

## PINTAILED WHYDAH *VIDUA MACROURA*

The Pintailed Whydah (PTW) is a well-known garden bird, and males in breeding plumage are unmistakable for any other species. However, females and nonbreeding males are another matter altogether. Even after six years' work on the whydahs, I sometimes have to look twice to pick out sparrow-plumaged PTWs in a flock of Redbilled Queleas (*Quelea quelea*), Shafttailed Whydahs (*Vidua regia*) or Paradise Whydahs (*V. paradisaea*). This note summarizes some of the main distinguishing features, which are often subtle. My data were collected from 84 PTWs ringed in the southern Cape Province (Wilderness/Knysna districts) and central Transvaal Province (Naboomspruit/Nylstroom districts) in 1984-1986.

### MOULT and BILL COLOUR

In their first three to four months of life, immature Pintailed Whydahs are uniformly light brown above and buffy below. They then have a post-juvenile moult; nine (64% of 14 immatures ringed in the Transvaal in mid-March 1986 were in active moult while the remainder had not yet started. At this stage, russet-brown feathers appear on the crown, nape, back, flanks, ear coverts, tertials and upper wing-coverts. The tubercles are regressed but still plainly visible in most birds, and the bill is orangey-red at the base and below, with a blackish maxilla. I have no data on exactly when the bill becomes bright red in males, nor when breeding dress is acquired, but this presumably happens after the first year (see Payne 1971).

There is evidence of seasonal variation in bill colour in PTWs, as Payne (1971) found in Paradise Whydahs. For example, a sparrow-plumaged PTW with a reddish bill with dark streaks was colour-ringed in the Cape on 30 August 1985; three months later, in mid-breeding season, this bird was sighted 13 km west with a uniformly blackish bill. Normally, the bills of nonbreeding males are bright red while those of females are blackish or brownish red (Maclean 1985). Indeed, the bills of laying females dissected in my study were blackish red. However, a Cape pre-breeding female dissected in August 1986 had a bright red bill with fine blackish streaks. The bills of breeding males also seem to become progressively "magenta" or deep pink, on a scale of orange - red - pink, as their nuptial moult progresses. (This pattern is also found in their host, the Common Waxbill *Estrilda astrild*: Barnard 1988). Bill colour should thus be used fairly cautiously as a clue to the sex of sparrow-plumaged birds.

## SEX AND MENSURAL DATA

While there are obvious plumage differences in breeding males and females, it is more difficult to distinguish nonbreeding males and females. In addition to bill colour, it is helpful to note the following features: mass, wing length, tail length, tarsus length, and culmen width. I found that these measurements varied significantly between the sexes (Table 1; see also INTERPOPULATION VARIATION). There were no obvious differences in the wing or tarsus measurements of breeding and nonbreeding males, as found also by Payne (1971) for Paradise Whydahs. Finally, unusually heavy birds with distended abdomens in the breeding season are laying females; with a bit of practice, these "pregnant birds" can be identified at a distance.

TABLE 1

MENSURAL DATA FOR MALE AND FEMALE *VIDUA MACROURA* FROM THE SOUTHERN CAPE PROVINCE<sup>1</sup>

	MALE	N	FEMALE	N	P < <sup>2</sup>
Wing length (mm) (flattened chord)	72,9 ± 1,5 (71 - 76)	11	69,0 ± 1,2 (66 - 71,5)	21	0,00001
Tail length (mm) (short tail)	52,4 ± 1,6 (50 - 55)	11	49,0 ± 1,9 (46,5 - 53)	20	0,00002
Tarsus length (mm)	16,6 ± 0,5 (16 - 17,5)	11	15,9 ± 0,5 (14,5 - 16,5)	21	0,00058
Culmen length (mm)	9,1 ± 0,5 (8,5 - 10)	11	8,9 ± 0,3 (8,5 - 9,5)	21	NS
Culmen width (mm)	4,9 ± 0,3 (4,5 - 5,5)	9	4,6 ± 0,3 (4,0 - 5,0)	21	0,00673
Culmen depth (mm)	7,2 ± 0,7 (6,5 - 8,5)	9	6,9 ± 0,4 (6,5 - 8,0)	21	NS
Weight (g)	15,9 ± 0,8 (14,8 - 16,7)	9	14,9 ± 0,7 (13,4 - 15,9)	18	0,00229

<sup>1</sup> Includes only birds of known sex based on dissection, obvious plumage or copulation activity; no female data from the Transvaal are available.

<sup>2</sup> Two-tailed t-tests.

INTERPOPULATION VARIATION

Males in the semi-arid Transvaal are significantly longer-winged and bigger-billed than coastal Cape Birds (Table 2; see also Barnard 1991), although samples are small. Most obvious in the hand are the more robust, deeper bills of Transvaal birds, which may have evolved to cope with drier, harder seeds there (viz. Boag & Grant 1981). Ringers should bear this in mind when sexing birds on mensural data, since males from one area might overlap with females from another.

