

NOTES ON BANDING TERN AT CHATHAM,  
MASSACHUSETTS, FOR 1929

By CHARLES B. FLOYD

JULY 4, 1929, marked the beginning of the sixth consecutive summer's work on Tern Island, Chatham, Massachusetts, with the Common and Roseate Terns (*Sterna hirundo* and *Sterna dougalli*), whose numbers, running into the thousands, make this island one of the most important breeding colonies on the Atlantic Coast. The terns nest here earlier than on any of the near-by islands. When the young of the above two species are running about by the hundreds the last week in June, the terns on Billingsgate Island in Massachusetts Bay, a few miles to the north, and those on Muskeget and Penikese Islands, a few miles south, both large colonies, are laying and incubating their eggs. Why there is this difference, I am unable to explain, unless the fact that Tern Island is the most inland and sheltered colony and therefore warmer than the others is the reason for the advanced breeding-season.

The birds bred this year in their usual numbers, with the attendant mortality, which always appears large. The fact that the first day we (the warden and the writer) were able to band one thousand fledglings in four hours gives an idea of the numbers of immature terns that hid in the grass, basked in the sun, or waited eagerly to be fed. The general work of banding them was a repetition of our efforts of previous years, but owing to the writer's inability to devote as much time this year as last season, our total was below that of 1928. In all the hundreds of young handled, we found only two that were deformed. One had an enormous swelling of the neck, although the bird was very active and did not appear sick; and the other, a deformed foot.

This wonderful colony, interesting at all hours, was in excellent condition, except that rats have secured a foothold on the island, and in a dozen scattered places we found their burrows in the sand and the remains of partly eaten young terns. A few nests of the Arctic Tern (*Sterna paradisæa*) were found in the open near those of the other two species. The number-three bands recently issued by the Biological Survey are much more difficult to close properly without the aid of pliers, such as those described and figured by Frederic H. Kennard,<sup>1</sup> than those of previous years. While the bands can be closed satisfactorily without pliers, if opened evenly and with care, the

<sup>1</sup> Frederic H. Kennard—Pliers for Bird Banding. *Bull. N.E.B.B.A.* Vol. V, No. 3, p. 105.

stiffer metal soon makes the fingers sore and necessitates the use of the pliers. Some of the older bands were well worn and therefore replaced.

The record follows of the banding of immature terns:—

	<i>Common Tern</i>	<i>Roseate Tern</i>		
July 4.....	1000	400		
July 5.....	800	400		
July 6.....	400	200		
July 8.....	361	543		
July 11.....	437	132		
July 14.....	113	...		
	3111	1675	Total immature	4786

We spent two unfavorable days trapping and banding adults, with the following result:

	<i>Common Tern</i>		
July 11.....	31		
July 14.....	35		
	66	Total adult....	66

Total adult and immature terns banded..... 4852

In addition, we secured the following returns of adult Common Terns:

- July 11—404328, Banded by C. B. Floyd at Tern Island, Chatham, Mass.,  
July 15, 1926.
- July 11—404836, Banded by C. B. Floyd at Tern Island, Chatham, Mass.,  
July 18, 1926.
- July 11—433588, Banded by C. B. Floyd at Tern Island, Chatham, Mass.,  
July 6, 1926.
- July 11—433342, Banded by C. B. Floyd at Tern Island, Chatham, Mass.,  
July 6, 1926.
- July 11—678929,<sup>2</sup> Banded by C. B. Floyd at Tern Island, Chatham, Mass.,  
July 11, 1928.
- July 11—433441, Banded by C. B. Floyd at Tern Island, Chatham, Mass.,  
July 16, 1926.

This is an average of seven and one-half per cent of the adult Common Terns banded in 1928, which is excellent.

We realized at the outset that it would be impossible for two persons to band any great number of the young and accomplish a satisfactory amount of trapping, so Oliver L. Austin, Jr., and Joseph M. Dallavalle, who were working with us, gave their attention to trapping the adults, with the result given below:

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<sup>2</sup> An adult when banded and captured in a pull-string drop trap.

	<i>Common Tern</i>	<i>Roseate Tern</i>	<i>Arctic Tern</i>
July 5.....	140	..	..
July 6.....	153	12	..
July 7.....	29	7	1
July 9.....	58	1	1
July 11.....	37	..	2
July 18.....	10	..	..
	391	20	4
Total.....			415

The Arctic Terns captured here are the first taken in this colony.

Regarding the adult returns or recoveries in 1929 made by Austin on Tern Island, or in other tern colonies on Cape Cod, which were banded by the writer at Chatham, Massachusetts, the following table is of interest:

RETURNS OR RECOVERIES OF COMMON TERNS BANDED AT  
CHATHAM, MASSACHUSETTS

*Banded in 1924:*

One trapped on Billingsgate Island, North Eastham, approximately fifteen miles northwest.

