

## NOTES ON THE AVIFAUNA OF TABASCO

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**ABSTRACT.**—Tabasco, a Mexican state nearly half the size of the country of Costa Rica, lies juxtaposed between the Isthmus of Tehuantepec and the Yucatan Peninsula. This state hosts a diverse Neotropical resident avifauna, is a significant wintering area for Nearctic–Neotropic migrants, and has important biogeographic significance. Surprisingly little recent ornithological study has occurred in Tabasco; the last major publication treats data from 1939. Field work in March 1996 and recent specimens add nine species to the state list: *Caprimulgus vociferus*, *Chaetura vauxi*, *Campylopterus excellens*, *Empidonax albigularis*, *Thryothorus modestus*, *Turdus infuscatus*, *Myadestes unicolor*, *Limnothlypis swainsonii*, and *Vermivora ruficapilla*. The status of 26 other species is discussed. Further evidence of lowland forests being used as temporary refugia by birds from higher elevations is also considered. Received 20 May 1998, accepted 19 Nov. 1998.

“Compared to many of the Mexican States, Tabasco has been slighted ornithologically. Anything collectors could obtain in Tabasco could also be found in southern Veracruz with less effort. If the collector were to exert the effort necessary to enter Tabasco, he might as well go the entire distance and travel on to the Yucatan Peninsula, an area with many unique and peculiar forms.” Berrett (1962:4).

Tabasco, a state of approximately 24,600 km<sup>2</sup>, is situated on the northeastern side of the Isthmus of Tehuantepec on the Gulf of Mexico (Fig. 1). The ornithological neglect of Tabasco noted by Berrett (1962) has generally continued for the past 35 years. Berrett (1962) added 166 species to those previously known from Tabasco and reported a total of 457 species from the state. The bibliographic and museum database research of Centeno (1994) added 73 species to the total reported by Berrett (1962), but the knowledge of avian distribution within Tabasco and specimen representation of the birds of the state remain relatively poor. Avian specimens apparently do not even exist from 3 of the state's 17 municipios (the equivalent of counties in the U.S.A.; Centeno 1994).

Perhaps because the two major works on Tabasco birds in the last 55 years are not readily available (Berrett 1962, Centeno 1994) and

because specimen representation is sparse, errors and omissions regarding the distribution and occurrence of birds in the state have been fairly common (e.g., Peterson and Chalif 1973, Howell and Webb 1995). The last major publication on the birds of Tabasco is the outdated report by Brodtkorb (1943), which was based on a collection made in the region by the botanist Eizi Matuda and his assistants in 1939.

In this paper we report on our recent efforts to increase existing knowledge of the birds of Tabasco. In March 1996 we held a collaborative field workshop in the municipios of Centla and Huimanguillo. In Centla (the northeastern most municipio in the state, bordering Campeche), our field studies were conducted from 4–13 March on the Río Grijalva in the Reserva de la Biosfera Pantanos de Centla (Fig. 1). Our studies were focused mainly on two sites in the area of 18° 29' N, 92° 38' W. The first site was a remnant tract of mangrove (*Rhizophora mangle*) and puktal (*Bucida buceras*) forest (a selva perennifolia, or evergreen forest) along the banks of Arroyo Polo, a tributary of the Río Grijalva about 4 km south of Frontera. The other area was a partially flooded, shrubby pasture on the banks of the Río Grijalva and Río San Pedrito, about 14 km south of Frontera. Additional observations were made on water and land between these two sites.

