *Prinia flavicans*
M Mean 8,8 S.D. 1,3
Range 7,0 - 10,5 n = 5
F 9,0; 10,3; 10,5; 10,6
U Mean 9,2 S.D. 0,9
Range 7,2 - 11,0 n = 31
- *+ Spotted Prinia *Prinia maculosa*
M 8,2; 10,0 F 11,1
U 8,3
- * Namaqua Prinia *Prinia substriata*
M 11,5; 12,4; 13,2
- * Rufouseared Warbler *Malcorus pectoralis*
U Mean 10,0 S.D. 1,0
Range 8,0 - 11,5 n = 10

MUSCICAPIDAE

- + Spotted Flycatcher *Muscicapa striata*
M 11,5
- + Marico Flycatcher *Melaenornis mariquensis*
F 26,2; 28,5
- + Fiscal Flycatcher *Sigelus silens* (Table 5 page 50)

Birds are heaviest in winter. The samples are too small and irregular to allow further conclusions.

- + Cape Batis *Batis capensis*
F 13,0 Juv 14,5
- * Pririt Batis *Batis pririt*
M 8,8 F 10,0; 10,1
U Mean 8,3 S.D. 0,6
Range 7,5 - 9,0 n = 7
- + Fairy Flycatcher *Stenostira scita*
M 5,6; 6,5; 6,6; 6,7
Paradise Flycatcher *Terpsiphone viridis*
M 15,5 F 11,9; 13,5

MOTACILLIDAE

Cape Wagtail *Motacilla capensis*
 U Mean 22,0 S.D. 2,1
 Range 17,8 - 24,5 n = 11

Richard's Pipit *Anthus novaeseelandiae*
 U 26,5; 26,5; 28,4

+ Orangethroated Longclaw *Macronyx capensis*
 M Mean 47,5 S.D. 4,5
 Range 41,3 - 50,8 n = 4

Pintailed Whydah *Vidua macroura*
 M Mean 14,8 S.D. 1,4
 Range 12,6-15,5 n = 4

LANIIDAE

+ Fiscal Shrike *Lanius collaris* (Table 6 overleaf)

Weights appear to remain fairly even throughout the year.

Redbacked Shrike *Lanius collurio*
 M 26,9; 28,7; 34,9

*+ Longtailed Shrike *Corvinella melanoleuca*
 F 90,0; 95,0; 110,0

Crimsonbreasted Shrike *Laniarius atrococcineus*
 U 46,7; 49,0; 52,0

Threestreaked Tchagra *Tchagra australis*
 U 35,0; 36,2

+ Bokmakierie *Telophorus zeylonus*
 M Mean 61,4 S.D. 5,6
 Range 54,5 - 69,4 n = 5

F 43,2; 59,7

U Mean 68,5 S.D. 5,4
 Range 59,5 - 73,1 n = 5

STURNIDAE

+ Pied Starling *Spreo bicolor*
 M 107,0; 111,0

F Mean 111,0 S.D. 7,9
 Range 104,0 - 125,0 n = 6

U Mean 105,7 S.D. 8,6
 Range 95,0 - 125,0 n = 10

+ Wattled Starling *Creatophora cinerea*
 F 65,0; 69,1

TABLE 5
MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
FISCAL FLYCATCHER *SIGELUS PILEUS*

		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mean	M	29,3	24,8	23,6		23,2			25,1	26,5		25,5	
	F		29,6						25,4	24,6			
	U						25,3		24,0	25,2		26,0	25,1
Range	M	27,5- 31,0	24,0- 25,5			22,9- 23,4			25,1	25,4- 27,5			
	F		24,0- 37,0						23,6- 27,0	24,2- 24,9			
	U						23,0- 27,6		22,5- 26,0	24,6- 25,7			23,3- 27,3
n	M	2	2	1		2			2	2		1	
n	F		4						4	2			
n	U						2		5	2		1	8

TABLE 6
MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
FISCAL SHRIKE *LANIUS COLLARIS*

		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mean	M	47,0	41,3	42,1		42,9	40,0	41,8	44,4	43,3	46,8	41,8	39,9
	F	39,0							36,3	36,1			
Range	M	46,5- 47,5	39,5- 44,3	36,6- 50,0		42,3- 43,5		39,5- 46,6		41,5- 45,0		37,5- 46,0	34,7- 43,0
	F	34,9- 43,0											
n	M	2	3	5		2	1	3	1	2	1	2	7
	F	2							1	1			

