

two chains from the patch of gorse where we were sheltering. After the weather cleared, I walked slowly across to study these waders more closely, approaching behind an upturned dinghy stranded in the bay during a recent gale and now resting at the top of the beach. Most of the flock were within a few yards of it. There were more birds than at first appeared, as at least half of the flock were squatting in hollows in the soft sand and shell.

Four Turnstones and a Red-breasted Dotterel received only a passing glance. The tally of Wrybills was 34, and I was checking the six Red-necked Stints, which were elusively scattered among the Wrybills when a very small short-legged sandpiper rose slowly from one of the hollows and took a few steps. It had a long, rather heavy bill which dipped distinctly near the tip; and as it was only fifteen yards away, I recognised it at once as a Broad-billed Sandpiper. Only a few moments were needed to check that its crown was streaked and its legs dull green. My impression was that it was rather more heavily spotted on the sides of the breast than the Firth of Thames specimen when first seen in January 1960. J.J. was hastily recalled from the pursuit of other waders and we were able to compare notes together. During our examination of the bird, it moved slowly down from the beach and started to feed on the wet ooze with a Wrybill on one side and a Red-necked Stint on the other. A broad-brimmed sunhat would have covered the three. We could not have had a handier set of circumstances for judging its size, shape and markings, which together make *falcinellus* quite distinct from other small sandpipers.

— R. B. SIBSON



#### NOTE ON THE LITTLE BITTERN

If the careful descriptions of a small bittern seen at Meremere by P. J. Howard and others (*Notornis* X, 317-319) are translated into a composite sketch the bird seems unlikely on several counts to be the New Zealand Little Bittern (*Ixobrychus novaeseelandiae*). Most of the features described add up to a small, and probably young, specimen of the Brown Bittern (*Botaurus poiciloptilus*) and the description of behaviour and attitudes does nothing to discount this suggestion. Many immature specimens of the Brown Bittern in collections are much smaller than adults, with remarkably short bills. The editorial note quoting an earlier observation by R. T. Adams suggests in fact that Mr. Adams' first conclusion that the bird he saw was an unusually small specimen of Brown Bittern was correct. The Meremere bird is described in two places as having 'an elongated dumbbell-like face patch.' This is diagnostic of *Botaurus*, as also is the wing description 'wings buff, barred with brown, somewhat resembling hen pheasant. Scapulars buff, barred with grey.'

*Ixobrychus* is not barred anywhere, at any age. Its flight feathers and tail are jet black, contrasting in flight with the greater wing-coverts which are chestnut-buff. Cheeks above the whitish throat are uniformly chestnut and this colour continues down the neck, becoming dark vinous where the long neck feathers meet at the back. The crown is black and back dark rich brown. There is a generous amount of dark centring in some feathers, more pronounced in young birds, but the pattern thus produced is longitudinally streaky. It is, moreover, a very small bird, of body size, except when the neck is stretched, not larger than a California Quail.

The status of the New Zealand Little Bittern as a breeding bird has apparently never been established. Its distribution on the evidence of the dozen specimens preserved in New Zealand museums, and one or two abroad, appears to have been restricted to Westland and the Cold Lakes. Unless the specimen can be traced there is not much warrant for accepting the Tauranga record of a bird said by Buller to have been given by Mair to Colenso who was reported to have sent it to the Linnean Society. It is not clear from the record at what point, and by whom, it was identified.

Taxonomically the local form seems reasonably distinct and, as advocated by Oliver (New Zealand Birds, 2nd ed. 1955) is better treated binomially (as *novaezelandiae*) until the species of *Ixobrychus* are properly reviewed. New Zealand birds, by a slight margin over *I. sinensis* are the largest in the genus. If the existing specimens are really representative of all ages and both sexes they also lack the marked sexual dimorphism which produces a distinctive contrasty male plumage in all other species. In wing formula and extent of feathering on the tibia, *novaezelandiae* differs from *I. minutus* the distribution of whose several races is generally given as Europe, Africa, Western and Central Asia and parts of Australia. The New Zealand series has some of the plumage features characteristic of *I. exilis* of the Americas, and has even more in common with the average female plumage of *I. sinensis*, a species credited with a wide distribution, centred in South-East Asia but extending to the Seychelles, Northern Australia, and Micronesia. Sharpe (Cat. Birds Brit. Mus. XXVI, p. 229, 1898) has already noted that specimens from the extreme south-east of the known range of *sinensis* tend to be much darker and richer in plumage. What remains to be determined is whether New Zealand material represents extra-limital vagrants from some such stock in the Western Pacific, or derivative breeding stock. On available evidence the latter seems likely, but do they still survive?

— R. A. FALLA



#### CASPIAN TERNS IN THE LOWER WAIKATO

In New Zealand the Caspian Tern (*H. caspia*) feeds mainly in shallow water along the coast and in tidal estuaries. Only on the Volcanic Plateau at about 1000 ft. a.s.l. is it known regularly to frequent freshwater lakes well inland. At Rotorua a few pairs may attempt to breed in Sulphur Bay; and outside the nesting season a few dozen may gather at dusk to roost on Silica Flats.

There is one other district in the north where Caspian Terns penetrate well inland, namely the lower Waikato. The river is just tidal as far as Mercer, some twenty miles from the sea; but travellers beside the river need not be surprised if they see these large conspicuous terns as far as Ngaruawahia. For example on 21/1/63 ten were resting on a sandbank at Meremere.

A special feature of the lower Waikato is the group of shallow lakes on either side of the river between Te Kauwhata and Taupiri. In mid-September 1963, H. R. McKenzie and I spent part of three days investigating these lakes. On the afternoon of 12 September we counted 21 Caspian Terns fishing over the choppy waters of Waikare, the largest of the lakes. The weather was overcast and blustery. Some of the terns were over the centre and along the lee-shore, but most were fishing