

OBSERVATIONS OF THE SHORT-TAILED HAWK  
IN FLORIDA

BY JOSEPH C. MOORE, LOUIS A. STIMSON, AND WILLIAM B. ROBERTSON

IN the latest published summary of the occurrence of the Short-tailed Hawk (*Buteo brachyurus*) in the United States, Bent (1937: 254) comments: "This . . . South American hawk . . . appears in the United States only in Florida. It always has been extremely rare and local even there, and now I believe it has almost, if not quite, disappeared from that State." Because of the rarity and uncertain status of this little hawk in the United States, we have recorded our observations of it during our acquaintance with the south Florida wilderness much of which is now the Everglades National Park.

Toward the end of the summer of 1951, Moore noticed that some months had passed without an observation of a Short-tailed Hawk. Analysis of the park records suggests that this hawk may occur preponderantly in winter. Examination of the literature reveals a restriction of records to fall, winter, and spring, which appears to have escaped earlier notice. Citing 32 dated observations and collections of this hawk, Howell (1932: 180) concludes: "These dates indicate that the bird is a permanent resident of Florida." However, tabulation of the dates reveals no record for June, July, August, or September.

The number of recorded observations of this hawk nesting in Florida (Scott, 1889; Pennock, 1890; Bendire, 1892; Swann, 1922; Brandt, 1924; Sprunt, 1939; and Nicholson, 1951) certainly suggests its permanent residence in the State. However, despite this and despite the fact that naturalists afield in the summer in Florida are few, we are convinced that the concentration of records in mid-winter, shown in table 1, truly represents a greater abundance of the species present at that time. We know that in the Everglades National Park this hawk disappears in the spring from areas which had been its haunts during the winter.

Since 1932, Stimson has spent 204 days afield in the area which is now the Everglades National Park, on the Tamiami Trail west as far as Marco Island, on the South Loop Road of the Tamiami Trail, and down the Florida Keys. This resulted in 14 observations of the Short-tailed Hawk. Robertson spent six days in December of 1948, two summer months of 1950, February through August of 1951, and November, 1951, through the following July, in this same area studying the birdlife and plant communities. This resulted in five observations of the hawk. Moore, as biologist for the Everglades National Park, has been afield in the park 267 days between February, 1949, and July 1, 1952, and observed Short-tailed Hawks seven times.

TABLE 1  
RECORDS OF OBSERVATIONS OF THE SHORT-TAILED HAWK BY MONTHS

|                                     | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
|-------------------------------------|------|------|-------|------|------|------|------|------|------|------|-----|------|
| Previously unpublished observations | 0    | 2    | 4     | 4    | 8    | 10   | 20   | 11   | 6    | 6    | 0   | 0    |
| Records from the literature         | 0    | 0    | 0     | 2    | 5    | 8    | 7    | 7    | 13   | 8    | 2   | 0    |
| Totals                              | 0    | 2    | 4     | 6    | 13   | 18   | 27   | 18   | 19   | 14   | 2   | 0    |

Dates of observations from 'Audubon Field Notes,' 1949, April, June, 1950, 1951, and 1952; Bailey, 1925; Brandt, 1924; Brewster, 1887; Broun, 1935; Cottam and Knappen, 1939; Davidson, 1951; Edmondson, 1934; Greene, 1946; Howell, 1932; Kuerzi and Lewis, 1938; Nicholson, 1951; Pennock, 1890; Reimann, 1938; Ridgway, 1881a, 1881b; Scott, 1888, 1889; Sprunt, 1939; Stimson, 1942; Swann, 1922.

Other members of the Everglades National Park staff contributed observations as follows: superintendent Daniel B. Beard (4), naturalist Willard E. Dilley (7), temporary ranger C. Tyler Hotchkiss (9), and warden M. Bernie Parker (17). Persons associated with the National Audubon Society contributed observations: Robert P. Allen (five from the field notes of Edward J. Reimann), Charles M. Brookfield (2), and Allan Cruikshank (1). Al Pflueger of Miami gave us three observations. James Jenkins of the University of Georgia faculty and J. W. Taylor of Rochester, N. Y., each contributed one while visiting the park. R. J. Longstreet of the Stetson University faculty contributed an observation from the shore of Lake Okeechobee at Clewiston. Herbert L. Stoddard, Sr., contributed an observation from north Florida. E. Morton Miller permitted one of us to examine a mounted male in the white phase in the collection of the University of Miami. We are very grateful to these persons for their help.

