

AMERICAN MUSEUM *Novitates*

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY
CENTRAL PARK WEST AT 79TH STREET, NEW YORK, N.Y. 10024

Number 2569 pp.1-8, figs. 1-3

February 27, 1975

Revision of the Short-billed Marsh Wren (*Cistothorus platensis*) of Mexico and Central America

ROBERT W. DICKERMAN¹

ABSTRACT

The Short-billed Marsh Wrens [*Cistothorus platensis* (Latham)] of Mexico and Central America are reviewed. Nine subspecies, one a migrant (*C. p. stellaris*), are recognized from the region. *Cistothorus platensis tinnulus* has an extensive range in the Trans-Mexican Volcanic Belt. Other forms are more restricted in their distribution: *C. p. potosinus* (new), San Luis Potosí;

C. p. jalapensis (new), central highlands of Veracruz; *C. p. warneri* (new), lowlands southern Veracruz, Tabasco, and adjacent Chiapas; *C. p. elegans*, highlands of Guatemala; *C. p. russelli* (new), British Honduras; *C. p. graberi* (new), Honduras; and *C. p. lucidus*, Costa Rica and Panama, with one record from Nicaragua. Maps showing ranges are included.

INTRODUCTION

The resident Short-billed Marsh Wren (*Cistothorus platensis*) populations of Mexico south to Costa Rica are currently divided into three subspecies, *C. p. tinnulus* of the central portion of the Trans-Mexican Volcanic Belt (Michoacán); *C. p. elegans* of Veracruz south to Chiapas, Guatemala, British Honduras, and Honduras; and *C. p. lucidus* of Costa Rica and adjacent Panama (Miller, 1957; Paynter, 1960; Monroe, 1968). For a sedentary, ecologically restricted species this has long been a predictably unreal description of the situation. Russell (1964) realized the birds from British Honduras were distinct from the population of Tabasco and Veracruz but for want of topotypes of *elegans* from the highlands of Guatemala he was forced to use that name for

the British Honduras specimens. Monroe (1968) also used *elegans* for the population of the Caribbean lowlands of Honduras for the same reason. Although *elegans* was the first population named from Central America (Sclater and Salvin, 1859), *elegans* of Guatemala was represented in North American collections by only a few specimens all in worn plumage essentially worthless for taxonomic purposes until I was able to collect a series of near topotypes in April, 1973. With the availability of specimens of Short-billed Marsh-Wrens from Guatemala, I assembled 103 specimens I had collected from 1955 to 1973 and 114 additional specimens available in other collections. Of the 217 specimens (including 20 juveniles) 90 were sufficiently unworn to be useful in evalu-

¹Research Associate, Department of Ornithology, the American Museum of Natural History; Associate Professor, Department of Microbiology, Cornell University Medical College.

ating the morphological variations in the Mexican and Central American populations. It was immediately obvious that several undescribed forms were represented in the series. Because of the rapidity of feather-bleaching and wear, only birds collected between November and April, except from Honduras (see below), were utilized, unless noted, for making color comparisons, whereas wing and tail measurements were taken on individuals collected through May, except for Honduras. Nesting seasons in Tabasco and Honduras may be more extended or later. Juveniles examined were taken December 6 in Tabasco and February 7 in lowland Honduras. The Honduras specimens were in first prebasic molt indicating a mid-dry season nesting period for those populations.

In fresh plumage a more or less distinct breast band is present in most populations. It is evident even in worn breeding birds of *tinnulus* and of the British Honduras population, but not in birds from the coastal area of Honduras in the last stages of prebasic molt.

Wing and tail measurements were taken to the nearest millimeter with dividers and the upper mandible was measured to its visible base with dial vernier calipers to the nearest tenth of a millimeter. Culmen measurement proved to be of no value in the separation of subspecies. For example, mean and standard deviation of this measurement for 33 *tinnulus*, 17 lowland Veracruz and Tabasco, and seven *elegans* are 11.0 (± 0.5), 10.7 (± 0.6), and 11.2 (± 0.2), respectively.

Sexual dimorphism may be a little more pronounced in tail measurements than in length of the wing; however, it is so slight that measurements of all adult birds have been combined (fig. 1). Wing measurements (mean and standard deviation) for 22 female and 22 male *C. p. tinnulus* are 44.5 (± 1.4) and 45.9 (± 1.1), respectively, whereas tail measurements for 17 females and 18 males are 43.7 (± 1.6) and 46.3 (± 1.9), respectively.

