

## A REVIEW OF THE WRENS OF THE GENUS TROGLODYTES.

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The genus *Troglodytes*, as here restricted, comprises a group of wrens that is wholly American. Notwithstanding very considerable interspecific differences, no thoroughly satisfactory generic division seems possible, further than the segregation of that peculiar form *Troglodytes breweri*.<sup>a</sup> While it is true that *solstitialis* and *ochraceus* have short tails, large feet, rather slender bills, and somewhat peculiar coloration, and therefore seem quite different from typical *Troglodytes (aedon)*, yet this distinction loses any significance it appears to possess when other forms are compared with these, particularly *Troglodytes s. macrourus*, which is an evident subspecies of *solstitialis*! These species—*solstitialis* and its allies—have sometimes been referred to *Hemiura (= Uropsila)*, but they certainly are out of place in such position, for the structure of the nostril is quite different in that group, being round and open instead of linear and strongly operculate. Furthermore, the West Indian forms commonly attributed to *Thryothorus* should be included in *Troglodytes*. Thus, although it is a far cry from the slender bill and feet of *aedon* to the heavy beak and large feet of *tanneri* or *musicus*; from the long wings of *musicus* to the short ones of *brunnicollis*; from the long tail of *beani* to the short one of *grenadensis* or *solstitialis*; and from the gray and white coloration of *aztecus* to the dark, almost uniform, reddish chestnut of *rufescens*, there is no place where the trenchant line of generic division can be drawn.

By far the most difficult part of the genus is the so-called *musculus* group, which, from lack of adequate material, has always been a source of considerable annoyance to ornithologists. While our means have not been all that could be desired, yet the interrelations of the various forms have been worked out with the considerable care that

<sup>a</sup> Bangs, Proc. New Eng. Zool. Club, III, 1902, p. 53.

the question warrants, and it is to be hoped that some little additional light has thus been thrown upon a dark subject, although it may be premised that the lines of distribution on the accompanying map are in great measure tentative, while delineating at least in part what may reasonably be supposed to be the geographical homes of the various forms. At least one conclusion of importance has been rendered obvious by the present investigation, and this is the conspecific relationship of this group, throughout both South and Central America, with the single exception of *Troglodytes peninsularis*, which seems to be a distinct species.

The collection of the U. S. National Museum, including that of the Biological Survey, has of course furnished the major part of the material for this review, but for very substantial reinforcements the writer is indebted to the authorities of the American Museum of Natural History, through Dr. J. A. Allen; to the Academy of Natural Sciences of Philadelphia, through Mr. Witmer Stone; and to Mr. Outram Bangs, of Boston, to whom further is due my privilege of describing the following new genus:

THRYORCHILUS,<sup>a</sup> new genus.

*Chars. gen.*—Similar to *Troglodytes*, but tail of ten feathers, and much abbreviated; feet proportionately much larger, reaching far beyond the end of tail; coloration suggesting that of *Henicorhina*.

*Type.*—*Troglodytes browni* Bangs.

*Range.*—Same as that of the type species.

THRYORCHILUS BROWNI (Bangs).

*Troglodytes browni* BANGS, Proc. New Eng. Zool. Club, III, 1902, p. 53.

*Type locality.*—Volcan de Chiriqui, Panama, Colombia.

*Geographical distribution.*—Volcan de Chiriqui, Panama, Colombia.

This remarkable wren, which Mr. Bangs has so recently made known to science, is, by its combination of characters, apparently well worthy of generic separation from *Troglodytes*. In superficial appearance it resembles rather the species of *Henicorhina*, though in reality not very closely allied. Its habits, according to Mr. Brown, are those of a marsh wren.<sup>b</sup>

TROGLODYTES Vieillot.

*Troglodytes* VIEILLOT, Hist. Nat. Ois. Am. Sept., II, 1807, p. 52.

*Type.*—*Troglodytes aedon* Vieillot.

*Range.*—South and Central America, the West Indies, and North America north to southern Canada.

<sup>a</sup> θρύον, juncus; ὄρχιλος, regulus.

<sup>b</sup> Proc. New Eng. Zool. Club, III, 1902, p. 54.

## TROGLODYTES SOLSTITIALIS SOLSTITIALIS Sclater.

*Troglodytes solstitialis* SCLATER, Proc. Zool. Soc. Lond., 1858, p. 550.

*Type locality*.—Vicinity of Riobamba, Ecuador.

*Geographical distribution*.—Ecuador and Colombia.

Decidedly paler throughout and with a somewhat longer bill than *Troglodytes rufociliatus*. Although reported from Peru, its place is probably taken there by the next form, though the distribution of the two has not yet been fully determined. Costa Rican records of *solstitialis* belong to *T. ochraceus*.

## TROGLODYTES SOLSTITIALIS MACROURUS Berlepsch and Stolzmann.

*Troglodytes solstitialis macrourus* BERLEPSCH and STOLZMANN, Proc. Zool. Soc. Lond., 1902, Pt. 2, p. 55.

*Type locality*.—Maraynioc, central Peru.

*Geographical distribution*.—Peru.