In Huimanguillo, the southwesternmost

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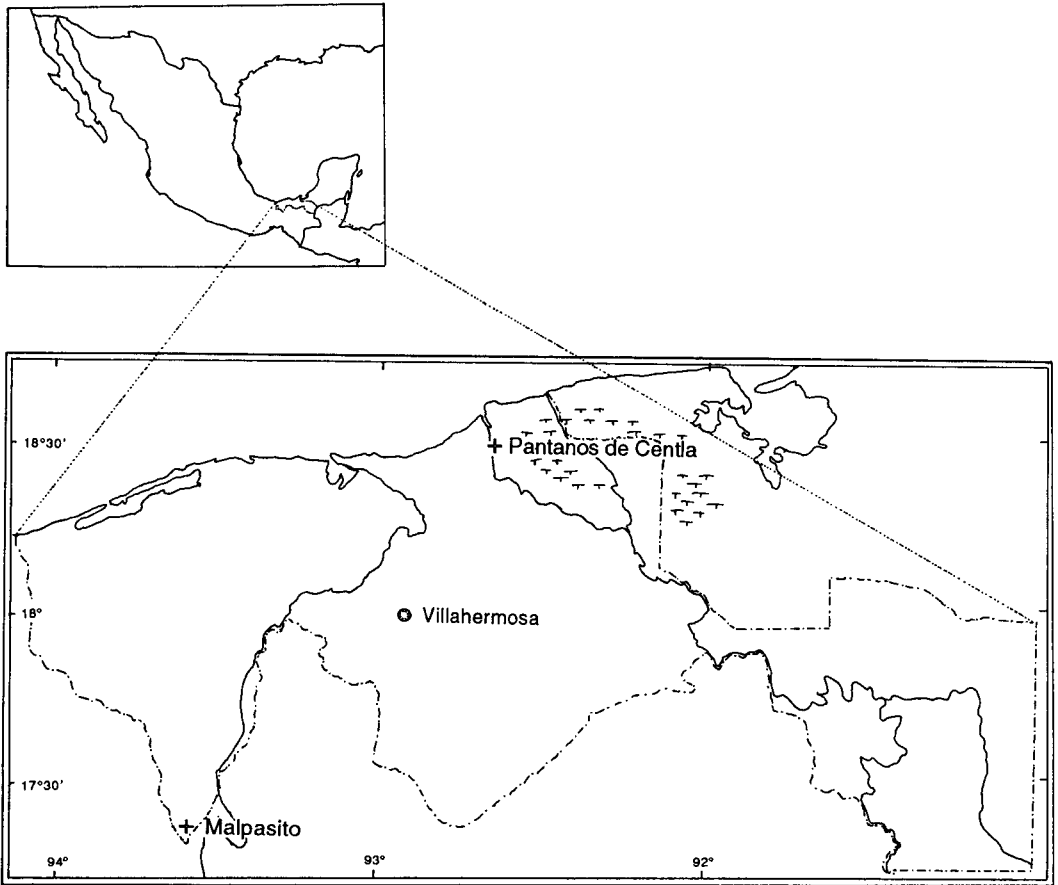


FIG. 1. The Mexican state of Tabasco, with its capital city of Villahermosa and the location of our study sites at the Biosphere Reserve of Pantanos de Centla and near the ejido of Malpasito.

municipio (bordering Veracruz and Chiapas), our field studies were conducted from 14–22 March in the southwesternmost corner of the state, below Cerro La Pava, west of Ejido Malpasito, and approximately 5 km west of the state's border with Chiapas (ca 17° 20' N, 93° 36' W, 300–500 m elevation; Fig. 1). This site consisted of open fields, pastures, small fruit and coffee plantations, acahual (second growth forest), and remnant rainforest patches restricted to mountain crevices and arroyos.

In addition to specimens and observations obtained during our field work, we include some additional specimen-based information for the birds of Tabasco from the national ornithological collection of México (Colección Nacional de las Aves—CNAV), which is housed at the Instituto de Biología, Departamento

de Zoología, Universidad Nacional Autónoma de México, in Mexico City. Our specimens representing new records for the state were also deposited in CNAV. A number of records we report as new for the state were predicted by Berrett (1962). Several of our records expand the known distribution of particular species within the state; many of these were also foreseen by Berrett (1962).

#### SPECIES ACCOUNTS

*Broad-winged Hawk (Buteo platypterus).*—Berrett (1962) recorded only two observations of this species in Tabasco, both of migratory flocks (28 March 1960, 17 April 1961). What appears to be the first state specimen, a female in migration, was taken at Balneario Agua

Blanca, Macuspana, on 13 March 1989 (CNAV 13,523).

*Ruddy Crane (Laterallus ruber)*.—Berrett (1962) noted that the species had been reported from only two areas in the state (near Tenosique and Teapa), but that it was probably more widespread. We found the species to be very common at Pantanos de Centla, hearing its distinctive vocalizations daily during our stay in the area.

*Common Snipe (Gallinago gallinago)*.—Berrett (1962) reported few Tabasco records of this wintering migrant, including only three sightings of his own. All but one of the records (from Sánchez Magallanes) were from southern, inland areas of the state. We observed at least one individual per day at Pantanos de Centla on 8–10 March.

*Sandwich Tern (Sterna sandvicensis)*.—Berrett (1962) reported collecting the first specimens for the state at Sánchez Magallanes and Miramar; his observations of the species did not extend beyond these areas. We found this tern to be common on the Río Grijalva from Frontera to an area about 5 km to the south. Two to approximately 40 individuals were seen almost daily during our stay in this area.