Moore (1941) in his description of *tinnulus* compared measurements of his single specimen from Michoacán with four birds from Veracruz and four from Chiapas to Nicaragua. Examination of the much larger series of measurements now available reveals that there are two series of populations that vary in size (i.e., bigger birds in

the highlands and smaller birds in the lowland). Those are discussed in greater detail under the subspecies (also see fig. 1).

Twenty specimens in juvenal plumage were compared. These ranged in age from "stubby-tailed" late stage nestlings to some in early first prebasic molt. Unfortunately too few individuals were in similar stages of feather development and wear to permit useful color comparisons.

Acknowledgments

The curators of the following collections are gratefully acknowledged for lending me material in their care; Carnegie Museum; University of California, Los Angeles; University of Kansas Museum of Natural History; Museum of Zoology (LSUMZ), Louisiana State University; Museum of Comparative Zoology, Harvard University; University of Michigan Museum of Zoology; Robert T. Moore Collection, Occidental College; Western Foundation of Vertebrate Zoology, Los Angeles; and the National Museum of Natural History, Smithsonian Institution. Drs. G. M. Sutton and A. R. Phillips kindly lent me specimens from their collections, the latter on deposit at the Delaware Museum of Natural History. Collecting permits for Mexico, Guatemala, and Costa Rica were provided by the respective government agencies.

I especially express my thanks to Dr. George H. Lowery, Jr., for permitting me to utilize the extensive series of Short-billed Marsh Wrens assembled by Laurance C. Binford, Burt L. Monroe, Jr., and Stephen M. Russell.

Some of the material was collected while carrying out research supported in part by U. S. Public Health Service Research Grant AI-6248 from NIAID and in part by U. S. Public Health Service Training Grant 5-T1-AI-231 from NIAID, and by Research Contract DA-49-193-MD-2295 from the U. S. Army Medical Research and Development Command, Department of the Army.

Cistothorus platensis stellaris

Troglodytes stellaris Naumann, 1823, table facing p. 724 (Carolina).

