

REFERENCES

- Ali, S. and Ripley, S. D. (1969). 'Handbook of the Birds of India and Pakistan', Vol. 2. (Oxford University Press: Delhi.)
- Bannerman, D. A. (1961). 'The Birds of the British Isles', Vol. X. (Oliver and Boyd: Edinburgh.)
- Blakers, M. S., Davies, S. J. J. F. and Reilly, P. N. (1984). 'The Atlas of Australian Birds' (RAOU and Melbourne University Press: Carlton.)
- Cramp, S. (1983). 'Handbook of the Birds of Europe, the Middle East and North Africa. The Birds of the Western Palearctic', Vol. 3. (Oxford University Press: Oxford.)
- Dann, P. (1991). Feeding Behaviour and Diet of Double-banded Plovers *Charadrius bicinctus* in Western Port, Victoria. *Emu* 91: 179-184.
- Dann, P. (1993). Sexual dimorphism in bill length — Whimbrel. In: Data Exchange *Corolla* 17: 57.
- Domm, S. and Recher, H. F. (1973). The Birds of One Tree Island with notes on their yearly cycle and feeding ecology. *Stnbird* 4: 63-86.
- Evans, P. R. (1976). Energy balance and optimal foraging strategies in shorebirds: some implications for their distribution and movement in the non-breeding season. *Ardea* 64: 117-139.
- Hale, W. G. (1980). 'Waders.' Collins New Naturalist Series. (Collins: London.)
- Lane, B. A. (1987). 'Shorebirds in Australia.' (Nelson: Melbourne.)
- Latham, P. C. M. (1978). Asiatic Whimbrel catching crabs. *Notornis* 25: 355.
- McLennan, W. (1917). North Australian Birds. *Emu* 16: 205-231.
- Merton, D. V. (1970). Kermadec Islands Expedition Reports: A general account of birdlife. *Notornis* 17: 147-188.
- Recher, H. F. (1966). Some aspects of the ecology of migrant shorebirds. *Ecology* 47: 393-407.
- Shapiro, M. A. (1975). 'Westernport Bay Environmental Study, 1973-1974.' (Ministry for Conservation: Melbourne.)
- Wescott, G. (1976). The Intertidal Crabs of Victoria: an introduction, checklist and key to adults. *Vic. Nat.* 93: 237-245.
- Zwarts, L. (1985). The winter exploitation of fiddler crabs *Uca tangeri* by waders in Guinea-Bissau. *Ardea* 73: 3-12.

DATA EXCHANGE

SEXUAL DIMORPHISM IN BILL LENGTHS OF WHIMBREL *Numenius phaeopus variegatus*

Measurements of exposed culmens of twelve females and fourteen males from museum collections in Brisbane, Sydney and Melbourne were taken to nearest 0.1 mm.

Males (mean \pm S.D.): 76.5 mm \pm 3.8 (range 69.3-81.3), $n = 14$.

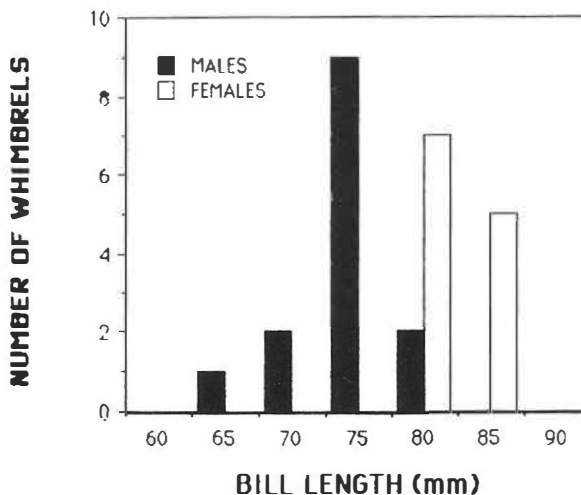
Females (mean \pm S.D.): 84.6 mm \pm 3.6 (range 80.1-89.7), $n = 12$.

Females had significantly longer bills ($t = -5.7$, d.f. = 24, $p < 0.005$). Sexual dimorphism in bill length has been recorded for *variegatus* previously from birds collected in Indonesia (Cramp, S. 1983). However, Ali and Ripley (1969) noted that 'in this race (*variegatus*) there is apparently no difference in size between the sexes'.

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References

- Ali, S. and Ripley, S. D. (1969). 'Handbook of the Birds of India and Pakistan'. (Oxford University Press: Delhi.)
- Cramp, S. (1983). 'Handbook of the Birds of Europe, the Middle East and North Africa. The Birds of the Western Palearctic' No. 3. (Oxford University Press: Oxford.)



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