

but a few times (November 21 and 27, 1949, and March 4, 1950), I heard a rhythmical four-syllabled "chee, chee, chee, chee," call which was repeated again and again.

This species seems fond of bathing, and I have observed two different types of this behavior. During a heavy rainstorm, a warbler will frequently perch in an exposed place and, with spread tail and trembling wings, will let the rain go all over its body. This behavior is alternated with periods of preening. The Yellow Warbler also takes what I call "rubbing baths," a habit characteristic of several kinds of hummingbirds. For instance, after a heavy shower on November 8, 1948, I saw a Yellow Warbler fluttering over the drenched leaf of a frangipani (*Plumiera rubra*) and rubbing the ruffed-out feathers of its belly over the leaf.—F. HAVERSCHMIDT, *P. O. Box 644, Paramaribo, Surinam.*

Recent Increase of the English Sparrow (*Passer domesticus*) in State of Veracruz, Mexico.—In the course of almost daily field work in the central and southern parts of Veracruz, carried on over a period of more than five months in 1937 and 1939, I was unable to find a single English Sparrow. In fact, the first published record for the state seems to be that of Lowery and Dalquest (Univ. Kans. Publ., Mus. Nat. Hist., 3: 631, 1951), who write: "abundant about human habitations in central Veracruz."

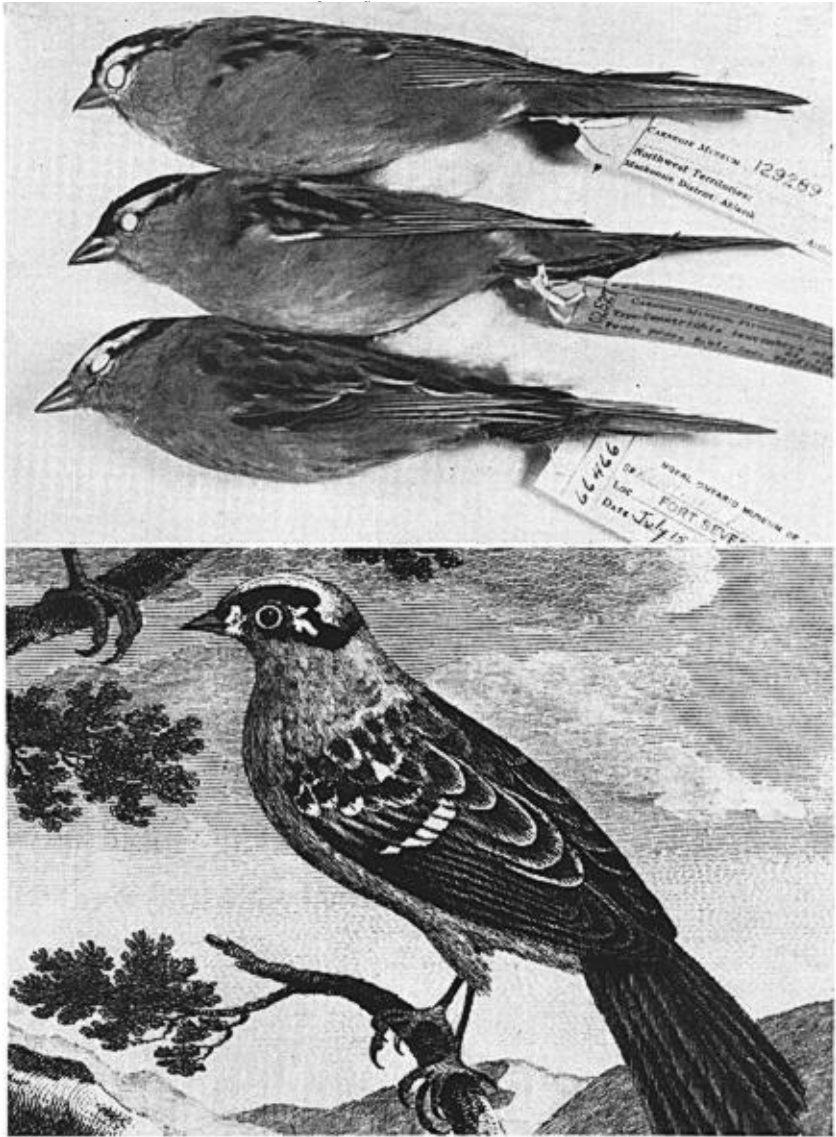
Returning to Veracruz in the summer of 1952, I was, therefore, not surprised to find these birds now common in almost every town visited in the central part of the state, including many of the same places where I had seen none thirteen years before. They are now about equally plentiful from sea-level at the city of Veracruz up to an elevation of 8000 feet at Las Vigas, and south at least as far as Tlacotalpam, where none was seen by Wetmore and Carriker in 1939 and 1940 (Wetmore, Proc. U. S. Natl. Mus., 93, 1943). Moreover, they are now well distributed in most or all of the settled areas throughout northern Veracruz, from Pueblo Viejo and Empalmé Tamós, near Tampico, south through Poza Rica, Papantla, and Gutiérrez Zamora to Martínez de la Torre and Tlapacoyan.