An observation as used in this paper means an instance in which one or more individuals were seen by one or more persons at a single time and place. We have attempted to avoid duplication of observations for the same place and day. A pair as used here means merely two birds observed by one or more persons at a single time and place.

#### SUMMER RECORDS

There is no mention in the literature of observations or collections of Short-tailed Hawks in Florida in the summer. In our experience they disappear almost entirely during the summer from the areas which they frequent during the rest of the year. The two following are the only summer records of which we are aware. Robertson observed a dark-phase individual soaring and calling over Key Largo on August 16, 1950, about two miles from the northeast end of the key. Beard saw a light-phase Short-tailed Hawk August 6, 1951, at 5:30 p. m. in Sandfly Pass of the Ten Thousand Islands.

Three September records shown in table 1 are from the field notes of Edward J. Reimann for 1937 in the Ten Thousand Islands where he was working as a warden for the National Audubon Society. His notes indicate that he saw Short-tailed Hawks on only three of 30 field days that month. Al Pflueger of Miami collected a bird in the light phase on September 21, 1938, near Hollywood, Florida, on the Dania Road.

#### COLOR PHASE

Breeding pairs of this bird have been known to consist of a light-phase female and a dark-phase male in three instances (Scott, 1889; Brandt, 1924; Howell, 1932). Dark-phase nesting females have been reported without mention of the phase of their mates, and other phase combinations of nesting pairs remain unknown. In no brood of this hawk in Florida has the color phase of the young been recorded.

The proportion of light- to dark-phase birds is a matter which may be discussed to better advantage now than has been possible before. To 15 published observations of single, light-phase birds we are able to add 30, and to 14 published observations of single, dark-phase birds we add 27. We are able to add but two observations of light-phase pairs to the one already published, but to the three published observations of dark-phase pairs, we add seven. There are five published records of pairs containing both phases. The total is 56 light-phase to 64 dark-phase Short-tailed Hawks observed or collected. In view of this, the term "normal phase" perhaps should not be used in this species.

Literature records of color phase are from 'Audubon Field Notes,' 1949, April, June, 1950, 1951 (a black phase pair observed by Stimson was included in the "six" enigmatically reported), 1952; Bailey, 1925; Brandt, 1924; Brewster, 1887; Broun, 1935; Davidson, 1951; Edmondson, 1934; Greene, 1946; Howell, 1932; Kuerzi and Lewis, 1938; Nicholson, 1951; Reimann, 1938; Ridgway, 1881a; Scott, 1888, 1889; Sprunt, 1939; Stimson, 1942.

#### OBSERVATIONS

Sight records of this little hawk above Paradise Key and Taylor Slough in the Everglades National Park during the winter of 1951-52 are interesting in themselves. Lone, light-phase individuals were seen here November 20, December 14, 29, January 28, 29, February 7, 13, and March 18. Lone, dark-phase individuals were observed January 10, 15, 17, 24, 31, and February 17. These records are available largely through C. Tyler Hotchkiss, who made and recorded eight of

them while assigned to duty at Paradise Key. These were all records of birds on the wing. Dilley says they were most often seen hanging or circling in the up-draft at the eastern edge of Paradise Key where the wind coming across the open sawgrass glades and Taylor Slough encounters the wall of hammock trees.

Among the Short-tailed Hawk observations recorded in Parker's patrol log there are two local series. During the winter of 1950-51 while patrolling by boat, he recorded seeing a light-phase Short-tailed Hawk in the headwaters of Lostmans River in the Everglades National Park: November 23, 29, and December 14 over Big Lostmans Bay (lat. 25° 33' and long. 81° 06') and April 5 over Puzzle Lake (lat. 25° 35', long. 81° 06'). On December 14 he also recorded a dark-phase individual near Tigertail Camp which he locates about four airline miles east of Puzzle Lake. During the winter of 1951-52 in the Lostmans River system, Parker recorded lone, light-phase Short-tailed Hawks in the "headwaters" January 1, over Second Bay February 14, and over Puzzle Lake April 17. During this period he also recorded dark-phase individuals over Second Bay: February 28, March 17 and 18.

We can present five observations for the West Lake-Snake Bight-Coot Bay area for the winter of 1950-51, and three more for that of 1951-52. These were all dark-phase birds. The first winter, near Gibby Point on Snake Bight, December 23 (a pair); north shore of West Lake, January 16; near Coot Bay Pond, January 18 (a pair); same place, February 8; mid-length of Snake Bight Road, April 8. The following winter: over Coot Bay, November 17 (a pair); Flamingo Road near Bear Lake Road junction, November 22; same place, December 18. Most of these observations were by the authors.

