



ing the first period one bird was seen, at noon, half a mile out. During the second period, a party of six, which was seen after 20 minutes, was observed, at 4.20 p.m., also half a mile out and all going north.

The counts and notes made by me refer to birds flying within about half a mile of the beach. Further out, to binocular range, from a 25-foot sand dune, the same general pattern of numbers and certainly of direction, was repeated. Still further out there may have been a southerly flight, but of this I have no information.

Quoting from notes made for me by my daughter—a careful observer—I find she noticed the shearwaters early in December, about a week after her arrival at Main Beach, Southport. Shearwaters were a 'new' bird to her—so important. They increased in numbers daily to December 18, when the birds were continually flying by, during the whole of her considerable watching periods on the beach. They flew generally at about the line of breaking waves either singly or in small parties. No record was made of flight direction before my visit of December 25, but from then onwards this aspect was closely watched. All birds seen thereafter were flying north except one which flew southerly, to alight on the water beside the swimming birds—on December 26. On this day, a clear warm calm one, whilst my daughter was at the surf at 10.30 a.m., there were many shearwaters passing all the time, even in groups of 20—all going north. About 11.30 a.m. a shearwater settled on the sea near a group of fifty bathers. Thinking this bird might be a potential 'wash-up' the party tried to catch it. The bird easily swam ahead, riding over unbroken waves and diving under running surf. Several more shearwaters settled nearby and floated for a period before taking off and flying away north. No reason was apparent for this alighting on the sea. December 28 was a grey windy day and an hour's watch by her from 10 to 11 a.m. failed to disclose a shearwater.

I cannot offer any explanation of why the shearwaters observed at Southport were all flying north so consistently and so close to the beach. I have spent many weeks of summer holidays on this ocean beach but have only seen them there once before—on December 25, 1950. Presumably their southern summer flight during October to December is generally sufficiently off-shore (in this area) to escape notice.

At Tweed Heads, Mr. F. M. Hamilton, an R.A.O.U. member, saw a shearwater on December 26, 1954, at 3 p.m., floating down the Tweed River on the outgoing tide. The bird appeared to be trying, unsuccessfully, to take off. It was rubbing the back of its head on its left wing in a clumsy way. Four more similar birds were reported to him as floating on the ocean off Point Danger.

In an effort to obtain further information of this 1954 inshore visit by the shearwaters, I called on Mr. David Fleay

at West Burleigh. He and his Fauna Reserve have become so well known and accepted that most damaged birds and animals found still alive are taken to him for 'patching up'. Sure enough the shearwaters had participated. No precise dates had been kept, but about 30 nearly-dead shearwaters had been brought to Mr. Fleay during October, November and December. All were emaciated and 'mere bundles of feathers'—so much so that two only were successfully 'repaired and liberated'. Without detailed examination, but based on nasal discharge and general appearance, Mr. Fleay suspected lung trouble. These birds were Short-tailed Shearwaters except one—a Little Shearwater.

Early in November 1948, I recorded what was probably part of a southwards migration. On November 3 I saw 2,000 to 3,000 shearwaters concentrated over a small area of ocean off Point Lookout at the north-east tip of Stradbroke Island. These birds appeared overnight at this spot, which had been the scene of intensive fishing by several thousand terns on the previous two days. When I first noted the shearwaters, there were less than a hundred terns fishing with them. The shearwaters were gliding low over the sea, making a dark layer of birds, whilst the Crested and Little Terns flew in a white group above. Over all these, there were six Lesser Frigate-birds. These Frigate-birds, some of each sex, were about the headland days before the shearwaters arrived. On the morning of November 4 there were only about fifty shearwaters present but by afternoon there were again 2,000 to 3,000 patrolling back and forth over the same general area. At this time they were outnumbered by Crested and Little Terns flying above them and diving through them to the sea. The shearwaters' numbers reduced daily, till by November 9 there were only about twenty gliding over what I had come to regard as the fishing area a quarter of a mile east of Boat Rock. The local fishermen spoke of the shearwaters as 'mackerel birds'.

Another R.A.O.U. member, Mr. K. L. S. Harley, found seven shearwaters washed up on the ocean beach at Currumbin, within 200 yards of Elephant Rock, on December 11, 1954. The least decomposed bird was taken to the Queensland Museum and identified as a Wedge-tailed Shearwater (*Puffinus pacificus*). Mr. Longman, of the Queensland Museum, commented that these birds are fairly frequently washed up on the southern Queensland ocean beaches at this time of year. It was noted that several of them were near crab-holes and that the flesh of the head had been eaten away from some parts.

These few facts have been gathered and presented here in the hope that they may help a little towards filling in the gap in the shearwater story.