THE RIO GRANDE SEEDEATER, ITS STATUS AND TECHNICAL HISTORY.

In 1851, Mr. George N. Lawrence (Ann. N. Y. Lyc. Nat. Hist., V, 1852, p. 123) described what was evidently a male specimen of the Rio Grande Seedeater, "procured in [Brownsville] Texas by Capt. J. P. McCown, U. S. A.," but instead of giving it a new name referred it to Spermophila albigularis Spix, from the province of Bahia, Brazil. Four years later Dr. P. L. Sclater (P. Z. S., 1856, p. 302) provisionally referred Mr. Lawrence's S. albigularis to S. morelleti Bonap., based on specimens from Guatemala. This determination appears to have passed unchallenged till 1888, when Dr. R. B. Sharpe (Cat. Bds. Brit. Mus., XII, 1888, p. 124) identified the Rio Grande bird as S. parva Lawr., and gave the range of S. morelleti as from "Yucatan to Guatemala, Honduras, and Costa Rica," referring morelleti of authors, from Mexico and Texas, to Lawrence's parva.

In the meantime Mr. Lawrence had not felt convinced that Sclater's decision was correct, and in 1889 (Auk, VI, Jan. 1889, pp. 53, 54) summarized the history of the case, pointing out the differences separating the Rio Grande bird from both S. parva and S. morelleti, and naming the Rio Grande bird in honor of Dr. Sharpe, "as he is," said Mr. Lawrence (l. c., p. 54) "the only one who has recognized it as being distinct from S. morelleti Bp." Mr. Lawrence called it Sporophila morelleti sharpei, and under this designation the Rio Grande bird was entered in the second edition of the A. O. U. Check-List. It was correctly recognized under this name until its status was again challenged by Mr. Ridgway, who, in his 'Birds of North and Middle America' (Part I, 1901, p. 575), considered it indistinguishable from Sporophila morelleti. In commenting on the case (l. c., footnote) he says:

¹ This interesting specimen, a male, is No. 41296, in the collection of the American Museum of Natural History, from the Lawrence Collection. On the original label is inscribed in Mr. Lawrence's handwriting, "Spermophila, believed to be a new species." Mr. Lawrence's label, written some time later, has "Spermophila moreleti Pucheran, juv. ♂, Texas," and, on the reverse side, "Brownsville, J. P. McCown."

"I find myself unable to subdivide this species satisfactorily. It is true specimens representing the fully adult male plumage described above are wanting in the series from the State of Tamaulipas and the adjacent parts of Texas: but males from that district agree exactly in plumage with immature males from more southern localities, and I believe that fully adult males have simply not yet been taken in the region designated."

On the basis of this "belief" S. m. sharpei was relegated to synonymy. The statement that "specimens representing the fully adult male plumage" of S. morelleti are wanting from the Rio Grande region is quite true, as is also the statement that males from this district "agree exactly [or nearly] in plumage with immature males from more southern localities." Although the "belief" based on these facts proves to have been unwarranted, the A. O. U. Committee, on the basis of the very inadequate material in the U. S. National Museum, gave this opinion its endorsement, and in the Twelfth Check-List Supplement (Auk, XX, July, 1903, p. 353) eliminated the subspecies sharpei.

Having had occasion recently to examine certain other Texas birds, the case of the Rio Grande Sporophila came also under notice, with the result that the fine series of these birds in the American Museum of Natural History (formerly in the Sennett Collection) furnishes indubitable evidence that the adult males of the Texas form do not acquire the broad black pectoral collar and the black back of typical morelleti, and that in consequence of their resemblance to immature males of true morelleti have been considered as also immature. Many scores of Texas specimens of Sporophila have found their way into collections, and it is surprising that the absence of males with a glossy black back and a broad black pectoral collar has not suggested the real solution of the case.

The American Museum of Natural History contains a series of 62 specimens of the *Sporophila morelleti* group. Of these 26—16 males and 10 females — are from Texas (8 from Brownsville, 17 from Lomita Ranch, 1 from Rio Grande City); 11 (10 males, 1 female) from Nuevo Leon (Montemorelos and Monterey); 6 males and 2 females from Tampico, Tamaulipas; 18 (14 males, 4 females) from southern Vera Cruz, Honduras, Yucatan, Guatemala, and Costa Rica. They are separable into three series: (1) Texas and

Nuevo Leon, (2) Tampico, (3) southern Vera Cruz and south to Costa Rica. The Texas series of 16 males presents three phases of plumage — 3 fully adult birds, 10 birds of the second year, and 3 yearling birds; of the 10 females all are adult except 2. Of the 10 breeding males and 1 female from Nuevo Leon, 9 of the males are in immature plumage, probably of the second year. Of the Tampico birds, 6 males and 2 females, 3 of the males and the 2 females are in mature plumage, the other 3 males in the transition plumage of the second year, although evidently breeding birds. These northern birds (37 are from the Rio Grande Valley), of whatever age or sex, are very different from birds of corresponding age and sex from southern Vera Cruz, Yucatan, Honduras, and more southern localities, the northern and southern forms being distinguishable as follows:

S. morelleti morelleti.

or ad. Sides and top of head, nape, back, wings and tail intense black; chin and throat, sides of neck, rump, and whole lower surface white, except a broad pectoral band of black; also a white speculum at base of primaries and tips of lesser and greater coverts white.