Short-tailed Hawks have been recorded from northern Florida (Pennock, 1890; Edmondson, 1934; Ridgway, 1881b; Brandt, 1924), but they have been rare. Therefore we transmit the following observation by Herbert L. Stoddard, Sr., which he provided us in a letter of April 14, 1952. "Leon Neel, my forestry assistant . . . and I saw one that we flushed out of a cypress right over our heads on the north end of Dead Lakes, Calhoun County, Florida, on April 20, 1951. The bird was only about 20 feet distant and was in the light phase. A half hour later and about one eighth of a mile distant we saw the same bird or another in the same phase circling overhead, where the glasses brought out the markings (narrow tail-bands, etc.) to perfect advantage. We revisited this area only once during the breeding season, when we did not see the hawks."

## FIELD MARKS AND BEHAVIOR

It may be of value to persons watching for this rare hawk in the field if the authors record here such of its markings and behavior as have been observed and recorded in field notes at the time. In the pinewoods some two miles northwest of Paradise Key on December 13, 1951, Robertson observed a pair of light-phase Short-tailed Hawks as they flew 30 to 40 feet above ground and recorded: "They appeared in flight to be fully as large as the Red-shouldered Hawks of this area . . . . The tails appear dusky (underneath), not at all or only very indistinctly banded; wing linings were not as light or showy [as Peterson's figure, 1947, opposite p. 59] but the contrast between the black primaries and the rest of the underwing was noticeable. The breast and belly were white and without marking. Contrast between dark head and white of throat was especially noted." We had discussed this observation before Moore encountered a light-phase bird in the pine woods about four miles east of that locality, and recorded: "It was soaring or gliding into the wind and barely moving about 50 feet above me. Watched it with my glasses for 15 to 20 seconds before it moved off. Underside of tail light as belly and without bands. Well marked with blackish on top of head." Fifteen days later Robertson saw a light-phase Short-tailed Hawk in the pine woods about three miles west of where he had seen the light pair. He noted: ". . . in flight and perched in open . . . . A good look; the bird was studied for about ten minutes before it flew. Contrast between the black cap and white throat is a good field mark for white-phase birds." These three observations may all have been of the two birds originally observed by Robertson and may possibly have been of birds not fully adult.

Of dark-phase birds Moore made the following note in the field immediately after watching one from his boat at a distance of 35 or 40 feet as it perched calmly on a buttonwood tree on the north shore of West Lake, January 16, 1951: "It did not appear to be a young bird. It was dull black all over except for some yellow on the base of the beak, and yellow legs. Not shiny black like a crow. The underside of the tail was pale gray with one dark bar near the distal end. We flushed it on purpose, but it ducked over the mangroves giving only a fleeting glimpse of some light area on the under side of the wings . . . ." These notes were made before consulting Peterson's (*op. cit.*, opp. p. 58) figure, and they do disagree with his drawing of the tail.

We have observed this hawk hang in the air as if suspended by an unseen wire on two occasions at places where conditions were right for a steady up-draft. We have already mentioned Dilley's comment on

their frequent use of an up-draft at Paradise Key. Another flight maneuver is recorded for this bird by Howell (1932: 181): "Once he left his perch to make a few circles in the air, then set his wings close to his body and shot down like a rocket at an angle of 45 degrees toward the swamp, screaming as he went." Dilley recorded the following note for Paradise Key on November 20, 1951: "A light-phase [bird] soared around at an elevation of a hundred feet, and after a few minutes closed its wings and dropped down into the trees and was lost to view."

On October 7, 1949, at Paradise Key Dilley observed a Red-shouldered Hawk (*Buteo lineatus*) harry a Short-tailed Hawk. He wrote: "One dark bird noted on Paradise Key. A Florida Red-shouldered Hawk drove it from its perch and pursued it for several minutes."

Al Pflueger of Miami told Moore that the light-phase male which he collected near Hollywood was eating a Redwing (*Agelaius phoeniceus*) in the middle of the road; the Redwing was possibly a highway casualty.

