

on Long Island). As these general observations may have a bearing on flock organization I would like to place them on record for what they may contribute to the present considerable interest in that subject.

As the birds approach or fly by, one imitates their whistled calls to attract their attention and induce them to join one's flock of artificial birds. There comes a point when they are about to do so, have circled back or set their wings to 'come in.' As they come closer they are still alert and one had best remain motionless and even refrain from further whistling which may not be too perfect a rendering of the proper call. A false move or a false note can send them off again. When they are actually among the decoys, however (well inside the zone of alarm which they hesitate to pass through), and, as it were consider themselves a part of your flock, it is often remarkable how loath they are to leave.¹ Even when fired into they will sometimes circle back and run the gauntlet a second or even a third time.

However independent a unit a shore-bird may be when alone, when in a flock its condition changes and it becomes for the time being an integral dependent part of that flock.—J. T. NICHOLS, *American Museum of Natural History, New York.*

Shore-birds Hopping on One Leg.—I have read with interest the notes by Robert P. Allen (*Auk*, July, 1934) and J. T. Nichols (*Auk*, October, 1934) on the Sandpipers' habit of hopping on one leg. As doubtless most observers of the shore-birds know, some, and perhaps all, of the Plovers have the habit, too. I have supposed it to be a species of play. *Standing* on one leg might be restful—human beings often rest by shifting the weight from both feet to one—but it is hard to see how *hopping* on one leg could rest a bird. It seems to be a sort of follow-my-leader game, one bird of a flock starting it and another and another joining in till half a dozen or more may be hopping about at once. The foot is usually drawn up out of sight, but on one occasion, in company with Mr. A. C. Bent, I saw three or four Semipalmated Sandpipers (*Ereunetes pusillus*) trailing the unused foot. This performance was started by a bird that may have been an actual cripple, but the others were certainly able-bodied for they varied their gait at will, shifting from one leg to two legs and back again with perfect ease.

My notes on this hopping habit include observations of the Knot (*Calidris canutus rufus*), Semipalmated Plover (*Charadrius semipalmatus*), and Black-bellied Plover (*Squatarola squatarola*). In the cases of the Knot and the Black-bellied Plover the birds were hopping in shallow water. Of the Knots six or eight were playing the game together. The Black-bellied Plover, a flock of thirteen at the edge of a shallow fresh-water pool, besides the hopping game played another, which remains unique in my experience, while bathing, one after another flew up about a foot into the air and came splashing down into the water with much fluttering of wings. About half the flock indulged in this pretty performance.—FRANCIS H. ALLEN, *West Roxbury, Mass.*

Maximum Numbers of Shore-birds in Iowa During the Spring of 1934.—Due to the scarcity of suitable feeding areas, resulting from the drought, unusual opportunities were presented for the intensive study of concentrated, migrant shore-birds in Iowa during the spring of 1934. This drought condition was general throughout the state but especially affected the water levels on lakes in western and southern Iowa. Besides the primary effect of reducing or eliminating bodies of water, there was the resulting factor of over-pasturing. Large numbers of cattle were

¹ See Bent, 1927, *Bull. U. S. Nat. Mus.*, 142, p. 328; Nichols and Harper, 1916, *Auk*, XXXIII, p. 239.