♂ juv. (second year). The areas black in the adult are irregularly mottled with deep black and olivaceous brown; below yellowish buff, with a patchy irregular pectoral band of black; rump olivaceous brown; wings and tail deep black.

S. morelleti sharpei.

or ad. Sides and top of head and nape dull brownish black; back brownish gray, more or less mottled with black, but generally the black of the dorsal surface is mainly concealed by the gray of the surface; wings and tail dull black, with white bars and speculum as in morelleti; chin, throat, sides of neck, rump, and whole ventral surface dull white, the breast mottled with black, mostly concealed, in place of the broad pectoral band in morelleti.

or juv. (second year). Head grayish brown mottled with black, or dull black with the feathers broadly edged gray or brownish gray; back gray brown, with or without more or less concealed or partly concealed blackish feathers; throat, sides of neck, and whole lower parts dull buffy white, with or without concealed mottling of black on the breast; wings and tail brownish black.

- or juv. (first winter). Upper parts ochraceous brown, grayer on the head, more ochraceous on the lower back and rump, with usually a few specks of black on the head and pectoral region; below deep ochraceous; wings and tail ochraceous brown externally, the inner and basal portions of the quills brownish black; in other words, nearly like the female.
- parts grayish brown, head clearer gray, lower back and rump dull buffy brown, with flecks of black on the head, mostly concealed or wanting; below pale buff; quills blackish, externally edged with grayish brown; in other words nearly like the female but grayer, with a tendency to concealed or partially concealed black on the head.

♂ juv. (first winter). Upper-

- ♀ ad. Above yellowish olive tinged with brown, below dull clay-color varying (in different birds) to raw sienna; distinct whitish wing bars.
- ♀ ad. Above uniform dull grayish olive; below pale buff; distinct whitish wing bars.

In other words, without regard to the less amount of black and its much duller tone in the northern birds, the general coloration at all stages and in both sexes is very different in the two forms. It is as strikingly pronounced in the females as in the males, the grayish olivaceous of the upperparts, and the pale buff of the lower parts, in the northern form (Texas and Nuevo Leon birds) being in strong contrast with the deep brownish yellow olive of the upper parts and the clay-color of the lower parts in the southern form (Yucatan and Honduras birds). The young males and middle-aged males of the two forms differ in the same way, in general coloration, as the females; in the middle-aged and old males there is the same marked difference in the amount and tone of the black.

The Tampico series is somewhat intermediate between Rio Grande and Honduras birds, but much nearer, as would be expected, to the northern form. They have the same grayish brown dorsal plumage, and the same dull whitish or buffy underparts, but seem to tend in adult males to the development of a larger amount of black on the back and to a deeper tone on the ventral surface in females, and young birds.

Sharpe seems to have properly separated the two forms geographically but referred the northern form to the wrong species. Lawrence in naming this form took for his male type specimen (Am. Mus. No. 84610), an adult male collected July 21, 1880, at Lomita Ranch, Hidalgo Co., Texas. It has a few black feathers in the pectoral region and many in the back, the specimen being in moult from the immature to the mature plumage. The female type (Am. Mus. No. 84611) is an adult female in fresh spring plumage, taken at Lomita, March 19, 1880.

THE EASTERN FORMS OF GEOTHLYPIS TRICHAS.

BY FRANK M. CHAPMAN.

SEVENTEEN years ago, under the above-given title,¹ I described a Florida form of *Geothlypis trichas* as *Geothlypis trichas ignota*, which was later shown by W. Palmer² to extend through the coast region westward to Texas (Jackson County, Jan. 6) and northward to the Dismal Swamp in Virginia.

At the same time Mr. Palmer restricted the name *trichas* of Linnæus to the Yellow-throat breeding from southern New England southward through the Piedmont region into Georgia, while to the Yellow-throat breeding from southern New England northward he applied the name *brachidactyla* of Swainson.

This ruling was accepted as correct by the A. O. U. Committee on Classification and Nomenclature, and we have had, therefore, east of the Alleghanies, three forms of Yellow-throat, a southern, a middle, and a northern. Many ornithologists, however, regarded this view of the nomenclatural status of these birds as far from satisfactory. That there was a Southern Yellow-throat and a Northern Yellow-throat was beyond doubt, but that an intervening form was also deserving of recognition by name has been frequently questioned. This opinion is voiced by Mr. Brewster³ who says: "The characters by which the two forms are said to be separable seem to me trivial and I fear they are also inconstant..."

¹ Auk, VII, 1890, 11.

² Ibid., XVII, 1900, 223.

³ Birds of the Cambridge Region, 1906, p. 354.