- + Glossy Starling *Lamprotornis nitens*
 M 91,0 F 78,3; 80,0
 U 87,0
- * Redwinged Starling *Onychognathus morio*
 M Mean 138,3 S.D. 9,1
 Range 115,0 - 155,0 n = 33
 F Mean 128,4 S.D. 10,7
 Range 110,0 - 151,0 n = 22

PROMPEROPIDAE

- * Gurney's Sugarbird *Promerops gurneyi*
 M 44,3

The weight given is much heavier than the 36,6 g for one male listed by Maclean (1985)

NECTARINIIDAE

- Malachite Sunbird *Nectarinia famosa*
 M 16,7; 18,3 F 16,2

- Greater Doublecollared Sunbird *Nectarinia afra*
 M 13,0

ZOSTEROPIDAE

- Cape White-eye *Zosterops pallidus* (Table 7 overleaf)

Bird appear to be heaviest in mid-winter and summer. This agrees with the observations of Earle (1980). Birds in the Orange Free State seem to be lighter than Natal birds (Earle 1980).

PLOCEIDAE

- *+ Redbilled Buffalo Weaver *Bubalornis niger*
 M 80,0

- Whitebrowed Sparrowweaver *Plocepasser machali*
 M Mean 44,9 S.D. 3,6
 Range 40,6 - 51,4 n = 7

- F Mean 41,7 S.D. 4,5
 Range 36,5 - 49,0 n = 6

- U Mean 45,2 S.D. 1,6
 Range 43,5 - 47,3 n = 4

- Sociable Weaver *Philetairus socius*
 M Mean 27,5 S.D. 2,9
 Range 20,8 - 32,0 n = 16

- F Mean 26,1 S.D. 2,1
 Range 20,9 - 30,2 n = 19

TABLE 7
MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
CAPE WHITE-EYE *ZOSTEROPS BELLIDUS*

		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mean	M			10,1		10,1			9,7	9,4			11,4
	F	10,3				11,3			10,7	9,2			10,6
	U	9,9	9,8	11,2	9,7		9,4		9,6			10,2	9,5
Range	M			7,7-		8,5-			8,5-	8,7-			11,2-
	F	8,8-		14,6		13,5			10,8	10,3			11,6
	U	12,0				13,2			11,3	10,0			11,0
		9,5-	8,0-	10,0-	9,5-		7,4-		7,0-			10,0-	8,9-
		10,5	11,0	12,4	10,0		10,5		12,0			10,5	10,3
n	M			3		5			2	5			2
	F	6				5			2	2			3
	U	6	20	2	3		18		32			3	5

+ Greyheaded Sparrow *Passer griseus* (Table 8 page 54)

Apparently two peaks, heaviest birds in autumn and spring; agreeing with Skead's observations (1977) for Transvaal.

+ Scalyfeathered Finch *Sporopipes squamifrons*

M 8,5; 12,6 F 10,0; 11,5

Cape Weaver *Ploceus capensis*

M Mean 45,7 S.D. 2,7
Range 42,2 - 50,5 n = 13

F 37,2; 38,0; 39,8

Masked Weaver *Ploceus velatus* (Table 9 page 51 and Figure 1 page 55)

The mean mass of the males is higher than that of females in all months except September. However, only April and May show statistically significant differences between the sexes. This can be ascribed to the heavy utilization of energy by the males when displaying prior to the breeding season. Females, again, appear to be heavier prior to breeding.

Redbilled Quelea *Quelea quelea*

M Mean 19,7 S.D. 1,7
Range 16,8 - 24,0 n = 18

F Mean 18,4 S.D. 1,2
Range 16,9 - 20,3 n = 12

Redbilled Quelea (contd.)		
U	Mean 18,8 Range 17,0 - 21,7	S.D. 1,5 n = 12
* Golden Bishop <i>Euplectes afer</i>		
M	Mean 16,1 Range 12,8 - 18,0	S.D. 1,8 n = 7
F	13,5; 14,5	
U	Mean 15,6 Range 14,0 - 16,5	S.D. 1,0 n = 6
Longtailed Widow <i>Euplectes prognos</i>		
M	Mean 40,3 Range 33,0 - 45,0	S.D. 4,4 n = 9