This recently described form appears to be rather close to *Troglodytes s. frater*, being in fact intermediate between the latter and true *solstitialis*. From *solstitialis* it differs by reason of a longer tail; lighter, less rufescent coloration on the upper surface; distinctly whitish superciliary stripe; paler cheeks, throat, breast, lining of wing, and sides of neck; together with more grayish flanks. In length of tail, as well as other measurements, it agrees with *frater*.

## TROGLODYTES SOLSTITIALIS FRATER Sharpe.

*Troglodytes solstitialis*, subsp. *α*, *frater* SHARPE, Cat. Birds Brit. Mus., VI, 1881, p. 261.

*Type locality*.—Bolivia.

*Geographical distribution*.—Bolivia.

This readily recognizable race differs from *solstitialis* in color much as does *T. s. macrourus*, but even more decidedly. The ochraceous of throat, breast, and sides of the neck is paler than in *macrourus*; the supercilium is pure white instead of being tinged with ochraceous; the abdomen is less purely white; and the upper parts less rufescent.

## TROGLODYTES AURICULARIS Cabanis.

*Troglodytes (Tropsila) auricularis* CABANIS, Journ. f. Orn., 1883, p. 105.

*Type locality*.—Mountains of Tucuman, Argentina.

*Geographical distribution*.—Province of Tucuman, Argentina.

We have not seen this species, but it is apparently closely allied to *Troglodytes solstitialis frater*, perhaps only subspecifically separable.

## TROGLODYTES OCHRACEUS Ridgway.

*Troglodytes* (?) *ochraceus* RIDGWAY, Proc. U. S. Nat. Mus., IV, 1882, p. 334.

*Type locality*.—Volcan de Irazú, Costa Rica.

*Geographical distribution*.—Costa Rica and Panama.

Although by some writers this bird has been considered indistinguishable from *Troglodytes solstitialis*, it is nevertheless very different. The upper parts are much paler; the entire lower surface more deeply and more continuously fulvescent; the flanks without any indication of bars; and the lower tail-coverts ochraceous, slightly barred with darker, instead of white with conspicuous blackish cross markings.

Mr. Goodfellow records<sup>a</sup> *Troglodytes ochraceus* from western Ecuador, but we have been unable to verify the identification.

## TROGLODYTES RUFOCILIATUS Sharpe.

*Troglodytes brunneicollis*, subsp. *α. rufociliatus* SHARPE, Cat. Bds. Brit. Mus., VI, 1881, p. 262.

*Type locality*.—Volcan de Fuego, Guatemala.

*Geographical distribution*.—Guatemala; and eastern Chiapas, Mexico.

Although originally considered but a subspecies of *Troglodytes brunneicollis*, this is apparently quite a distinct species, more nearly related, indeed, to *Troglodytes ochraceus* and *T. solstitialis*.

## TROGLODYTES BRUNNEICOLLIS BRUNNEICOLLIS Sclater.

*Troglodytes brunneicollis* SCLATER, Proc. Zool. Soc. Lond., 1858, p. 297.

*Type locality*.—La Parada, Oaxaca, Mexico.

*Geographical distribution*.—Southern Mexico.

Much larger than *Troglodytes rufociliatus*; paler and conspicuously less rufescent throughout.

## TROGLODYTES BRUNNEICOLLIS CAHOONI (Brewster).

*Troglodytes cahooni* BREWSTER, Auk, V, 1888, p. 94.

*Type locality*.—Near Oposura, Sonora, Mexico.

*Geographical distribution*.—Northwestern Mexico.

Similar to *Troglodytes b. brunneicollis*, but decidedly paler, particularly below, with the bars on flanks and abdomen less conspicuous.

## TROGLODYTES MONTICOLA Bangs.

*Troglodytes monticola* BANGS, Proc. Biol. Soc. Wash., XIII, 1899, p. 106.

*Type locality*.—Paramo de Chiriqua, Sierra de Santa Marta, Colombia.

*Geographical distribution*.—Santa Marta region, Colombia.

This recent discovery is quite similar to *Troglodytes brunneicollis*

<sup>a</sup>Ibis, 1901, p. 313.

*brunneicollis*, but differs in being larger, in having the anterior upper surface, sides of neck and head darker, more rufescent; furthermore, the flanks and sides are more heavily barred, and, together with the tail, rump, upper tail-coverts, and greater portion of the wings, are much more grayish or blackish.

#### TROGLODYTES AEDON AEDON Vieillot.

*Troglodytes aedon* VIEILLOT, Hist. Nat. Ois. Amér. Sept., II, 1807, p. 52, pl. cvii.

*Motacilla domestica* WILSON, Amer. Orn., I, 1808, p. 129, pl. viii, fig. 3.

*Troglodytes fulvus* NUTTALL, Man. Orn., I, 1832, p. 422.

*Troglodytes americana* AUDUBON, Ornith. Biog., II, 1834, p. 452, pl. CLXXIX.

*Troglodytes sylvestris* GAMBEL, Proc. Acad. Nat. Sci. Phila., 1846, p. 113 (new name for *Troglodytes americana* Audubon).

