

## MORTALITY OF PURPLE MARTINS FROM ADVERSE WEATHER

PAUL A. STEWART

Entomology Research Division  
Agricultural Research Service  
U.S. Department of Agriculture  
Oxford, North Carolina 27565

On 28 March 1971, I found two dead, male Purple Martins (*Progne subis*) on the snow beneath my martin house in Oxford, North Carolina. The snowfall started early on the morning of 26 March and continued throughout most of that day until 13.2 cm had accumulated on the ground. The temperature fell to  $-4.0^{\circ}\text{C}$  on the night of 26–27 March and to  $-0.6^{\circ}\text{C}$  on the night of 27–28 March. Two martins were seen alive at the martin house at 07:30 EST on 26 March, only a short time after the snowfall had started. One of these was sitting and singing as the snow fell thickly around it. Much of the snow melted by 08:00 on 28 March, uncovering the dead martins. It was

## THE OCCURRENCE OF *STREPTOPROCNE ZONARIS* *ALBICINCTA* AND *ARA MILITARIS* IN CHIAPAS, MÉXICO

ALFRED L. GARDNER<sup>1</sup>

Section of Cell Biology  
University of Texas  
M. D. Anderson Hospital and Tumor Institute  
Houston, Texas 77025

Among the specimens secured in the course of field investigations in Chiapas, México, during the winter and spring of 1962–63, is a male *Streptoprocne zonaris albicincta* (Cabanis) and a male and female *Ara militaris* (Linnaeus).

The specimen of *S. z. albicincta* (W. Found. Vert. Zool. No. 10293) was collected on 9 December 1962, approximately 8 km S from Solosuchiapa, about 400 ft elevation, from a large mixed flock of *Chaetura vauxi* and *S. zonaris* that commonly foraged in the vicinity of our camp in the deep valley along the upper Río Teapa. These swifts were observed almost daily during the time spent at this locality (25 November 1962–12 January 1963). Normally, they circled well above the Vaux's Swifts except on days when rain and low clouds caused them to fly closer to the ground, as on the day I collected this specimen.

This Collared Swift is referred to the subspecies *albicincta* on the basis of the very dark, sooty blue-black color of the crown, forehead, back, rump, and upper tail coverts. The dark blue-black color, particularly of the crown and forehead, readily distinguishes this specimen from *S. z. mexicana* Ridgway, which is a distinctly duller black and has a grayish forehead. The length of the wing (chord) and tail are  $198.0 \pm$  and  $72.7$  mm, respectively. The tail is somewhat worn.

*Streptoprocne z. albicincta* is usually considered to range from Costa Rica southward through Panamá to northern and western South America as far as Perú.

<sup>1</sup> Present address: Department of Biology, Tulane University, New Orleans, Louisiana 70118.

impossible to determine exactly when the birds died. The birds weighed 45.3 and 44.9 g. I could find no published information on normal early spring weights of Purple Martins, but Norris (Wilson Bull. 70:117, 1958) reported the weight of an immature male in July as 44.0 g.

In the gizzards of the dead birds were 0.094 g and 0.064 g, respectively, of fragmented insects which were weighed after being air dried.

Sprunt (*in* Bent, U.S. Natl. Mus. Bull. 179:505, 1942) noted that, "two or three days of severe cold so eliminates insects that starvation [of Purple Martins] not infrequently occurs." The relatively large amounts of unused food in the gizzards of the dead martins makes it improbable that these birds died of starvation. It is likely that death resulted from exposure to low temperature rather than some other cause.

Two more male Purple Martins were at the martin house at 07:15 on 29 March. These birds may have completed their northward flights after the more severe phase of the adverse weather had passed.

Accepted for publication 2 June 1971.

There are two published records, however, from regions farther north: one from Mount Cacaguatique, El Salvador (Dickey and van Rossem, Fieldiana—Zool. 23:249, 1938); and the other from near Las Lajas, Guatemala (Wetmore, Proc. U.S. Nat. Mus. 89:541, 1941). *Streptoprocne z. albicincta* is reported herein for the first time from México. Monroe (Ornithol. Monogr. no. 7:167, 1968) considered the Honduran population to be intermediate between *S. z. mexicana* and *S. z. albicincta*. The color of the Chiapas specimen reported herein is much darker than that of the Honduran specimens in the LSUMZ collection.

The two *Ara militaris* (a male, Louisiana St. Univ. Mus. Zool. No. 39653; and a female, W. Found. Vert. Zool. No. 10878) were collected on 7 March 1963 in the vicinity of Finca Patichuiz, approximately 33 miles NE Las Margaritas, at about 6000 ft elevation. Measurements of the male and female, respectively, are: length of wing (chord), 375 and 377 mm; length of tail, 386 and 420 mm. Both macaws were shot as they flew up out of a huge limestone "sink," locally called a *pozo*. A third was seen but not collected. One of the workers at the Finca reported having seen five Military Macaws near the *pozo* on the previous day (6 March). The area was revisited on 2 April; no macaws were seen.