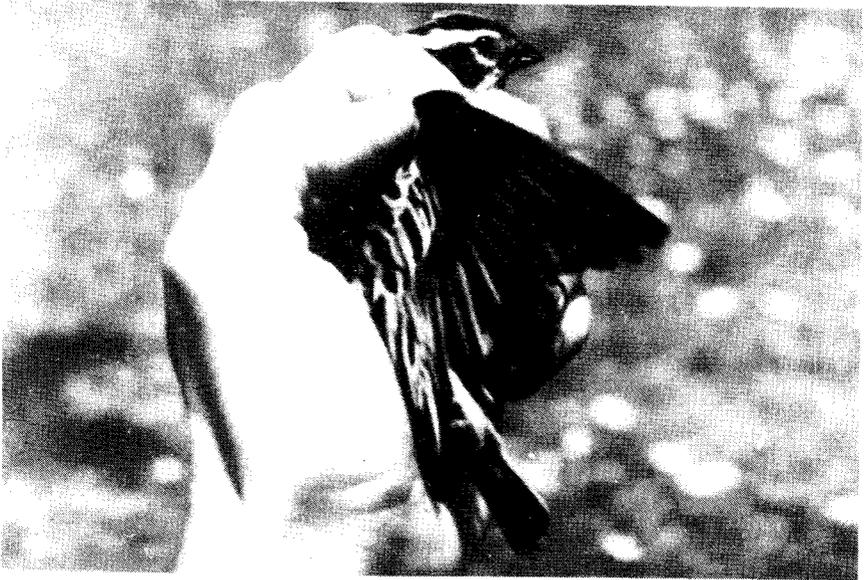
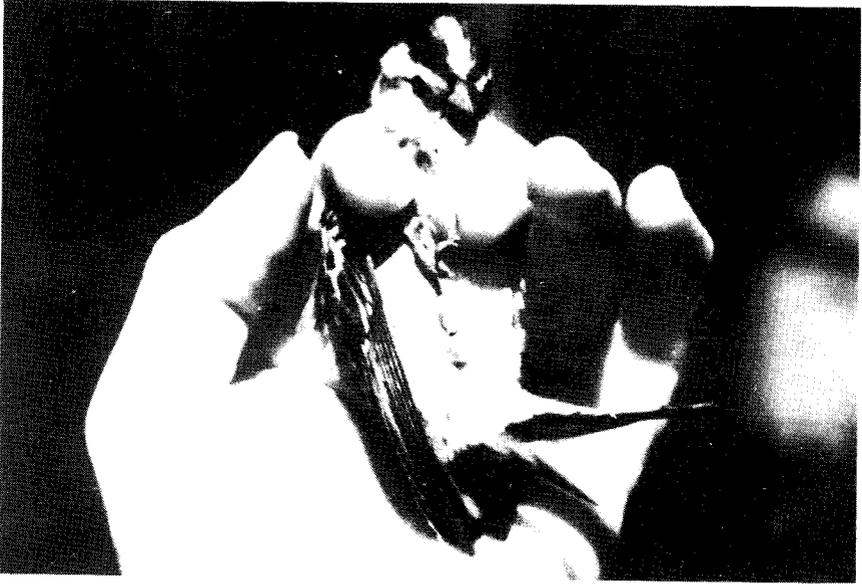
TABLE 2  
COMPARISON OF MALE *VIDUA MACROURA* FROM THE SOUTHERN CAPE  
AND CENTRAL TRANSVAAL PROVINCES

	CAPE	N	TRANSVAAL	N	P < <sup>1</sup>
Wing length (mm) (flattened chord)	72,9 ± 1,5 (71 - 76)	11	75,3 ± 2,4 (72 - 79)	8	0,01758
Tail length (mm) (short tail)	52,4 ± 1,6 (50 - 55)	11	52,9 ± 1,9 (51 - 55,5)	4	NS
Tarsus length (mm)	16,6 ± 0,5 (16 - 17,5)	11	16,9 ± 0,6 (15,5 - 17,5)	9	NS
Culmen length (mm)	9,1 ± 0,5 (8,5 - 10)	11	10,1 ± 0,6 (9,5 - 11)	9	0,00089
Culmen width (mm)	4,9 ± 0,3 (4,5 - 5,5)	9	6,0 ± 0,9 (5,0 - 7,5)	7	0,00407
Culmen depth (mm)	7,2 ± 0,7 (6,5 - 8,5)	9	8,1 ± 0,5 (7,5 - 9,0)	8	0,00695
Weight (g)	15,9 ± 0,8 (14,8 - 16,7)	9	15,1 ± 1,3 (13,8 - 17,8)	9	NS

<sup>1</sup> Two-tailed t-tests.

SPECIES IDENTIFICATION

*Redbilled Queleas* - Female and nonbreeding male PTWs are smaller, more slender, and have less robust bills than Redbilled Queleas. Their bills are usually more orange than those of nonbreeding male queleas, which are bright magenta, and their heads are more boldly striped (queleas have only a whitish eyebrow).