The migrant northern form winters in suitable

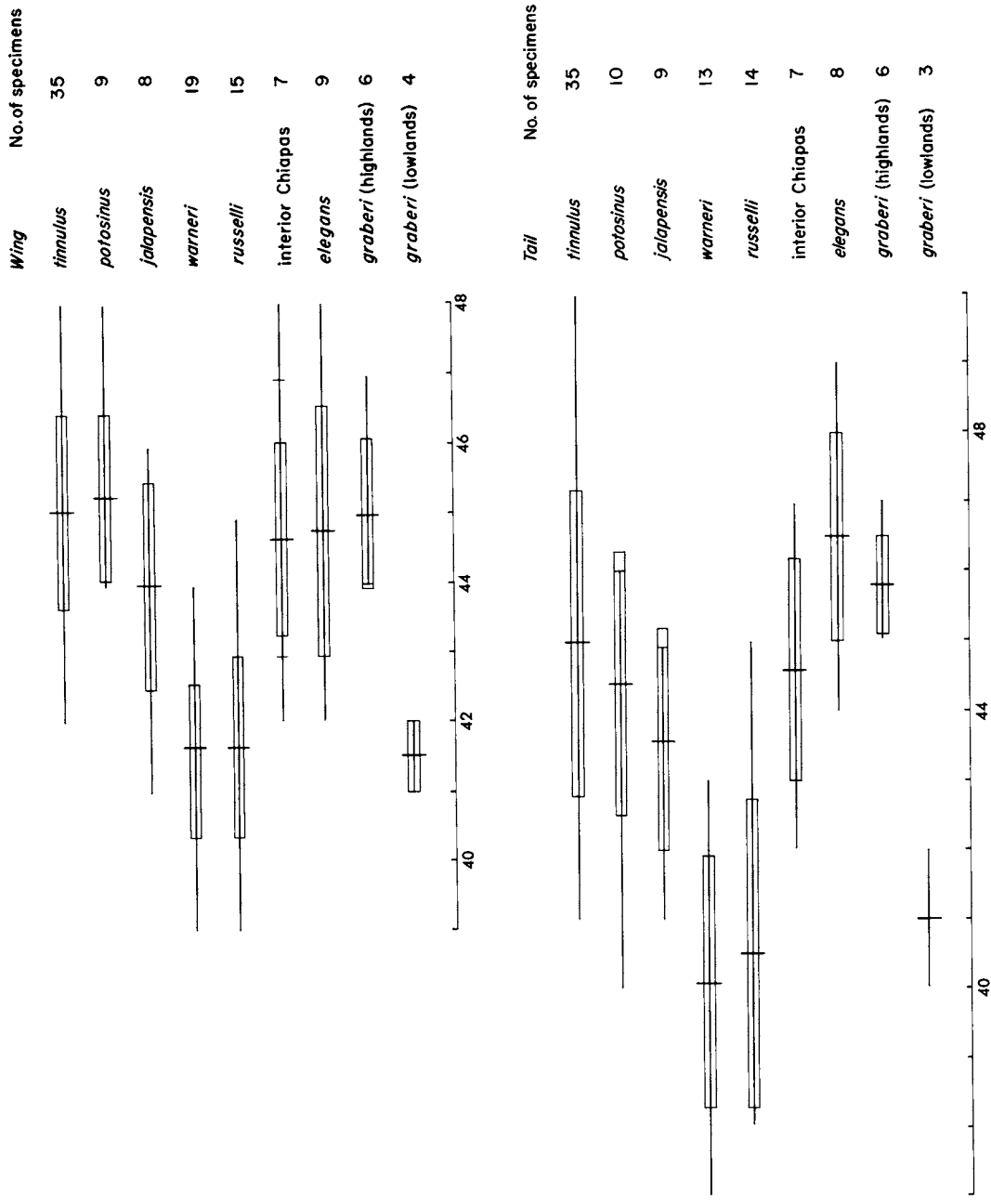


FIG. 1. Statistical analysis of wing and tail measurements in millimeters for *Cistothorus plarensis* from Mexico and Central America. For each population the range, sample mean (vertical line), and one standard deviation on either side of the mean (broad open bar) are presented.

habitat in northeastern Mexico; records from Tamaulipas and San Luis Potosí were reported by Miller (1957). To this range may be added Durango, whence a specimen was taken at Laguna Santiaguillo, 10 miles NNE of Guatimape, April 21, 1972, by Richard Crossin. Two individuals collected by me at Manantiales Media Luna, San Luis Potosí, March 15, 1963, have also not previously been reported.

Cistothorus platensis tinnulus

Cistothorus platensis tinnulus Moore, 1941, p. 40 (Rancho la Cofradia, 4 miles E of Uruapan, Michoacán, Mexico).

Diagnosis. Pale and buffiest (or most ochraceous) of Mexican and Central American forms; streaking on crown greatly reduced; well developed breast band; size larger (see discussion above and fig. 1).

Cistothorus platensis tinnulus is found in the *Scirpus* and *Juncus* edges of marshes and in tall bunch grass habitats from Nayarit (Compostela) east in the Trans-Mexican Volcanic Belt to the marshes at the headwaters of the Rio Lerma in the state of México (fig. 2).

Although described in 1941 from a single specimen and known to Miller (1957) by only three additional specimens from Michoacán, *tinnulus* has an extensive range and is locally common.

The series of 18 *tinnulus* in good plumage, when arranged geographically, show a minor cline in color, with four birds from Nayarit and two from central Michoacán being slightly paler than birds from eastern Michoacán and the adjacent regions of the state of México. However, a fifth specimen from Nayarit easily matches darker birds from the upper Rio Lerma Valley of Mexico, and paler individuals of the latter locality approach Nayarit specimens. The single adult available from the Distrito Federal, collected 1.2 miles south of La Guardia on the divide between México and Morelos is in very fresh plumage. It is so much darker than Michoacán *tinnulus* that it probably represents a western extension of the highland Veracruz population, although its unworn crown is unstreaked as in *tinnulus*. I have not attempted to assemble all known specimens of Short-billed

Marsh Wrens from the range of *tinnulus*, therefore some localities may not be represented by the specimens examined.

Short-billed Marsh Wren populations from the eastern edge of the Mexican plateau in San Luis Potosí, the highlands of Veracruz, and the coastal lowlands of southern Veracruz and Tabasco are represented by 39 specimens in little to moderately worn plumage. In the early stages of the study they were considered to represent one somewhat variable form (the author being aware of reviewers remarking that he has a tendency to split). However, when specimens were arranged geographically and measurements taken, it became clear that three distinct forms that varied in size and color were involved.