The limestone "sink," one of several in the area, is about 250 ft in diameter and about 100 ft deep, and has steep, undercut, and eroded sides with many small caves. The bottom was dry when visited and contained a dense stand of trees and brush. The owner of Finca Patichuiz and his sons said that the macaws nested in the shallow caves in the walls of the limestone "sink." According to them, the Military Macaws had been plentiful in past years with as many as 30 or 40 nesting each year in the walls of the huge *pozos* on the Finca. However, they reported that more recently (early 1960s), very few macaws were seen.

There has been only one other report of *Ara militaris* south of the Isthmus of Tehuantepec, Oaxaca, México, and that was Boucard's (Ann. Soc. Lin. Lyon, p. 32, 1878) record of Military Macaws nesting in

holes in the cliffs of a ravine in Guatemala (*vide* Griscom, Bull. Amer. Mus. Nat. Hist. 64:174, 410, 1932). Boucard's account, supposedly based on personal observations, was summarily dismissed by Griscom as being false (*loc. cit.*). The Chiapas specimens of the Military Macaw suggest, however, that Griscom may have been wrong in his assessment of Boucard's Guatemalan record and that small isolated populations may exist in remote areas in northern Central America. Finca Patichuiz is about 40 km from the México-Guatemala border. Whether or not *A. militaris* now occurs in Guatemala is unknown. Clearly, if reports are reliable, the population in the

vicinity of Finca Patichuiz in Chiapas is on the verge of extinction.

I wish to thank George H. Lowery, Jr., and Robert J. Newman of the Louisiana State University Museum of Zoology, and Ed N. Harrison of the Western Foundation of Vertebrate Zoology for access to the collections under their care. Allan R. Phillips pointed out the uniqueness of the Chiapas *S. z. albicincta* and kindly provided me with its measurements from his notes. I appreciate the cooperation of the Dirección General de Forestal y de Caza, México, D. F., for providing collecting permits.

Accepted for publication 20 August 1971.

## INTERSPECIFIC AGGRESSION OF ASH-THROATED FLYCATCHERS ON CASSIN'S SPARROWS

GEORGE T. AUSTIN

AND

STEPHEN M. RUSSELL

Department of Biological Sciences  
University of Arizona  
Tucson, Arizona 85721

During the course of field studies in 1970 on the Santa Rita Experimental Range, Pima County, Arizona, we observed eight instances of interspecific aggression by Ash-throated Flycatchers (*Myiarchus cinerascens*) on Cassin's Sparrows (*Aimophila cassinii*). The former is a medium-sized tyrannid which nests in abandoned woodpecker holes in much of the southwestern United States and into México. It forages mainly by hawking for insects from the upper limbs of trees. The sparrow is a ground-foraging species, feeding on seeds in winter and ground-inhabiting insects during the summer. Nests are placed near the ground in low vegetation. Its song is delivered in an upward arching flight from upper limbs

of trees. The pattern of singing flights closely resembles the hawking maneuvers of the flycatcher. It was during the flight song that the sparrows were attacked by the flycatcher. The latter flew straight at the sparrow and usually knocked it to the ground.

Apparently, the flycatcher was responding to a behavioral image which approximates its own foraging maneuvers. Selection against such behavior is probably weak since Cassin's Sparrow is rather restricted in its distribution and then only occurs in grasslands. On the other hand, strong selection pressures may operate to maintain this type of behavior in the flycatcher since it overlaps several potential competitors (*Myiarchus* spp., *Tyrannus* spp.).

One other observation adds strength to the above suggestion. A Cactus Wren (*Campylorhynchus brunneicapillus*), flying about 3 m above the ground, suddenly made an upward jog in its straight line flight. This deviation was similar in form to a flycatcher foraging maneuver. Immediately, an Ash-throated Flycatcher, which was perched about 4 m away, flew at the wren and knocked it to the ground.

These data were obtained during research supported by the US/IBP Desert Biome program under grant no. GB 15886 from the National Science Foundation.

Accepted for publication 14 September 1971.

## KING RAIL AND FLAMMULATED OWL AT EL PASO, TEXAS

JOHN P. HUBBARD

Delaware Museum of Natural History  
Greenville, Delaware 19807

In 1933, single specimens of King Rail (*Rallus elegans*) and Flammulated Owl (*Otus flammeolus*) were taken at El Paso, Texas, these being subsequently obtained by the late Harold H. Bailey and more recently by the Delaware Museum of Natural History (DMNH). The collector is not listed on the original labels, but on supplemental tags this information is given by Bailey as Anton McLellan or McClellan. The rail (DMNH 6906), a juvenile male approximately half-grown, was taken on 5 May 1933.

Judging from its stage of development, it was hatched locally, and as such it appears to represent the westernmost breeding record for the species. In Texas, this rail is largely confined to the eastern half of the state (Wolfe, Check-list of the birds of Texas. Intelligencer Press, Lancaster. 1956), although occurring as a rare migrant in the Panhandle (Peterson, The birds of Texas. Riverside Press, Cambridge. 1960). The owl is a male (DMNH 6917) and was taken on 14 October 1933. It undoubtedly represents a migrant in the area and appears to be the first specimen from El Paso. Peterson (*op. cit.*) records the bird as a rare summer resident of the mountains of western Texas, limited to forests above 6000 ft, and neither he nor Wolfe (*op. cit.*) list any lowland records for the state.

Accepted for publication 14 September 1971.