FEMALE PINTAILED WHYDAHs, LOWER ONE WITH BLACK CHEEK

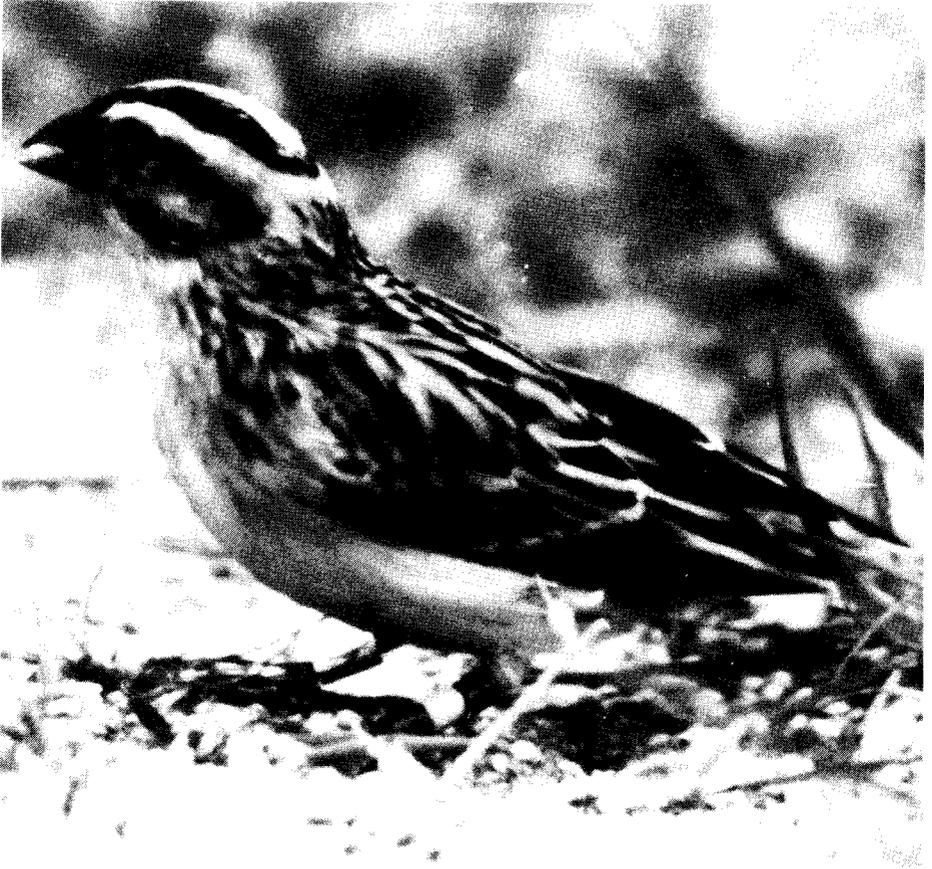
*Shafttailed and Paradise Whydahs* - The crowns of female and nonbreeding male Shafttailed Whydahs are much more subtly striped (buff/tawny brown) than those of PTWs, which are boldly striped dark chocolate/pale buff. By contrast, the crowns of female and nonbreeding male Paradise Whydahs are **more boldly** striped (black/pale buff or white) than those of PTWs. Paradise Whydahs are also substantially bigger than PTWs.

In summary, Pintailed Whydahs are sexually dimorphic as well as dichromatic. The plain-brown immatures undergo a post-juvenile moult at three to four months of age, at which time the tubercles are regressing. Nonbreeding males are larger than females, but do not differ significantly in size from breeding males. Wing, tail and tarsus lengths, and culmen width, are useful in distinguishing the sexes despite some overlap. Breeding and nonbreeding males have bright red (orange - red - pink) bills, while the bills of females are almost always dull blackish red. At first glance, this species is easily confused with nonbreeding male Redbilled Queleas and other nonbreeding whydahs, but with practice, subtle differences become more apparent.

#### REFERENCES

- BARNARD, P. 1988. Ageing and sexing: Common Waxbill *Estrilda astrild*. Safring News 17: 79-83.
- BARNARD, P. 1991. Ornament and body size variation and their measurement in natural populations. Biol. J. Linn. Soc. 41: in press.
- BOAG, P.T. & GRANT, P.R. 1981. Intense natural selection in a population of Darwin's finches (Geospizinae) in the Galapagos. Science 214: 82-85.
- MACLEAN, G.L. 1985. 'Roberts' birds of Southern Africa'. Cape Town: John Voelcker Bird Book Fund.
- PAYNE, R.B. 1971. Paradise Whydahs *Vidua paradisaea* and *V. obtusa* of southern and eastern Africa, with notes on differentiation of the females. Bull. Brit. Ornithol. Club 91: 66-76.

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FEMALE PINTAILED WHYDAH, "JOBELA"