#### HABITAT

The Short-tailed Hawk has been seen most often in Florida in or near swamp forests. Virtually all of the published observations of this bird which mention its environs indicate that it was seen in or above mangrove or cypress swamps. At least seven of the twelve nests of this hawk which are described in the literature were built in cypress swamps. Two were in mangroves. Of 39 literature records of this hawk which indicate the habitat, 11 are in the general mangrove area and 13 are for cypress swamp. Our observations have been made during field work which has rarely taken us to real cypress swamps, and this surely does bias our data in favor of the mangroves. It should be noted that our only recorded occurrences of the Short-tailed Hawk out in the Everglades proper (*i. e.* well away from the Big

TABLE 2

PLANT COMMUNITIES OVER OR IN WHICH SHORT-TAILED HAWKS WERE OBSERVED

| <i>Plant community</i>  | <i>Unpublished observations</i> |
|---|---------------------------------|
| Mangrove (not including below)  | 29                              |
| a. salt prairie, hammock, etc., within the general mangrove area (including the Keys and the Cape Sable area) | 10                              |
| b. transition between mangrove and glades   | 4                               |
| Glades  | 2                               |
| Pineland (including hammocks and finger glades)   | 20                              |
| Cypress   | 1                               |

Literature sources of habitat data used are 'Audubon Field Notes,' 1949, April, June, 1950, 1951, 1952; Brandt, 1924; Howell, 1932; Nicholson, 1951; Sprunt, 1939; Stimson, 1942; Swann, 1922.

Cypress, the pinelands, and the mangroves) are two observations by Stimson, both 30 miles west of Miami on the Tamiami Trail (U. S. Highway 41): one dark-phase bird on March 29, 1932, and a dark-phase pair April 6, 1944 (see table 2).

#### ABUNDANCE

There seems to be some indication that Short-tailed Hawks have been more numerous in south Florida during the last several years than in the preceding decade or two. When the observations of this hawk recorded by Stimson during the past 20 years are related in

TABLE 3

RELATION OF NUMBER OF DAYS BIRDING IN THE WILDERNESS AREAS OF SOUTHERN FLORIDA (AREA OF THE PRESENT EVERGLADES NATIONAL PARK, FLORIDA KEYS, TAMIAMI TRAIL, LOOP ROAD, AND MARCO ISLAND) TO NUMBER OF OBSERVATIONS OF THE SHORT-TAILED HAWK  
BY LOUIS A. STIMSON

| <i>Periods</i>    | <i>Field days</i> | <i>Observations</i> | <i>Observations per 100 days</i> |
|-------------------|-------------------|---------------------|----------------------------------|
| 1932 through 1936 | 35                | 1                   | 2.8                              |
| 1937 through 1941 | 69                | 3                   | 4.3                              |
| 1942 through 1946 | 41                | 3                   | 7.3                              |
| 1947 through 1951 | 69                | 7                   | 10.1                             |

five year periods to number of bird-watching days in the south Florida wilderness, the result is not easily explained otherwise (see table 3). Since Stimson observed only one hawk after we began assembling data for this report, no bias of his data may be attributed to this. No two of the seven observations in the last period of table 2 were closer together than 26 days. Some of the observations were possibly of the same individual birds (*e. g.* a dark-phase pair Dec. 23, 1950, at Gibby Point and Jan. 18, 1951 near Coot Bay Pond). Visits to this Cape Sable area were more frequent during this last period. Observations of Short-tailed Hawks in the area between the Paradise Key and Cape Sable, tabulated against birding trips to the Cape Sable area show a result similar to that of table 3, but the data are, of course, fewer and the value less clear. One might conjecture that the protection which this hawk has received from casual shooting since the establishment of the Everglades National Park in 1947 has permitted its numbers to increase.

#### SUMMARY

Short-tailed Hawks may be seen with some regularity in certain wilderness areas of south Florida in winter and early spring. The first two observations of this hawk in Florida in summer are presented. Despite this and the fact that the species does nest in Florida, strong

doubt is cast upon the assumption that the population of Short-tailed Hawks present in Florida during winter remains during summer. Light- and dark-phase birds have been observed with approximately equal frequency. Association of dark-phase birds in pairs seems most frequent, mixed pairs less frequent, and light-phase birds in pairs the least frequent. Pairs which include both phases are the only ones recorded nesting. Afield the bands on the underside of the tail may appear to be entirely absent in light-phase birds. These may also be very obscure on some dark-phase birds, at least while the bird is perched. The contrast of the blackish head and cheeks with the white throat is deemed a good field mark for light-phase birds. Records indicate that this hawk is most often seen in cypress swamp forests and mangrove swamps. Its numbers in south Florida appear to have increased during the past five years.

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