Cistothorus platensis potosinus, new subspecies

Type. Adult male, LSUMZ 33575, Laguna Manantiales Media Luna, San Luis Potosí, Mexico, collected February 9, 1964, by L. C. Binford, original field number 863.

Diagnosis. Much paler and sandier in color, less ochraceous than *tinnulus*, crown and back less broadly streaked with black than Veracruz highland population; differing from lowland Veracruz-Tabasco form by having slightly wider white streaks in interscapular feathers, thus back average paler, tail on average with less black. Large.

Etymology. Named for the state of San Luis Potosí; to date *potosinus* is known only from the type locality (fig. 2).

Cistothorus platensis jalapensis, new subspecies

Type. Adult male, AMNH 819550, 18 km. by road E of Jalapa, Veracruz, Mexico, collected April 8, 1962, by Robert W. Dickerman, original field number 10541.

Diagnosis. More extensive black stripes on crown and back, darker brown on rump and flanks than in *tinnulus*, *potosinus*, or lowland Veracruz-Tabasco form. Size intermediate.

Etymology. Named for Jalapa, Veracruz, center of the famous "chiles jalapenos."

This dark form is known only from the Orizaba to Jalapa region of central interior Veracruz, but may extend westward to the Distrito Federal as indicated by the dark specimen taken

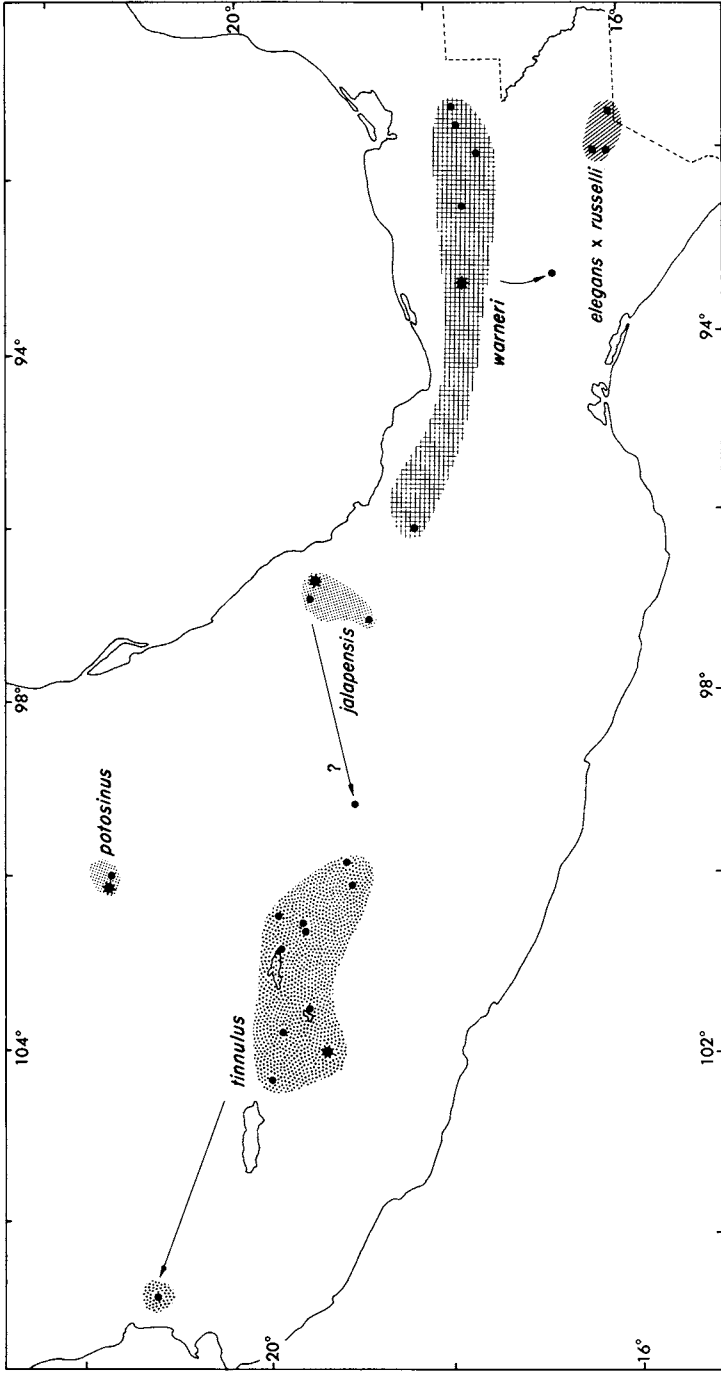


FIG. 2. Distribution of subspecies of the Short-billed Marsh Wren in Mexico. Stars indicate type localities.

near La Guardia discussed above under *tinnulus* (fig. 2).