This recent dispersal may be due in part to the new highways linking northern and central Veracruz with Tampico, where they are numerous, for on two occasions I noted a few English Sparrow stowaways on trucks passing through unpopulated districts on their way from Tampico to Poza Rica. One isolated pair was seen at a culvert in a pine forest on the highway about 15 kilometers north of Perote, the nearest town of any size.

That this sparrow is now also invading other areas in Mexico has recently been recorded by M. A. del Toro (Condor, 52: 166, 1950), reporting the sudden appearance of small numbers at Tuxtla Gutiérrez, Chiapas.—FREDERICK W. LOETSCHER, JR., *Centre College, Danville, Kentucky.*

Further Taxonomic Notes on the White-crowned Sparrow.—Let me say at the outset that I favor every effort being made to avoid disturbing changes in names of familiar species. I was most reluctant to propose such a change in the genus *Zonotrichia*, as is shown by my written notes made some years ago, before I saw Hope's Fort Severn specimens. At that time, I suggested that the only way I could see to save *leucophrys* of Forster for the White-crowned Sparrow was to restrict the type-locality to Fort Albany. Since then the A.O.U. Committee has designated Fort Severn instead, and a series of specimens from that place is now available.

But now it is argued that, since birds of both the white- and black-browed types occur at Fort Severn (although apparently not in equal numbers), Forster's name *leucophrys* could apply to either one. Since the name is therefore indeterminable on



Todd: Further Taxonomic Notes on the White-crowned Sparrow. (Above from top to bottom) *Zonotrichia leucophrys leucophrys* from Aklavik, Mackenzie (Carnegie Museum No. 129289), adult male, May 12, 1942; *Zonotrichia leucophrys nigrilora* Todd, type from Point Natashquan, Quebec (Carnegie Museum No. 102527), adult male, June 1, 1928; *Zonotrichia leucophrys leucophrys* topotype, from Fort Severn, Manitoba (Royal Ontario Museum of Zoology No. 66466), adult male, July 15, 1940. (Below) White-crowned Bunting—*Emberiza leucophrys* Forster. Figure from Pennant's Arctic Zoology, 1785, pl. xvi. Slightly enlarged from original. All from photographs by Arthur C. Twomey (lower figure from negative supplied by Museum of Comparative Zoology).

the basis of the original description, its application must be determined from the "first reviser." On this principle Pennant was unwittingly the "first reviser," although he merely copied Forster's account and added a few words of his own, with a figure. I cannot agree that this figure clearly represents the black-browed eastern bird. To my eye it looks more like the white-browed form, and if, as is possible, it was based on Forster's type-specimens, it tends to strengthen the conclusion I have already reached.

But more is involved in this case than the standing of the proposed new name. It opens up the whole question of the status and relationship of the several forms of this group. Certain authors have commented on these matters, notably Swenk (Wilson Bull., 42:81, 1930). This writer was inclined to believe that *leucophrys* and *gambeli* are distinct although closely allied species, and not merely subspecies, as they are generally considered. Else how can both forms be found breeding at the same place? (Swenk's paper, be it noted, appeared before much collecting had been done on the west coast of Hudson Bay.) The late A. J. van Rossem, in transmitting a note on the type of Bonaparte's *Spizella maxima*, expressed himself to the same effect. If two species are involved, their respective breeding ranges must overlap throughout a considerable area. But wherever we find both forms together, one or the other is always in the ascendancy, and apparent intermediates between the two exist.

After a further intensive study of our series (346 specimens) I suggest that the white-browed and black-browed types may be only color-phases or mutants of one single species. Where either type is localized it may be considered as a subspecies, but where the two occur together regularly, as on the west coast of Hudson Bay and west into Alberta (*vide* Riley), they had better be regarded, taxonomically, as constituting only one form. Certainly the black-browed and the white-browed individuals from Fort Severn and Churchill are indistinguishable from each other by any other mark; indeed they appear to constitute an otherwise homogeneous population, which, however, is readily separable from that of the Labrador Peninsula. As yet we do not actually know that these respective types breed together (*cf.* Taverner and Sutton, Ann. Carnegie Museum, 23: 78, 1934), but the inference is strong that they do. I am unable to separate satisfactorily the west coast (Hudson Bay) white-browed birds from a series of breeding specimens of *gambeli* from the Mackenzie Delta. Consequently, I still think that *gambeli* of Nuttall (based on a transient) must be regarded as a synonym of *leucophrys* Forster (west coast of Hudson Bay).