*Least Tern (Sterna antillarum)*.—Berrett (1962) reported only a single specimen from the state taken by D. M. Lay on 2 May 1960 near Jonuta on the Río Usumacinta. Apart from the many individuals Lay observed near Jonuta on 6 April and 2 May 1960, only two other observations (both of single individuals) were reported by Berrett: one from Chablé on the Río Usumacinta and the other from near Chontalpa (Huimanguillo) on the Río Grijalva. These are all inland records. On 12 March at Pantanos de Centla we had the opportunity to closely observe approximately 40 individuals feeding over the Río Grijalva near Frontera in loose aggregation with individuals of the preceding species.

*Mangrove Cuckoo (Coccyzus minor)*.—Berrett (1962) noted few Tabasco records and felt that the species was restricted to coastal areas. We note a male taken from a decidedly inland locality 6 km S of Huimanguillo on 6 March 1984 by H. Muñoz (CNAV 2,904).

*Common Parauque (Nyctidromus albicollis)*.—Berrett (1962) noted that his specimens of this permanent resident taken between 11

March and 7 May were in breeding condition. An individual found during the day in river-bank mangrove/selva forest on 5 and 6 March acted as though it was nesting when we flushed it. We did not find a nest, but on 7 March found a single egg laid on the leaf litter in one of our mist net lanes. We captured and banded the bird when it returned to this nest. A second egg was laid by 12 March (our next visit to the site).

*Whip-poor-will (Caprimulgus vociferus)*.—New record. Berrett (1962) noted only a single report of this species from Tabasco, that of Roviroso (1887). Roviroso's observations are notoriously suspect, however; Brodtkorb (1943:8) stated that "... scarcely any reliance can be placed on his records which have not been confirmed by other workers." In fact, Roviroso (1887) simply pooled all of his caprimulgid observations under this single specific epithet, apparently not knowing what species he had observed and perhaps liking this particular name. Under "*Antrostomus vociferus*" he stated that various species of caprimulgid occurred in the state from January to May. Thus, based on present evidence (i.e., Berrett 1962), it seems likely that Roviroso was discussing one or more of the four other caprimulgids that have since been found to occur in the state. Given its commonness and vocal habits, his observations probably consisted mostly of *Nyctidromus albicollis*, but this is speculative, and does not explain his lack of records from the second half of the year.

KW distinctly heard a Whip-poor-will singing at Pantanos de Centla on 9 March. The song was of the "Mexican" subspecific group (*C. v. arizonae/oaxacae/chiapensis*), which Howell and Webb (1995) suggested might occur in lowlands during the nonbreeding season. Subsequently, we discovered that a specimen of this subspecies group had been taken on 16 March 1984, 10 km S of Chontalpa, Municipio de Huimanguillo, by F. Ornelas (CNAV 2,917).

*Vaux's Swift (Chaetura vauxi)*.—New Record; no specimen. A flock of approximately 15 individuals was seen and heard at close range above Malpasito, Huimanguillo on 15 March, and a flock of 35–40 was seen each day 16–18 March. The first migrant *Chaetura pelagica* of the spring (a species that might be

confused with *C. vauxi*) were seen and heard on 21 March.

*Violet Sabrewing (Campylopterus hemileucurus)*.—The four specimens recorded by Berrett (1962) for the state all came from near Teapa. The single additional sight record noted was from near Chontalpa. We collected two females on 17 and 19 March at Malpasito. Neither had yet entered reproductive condition.

*Long-tailed Sabrewing (Campylopterus excellens)*.—New Record. An adult female of this species was taken at Malpasito in remnant forest at the edge of a small arroyo. This is the first record of this species for the state, and also the northeasternmost occurrence of the species, which until recently has been considered to have a very restricted range (see Winker et al. 1992a, Howell and Webb 1995). Howell and Webb (1995) based their extension of the species' range into Chiapas on a previously misidentified specimen in the American Museum of Natural History. Reexamination of this specimen (KW) suggests that Howell and Webb (1995) were correct; it is a *Campylopterus excellens*, and not a *C. curvipennis* as originally identified. Together, these two specimens suggest an approximate doubling of the species' total geographic range.

