

measurements are clearly those of the northern race. The date of capture, June 30, indicates that it was probably on its breeding grounds, though there is a possibility of its being a non-breeding wanderer. One other individual deserves mention. This is a specimen shot in August in San Pedro Bay, California, by "Lorquin" (probably E. F. Lorquin, zoologist of San Francisco) and obtained by J. G. Cooper in exchange; Cooper's label bears no date nor sex indication. This bird, which constitutes one of the southernmost published records for the California coast, was probably a vagrant. It belongs to the southern race, though approaching *furcata* slightly in both size and coloration.

How far the petrels of this species from each breeding colony wander from season to season remains yet to be determined. It is to be expected that individuals return year after year to the islet on which they were raised, or at least to some nearby place; the geographic trends that are the subject of this paper bear out this hypothesis. By application of the banding method it would be possible to learn whether wandering birds eventually breed in a colony far distant from that in which they were raised, and also how general an interchange of individuals may occur from year to year between neighboring colonies. The ease with which the birds can be captured while nesting should make such a study practicable.—J. GRINNELL and FREDERICK H. TEST, *Museum of Vertebrate Zoology, Berkeley, California, November 28, 1938.*

Mountain Bluebirds Hovering.—While hunting jack rabbits at Cannon, Solano County, California, on February 13, 1939, I was much interested to observe Mountain Bluebirds (*Sialia currucoides*) hovering in the air in one spot in such manner as do Sparrow Hawks and White-tailed Kites. From fifteen to eighteen birds thus hovered at one time, legs dangling, tail spread and pointing downwards, and eyes searching the ground below. They were of course feeding and appeared successful in recovering their prey at each drop to the ground. These drops were from elevations of from ten to fifteen feet. They were not rapid plunges or dives such as made by hawks or falcons, but gentle flutters to the ground, where they alighted and snatched the prey with the bill.

Being inquisitive as to what attracted these birds, I took one specimen and found in the stomach three whole black ground beetles (*Amara insignis*) and a cricket (*Gryllus assimilis*). There were also many fragments representing other individuals of these same species, and segments of other beetles, mostly Carabidae, and of orthopterans. These insect identifications were made by E. Gorton Linsley of the Division of Entomology, University of California.—EMERSON A. STONER, *Benicia, California, March 22, 1939.*

Observations on the Reproductive Behavior of Great Blue Herons.—While visiting some nesting colonies of shore birds on the islands off the coast of the Arkansas Migratory Waterfowl Refuge near Austwell, Texas, I had the opportunity of witnessing a pair of Great Blue Herons in the act of copulation. The blistering hot sun and the ever present grackles made it dangerous for the birds to leave their nests unguarded for a single minute, so I concealed myself in the brush to cause as little disturbance as possible. Nests were numerous, on the ground, beneath bushes, in stunted trees, anywhere that an overhanging leaf or branch afforded a little shade during even a portion of the day. One nest in particular had commanded my attention because of its peculiar position in the very top of a dense growth of prickly pear. Upon it sat a female Great Blue Heron (*Ardea herodias*).

While thus hidden, I could observe the undisturbed birds at rest on their nests. Of particular interest was the method by which the male and female egrets and herons exchanged places on their nests. Usually the female remained on the nest until the male was flapping directly overhead, and then the sitting bird left and its mate took its place. When the male blue heron came upwind and hovered directly over its sitting mate, I expected the female to leave and the male to replace her. To my surprise, the male slowly settled down facing the same direction as the female with feet clasping the edge of the nest close to the female's neck. With wings slowly flapping to maintain his balance, the male flexed his legs and lowered his body to meet the now rising female. In this position the act of copulation took place, after which the male flew away and the female settled down to protect her eggs.

Now that I have had time to think over the observation, I am wondering whether this is the usual manner of copulation for the long-legged wading birds, or whether the hot sun and the presence of the grackles made this method necessary.—F. WALLACE TABER, *Texas Agricultural and Mechanical College, College Station, Texas, May 8, 1939.*

Notes on the Salt-feeding Habits of the Red Crossbill.—During the latter part of July and August of 1938, crossbills (*Loxia curvirostra*) were found abundantly in flocks in the higher portions of Crater Lake National Park, Oregon. The increase of this species at this time in the rim area of the