

An example of sinistratism in Red Phalaropes (*Phalaropus fulicarius*).—As a sinistral living in a dextral world, I am acutely aware of the handicaps sinistratism may present. It is known that, like some humans, individuals of some genera of parrots are left-handed or left-footed (Friedmann and Davis, *Auk*, 55: 478–480, 1938). With some ambiguity in the results, the matter has been investigated also in domestic pigeons, *Columba livia* (Fisher, *Wilson Bull.*, 69: 170–177, 1957). Evidence of sinistratism in Red Phalaropes is presented in this paper.

While stranded by ice on Juet Island, Northwest Territories (62° 36' N lat., 69° 31' W long.), during June, 1957, I made observations on approximately 200 migrating Red Phalaropes which periodically rested on a two-acre pond from 8 to 11 June.

Most observations were made at a small protected cove of the pond, which measured 10 feet × 10 feet × 6 inches deep. When winds blew from the south–southwest the cove was absolutely placid and as many as 92 phalaropes crowded into the area simultaneously.

I spent several hours each day watching the phalaropes feeding. The usual circling motion to stir up detritus and bottom fauna was observed. Initially the circling seemed haphazard; first a bird would turn one way, then another. Eventually, however, it became obvious that it was not entirely by chance alone that birds turned primarily in a clockwise or counterclockwise direction.

Because of heavy fog and complete sea ice cover, the phalaropes (not recorded there in numbers when the weather was fair) rarely left the pond. As the density of birds using the cove increased, so did the proportion of birds turning in a clockwise direction.

Table 1 shows clearly that under the crowded conditions existing in the cove, relatively fewer counterclockwise-spinning phalaropes were observed than in the less crowded pond. Some individuals were observed continuously for intervals ranging up to 30 minutes, both under crowded conditions in the cove and with the birds more widely dispersed on the main pond. Because individuals were not marked it is not possible to state categorically that individual birds always spun in the same direction. Individual birds, however, were followed for 30-minute intervals and birds having a tendency to spin counterclockwise did so whether under the crowded conditions in the cove, or when with the more widely dispersed birds on the main pond. Some individuals were never seen to spin in both directions, others switched direction frequently. One spin direction seemed always to be predominant.

The data given in Table 1 do not truly indicate the distribution of individuals spinning counterclockwise. As densities in the cove increased, “an end of the table effect” was quite evident, that is, birds spinning counter to the majority, gradually were

TABLE 1
FREQUENCY OF DEXTRAL AND SINISTRAL SPINNING OF RED PHALAROPES
ON COVE AND POND

Area	Density	Number of observations	Direction of spin		Per cent sinistral	Average flock size
			Dextral	Sinistral		
Cove	1–50	20	239	73	23.4	16
Cove	51–100	8	490	34	9.4	66
Cove	1–100	28	729	107	12.8	30
Pond	1–100	28	1134	353	23.7	53

forced, or retreated, to the periphery of the flock, much like a left-handed person put at the end of the table.

This apparent organization of dispersal may have value in decreasing the number of conflicts or collisions among feeding birds. If all birds are spinning in the same direction they are in essence all tending to move away from one another. If they are spinning in opposite directions they are in essence spinning toward one another. There is also considerable lateral shifting as the birds feed and spin. As a result, sharp collisions are less likely to occur.—F. G. COOCH, *Canadian Wildlife Service, 150 Wellington Street, Ottawa, Ontario.*

Royal and Cayenne terns breeding in Trinidad, West Indies.—Herklots, in his recent book (*The birds of Trinidad and Tobago*, London, Collins, 1961), gives the status of the Royal Tern, *Thalasseus maximus*, as "a not uncommon winter visitor to both islands." Earlier workers had recorded this species only from Trinidad. Junge and Mees (*Z. Verhandl.*, 37: 1-172, 1958), reporting on their 1953-54 field work, thought this tern still to be unrecorded from Tobago but a "not uncommon visitor" to Trinidad. Observations in Tobago in January and February, 1957 (Eastman and Eastman, *Florida Nat.*, 32: 9-16, 1959), indicated Royal Terns to be "common along coastline of entire island." Our field observations since 1956 indicate these terns are present along the shores of both islands during most of the year.

The Cayenne Tern, *Thalasseus eurygnathus* (*T. sandvicensis eurygnathus*; Junge and Voous, *Ardea*, 43: 226-247, 1955), has been long recorded in small numbers from both islands, although the dates are scattered. This probably reflects a paucity of observers rather than the absence of the bird at any time of the year. Recent field work has shown them to be present regularly on the southwest coast of Trinidad during the summer (R. and M. French).

The first indication of these two terns breeding in the vicinity of Trinidad or Tobago was 10 June 1962 when M. French and J. Saunders found 14 Royal Tern eggs and 4 eggs of the Cayenne Tern being incubated on Soldado Rock (Lat. 10° 04' 24" N, Long. 62° 00' 56" W), a small island off the southwest tip of Trinidad. Neither species had been seen there on four trips in the previous three summers. These eggs were laid in an open area of level dirt near the ridge of the island. Unfortunately most of the eggs were destroyed by fishermen. No further signs of breeding were noticed that year, although one adult Royal Tern was still in the vicinity on 8 July. On 21 April 1963 six adult Royal Terns were around the island but there was no sign of breeding. On 15 June, however, we saw at least seven adult birds, and caught one young chick and one adult which were banded and released. Two Cayenne Terns were also present on this date and were observed by M. French to feed a chick which could not be caught. We found no indications of their breeding during 1964. Soldado Rock is also used as a breeding place by large numbers of Sooty Terns, *Sterna fuscata*, and Noddy Terns, *Anous stolidus*.

From these observations it seems that Royal Terns, and perhaps also Cayenne Terns, are present in small numbers throughout the year along the coasts of Trinidad and Tobago, and both have bred in at least one locality. This is the first Trinidad breeding record for these species and the southernmost nesting record of the Royal Tern in the western Atlantic. Previously, the Cayenne Tern has been known to breed only on the islands of the Netherlands Antilles (Junge and Voous, *loc. cit.*).—RICHARD FRENCH, *St. Peter's School, Texaco Trinidad Inc., Point a Pierre, Trinidad*, and CHARLES T. COLLINS, *Department of Zoology, University of Florida, Gainesville, Florida.*