Only one of nine specimens of *jalapensis* approaches the paler eastern forms in color. That specimen was one of three collected at Jalapa in April, 1897, and may be more foxed than the other two which match well the recently taken material. Ridway (1904) noted a subspecific difference between the material he then had from Veracruz and that from Palenque, Chiapas. The Veracruz specimen taken at Orizaba from the Sumichrast collection (without sex and date) is still in basic molt. It is typically dark with heavy stripes on the crown.

This darker form in the middle of the eastern series is probably due to the heavier rainfall of the upper elevation of the Caribbean slope with more extensive cloud cover and with shorter dry seasons as compared with interior San Luis Potosí and the lowlands of Veracruz and Tabasco.

Cistothorus platensis warneri, new subspecies

Type. Adult male, AMNH 819549, 9 miles N of Chontalapa, (9 miles S of Huimanguillo) Tabasco, Mexico, collected January 17, 1963, by Robert W. Dickerman, original field number 11176.

Diagnosis. Crown, nape, and rump sandy buff, less ochraceous than *tinnulus* and paler than *jalapensis*; black of back and tail averages more extensive than in *potosinus* but less so than in *jalapensis*. Much paler throughout than the British Honduras population. Small.

Etymology. Named for Dr. Dwain W. Warner, adviser and friend. *Cistothorus platensis warneri* is found in the lowlands of Veracruz near Presa Aleman to Balancan in central Tabasco, and in the adjacent lowland Chiapas (Palenque) (fig. 2).

Two specimens, one worn and one very worn collected 5 miles NE of Ocozocoautla, and at Ocuilapa (10 miles NW of Ocozocoautla), Chiapas, in July and August, respectively, are paler than comparably worn birds collected in the Comitán region. Their wings measure 44 and 41, respectively, thus they probably indicated an infiltration of *warneri* genes at least into the lower mountains of western Chiapas.

Cistothorus platensis russelli, new subspecies

Type. Adult male, LSUMZ 21238, Augustine, Cayo District, British Honduras, collected March 9, 1956 by Stephen M. Russell, original field number 474.

Diagnosis. Similar to *C. p. elegans* and *jalapensis* but darker and richer, more reddish brown throughout, especially evident on the nape, rump, flanks, undertail cover, and breastband. The breastband, at least of birds collected February to April, is much darker than that of *warneri*, the crown streaks are less well developed than in *elegans* or *jalapensis*, but much more so than in *graberi*. Much richer and darker, less gray than *graberi*. Size small.

Etymology. Named for Dr. Stephen M. Russell in recognition of his contribution to our knowledge of the avifauna of Central America.

All specimens examined have been from the Toledo and Cayo districts of British Honduras (fig. 2). The seven measurable specimens from the highlands of Chiapas are intermediate in color and tail length (mean 44.1) between *elegans* and *russelli*, with some individuals nearly inseparable in color from *russelli*. The wing chord of this Chiapas series is large as in *elegans* (mean 44.6, fig. 1).

Cistothorus platensis elegans

Cistothorus elegans Sclater and Salvin, 1859 (Lake of Duenas, Department of Sacatepeques, Guatemala).

Diagnosis. As in other forms of North and Central America, with a strongly striped back matched only by *polyglottus* in South American populations, but contrasting with that form and all Central American forms in having moderately heavy crown streakings, these being continuous with those of the back. Nape and flanks medium brown, paler than *jalapensis* and *russelli* and the Honduras population, but darker than in *warneri*, *potosinus*, and *tinnulus*. Most similar to *lucidus* but less warm (buffy).

Cistothorus platensis elegans occurs in the montane region of south-central Guatemala of the departments of Quetzaltenango, Sacatepequez, and Guatemala (fig. 3).