Be it noted that Hudson and James bays bisect the otherwise transcontinental breeding range of *Zonotrichia leucophrys* into two portions. The population of the Labrador Peninsula is completely cut off from that of western Canada. (The Tree Sparrow [*Spizella arborea*] has a similarly discontinuous summer range.) It comes as no surprise, therefore, to find that this geographical segregation corresponds to certain racial distinctions. Taken in series, seasonally comparable specimens from the Labrador Peninsula are paler, less grayish, above than birds from Fort Severn and Churchill (taken collectively, without regard to loral coloration); the brown streaking is stronger, better defined; the underparts are obviously paler, less suffused with grayish; and the bill (in the skin) is more deeply colored (this probably accentuated in life). The differences are as well marked as in the case of the Warner Mountain bird (*oriantha* Oberholser). If the one form is worthy of recognition, so is the other. Independently of the identity of Forster's *leucophrys*, the bird of the Labrador Peninsula is separable on its intrinsic characters. I find that in our series of specimens from the east coast of Hudson and James bays there are several white-browed in-

dividuals (from the offshore islands as well as the mainland), but according to my views these have no more significance than do the black-browed examples from the west coast of the Bay. Taverner and Sutton record a white-browed bird from the north shore of the Gulf of St. Lawrence. Moreover, fall- and winter-taken adult birds show the same characters. These considerations will account for the sporadic occurrences of white-browed birds which have been reported from the East, and also (so I believe) for the records in migration of such birds in Michigan (Van Tyne, *Wilson Bull.*, 42: 95, 1930).—W. E. CLYDE TODD, *Carnegie Museum, Pittsburgh, Pennsylvania.*

The Application of the Name *Emberiza leucophrys* Forster.—*Emberiza leucophrys*, proposed in 1772 by Forster (*Phil. Trans.*, vol. 62, 1772, p. 426), has been accepted as the subspecific name for the eastern race of the White-crowned Sparrow without question until recently, when W. E. Clyde Todd (*Proc. Biol. Soc. Washington*, vol. 61, March 4, 1948, pp. 19–20) considered that it must be applied to Gambel's White-crowned Sparrow, currently known as *Zonotrichia leucophrys gambelii* (Nuttall). On this basis he proposed the name *Zonotrichia leucophrys nigrilora* for the eastern white-crown. Mr. Todd reviewed this matter before the meeting of the A. O. U. in Montreal in 1951, and later submitted the series of fine specimens on which he based his conclusions to the writer, as Chairman of the Committee on Classification and Nomenclature of the American Ornithologists' Union. The present note is a summary of a detailed study of this interesting problem.

Forster on pages 403–404 of the reference cited above lists his new name in connection with two specimens from Severn River and Albany Fort and gives some account in English of habits and occurrence. The technical description in Latin that follows on page 426 is that of the species of the White-crowned Sparrow, but does not indicate clearly that it applies conclusively to either the eastern race or to Gambel's White-crowned Sparrow.

The 14 specimens at hand from Mr. Todd are all from Fort Severn, none being seen from Fort Albany. In this series 9 are *gambelii*, 2 *leucophrys*, and 3 appear intermediate (the names being taken in the currently accepted sense). Both forms under discussion therefore are represented at Fort Severn. The two original birds listed by Forster have disappeared so far as known so that no specimen that may be taken as Forster's type is available.

It appears to the writer that Forster's name *Emberiza leucophrys* as set up in 1772 is to be considered a composite, covering both races of the bird that are under consideration, since it is not clearly explicit in the characters that distinguish these two, and that its formal application to one of these forms must rest with some later writer who stands in the light of a first reviser. Gmelin in 1789 and Latham in 1783 in the use of *leucophrys* clearly follow Forster, though Latham evidently had seen the work of the next author, Pennant, as he cites also "White-crowned Bunting, *Arct. Zool.*," but gives no page or plate reference.

Pennant (*Arct. Zool.*, vol. 2, *Birds*, 1785, p. 355, pl. 16) uses *Emberiza leucophrys* Forster, and translates Forster's Latin as well as following his English. Pennant, however, may have had some further information as he gives the additional statement, not found in Forster, that "its flight short and silent; but when it perches, sings very melodiously." He also gives a plate of the "White-crowned Bunting" which depicts an adult bird with black clearly shown in front of the eye, so that it illustrates the eastern race. It thus appears that Pennant fixed the name on the eastern bird. The source of Pennant's figure is not indicated; it may have been a specimen secured by him, or possibly may have been one of the two listed by Forster.