*Type locality*.—Northeastern North America.

*Geographical distribution*.—Eastern United States west to Indiana; southern part of eastern Canada; in winter also to Texas.

This species is apparently distinct from *intermedius* of Central America, though in most respects quite similar.

#### TROGLODYTES AEDON PARKMANII (Audubon).

*Troglodytes parkmanii* AUDUBON, Ornith. Biog., V, 1839, p. 310.

*Troglodytes aedon* var. *parkmanni* COUES, Key to N. Am. Birds, 1872, p. 87.

*Type locality*.—Columbia River.

*Geographical distribution*.—Pacific Coast region of North America, from southern British Columbia to Southern California; south in winter to southwestern Mexico.

This subspecies is very close to typical *aedon*, but is less reddish above, and usually somewhat paler.

#### TROGLODYTES AEDON AZTECUS Baird.

*Troglodytes aedon* var. *aztecus* BAIRD, Rev. Amer. Birds, I, 1864, p. 139.

*Troglodytes aedon marianae* SCOTT, Auk, II, 1885, p. 351.

*Type locality*.—Jalapa, Vera Cruz, Mexico.

*Geographical distribution*.—Western United States, except the Pacific Coast, east to Illinois; north to Manitoba, south in winter to southern Mexico.

This form resembles *Troglodytes aedon parkmanii*, but is decidedly paler and more grayish, both above and below.

#### TROGLODYTES PENINSULARIS Nelson.

*Troglodytes peninsularis*, NELSON, Proc. Biol. Soc. Wash., XIV, 1901, p. 174.

*Type locality*.—Progreso, Yucatan, Mexico.

*Geographical distribution*.—Northwestern Yucatan, Mexico.

This recent discovery of Mr. Nelson's is remarkably different from its nearest geographical relatives, being, in fact, intermediate between *T. aedon aztecus* and *Troglodytes musculus striatulus*. From the



former, which, by the way, it closely resembles, it differs in the pronounced isabelline suffusion of breast, sides, flanks, crissum, and sides of head and neck. It is rather lighter above than *striatulus*, and usually also below, but the chief and constant difference lies in the shade of the breast, sides, flanks, and crissum, which in *striatulus* is ochraceous.

**TROGLODYTES MUSCULUS MUSCULUS** Naumann.

*Troglodytes musculus* NAUMANN, Vögel Deutschl., III, 1823, p. 724 (table) (Lichtenstein manuscript.)

*Thryothorus equinoctialis* SWAINSON, Birds Brazil and Mexico, 1834-1841, pl. XIII.

*Type locality*.—Bahia, Brazil.

*Geographical distribution*.—Eastern Brazil, southwest to Paraguay.

This is a very dark form, the lower parts being deeply, sometimes almost uniformly suffused with rufous; the back is crossbarred with blackish, and the lower tail-coverts are spotted or irregularly barred with the same.

The bird described as *Thryothorus æquinoctialis* by Swainson<sup>a</sup> seems undoubtedly to be the same as that previously called *musculus* by Naumann.<sup>b</sup>

**TROGLODYTES MUSCULUS WIEDI** (Berlepsch).

*Thryothorus platensis* WIED, Beitr. Naturg. Bras., III, 1830, p. 742 (not *Sylvia platensis* LATHAM, que *Cistothorus platensis*).

*Thryothorus wiedi* BERLEPSCH, Journ. f. Orn., 1873, p. 231.

*Type locality*.—Blumenau, Santa Catharina, Brazil.

*Geographical distribution*.—Province of Santa Catharina, southeastern Brazil.

Although heretofore, by almost all writers, synonymized with *musculus*, this form is well worthy of recognition, since it is readily distinguishable by its rather lighter under surface and its decidedly paler, more grayish coloration above.

The name *platensis*, under which Wied described this wren, can not be used for it, as he simply identified his bird with the *Sylvia platensis* of Latham, which is a *Cistothorus*.

**TROGLODYTES MUSCULUS REX** (Berlepsch and Leverkühn).

*Troglodytes furvus rex* BERLEPSCH and LEVERKÜHN, Ornith., 1890, p. 6.

*Type locality*.—Samaipata, Bolivia.

*Geographical distribution*.—Southwestern Brazil (Matto Grosso) to central Bolivia.

This easily recognizable race is separable from *musculus* by its rather larger size; much paler coloration, particularly below; more buffy

<sup>a</sup> Birds Brazil and Mexico, 1834-1841, pl. XIII.

<sup>b</sup> Vög. Deutschl., III, 1823, p. 724 (table).

under surface; and sparsely spotted lower tail-coverts. There is also more contrast between the rump and the back. A fairly uniform series from Matto Grosso, Brazil, seems to indicate that the bird from this region should be referred to *rex*, though some of these specimens have obsolete dark barring on the back, and though we have seen no specimens from the type locality.

**TROGLODYTES MUSCULUS TECELLATUS** (Lafresnaye and d'Orbigny).

*Troglodytes tecellata* LAFRESNAYE and D'ORBIGNY, Mag. de Zool., 1837, cl. ii, p. 25.

