

FROM FIELD AND STUDY



Snowy Plover (*Charadrius nivosus*) and eggs at Huntington Beach, Orange County, California, June 27, 1953. Photograph by Ray Quigley, Jr.

Territorial Behavior in Fall Migrant Rufous Hummingbirds.—In most species of North American hummingbirds, male territoriality centers on a feeding ground (Pitelka, Condor, 44, 1942: 189–204). To my knowledge little has been recorded on this activity in the Rufous Hummingbird (*Selasphorus rufus*). From August 20 to 24, 1954, a group of six hummingbirds was observed in territorial behavior at a feeding ground in the Old Faithful area of Yellowstone National Park, Wyoming. Five of the birds were migrant Rufous Hummingbirds with terminal white spots on the three outer retrices and red throat patches of one or two feathers. From this it was presumed that the birds were immature males [adult females appear the same and might have been involved in part—Editor]. The sixth bird was much smaller, lacked the throat patch and had no trace of rufous. It was decided that this bird was a Calliope Hummingbird (*Stellula calliope*).

The feeding area consisted of an irregular patch of *Linaria vulgaris* which extended for about fifty feet in a northeast-southwest line and varied from six to twenty feet in width. Five territories were already established when the birds were first observed. Each territory extended about six to eight feet along the northeast-southwest line and included the full width of the plant zone at that place.

The territories were contiguous and all well defined except the territory at the southwest end. Often two or more birds fed there at one time. The home bird would occasionally defend the area, but often this bird was more likely to ignore intruders and even try to feed in other territories. The sixth bird, the Calliope Hummingbird, did not have any territory but would feed wherever it could.

Perches were on grass stalks, on telephone wires overhead, or on the ground, usually on a slight rise. The birds generally selected the same perch, although each bird also had one or two additional perches which were occasionally used. One bird had a subsidiary perch in a lodgepole pine tree eighty-five feet distant. Several times this bird dashed directly to its territory to chase an intruder which had entered. Never were there perches on *L. vulgaris*. Although the birds were in full view of each other, chases never occurred except when one bird entered the territory of another.

The sixth bird often started a chain reaction of chases. It would enter a territory and feed until sighted by the occupant. The chase started with the occupant diving at the intruder with the tail full spread. The chase often led through adjoining territories with each occupant in turn defending its territory by joining the chase and with a general melee resulting. Squeaking often accompanied the chase. The chase might last for only twenty feet or might cover several hundred feet. Often when a chase passed over an adjoining territory, the occupant would rise above the territory, squeaking and with tail full spread. After a bit of darting approximately a foot in several directions, it would settle back down. Feeding or apparent feeding took place after a chase.

There were some areas on the perimeter of the plant zone, especially at its greatest width, and between two territories which were not clearly in either territory. Either bird might chase the other one out of this zone. The bird which was feeding was the one chased. These chases were of short duration and usually involved only display and squeaking. During display the birds faced each other with tails spread fan-wise, exposing the rich rust tail feathers, and rocked back and forth. These arcs were about four to six inches in amplitude. When the display was more violent, the rocking was followed by back-and-forth dashes. These dashes were more common when a home bird and an intruder inside a territory squared off at each other and the dashes often preceded the chase. The hovering display might last for several seconds before each bird returned to its territory. One bird sometimes would pursue the other; then both would back off and display.

The bird from the southwest territory also entered the other territories for feeding, but the remaining birds were never observed to do this. Several times it was possible to single out one bird and follow it through a succession of chases during a general melee, after which the bird always returned to its original territory.

During the chases the red throat feathers could often be seen flashing. It could not be determined if these flashes were solely the result of the sun striking the red throat feathers or if the birds ruffed up the throat feathers during a chase. One bird was studied closely on a perch and the impression was gained that the bird did ruff up the throat feathers as a type of display.

Bees and dragonflies were occasionally chased by the hummers and often these insects in turn chased the birds, but usually they ignored one another. Observations were discontinued after the fifth day because the birds left as quickly as they came.—KENNETH B. ARMITAGE, *University of Wisconsin, Green Bay, Wisconsin, January 21, 1955.*

Black Skimmer in North-central Texas.—In view of the paucity of inland records of the Black Skimmer (*Rynchops nigra*), it seems worthwhile to report the recent occurrence of this bird at Mountain Creek Lake in western Dallas County, Texas. On August 6, 1954, Lt. Jane O'Regan of Boston, Massachusetts, called the museum to report that while watching birds at the lake on the previous day she had found a Black Skimmer in immature plumage in association with a flock of fifty or more Black Terns (*Chlidonias nigra*). Her report was of such interest that on that same afternoon in company with H. P. Kirby I visited the lake. Following Lt. O'Regan's directions to the part of the lake where she had made her observations on the previous day, we quickly located both the flock of terns and the skimmer which still remained in their company. The bird was not collected. Mountain Creek Lake and Dallas County are both in north-central Texas and approximately 300 miles north of the nearest point on the Gulf coast.—F. W. MILLER, *Dallas Museum of Natural History, Dallas, Texas, February 25, 1955.*