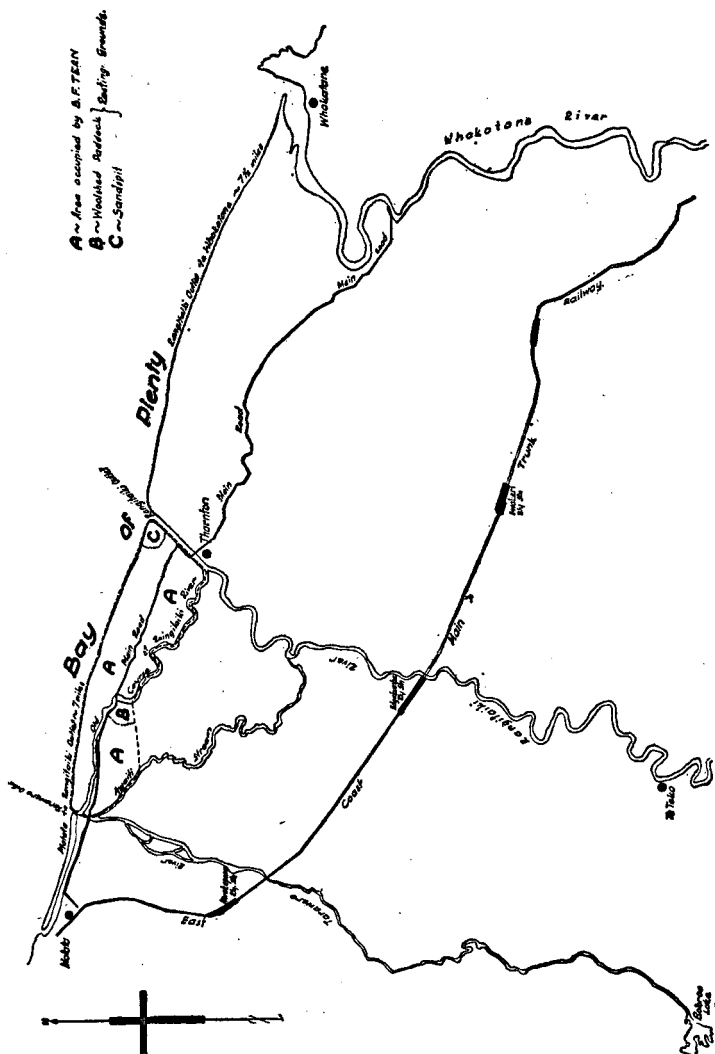


BLACK-FRONTED TERN IN BAY OF PLenty.

By B. Sladden, Tauranga.

Writing of the black-fronted tern (*Chlidonias albigularis*) in the north (Notornis 3, No. 1) Mr. R. B. Sibson refers to the sparse records of the bird from the Bay of Plenty district. The writer of the following notes has now to report the black-fronted tern in considerable numbers in the Rangitaiki coastal area where it was last seen by R. B. Sibson in 1947.

Here during the past twenty-five years or so, changes have been taking place that have had a marked influence on the numbers and the type of birds inhabiting the shoreline from the Rangitaiki River westward to Matata, and inland to the south of the protecting bank of sandhills. By the diversion of the Rangitaiki and Tarawera rivers each to a more direct outlet to the sea, estuaries have been formed, where hitherto an uninter-



rupted stretch of open beach had extended from Whakatane to Matata, a distance of about 15 miles. At Matata the two rivers had formerly entered the sea together, and a shallow lagoon has since been formed which is today a well populated bird sanctuary. Nature has considerably altered the man-made river outlets by the formation of sandspit and backwater, a favourite gathering place for the shore birds that now flock here in goodly numbers, and among them in the past months was the black-fronted tern.

Behind the sandhills, as a result of lowered river levels, moist pasture land has taken the place of swamp and lagoon, where for untold years a vast duck preserve had been the jealously guarded possession of the native tribes of the district. On the fringe of this area the black-fronted tern found a congenial retreat in the past winter and could be seen resting on the paddocks, or in buoyant flight dropping to the ground at intervals to pick up grub or insect at the feet of the grazing sheep.

The notes that follow give the dates and the counts of the birds seen and some impressions by the writer who was making his first acquaintance with the black-fronted tern:—

May 20.—In a paddock by the coastal highway between the Tarawera and Rangitaiki rivers, a group of squatting birds caught my eye. A closer view showed them to be terns of some kind but not the familiar white-fronted tern of the shores. Without glasses, and under conditions poor for observation, I could only surmise that here was the black-fronted tern. The peculiar lead-coloured appearance of the birds en masse, their rather small size and the conspicuous white tail coverts of those in flight seemed to fit, although other essential details could not be distinguished.

May 21.—The birds were still in the same locality, but under stormy conditions no count was made.