*Troglodytes murinus* LESSON, Rev. Zool., 1844, p. 434.

*Troglodytes audax* TSCHUDI, Fauna Peruana, 1845-46, p. 185.

*Troglodytes musculus puna* BERLEPSCH and STOLZMANN, Proc. Zool. Soc. Lond., 1896, p. 329.

*Type locality*.—Tacna, Peru.

*Geographical distribution*.—Central and southern Peru to north-western Bolivia.

This race is similar to *Troglodytes musculus musculus*, differing in paler, somewhat more rufescent upper surface; lighter, more ochraceous under parts; and very slightly or not at all spotted crissum. It is thus close to *rex*, oddly enough somewhat intermediate between the latter and *musculus*, but is darker throughout, particularly on the flanks and under tail-coverts.

There is apparently little doubt that *Troglodytes murinus* Lesson, from "Peru;" *Troglodytes audax* Tschudi, from "Peru," and *Troglodytes musculus puna*, from Ingipirea, Peru, all refer to the same bird—the one called earlier *Troglodytes tecellata* by Lafresnaye and d'Orbigny—for all these descriptions indicate a moderately dark bird with blackish or dusky bars on the back, thus agreeing perfectly with specimens from central and southern Peru. An example from Mapiri, Bolivia, is in all essential respects identical.

**TROGLODYTES MUSCULUS HORNENSIS** (Lesson).

*Troglodytes hornensis* LESSON, L'Institut, 1834, p. 316.

*Troglodytes magellanicus* GOULD, Proc. Zool. Soc. Lond., 1836, p. 88.

*Troglodytes pallida* LAFRESNAYE and D'ORBIGNY, Mag. de Zool., 1837, cl. ii, p. 25.

*Thriothorus rosaceus* LESSON, Rev. Zool., 1840, p. 262.

*Troglodytes hortensis* GRAY, Gen. Birds, I, 1847, p. 158.

*Type locality*.—At sea, 20 leagues southeast of Cape Horn.<sup>6</sup>

*Geographical distribution*.—Argentine Republic and extreme southern Chile.

This southern race resembles *musculus*, but is paler, more grayish above; lighter and isabelline below instead of ochraceous; the crissum much less marked with blackish, sometimes immaculate. Birds from

<sup>6</sup>Cet oiseau a été pris en mer, le 7 janvier 1831, à 20 lieues dans le sud-est du cap Horn.—Lesson, L'Institut, 1834, p. 316. This reference was kindly verified by Mr. Outram Bangs.

the Straits of Magellan are identical with those from Buenos Aires, but Chilean specimens, though heretofore always considered identical, prove to be different from either.

All the names above quoted are undoubted synonyms of *hornensis*, as their descriptions and localities show, thus leaving the bird from central Chile without a subspecific designation. The *Troglodytes magellanicus* of Gould is from the Straits of Magellan; *Troglodytes pallida* Lafresnaye and d'Orbigny is from Patagonia; *Thriothorus rosaceus* Lesson from La Plata (and Chile); while *Troglodytes hortensis* Gray is a variant or emendation of Lesson's *hornensis*.

#### TROGLODYTES MUSCULUS ACOSMUS, new subspecies.

*Chars. subsp.*.—Similar to *Troglodytes musculus hornensis*, but paler above, the rump more rufous; lower surface with rather more of ochraceous tinge.

*Geographical distribution.*.—Central Chile.

*Description.*.—Type, No. 148694, U.S.N.M.; Chile; E. C. Reed. Upper parts broccoli brown, becoming slightly rufescent posteriorly, and shading into dull rufous on the upper tail-coverts, which, with the back, are very faintly barred with dusky; tail dull rufous, with many narrow bars of blackish; exposed surface of closed wings like the back, but, with the exception of the lesser coverts, rather more ochraceous, and narrowly barred with fuscous; lores and sides of head dull brownish white, mixed with brownish and buffy; lower surface pale buffy isabella color, whitish on throat and center of abdomen, darkest on sides, flanks, and crissum, which last has a few rather indistinct blackish spots. Length of wing, 56 mm.; tail, 49 mm.; exposed culmen, 12 mm.; tarsus, 16 mm.; middle toe, 11 mm.

All the characters which separate this form from *Troglodytes m. hornensis* are much more pronounced in young than in adult birds. From *musculus* and *tecellatus* it differs in its paler upper parts, its much lighter and more isabelline lower surface, as well as from the former in much less spotted crissum. It may be readily distinguished from *Troglodytes m. rex* by its strikingly isabelline lower surface.

#### TROGLODYTES MUSCULUS HYPÆDON (Sclater).

*Troglodytes hypædon* SCLATER, Proc. Zool. Soc. Lond., 1861, p. 128.

*Type locality.*.—Oaxaca, Mexico.

*Geographical distribution.*.—Southern Mexico (Oaxaca and Yucatan) to Guatemala.

Although commonly considered identical with *intermedius* of Costa Rica, the birds from southern Mexico exhibit easily recognizable differences which entitle them to a subspecific name, being darker and much more strongly rufescent, particularly on the lower surface.