ESTRILDIDAE

Melba Finch <i>Pytilia melba</i>		
M	11,5; 12,0	F 12,4; 12,0; 14,9
+ Redbilled Firefinch <i>Igonostica senegala</i>		
M	Mean 8,0 Range 7,3 - 9,2	S.D. 0,7 n = 6
F	Mean 7,3 Range 6,0 - 8,5	S.D. 0,8 n = 8
U	6,8; 7,2; 8,5	
Blue Waxbill <i>Uraeginthus angolensis</i>		
M	Mean 9,0 Range 6,3 - 10,5	S.D. 1,5 n = 7
F	Mean 9,1 Range 7,5 - 10,5	S.D. 1,2 n = 6
Violeteared Waxbill <i>Uraeginthus granatinus</i>		
M	8,8; 9,3; 11,5	F 9,9; 10,7
Common Waxbill <i>Estrilda astrild</i>		
M	8,0 - 9,5	
F	Mean 9,3 Range 8,0 - 10,3	S.D. 0,7 n = 8
+ Blackcheeked Waxbill <i>Estrilda erythronotos</i>		
M	7,7; 8,4	F 7,9; 8,6
+ Redheaded Finch <i>Amadina erythrocephala</i>		
M	Mean 21,6 Range 19,7 - 23,0	S.D. 1,3 n = 5
F	Mean 23,6 Range 22,0 - 25,5	S.D. 1,5 n = 5

TABLE 8
MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
GREYHEADED SPARROW *PASSER GRISEUS*

		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mean	M			23,5						24,8			
	F	23,1		24,4		24,5				24,2	24,8	23,9	23,6
	U	23,4	24,4						23,2			24,2	23,5
Range	M			21,5- 25,5						24,4- 25,2			
	F	22,2- 24,2		22,0- 25,8		23,9- 25,0				23,3- 25,0	24,8-	23,5- 24,3	23,2- 24,0
	U	21,0- 26,0	23,7- 26,5						18,0- 26,5			24,0- 24,5	22,2- 25,0
n	M			2						2			
	F	3		3		2				2	2	2	3
	U	6	7						3			3	4

TABLE 9
MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
MASKED WEAVER *PLOCEUS VELATUS*

		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Mean	M		33,6	27,8	30,0	29,3	26,3	33,5	29,7	29,4	31,4	33,5	28,0
	F		28,5	28,5	27,3	28,0	23,5		22,4	28,1	26,8	27,5	24,0
Range	M		28,0- 36,4	27,5- 28,5	23,8- 36,6	23,5- 36,6	25,4- 27,3	33,5-	29,7-	27,2- 33,6	28,5- 34,2	29,5- 34,5	22,2- 40,0
	F		25,5- 34,1	21,6- 33,0	22,3- 33,3	22,9- 33,8	20,2- 29,9		20,0- 25,7	27,4- 28,9	26,3- 27,2	26,5- 28,5	21,8- 28,5
S.D.	M		1,8	0,6	4,1	5,3	0,8	0	0	2,4	4,0	2,0	6,7
	F		1,9	3,4	3,3	3,8	2,5		2,0	0,8	0,6	1,4	3,9
n	M		39	3	9	8	5	2	2	7	2	6	11
	F		29	7	11	10	23		15	5	2	2	3

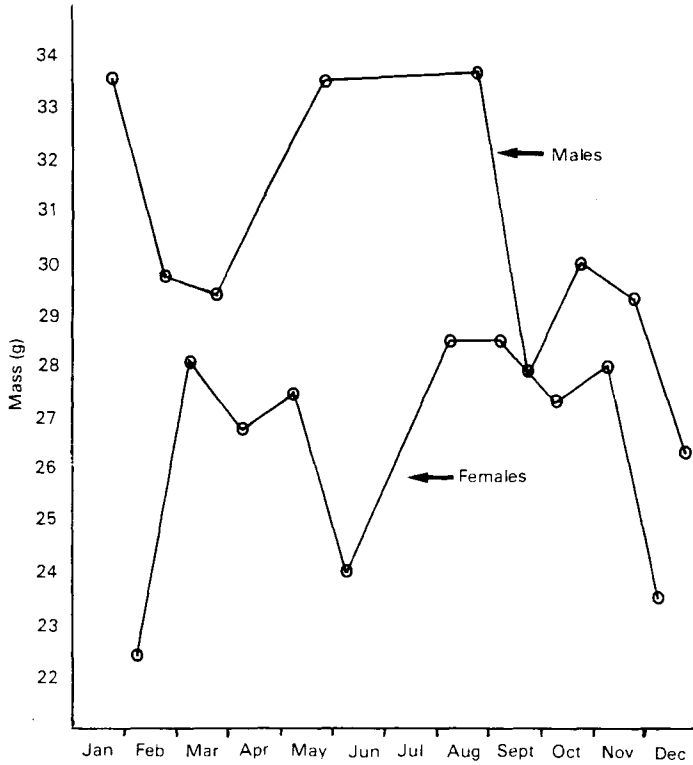


FIGURE 1

MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
MASKED WEAVER *PLOCEUS VELATUS*