***Cistothorus platensis graberi*, new subspecies**

Type. Adult male LSUMZ 32356, Puerto Lempira, Department of Gracias a Dios, Honduras, collected April 12, 1964, by R. R. Graber.

Diagnosis. Similar to *C. p. elegans*, but grayer, much less fulvous, streakings on crown nearly obsolete; much duller, less reddish than *russelli*. Size variable (see below).

Etymology. Named in honor of Richard R. Graber for his contributions to diverse areas of ornithological knowledge.

Apparently occurs in suitable habitat on the Caribbean slope of Honduras to the pine-savannas of northwestern Nicaragua (fig. 3).

Monroe (1968) wrote "the Honduras series matches well the one from British Honduras and will no doubt be assigned to the same race." Actually the Short-billed Marsh Wrens of Honduras (and the adjacent lowlands of Nicaragua)

form one of the most distinctive groups within Central America. However, the populations herein named *graber* may well represent two forms, namely those of:

1. The lowland pine-savanna areas of Honduras and Nicaragua. Characterized by small size (wing chord under 34 mm. in the four measurable specimens examined). The type of *graber* is from this population. Dr. T. H. Howell informed me (*in litt.*) that the Short-billed Marsh Wren is apparently uncommon even in good habitat in Nicaragua.

2. Siguatepec in interior Honduras. The six males from this locality are inseparable in color from the single available comparably worn representative of the lowland population, but are larger (wing chord more than 43 mm.). This population is typified by a male in the Carnegie Museum (134887) collected by A. C. Twomey and R. W. Hawkes July 8, 1951.

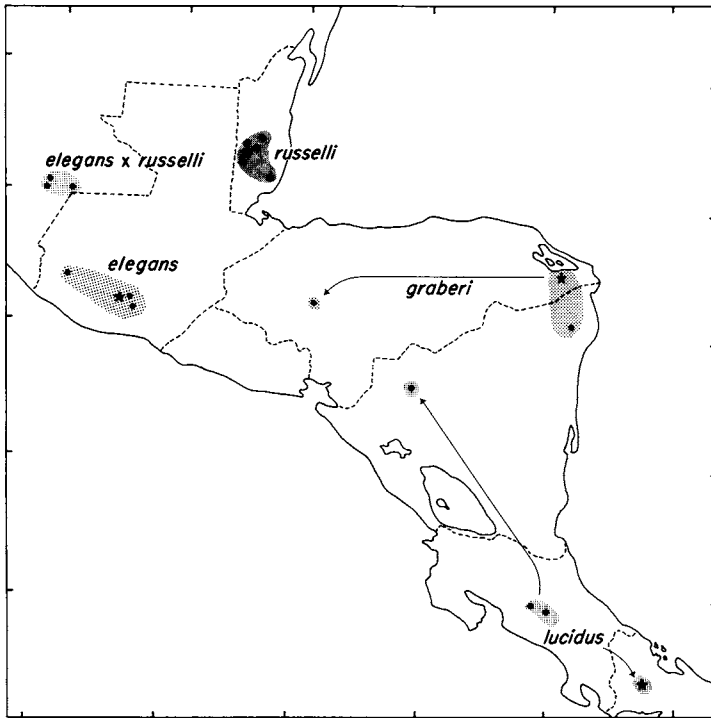


FIG. 3. Distribution of subspecies of the Short-billed Marsh Wren in Central America. Stars indicate type localities.

Cistothorus platensis lucidus

Cistothorus polyglottus lucidus Ridgway, 1903, p. 169 (Boquete, Chiriquí Department, Panama).

Diagnosis. Similar to *elegans* but richer (more buffy, less grayish brown) on flanks, rump, and crown; less heavily streaked.

Occurs in the middle elevations of the central plateau of Costa Rica to Chiriquí Department of western Panama (fig. 3).

A specimen from 9 miles SE of San Rafael del Norte, Department of Jinotega, Nicaragua, collected April 5, 1917, differs from the 1973 series of *elegans* in the same way as do the *lucidus* specimens taken in 1967 and the older ones taken in 1902 and 1928 in Costa Rica, and thus is considered to represent the latter form.

Detailed comparisons of Costa Rican and Panamanian series were not made.