Specimens from Yucatan are intermediate between *hypædon* and *intermedius*, but seem to be nearer the former. No wrens of this species from Salvador or from northern Honduras have been examined, so that I am unable to say whether it is *hypædon* or *intermedius* that occurs in those localities.

#### TROGLODYTES MUSCULUS INTERMEDIUS (Cabanis).

*Troglodytes intermedius* CABANIS, Journ. of Orn., 1860, p. 407.

*Type locality*.—San José, Costa Rica.

*Geographical distribution*.—Costa Rica to southern Honduras.

This is a dark form, approaching true *musculus*, from which it differs in having a shorter tail, more heavily barred crissum, and barred flanks.

#### TROGLODYTES MUSCULUS INQUIETUS (Baird).

*Troglodytes inquietus* BAIRD, Rev. Amer. Birds, I, 1864, p. 143 (Lawrence manuscript).

*Type locality*.—Panama Railroad, Isthmus of Panama, Colombia.

*Geographical distribution*.—State of Panama, Colombia.

Though seldom recognized as a distinct form, this race has been placed sometimes under *intermedius*, sometimes under *striatulus*, a circumstance which of itself lays strong emphasis upon its intermediate character; yet almost without exception *Troglodytes m. intermedius* and *T. m. striatulus* have been treated as distinct species. While undoubtedly close to the latter, differing chiefly in the more rufescent and usually somewhat darker upper surface, *inquietus*, under the circumstances, is probably best kept separate. From *intermedius* it may be distinguished by its more grayish upper parts, more whitish median and more grayish lateral lower surface, more plainly barred flanks and lower back. Though superficially resembling the more grayish specimens of *clarus*, it has a much more heavily barred crissum, barred and more rufescent flanks, with the dark bars of the tail usually more broken.

#### TROGLODYTES MUSCULUS STRIATULUS (Lafresnaye).

*Thriothorus striatulus* LAFRESNAYE, Rev. Zool., 1845, p. 338.

*Troglodytes columbe* STONE, Proc. Acad. Nat. Sci. Phila., 1899, p. 308.

*Type locality*.—Bogota, Colombia.

*Geographical distribution*.—Colombia, excepting the Santa Marta region and the State of Panama.

This form is easily distinguishable from *Troglodytes m. intermedius* by its much less rufescent upper parts and usually more whitish under surface. Examination of a good series of *striatulus* makes evident the existence of a wide range of variation that seems to be quite certainly but individual. The color varies from warm yellowish brown or

rufescent brown to brownish gray above, and on the lower surface from almost uniform deep, dull buff to pale buff which is even almost white medially. The bird described by Mr. Stone as *Troglodytes columbæ*<sup>a</sup> seems to be without much doubt nothing more than a somewhat extreme or peculiar example of this excessive individual variation, for all of its characters can be very closely matched in the series of *striatulus* available in the present connection. Notwithstanding the contrary intimations of Mr. Stone,<sup>b</sup> *striatulus* quite frequently has the lower parts almost uniform ochraceous, a character he claims as distinctive of his *columbæ*.

**TROGLODYTES MUSCULUS TOBAGENSIS** (Lawrence).

*Troglodytes tobagensis* LAWRENCE, Auk, V, 1888, p. 404.

*Type locality*.—Tobago, West Indies.

*Geographical distribution*.—Island of Tobago, West Indies.

This island race is similar to *clarus*, with which it has often been synonymized, but from which it differs in its conspicuously larger size, particularly the wing and bill, and in usually somewhat paler flanks, crissum, and upper parts. Measurements of two specimens are as follows:

Sex.	Wing.	Tail.	Exposed culmen.	Tarsus.	Middle toe.
Unknown <sup>a</sup> .....	57	40	16	18	14
Female.....	55	40	15	19	13

<sup>a</sup> Type.

**TROGLODYTES MUSCULUS CLARUS** Berlepsch and Hartert.

? *Motacilla furca* GMELIN, Syst. Nat., I, 1788, p. 994.

*Troglodytes rufulus* AUCT., not CABANIS.

*Troglodytes musculus clarus* BERLEPSCH and HARTERT, Novit. Zool., IX, 1902, p. 8.

*Type locality*.—Altigracia, Orinoco River, Venezuela.

*Geographical distribution*.—Venezuela, Guiana, and the valley of the Lower Amazon.

This subspecies differs from *Troglodytes musculus musculus* in being rather paler above and very much so below, the median portion of the lower surface frequently white or whitish. From *striatulus* it may be separated by its decidedly more rufescent upper parts, flanks, and crissum.

Not improbably there are two races here united under the name *clarus*, as birds from the Amazon seem to be less rufescent than those from Venezuela, though this difference may be due to the paucity of our material, a conclusion rendered more probable by the demonstrated existence of a great amount of individual variation in specimens

<sup>a</sup> Proc. Acad. Nat. Sci. Phila., 1899, p. 308.