*Banded in 1925:*

One found dead on Billingsgate Island  
One trapped on Billingsgate Island  
One found dead on Tern Island  
Four trapped on Tern Island

*Banded in 1926:*

Three trapped on Billingsgate Island  
One found dead on Tern Island  
Three trapped on Tern Island

*Banded in 1927:*

One found dead on Billingsgate Island  
One trapped on Billingsgate Island  
One found dead on Tern Island  
One trapped on Tern Island

*Banded in 1928:*

<sup>3</sup>One found dead on Tern Island  
<sup>3</sup>One trapped on Tern Island

\* Adults when banded and captured in a pull-string drop trap.

ROSEATE TERN

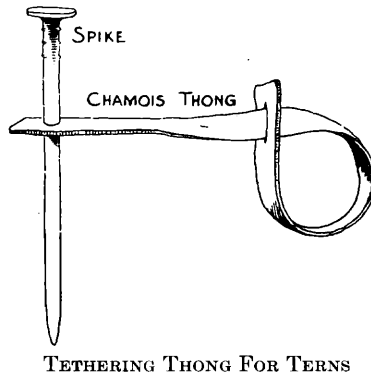
*Banded 1926:*

Two trapped on Tern Island

Notwithstanding that this is the second year that trapping of adult terns has been carried on (to the extent that hundreds have been taken in this and in other colonies on Cape Cod), we have only just learned the technique of trapping. An improvement over the operation of the pull-string drop trap<sup>4</sup> was evolved by Austin and Dallavalle. One end of the trap

<sup>4</sup> Described by the writer in *Bulletin* of October 1928, page 129.

was held up by a short stick under which the terns passed to their nests. These were set very delicately and without any of the long strings which continually became snarled and tangled. From some distance the nests in the open under the traps were watched, and when each contained a brooding tern, the operators rushed forward from their concealment, with the result that the startled terns rose from their nests, touching the top of the traps with their wings in their efforts to escape, which was sufficient to drop the traps from their finely supporting sticks, thus securing the terns. More birds can be captured in this manner than by pulling a string and with much less work. We learned that to secure the best result in setting traps, the open ends must face the direction in which the wind is blowing. This is because the terns in returning to their nests fly into and not with the wind. Traps only six inches high are most satisfactory, for these do not permit the captured terns to thrash about and injure their eggs or young, but they can only be used in open places free from vegetation where the Common Terns nest more frequently than the Roseates. In other words, to capture a greater number of the latter species, a new trap adapted to work in long grass must be developed. The trappers were also successful in using wandering young as decoys by tethering them with a piece of soft chamois, one end of which extended from the tarsus of the bird to a nail pushed into the sand, a method which comfortably kept the bird in place under a trap. When the parents went in to feed their tethered offspring they were easily trapped. (See sketch below).



From the foregoing, together with facts gathered in previous years, the theory that Common and Roseate Terns do not

breed the first year is substantiated. We learned through trapping the adults that occasionally they return to nest in the colony where they were hatched, and we hope by more intensive trapping next year to bring to light additional facts.

Auburndale, Massachusetts.

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## RECOLLECTIONS OF A BIRD-BANDING TRIP

By WINSOR M. TYLER

ON the way to Penikese from New Bedford we see little of the terns until the boat passes to the eastward of the island. Our first sight of them in any numbers is as they fly overhead on their way to and from their feeding-grounds; those flying toward Penikese have food in their bills. But even now, within sight of one of the largest colonies of breeding terns on the New England coast, the number of birds in the air gives no suggestion of the thousands which are near.

They straggle along, perhaps more often alone than with a companion, and are generally silent, although a bird may scream on occasion even with a fish in its bill. They are making good progress, however, and, with strong, regular wing-beats, are holding a straight course toward their nests or their fishing-ground.

At a distance, when the birds are too far away for us to see the color of their beaks, the two species which breed on Penikese Island may often be easily distinguished. The mantle of the Roseate Tern is paler than that of the Common Tern, but this difference is an unreliable mark in bright sunlight. A *positive* mark, however, readily seen in the field, results from the Roseate Tern's longer outer tail feathers. These feathers are so long that the bird's progress through the air twists them, and exposes to our view their wider upper or under surface. At a certain distance, the part of the feather just above the tip is invisible, and this peculiarity gives the effect of a tern pursued through the air by a tiny white butterfly. I have never seen this effect in the case of a Common Tern.

Penikese is a lonely, green little island—two grassy hills with a strip of sandy beach between. The grass covers the slope of the hills almost down to the sea, where there is a narrow stony beach. The terns nest almost everywhere on the island, perhaps most numerous on the stretch of sandy beach, but many lay their eggs in the tall thick grass on the hills, on the rocky beaches where the stones are not too large, on the windrows