

all but one were in full breeding plumage. Tentative conclusions drawn from my breeding data suggest that in New Zealand classical "winter plumage" is really that of the first-year immature. The head crest is smaller and browner than in the adult, tippets are marked by an indistinct ruff and the bill is yellow-ivory. Immatures lose the remains of their striped head plumage by 4-5 months.

Finally, Cramp & Simmons (1977) state that the subspecies *australis* lacks a white line over the eye. While not as distinct as in the nominate form of *cristatus*, white plumage above the eye was present in many of the grebes I studied and in some museum specimens.

#### LITERATURE CITED

- CRAMP, S.; SIMMONS, K. E. L. (Ed.) 1977. The birds of the Western Palearctic. Vol. 1. University Press: Oxford.  
 FALLA, R. A.; SIBSON, R. B.; TURBOTT, E. G. 1979. The new guide to the birds of New Zealand. Collins: Auckland.  
 OLIVER, W. R. B. 1955. Birds of New Zealand. 2nd ed. Reed: Wellington.  
 SLATER, P. 1979. A field guide to Australian birds. Vol. 1. Non-passerines. Rigby: Adelaide.  
 SOPER, M. F. 1965. More New Zealand bird portraits. Whitcombe & Tombs: Christchurch.

COLIN F. J. O'DONNELL, 198 Blenheim Road, Christchurch 4



#### ANOTHER ARCTIC TERN AT THE TARAWERA RIVER MOUTH

On 17 May 1981, I noticed an Arctic Tern (*Sterna paradisaea*) roosting at the edge of a mixed flock of White-fronted Terns (*S. striata*) and Black-fronted Terns (*S. albobriata*) at the Tarawera River mouth. This is the second that I have seen there; the first being on the 10 June 1978 (*Notornis* 26: 63-67).

When compared with the 1978 bird, this one showed a fainter carpal bar, a totally black bill and tail streamers slightly shorter than the tips of the folded wings; otherwise it appeared identical.

On this occasion I made a more critical comparison with the White-fronted Tern; the very short red legs, resulting in the bird's belly almost touching the ground, again being the most obvious distinguishing mark. The darker grey mantle and upper wing surface, the longer dark-grey-edged tail streamers and smaller body size were seen as before. However, some further differences were noted.

1. Steeper forehead.
2. Greater extent of white on the crown.
3. Bill more dagger shaped; having a straighter, less bow-shaped top edge to upper mandible; also noticeably shorter and proportionately deeper at the base; no horn-coloured tip.
4. The forward edges of the dark cap, where the white encroached on the black on the crown, and about the eyes, was sooty brown. This was in marked contrast to the shiny black of the remainder of the cap from hind-crown to lower nape. It was this that first drew my attention to the bird as at that stage all I could see was its head and neck.

This bird, like that of 1978, was part of the flock, though at the edge of it, but unlike that of 1978 it was aggressive, jabbing at any White-fronted Tern that came too close.



P. C. M. LATHAM, *c/o Papamoa Beach P.O., via Te Puke, Bay of Plenty.*