June 9.—With glasses, I counted 97 birds in two groups on the ground with a few on the wing. Of two birds flying toward me at close range, one had the jet black front of the species but the white lateral bands were not visible. The other bird had a completely white front and poll. In neither case could details of bill, legs or feet be distinguished. Only a small proportion of the birds were in the air at once, and as these rejoined the resting groups, others took the air. In a monotonous but purposeful flight, they patrolled the paddock area, checking progress occasionally with upraised wings to drop to the ground and pick up something that keen sight had detected from the air.

June 26, 4 p.m.—There were no black-fronted terns in the paddock but six flew across the road, heading for the coast.

June 27, noon.—At the Rangitaiki River outlet today there were 28 birds, some of which were feeding over the slack water inside the breakers while others rested on a sand-spit bared by the ebb tide. The feeding birds seemed to get something from the surface of the water, but the run of whitebait in the rivers had then hardly begun. Of the 28 birds located here, five showed plumage changes, mainly noticeable in the mottled appearance of the sides of the face. At their usual haunt in the woolshed paddock, there were 58 black-fronted tern. They were restless and rose noisily from the ground to alight again at the same spot, before dispersing over the paddocks, with a few breaking off and heading for the coast. Today's count was 81 birds.

July 10 (frosty morning).—The terns seen were fewer and more scattered. Six birds were feeding over the wet flats near the Tarawera River, with two at the woolshed area, and 19 at Rangitaiki outlet, among them being one white-fronted tern. Tally, 27.

July 19.—A group of from 40 to 50 birds rested in the woolshed paddock, their numbers being increased by others coming in from the south paddocks until there were 98 in a single group. On approaching them they rose noisily, their call being less clamorous than that of the white-fronted tern under similar circumstances, but the note was much the same

otherwise. They settled again at the same spot except for 15 that alighted on top of the battens of an intervening fence within 150 feet of where I stood. Of these 15 birds there were four that were not in the full plumage of the adult bird. One young bird was lightly mottled brown about the poll and face with darker patches round the eyes. This proportion of apparently immature birds, viz., 4 in 15, was higher than in the group generally. I was still unable to see clearly the colour of bill and legs except in respect of one bird on the fence, which had a dull orange coloured bill. An attempt to get a closer view of the birds resulted in their flying off to scatter over the paddocks to the south and west. A quick run to the Rangitaiki outlet brought to light another 31 black-fronted terns. Within twenty minutes a further 13 birds had joined up. It is feasible that later arrivals may have come from those already counted in the paddock, but I do not think so. The tide being full at this time, the birds were squatting in rather loose formation on the dry sand, and the dull hue of their plumage matching exactly their surroundings made a count difficult till they rose from the ground. As before, a few birds were feeding over the estuary. Disallowing the last-mentioned 13 birds, the tally for today is 129.

August 6.—There were no black-fronted terns to be seen in the paddocks or at the river outlets, and visits on subsequent dates gave no results.

It seems likely that the black-fronted tern has appeared here at intervals and in small numbers since R. B. Sibson's record of 1947. Mr Herd, the farm manager, says that in the winter before last (1950) he had seen an "odd bird or two," and last year (1951) "there were a few more," while this winter (1952) "they have been here in force."

The recent visit here of the black-fronted tern in such numbers gives weight to the theory that the bird may still be breeding inland. It is a fairly short and direct route northward to the coast via the course of the Rangitaiki River with a suitable winter retreat immediately at hand. If the opportunity occurs during the winter of 1953 it may be possible to record more nearly the dates of arrival and departure of the birds and to learn something of their feeding habits.

It is perhaps worth while to note the remarks of J. C. Bidwill "Rambles in New Zealand," 1841 (pages 71 and 81) in reference to the so-called "tropic birds" he saw "among the lavas of Tongadido," and about the lake "Rotuite," (probably Lake Rotoaira). Bidwill's description of the birds is rather hopeless but it was most likely the black-fronted tern that he saw. He said that the shallow lake abounded in a small type of fish about an inch long, which the Maoris dried for food.

It would be of interest to know to what extent any depletion of food supplies in more recent years and possible interference with nesting grounds by vermin or otherwise, may have affected the number of birds that have been seen inland of late years. On the other hand, where exactly have the recent visitors to the coast come from, and is it a matter of food supply, linked up with the changing environment, that has induced the black-fronted tern to occupy in increasing numbers as a winter sojourn, the restricted area of the Rangitaiki and Tarawera rivers estuaries?

STILTS NESTING AT ARDMORE, 1951-52.—Two adults and three young pied stilts of the previous season came back for an hour on 13/5/51. It is fairly safe to assume that these are the birds recorded in 1950-51. On 5/7/51 these returned, and with some additional adults at times, remained until nesting began. At this point the three young either left or were driven away. Records are: 31/8/51, nest, three eggs, bird incubating when found; 3/9/51, cow destroyed nest. This pair nested again and hatched four chicks on the following dates: October 11, two; 12, one; and 15, one. One chick was much smaller than the others and was probably the one hatched late.—A. F. Stokes, Ardmore.