Pintailed Whydah *Vidua macroura*

M Mean 14,8 S.D. 1,4
Range 12,6 - 15,5 n = 4

F 14,6; 15,4

Shafttailed Whydah *Vidua regia*

M 12,6; 13,6

Steelblue Widowfinch *Vidua chalybeata*

M 11,0; 13,0

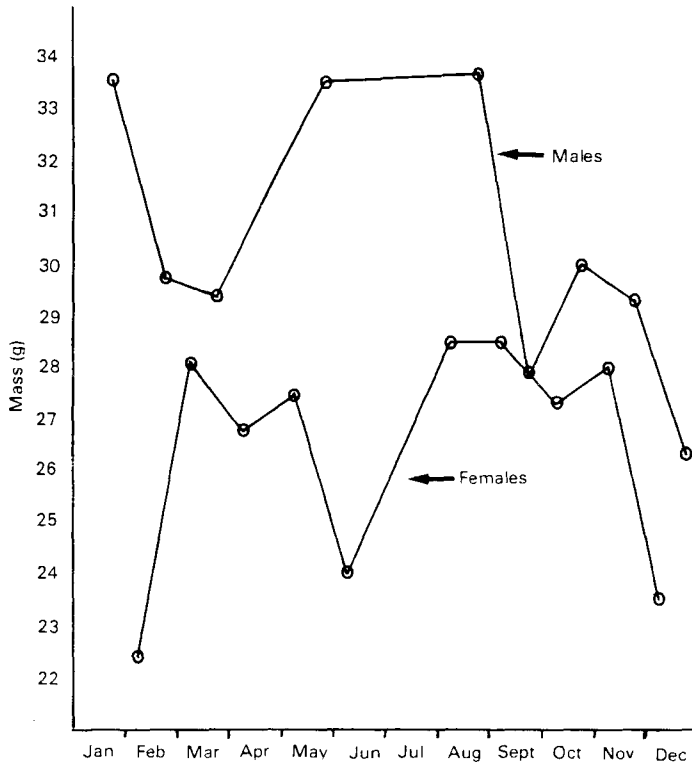


FIGURE 1

MONTHLY VARIATION IN THE BODY WEIGHTS OF ADULT
MASKED WEAVER *PLOCEUS VELATUS*.

Pintailed Whydah *Vidua macroura*

M Mean 14,8 S.D. 1,4
Range 12,6 - 15,5 n = 4

F 14,6; 15,4

Shafttailed Whydah *Vidua regia*

M 12,6; 13,6

Steelblue Widowfinch *Vidua chalybeata*

M 11,0; 13,0

FRINGILLIDAE

+ Blackthroated Canary <i>Serinus atrogularis</i>			
M	8,7; 11,0; 11,6; 11,8		
F	10,7; 12,0; 12,2; 12,8		
U	10,2; 10,5; 11,1; 12,5		
+ Cape Canary <i>Serinus canicollis</i>			
M	12,4; 14,3; 17,5		
Yellow Canary <i>Serinus flaviventris</i>			
M	Mean 17,2	S.D. 1,5	
	Range 14,7 - 19,0	n = 10	
F	Mean 16,4	S.D. 1,0	
	Range 15,2 - 18,2	n = 7	
+ Whitethroated Canary <i>Serinus albogularis</i>			
M	23,6	F	26,0; 28,1
+ Cape Bunting <i>Emberiza capensis</i>			
M	21,0; 23,6	F	22,5
+ Larklike Bunting <i>Emberiza impetruani</i>			
M	Mean 15,1	S.D. 1,0	
	Range 13,8 - 16,9	n = 8	
F	Mean 14,4	S.D. 1,4	
	Range 13,3 - 17,2	n = 7	
U	Mean 15,6	S.D. 0,7	
	Range 14,8 - 16,6	n = 11	

OPSOMMING

Massas word aangebied vir 551 voels van 85 spesies (32 families) wat in die Oranje-Vrystaat gewoog is, hetsy lewendig tydens beringingsoperasies, of tydens versameltoegte vir wetenskaplike doeleindes. Waar massas beskikbaar was vir ses of meer maande van die jaar, is dit getabuleer en kortliks bespreek.

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