SPECIMENS EXAMINED

- C. p. stellaris* (3). **Mexico:** *San Luis Potosí:* Manantiales Media Luna 2. *Durango:* Laguna Santiaguillo, 10 mi. NNE Guatimape, 1.
- C. p. tinnulus* (71). *Nayarit:* 1 mi. S Compostela 14. *Michoacán:* 1 mi. E to 2 mi. W Jacona 12; Zacapu 3; Laguna Patzcuaro 3; Laguna Cuitzeo (Araro) 3; 3 to 7.5 mi. W Ciudad Hidalgo 12; 1 mi. N Maravatio 1. *México:* 1 mi. S Almoloya del Rio 13; San Pedro Techuchulco 7; 1.5 mi. S Valle del Bravo 3.
- C. p. tinnulus* x *C. p. jalapensis* (3). *Morelos:* El Capulin 2. *Distrito Federal:* La Guardia 1.
- C. p. potosinus* (18). *San Luis Potosí:* Manantiales Media Luna 16; 2 mi. S Papagayos 2.
- C. p. jalapensis* (12). *Veracruz:* Orizaba 1; Jalapa 4; Dos Rios=16-18 km. below=E Jalapa 7.
- C. p. warneri* (27). *Veracruz:* junction road to Presa Aleman (SE Tierra Blanca) 3. *Tabasco:* 8 to 9 mi. S Huimanguillo 7; 3 mi. E Macuspana 5; 9 mi. N Balancan 2. *Chiapas:* Palenque 7; Ocuilapa 2; 5 mi. NE Ocozocoautla 1.
- C. p. elegans* x *C. p. russelli* (18). *Chiapas:* 1-2 mi. NE Comitán 3; 13 km. SE Comitán 3; Colonia Hidalgo 7; Laguna Tepancuapan 5.
- C. p. elegans* (12). **Guatemala:** *Quetzaltenango Department:* 6 mi. W San Juan Ostuncalco 1. *Sacatepéquez Department:* San Antonio 1; Duenas 1. *Guatemala Department:* 4 mi. SE Amatitlán 9.
- C. p. russelli* (21). **Belize.** *Toledo District:* 16 to 18 m. NW Monkey River Town 8. *Cayo District:* Sibun Hill 5; 12 mi. S and 21 mi. SSE Cayo 3; 5 mi. W Baldy Beacon 2; Augustin 2; 1 mi. SSW Cooma Cairn 1.
- C. p. graberi* (12). **Honduras:** *Gracias a Dios Department:* Puerto Lempira 5. *Comayagua Department:* Siguatepeque 6. **Nicaragua:** *Comarca del Cabo Department:* 50 km. NW Puerto Cabezas 1.
- C. p. lucidus* (21). **Costa Rica:** *Cartago Province:* Cartago 14; Laguna de Coris 4. *San José Province:* Escazu 2. **Nicaragua:** *Jinotega Department:* San Rafael del Norte 1.

LITERATURE CITED

- Naumann, J. F.
1823. *Naturg. Vogel Deutschlands*, vol. 3, table facing p. 724.
- Miller, A. N.
1957. Family Troglodytidae. In Miller, A. H., H. Friedmann, L. Griscom, and R. T. Moore. *Distributional checklist of the birds of Mexico*, pt. 2. Pacific Coast Avifauna, pp. 147-168.
- Monroe, B. L., Jr.
1968. A distributional survey of the birds of Honduras. *Amer. Ornith. Union Monogr.*, vol. 7, pp. 1-458.
- Moore, R. T.
1941. New races of flycatcher, warbler and wren from Mexico. *Proc. Biol. Soc. Washington*, vol. 54, p. 40.
- Paynter, R. A., Jr.
1960. Family Troglodytidae. In Mayr, E., and J. C. Greenway, Jr., *Checklist of the birds of the world*. Cambridge, Mass., Museum of Comparative Zoology, vol. ix, pp. 379-440.
- Ridgway, R.
1903. Diagnosis of nine new forms of American birds. *Proc. Biol. Soc. Washington*, vol. 16, p. 169.
1904. The birds of North and Middle America. *Bull. U. S. Natl. Mus.*, no. 50, pt. 3, 801 pp.
- Russell, S. M.
1964. A distributional study of the birds of British Honduras. *Amer. Ornith. Union Monogr.*, vol. 1, pp. 1-195.
- Sclater, P. L., and O. Salvin
1859. On the ornithology of Central America. Part I. *Ibis*, vol. 1, p. 8.