*Pygmy Kingfisher (Chloroceryle aenea)*.—Hitherto, the only records for this species in the state were from southern, inland localities (Balancán and Ocuápan: Berrett 1962; Chontalpa: CNAV 2,933). We collected a nonbreeding female at Pantanos de Centla on a small, well-forested tributary (Arroyo Polo) of the Río Grijalva on 6 March.

*Wedge-billed Woodcreeper (Glyphorhynchus spirurus)*.—Recorded by Berrett (1962) as an uncommon resident of the rainforest belt of the state, records were lacking from the westernmost rainforest in the state (Municipio de Huimanguillo). We collected a nonbreeding female in a patch of acahual (second growth forest) at the base of the local mountains at Malpasito on 17 March.

*Ochre-bellied Flycatcher (Mionectes oleagineus)*.—Although Berrett (1962) recorded this species near Chontalpa, he did not find it to be particularly common. We found it to be rather common at Malpasito, collecting seven individuals 19–21 March. Their abundance at

the site was associated with the weather; they were undetected before a relatively cold norte (cold, wet weather system from the north) arrived on 19 March.

*Sepia-capped Flycatcher (Leptopogon amaurocephalus)*.—A male taken on 20 March at Malpasito (testes moderately enlarged) extends the range of this species within the state to the westernmost occurrence of the rainforest belt.

*Sulphur-rumped Flycatcher (Myiobius sulphureipygius)*.—As with the previous species, Berrett (1962) documented this species as a permanent resident of the rainforest belt, but lacked records for the westernmost rainforest in the state. We collected a male with unenlarged testes in acahual at Malpasito on 20 March.

*White-throated Flycatcher (Empidonax albigularis)*.—New Record. We collected what appear to be the first specimens for the state at Pantanos de Centla on 10 March in a shrubby pasture. Both birds were males with no fat and a heavy molt that included body, wings, and tail.

*Great Crested Flycatcher (Myiarchus crinitus)*.—Berrett (1962) noted a single specimen and a few sightings of this species in Tabasco, all from May 1961 and near Balancán. We note two other specimens, both males, taken on 13 March 1984 and 29 September 1965 (indicating a presence in fall migration as well as spring), near Comalco and on the Río San Pablo, Municipio de San Pablo by F. Ornelas and R. W. Dickerman, respectively (CNAV 3,491 and 17,215).

*Gray-collared Becard (Pachyramphus major)*.—An adult male, apparently the second specimen for the state (Berrett 1962), was taken in 8–10 m acahual on 20 March at Malpasito. The first specimen, also a male, was taken in the eastern part of the state near Reforma, Balancán, on 28 May 1939 (Brodkorb 1943).

*Mangrove Vireo (Vireo pallens)*.—Berrett (1962) collected the only previous specimen for the state (male, 13 April 1961) near Villahermosa and noted three additional sightings: two near Villahermosa and another on the Río Usumacinta at Emiliano Zapata (all in April 1961). Peterson and Chalif (1973) and Howell and Webb (1995) overlooked these records. We collected two more individuals in low-

lying, shrubby pasture on the Río Grijalva at Pantanos de Centla on 9 and 10 March. Both were females with no fat and unenlarged ovaries. At least one more individual was later seen in this same area.

*Blue-headed Vireo (Vireo solitarius)*.—Berrett (1962) reported only two observations of this species in the state (March 1959, March 1960), both near Teapa. We collected what are apparently the first two state specimens at Malpasito on 16 and 17 March, a female with no fat and a male with little fat.

*Green Jay (Cyanocorax yncas)*.—Berrett (1962) recorded specimens and sightings of this species from only four localities in the municipios of Balancán, Centla, and Teapa. Our sightings of two individuals each on 15 and 21 March at Malpasito indicate that the species also occurs in the western part of the state.

*Tree Swallow (Tachycineta bicolor)*.—Berrett (1962) recorded only one specimen for the state but noted a few additional sightings, including several large flocks. Although it remains unclear whether the species spends the winter or is only a transient in migration, we add the following records from Pantanos de Centla: three specimens, all females with little fat, taken on 8 March 1996, and sightings of 1–150 individuals almost daily from 4–12 March. In addition, a female was taken by R. W. Dickerman 53 km W of Villahermosa on 3 April 1973 (CNAV 17,723).

*Plain Wren (Thryothorus modestus)*.—New record. An adult female was taken at Balneario Agua Blanca, Macuspana, in selva mediana, by E. Diaz I. on 14 March 1989 (CNAV 13,389).