<sup>b</sup> Idem., pp. 308, 309.

from other localities, some individuals being grayish above, others quite rufescent, and from normally almost pure white medially below to quite uniform ochraceous. Birds from the island of Trinidad are intermediate between *clarus* and *tobagensis*, but so much nearer the former that there is no doubt of their proper reference to that form.

TROGLODYTES MUSCULUS ATOPUS, new subspecies.

*Chars. subsp.*—Similar to *Troglodytes musculus clarus*, but smaller, the entire ventral surface more deeply ochraceous, particularly on the sides and flanks.

*Geographical distribution.*—Santa Marta region, Colombia.

*Description.*—Type, adult male, No. 70473, American Museum of Natural History; Cacagnalito, Santa Marta, Colombia, May 16, 1898; Mrs. H. H. Smith. Upper surface dull brown, becoming chestnut on the rump and upper tail-coverts, these both and the back with obsolete narrow blackish bars; tail dull chestnut with numerous blackish bars; exposed surface of closed wings similar to the back, and with fuscous crossbars; an ill-defined buff superciliary stripe; sides of head buff mixed with brown; throat white, with a buffy tinge; breast dull ochraceous buff; sides, flanks, and crissum dull rufous, the last with irregular bars of blackish; center of abdomen dull buff; under wing-coverts dull buffy white. Length of wing, 51 mm.; tail, 39 mm.; exposed culmen, 14 mm.; tarsus, 19 mm.; middle toe, 13 mm.

Although as with many of the other forms there is in this one much individual variation, the majority of specimens are quite different from *clarus*, to which apparently *atopus* is closely allied. From *tecellatus*, which it even more closely approaches, it may be distinguished by its usually heavily marked crissum and somewhat lighter upper surface.

TROGLODYTES MUSCULUS ALBICANS (Berlepsch and Taczanowski).

*Troglodytes ferrus albicans* BERLEPSCH and TACZANOWSKI, Proc. Zool. Soc. Lond., 1883, p. 540.

*Type locality.*—Guayaquil, Ecuador.

*Geographical distribution.*—Ecuador, and possibly northern Peru.

A pale form, which comes very close to *Troglodytes musculus clarus*, but which differs in having plain lower tail-coverts. A specimen in the collection of the Philadelphia Academy of Natural Sciences, marked "Peru," seems to be intermediate between *T. m. albicans* and *T. m. rex*, though nearer the former.

TROGLODYTES MUSCULUS ENOCHRUS, new subspecies.

*Chars. subsp.*—Similar to *Troglodytes musculus teccellatus*, but paler above, the back, rump, and upper tail-coverts not barred with dusky or blackish; very decidedly lighter below, the center of throat and of abdomen whitish.

*Geographical distribution.*—Coast region of Peru, in the neighborhood of Lima.

*Description.*—Type, adult female, No. 39816, U.S.N.M.; Lima, Peru; Walter S. Church. Upper parts light wood brown, rather tinged with ochraceous, the rump and upper tail-coverts deep, dull tawny; tail like the rump, but darker, crossed by numerous narrow bars of dark brown; wing-quills fuscous, broadly barred on exterior webs with ochraceous, which on the tertials extends to both webs; wing-coverts like the back, the greater and median series with bars of dusky; sides of head, including the lores and a narrow, inconspicuous superciliary stripe, pale buff, the ear-coverts with brownish admixture; sides of neck wood brown like the back; entire lower surface buff, though whitish on throat and center of abdomen, and deepening to ochraceous on sides, flanks, and crissum, the last unmarked with darker; lining of wing buffy white. Length of wing, 50.5 mm.; tail, 38 mm.; exposed culmen, 13 mm.; tarsus, 19.5 mm.; middle toe, 11 mm.

This is a very pale form, thus resembling *albicans*, but distinguishable by reason of the brighter ochraceous of sides, flanks, and crissum, and the deeper buffy suffusion of the entire lower surface. It differs from *T. m. ror* in being lighter below and above, particularly on the rump, and in having no spots at all on the crissum. A specimen from Callao, Peru, is identical with the type.

#### TROGLODYTES TANNERI Townsend.

*Troglodytes tanneri* TOWNSEND, Proc. U. S. Nat. Mus., XIII, 1890, p. 133.

*Type locality.*—Clarion Island, Revillagigedo Islands, Mexico.

*Geographical distribution.*—Clarion Island, Revillagigedo Islands, Mexico.

Similar to *Troglodytes beani*, but the lower back and rump are very little or not at all rufescent, and sometimes obscurely barred with dusky; the wings and tail are more grayish brown; the entire lower surface is dull cream color, slightly brownish on the flanks.

This species is a perfectly typical *Troglodytes*, while strangely enough the wren that inhabits the neighboring island of Socorro is apparently a *Thryomanes*.<sup>a</sup>

#### TROGLODYTES BEANI Ridgway.

*Troglodytes beani* RIDGWAY, Proc. Biol. Soc. Wash., III, 1885, p. 21.

*Type locality.*—Cozumel Island, Yucatan, Mexico.

*Geographical distribution.*—Cozumel Island, Yucatan, Mexico.

A very distinct species, apparently confined to the island of Cozumel.

<sup>a</sup> *Troglodytes insularis* Lawrence, Ann. N. Y. Lyc. Nat. Hist., X, 1871, p. 3; see also Oberholser, Proc. U. S. Nat. Mus., XXI, 1898, pp. 446-447.



It resembles *Troglodytes musculus tobagensis*, but has a somewhat shorter wing and longer tail; is without indication of dusky barring on the back; is rather darker above, and more purely white below, with the flanks and crissum less rufescent; the barring on the tail is less distinct.

TROGLODYTES MESOLEUCUS (Sclater).

*Thryothorus mesoleucus* SCLATER, Proc. Zool. Soc. Lond., 1876, p. 14.

*Troglodytes mesoleucus* OBERHOLSER, Proc. U. S. Nat. Mus., XXI, 1898, p. 421.

*Type locality.*—Santa Lucia, West Indies.

*Geographical distribution.*—Santa Lucia, West Indies.

Similar to *Troglodytes m. tobagensis*, but wing and tarsus shorter; the entire upper surface, including wings and tail, and particularly the back and rump, much more rufescent, the back without dusky bars; under parts rather more purely white.

TROGLODYTES MUSICUS (Lawrence).

*Thryothorus musicus* LAWRENCE, Ann. N. Y. Acad. Sci., I, 1878, p. 148.

*Troglodytes musicus* OBERHOLSER, Proc. U. S. Nat. Mus., XXI, 1898, p. 421.

*Type locality.*—Saint Vincent, West Indies.

*Geographical distribution.*—Saint Vincent, West Indies.

A very distinct species, allied to *mesoleucus*, but larger; much more ferruginous on the entire upper surface, sides, flanks, and crissum, the back with obsolete narrow dusky bars.

TROGLODYTES MARTINICENSIS (Sclater).

*Thryothorus martinicensis* SCLATER, Proc. Zool. Soc. Lond., 1866, p. 321.

*Troglodytes martinicensis* OBERHOLSER, Proc. U. S. Nat. Mus., XXI, 1898, p. 421.

*Type locality.*—Martinique, West Indies.

*Geographical distribution.*—Martinique, West Indies.

Although, like most of the other West Indian wrens, possessing some superficial resemblance to *Thryothorus*, this bird is undoubtedly a *Troglodytes*. It differs from *tanneri* in its conspicuously shorter tail, darker upper parts, and darker, very decidedly rufescent lower surface, with a heavily barred crissum.

TROGLODYTES GUADELOUPENSIS (Cory).

*Thryothorus guadeloupeensis* CORY, Auk., III, 1886, p. 381.

*Troglodytes guadeloupeensis* OBERHOLSER, Proc. U. S. Nat. Mus., XXI, 1898, p. 421.

*Type locality.*—Grand Terre, Guadeloupe, West Indies.

*Geographical distribution.*—Guadeloupe, West Indies.

This species resembles *T. martinicensis*, from Martinique, but is appreciably smaller and more rufescent both above and below.

## TROGLODYTES GRENADENSIS (Lawrence).

*Thryothorus grenadensis* LAWRENCE, ANN. N. Y. Acad. Sci., I, 1878, p. 161.

*Troglodytes grenadensis* OBERHOLSER, Proc. U. S. Nat. Mus., XXI, 1898, p. 421.

*Type locality*.—Grand Etang, Grenada, West Indies.

*Geographical distribution*.—Grenada, West Indies.

Although similar to *Troglodytes gaudeloupensis*, this species is rather larger, decidedly lighter, more rufescent on all the upper parts, the back without evident blackish bars; somewhat paler below, and more fulvescent on the flanks and crissum, both of which are unbarred with blackish.

## TROGLODYTES RUFESCENS (Lawrence).

*Thryothorus rufescens* LAWRENCE, ANN. N. Y. Acad. Sci., I, 1877, p. 47.

*Troglodytes rufescens* OBERHOLSER, Proc. U. S. Nat. Mus., XXI, 1898, p. 421.

*Type locality*.—Dominica, West Indies.

*Geographical distribution*.—Dominica, West Indies.

Similar to *T. grenadensis*, but very much darker throughout, the under surface almost uniform rufous chestnut, not whitish even on the chin and upper throat, the crissum barred with black.

## TROGLODYTES RUFULUS Cabanis.

*Troglodytes rufulus*, CABANIS, in Schomburgk's Reis. Guian., III, 1848, p. 672.