*Slate-colored Solitaire (Myadestes unicolor)*.—New record. We collected a male on 20 March at Malpasito during the same norte associated with the occurrence of the Black Robin (below) in the area. Movement of Slate-colored Solitaires to lowland forest during nortes is a frequent occurrence in the Sierra de Los Tuxtlas in southern Veracruz (Ramos 1983; KW, pers. obs.).

*Black Robin (Turdus infuscatus)*.—New record; no specimen. A female or immature male of this highland species was seen feeding in a fruiting tree on 20 March at Malpasito on the last day of a relatively cold norte. It had probably descended to this lower elevation (ca

450 m) to escape less suitable conditions in the highlands, a common occurrence in some areas of southern Mexico (see Winker et al. 1992b).

*White-throated Robin (Turdus assimilis)*.—Berrett (1962) noted only three records of this species in Tabasco, one specimen and two sightings from near Teapa and near Chontalpa, both southern localities. A male was taken at Comalcalco (in the northern part of the state) on 13 March 1984 by F. Ornelas (CNAV 6,776).

*Nashville Warbler (Vermivora ruficapilla)*.—New record. Berrett (1962) reported a brief glimpse of a bird that was probably this species at Balancán. We collected the first state specimen, a female with no fat, at Malpasito on 20 March.

*Yellow-rumped Warbler (Dendroica coronata)*.—Berrett (1962) reported only a few records for this species, all from December. Weber (1945) reported it at La Venta in spring 1943. We took three females with moderate to heavy fat in shrubby pasture at Pantanos de Centla on 9–11 March, and observed up to three other individuals on these days.

*Swainson's Warbler (Limnethlypis swainsonii)*.—New record. The first state specimen, a male with no fat and with tail characteristics (uneven growth bars) of an after second year (ASY) individual, was taken in a mixed forest of mangrove and selva near the bank of Arroyo Polo (Río Grijalva) near Frontera on 6 March. This bird was not in migratory condition and the habitat it occupied was eminently suitable for wintering (KW, pers. obs.; see Graves 1998).

*White-winged Tanager (Piranga leucop-tera)*.—Berrett (1962) reported a few individuals of this species in early and mid-November 1961 near Tenosique and surmised that they may have been wintering birds from higher elevations. We saw a single female at Malpasito on 19 March, during the same norte associated with the presence of the Black Robin and Slate-colored Solitaire noted above.

*Orange-billed Sparrow (Arremon aurantii-rostris)*.—Berrett (1962:375) noted six specimens from the state and referred to the species as a “rarely recorded permanent resident of the humid rain forest undergrowth.” Although we worked intensively in the Malpasito area

for four days before encountering any individuals of this species, during the relatively severe norte of 19 and 20 March we collected four individuals (three females, one male) in our mist nets that had been in the same locations the entire time in a small patch of remnant rainforest at the base of the local mountains. This striking movement pattern of increased captures during nortes is typical of highland species at lowland sites, but not of lowland species. We surmise that at this site these typically lower-elevation birds might occupy less disturbed forest at slightly higher elevations than the remnant forest available where our field work was conducted.

*Olive Sparrow (Arremonops rufivirgatus)*.—Berrett (1962) reported only a single specimen, but noted that the species was a common permanent resident north of Balancán. These records were overlooked by Howell and Webb (1995). We found that the species also occurs in the westernmost region of the state. We collected a female with an unenlarged ovary on 18 March at Malpasito and, in addition, found what appeared to be two pairs (two singing males with associated individuals not singing) in a brushy area of young second growth.

*Savannah Sparrow (Passerculus sandwichensis)*.—Four individuals were seen on 14 March beside scrubby pasture at Pantanos de Centla on the Río Grijalva, supplementing the single specimen and several sightings reported by Berrett (1962) from a southern part of the state (Huastecas, Teapa, ca 29 km NE of Teapa).

*Lincoln's Sparrow (Melospiza lincolni)*.—Berrett (1962) included this species as an uncommon wintering bird in the state, reporting only a single specimen and scattered sight records from largely southern, inland sites. Our records add northern, near-coastal records for the state. We observed a single individual on 4 March at Pantanos de Centla in roadside scrub, and collected a male with light fat on 11 March in shrubby pasture on the Río Grijalva.

#### DISCUSSION

Our records consist of 10 migrant and 25 resident species. Of our nine new records for the state, only two are of migrant species; seven are resident. This is unusual for an area in

the northern Neotropics, where at the end of the twentieth century one would expect our knowledge of the avifauna to be sufficiently strong that most new records would be generated by individuals of migrant species. We consider the preponderance of resident species in this report to be a reflection of Tabasco's status as a poorly known Neotropical region. Further ornithological study of this region is fully warranted. Tabasco is nearly half the size of Costa Rica. It occupies a geographic position making it important as a wintering ground for Nearctic-Neotropical migrants and as a breeding and nonbreeding area for a diverse Neotropical resident avifauna. Further, it has twofold biogeographic significance: one as a transition zone between the Yucatan Peninsula and the Isthmus of Tehuantepec (including a significant portion of the rainforest belt at the peninsula's base) and another in its position at the northern limits of Neotropical families such as Heliornithidae, Eurypygidae, Galbulidae, Bucconidae, and Pipridae.

Our data provide important new distributional information for both resident and migrant species in this poorly known region. For example, our records of Swainson's Warbler and the Long-tailed Sabrewing constitute significant wintering and probable breeding range extensions (respectively) for rare species of conservation concern (see Howell and Webb 1995, Winker et al. 1992a).

In addition, our data show intermittent use of lowland forest, indicating movements among "resident" birds. The relatively lowland sites we studied near Malpasito suddenly became home to individuals of a number of species that were not detected during the four days of intensive field study prior to the arrival of a norte on 19 March. At least five species (including two new to the state) showed movement patterns that were strongly tied to the inclement weather: *Mionectes oleagineus*, *Turdus infuscatus*, *Myadestes unicolor*, *Piranga leucoptera*, and *Arremon aurantiirostris*. All of these species probably occupy forest at higher elevations in this area. An increase in overall capture rates and census detections (unpubl. data) suggested increased numbers of individuals of many species already present at the lowland sites. These individuals may also have come from the local highlands.

Temporary use of remnant lowland forest

during nortes is a relatively common phenomenon in southern Veracruz (Ramos 1983, Winker et al. 1997) and is an issue of grave conservation concern; when lowland forests have diminished to a degree of scarcity, they are no longer available to individuals seeking temporary refuge from inclement conditions in the highlands.

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#### LITERATURE CITED

- BERRETT, D. G. 1962. The birds of the Mexican state of Tabasco. Ph.D. diss., Louisiana State Univ., Baton Rouge.
- BRODKORB, P. 1943. Birds from the lowlands of southern Mexico. Misc. Publ. Mus. Zool. Univ. Mich. 55:1–88.
- CENTENO A., B. E. 1994. Estado actual del conocimiento de la avifauna de Tabasco: revisión bibliográfica. Tesis Licenciado en Biología, Univ. Juárez Autónoma de Tabasco, Villahermosa.
- GRAVES, G. R. 1998. Stereotyped foraging behavior of the Swainson's Warbler. *J. Field Ornithol.* 69:121–127.
- HOWELL, S. N. G. AND S. WEBB. 1995. A guide to the birds of Mexico and northern Central America. Oxford Univ. Press, New York.
- PETERSON, R. T. AND E. L. CHALIF. 1973. A field guide to Mexican birds. Houghton Mifflin Co., Boston, Massachusetts.
- RAMOS, M. A. 1983. Seasonal movements of bird populations at a neotropical study site in southern Veracruz, Mexico. Ph.D. diss., Univ. of Minnesota, Minneapolis.
- ROVIROSA, J. N. 1887. Apuntes para la zoología de Tabasco: vertebrados observados en el Territorio de Macuspana. *Naturaleza* 7:345–389.
- WEBER, W. A. 1945. Wildlife of Tabasco and Veracruz. *Nat. Geog.* 87(2):187–216.
- WINKER, K., M. A. RAMOS, J. H. RAPPOLE, AND D. W. WARNER. 1992a. A note on *Campylopterus excelens* in southern Veracruz, with a guide to sexing captured individuals. *J. Field Ornithol.* 62:339–343.
- WINKER, K., R. J. OEHLenschLAGER, M. A. RAMOS, R. M. ZINK, J. H. RAPPOLE, AND D. W. WARNER. 1992b. Bird distribution and abundance records for the Sierra de Los Tuxtlas, Veracruz, México. *Wilson Bull.* 104:699–718.
- WINKER, K., P. ESCALANTE, J. H. RAPPOLE, M. A. RAMOS, R. J. OEHLenschLAGER, AND D. W. WARNER. 1997. The evolution and conservation of Wetmore's Bush-Tanager: periodic migration and lowland forest refugia in a "sedentary" neotropical bird. *Conserv. Biol.* 11:692–697.