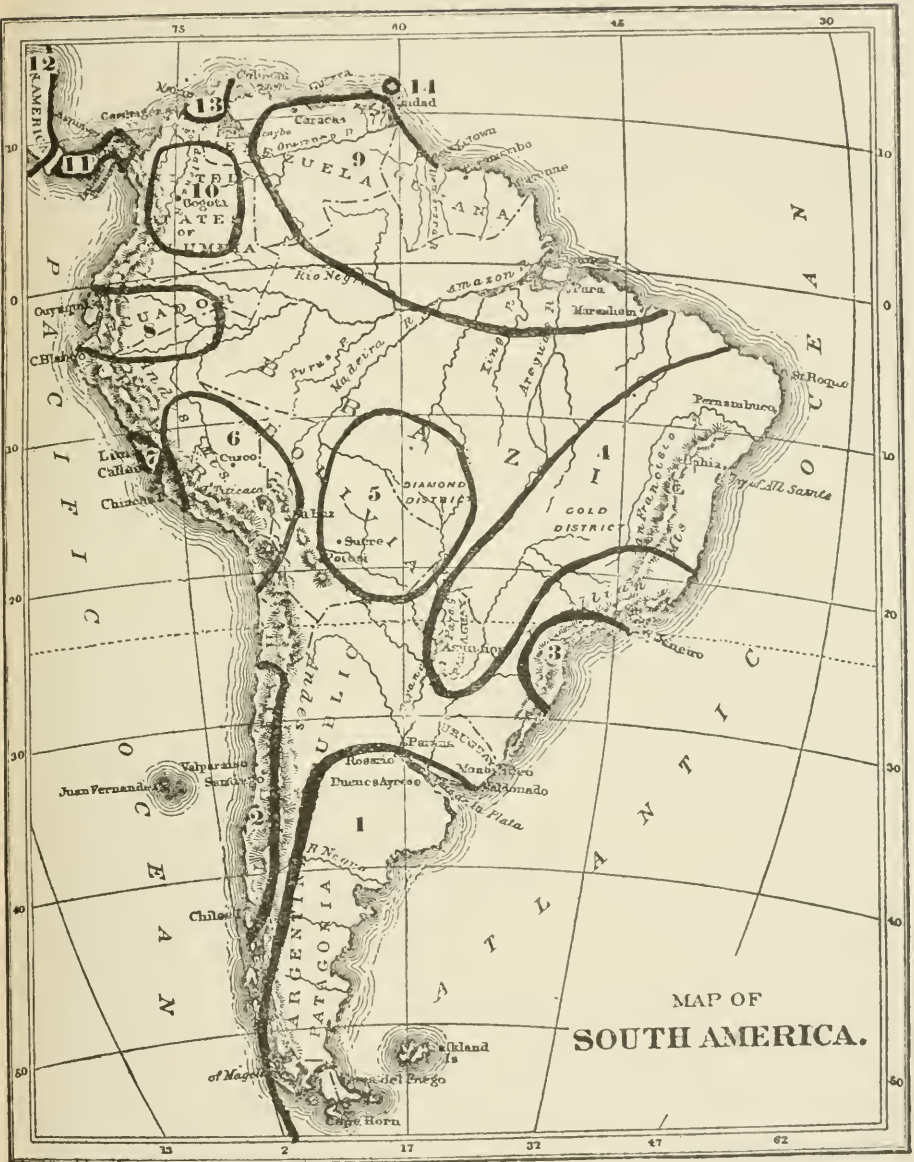
*Type locality*.—Roraima Mountains, British Guiana.

*Geographical distribution*.—Roraima Mountains, British Guiana.

This very remarkable species has nothing whatever to do with *Troglodytes musculus*, but is apparently most closely allied to *T. rufescens*. From this it differs in the uniform dark chestnut color of the upper surface; the very obsolete barring of wings and tail; unbarred crissum; darker sides of head and neck; and less fulvescent lower parts, the sides and flanks being darker and duller, the center of throat and breast paler, more grayish, the latter even whitish.

In view of this bird's rarity the following description is added as of interest:

Adult male, No. 148695, U.S.N.M.; Roraima, British Guiana, 6,000 feet, September 6, 1883; H. Whately.—Upper surface, including tail and exposed surface of closed wings, uniform chestnut, the wings and tail faintly barred with darker; superciliary stripe ochraceous, much mixed with chestnut anteriorly; sides of neck and auriculars like the back, the latter somewhat mingled with ochraceous; cheeks pale chestnut mixed with darker; center of throat dull grayish with a heavy wash of dull rufous; sides, flanks, abdomen, and crissum dull chestnut, somewhat lighter than that of the back; middle of breast dull pale grayish, tinged with dull rufous. Length of wing, 53 mm.; tail, 40 mm.; exposed culmen, 13.5 mm.; tarsus, 23 mm.; middle toe, 15 mm.



DISTRIBUTION OF THE SUBSPECIES OF *TROGLODYTES MUSCULUS*.

- |                       |                          |
|-----------------------|--------------------------|
| 1. <i>hornensis</i> . | 8. <i>albicans</i> .     |
| 2. <i>acosmus</i> .   | 9. <i>clarus</i> .       |
| 3. <i>wiedi</i> .     | 10. <i>striatulus</i> .  |
| 4. <i>musculus</i> .  | 11. <i>inquietus</i> .   |
| 5. <i>rex</i> .       | 12. <i>intermedius</i> . |
| 6. <i>tecehatus</i> . | 13. <i>atopus</i> .      |
| 7. <i>enochrus</i> .  | 11. <i>tobagensis</i> .  |

*Troglodytes m. hypædon* is not shown.

