eral lands in the South. Pages 7–12 *in* Red-cockaded Woodpecker Symposium II. Proceedings (D. A. Wood, Ed.). Florida Game and Fresh Water Fish Commission, Tallahassee.

LIGON, J. D. 1970. Behavior and breeding biology of the Red-cockaded Woodpecker. Auk 87:255–278.

ODOM, R. R., J. RAPPOLE, J. EVANS, D. CHARBONNEAU, AND D. PALMER. 1982. Red-cockaded Woodpecker relocation experiment in coastal Georgia. Wildl. Soc. Bull. 10:197–203.

WALTERS, J. R., P. D. DOERR, AND J. H. CARTER, III. 1988. The cooperative breeding system of the Red-cockaded Woodpecker. Ethology 78:275–305.

WALTERS, J. R., III, C. K. COPEYON, AND J. H. CARTER. 1992. A test of the ecological basis of cooperative breeding in Red-cockaded Woodpeckers. Auk 109: 90–97.

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Specific Status and Nomenclature of *Hemitriccus minimus* and *Hemitriccus aenigma*

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Zimmer (1940) described *Hemitriccus aenigma* based on two specimens from the east bank of the lower Rio Tapajós in Amazonian Brazil. In the same publication, he considered *Snethlagea minima* Todd, 1925 to be a subspecies of *Snethlagea minor*, without mention of having examined Todd's series. Todd (1925) described *Snethlagea minima* from 12 specimens collected by Samuel Klages on both banks of the lower Rio Tapajós, comparing it with a series of *Snethlagea minor* from the same and nearby localities. Since Zimmer (1940), *minima* has usually been treated as a weakly defined subspecies of *minor*.

I recently examined those series used by Todd in describing *minima* at the Carnegie Museum of Natural History (CM). The specimens include representatives of two species. One of these is a population of *Hemitriccus minor*. It is represented in the series Todd examined by 15 specimens at the Carnegie Museum, and 7 others since exchanged to other museums (examined and confirmed by Kenneth Parkes). The holotype of *Snethlagea minima* (CM 77082), a male from Itaituba, on the west bank of the Rio Tapajós, and three other specimens (CM 77702, 77879, and 78150) are examples of the taxon that Zimmer called *aenigma*, based on comparison to a specimen (MZUSP 47086) that I had previously compared to the type and paratype of *aenigma*. Hence, under the rule of priority, *Euscarthmornis aenigma* Zimmer, 1940 becomes a junior synonym of *Snethlagea minima* Todd, 1925, and the species now should be called *Hemitriccus minimus*.

Hemitriccus minimus differs from *minor* in having strong yellowish edgings to the coverts, forming a double wingbar, compared to the dull greenish edgings to the coverts in *minor*. Other plumage characters distinguishing *minimus* include sharper, darker streaks on the throat, dark centers to the much longer crown feathers, and obvious pale yellow edgings to the inner remiges contrasting with nearly plain outer remiges. *Hemitriccus minimus* also has a distinctive wing formula, shared with *H. zosterops*, in which the outer secondaries are slightly longer than the inner primaries, rather than slightly shorter than the inner primaries as in *minor* and other *Hemitriccus* (Zimmer 1940). In addition, male *minimus* have a substantially shorter wing (42–45 mm, $n = 5$) and tail (30–33.5 mm) than male *minor* (wing 48–55 mm and tail 38.5–43.7 mm, $n = 26$); females of the two species, however, have approximately the same wing and tail length. Two female specimens of *minimus* have wing measurements of 41 and 42 mm, and tail measurements of 29 and 30 mm, all within the range of female *minor* (wing 39–45 mm, tail 28.3–32.7 mm, $n = 14$). Finally, *H. minimus* has nostrils like those of most other species in the genus, elongate and placed near the base of the bill with feathering reaching the proximal edge. *Hemitriccus minor* has odd external nares; these are round and placed farther out on the bill, a millimeter or more from the end of feathering. On the basis of this character, *minor* was placed in the monotypic genus *Snethlagea* (Berlepsch 1909) until it was moved to the expanded genus *Hemitriccus* and treated as a subgenus by Traylor (1979). Because *minimus* lacks this distinctive nostril configuration, it properly belongs in the subgenus *Hemitriccus*.

Although Zimmer apparently did not examine any of Todd's material, he concluded that the type (a male) was a missexed female of *Hemitriccus minor*, overlooking the similarity of its measurements to his *aenigma*. Since Todd's (1925) description was based on a mixed series of *minor* and *minimus*, it was somewhat misleading and may have contributed to the initial confusion. Todd correctly described the strong yellow

wing bars and the stronger yellow edgings on the inner remiges of *minimus*, but incorrectly stated that it shares the form of the nostril with *minor*. Also, when distinguishing *minimus* from *minor*, Todd concentrated his attention on minor differences in variable characters, leading Zimmer to consider only those differences in his discussion of *minimus*.

In conclusion, the name of the taxon previously known as *Hemitriccus aenigma* is *Hemitriccus minimus* based on the 15 years priority that *Snethlagea minima* Todd, 1925 has over *Euscarthmornis aenigma* Zimmer, 1940. The name of the subspecies of *Hemitriccus minor* previously known as *minimus* should now be *snethlageae* Snethlage, 1937. The name *snethlageae* appears to be based on a population of *minor*, and not of *minimus*, as the wing lengths ranged from 49 to 53 mm, and tail from 42 to 43 mm (Snethlage 1937). I recommend that the English name of *Hemitriccus minimus* remain Zimmer's Tody-Tyrant, as used for *H. aenigma*, since Zimmer was the first to distinguish it correctly from the population of *Hemitriccus minor* that occurs alongside it.

In addition to the four specimens at the Carnegie and Zimmer's type and paratype of *aenigma*, a male specimen at the Museu de Zoologia da Universidade de São Paulo from Fordlandia (MZUSP 47086) and a male specimen (ANSP 133117) at the Academy of Natural Sciences, Philadelphia, from Tauari (mentioned in Griscom and Greenway 1941) are examples of *Hemitriccus minimus*. Since I discovered these specimens, which extend the range of *Hemitriccus minimus* to the west bank of the Rio Tapajós and upstream about 180 km, Parker and Bates have found and collected *minimus* in Bolivia (Parker et al. 1991), so the range is much broader than previously believed.

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LITERATURE CITED

BERLEPSCH, H. G. VON. 1909. Über eine neue Gattung aus der Familie der Tyrannidae. J. Ornithol. 57: 104–107.

GRISCOM, L., AND J. C. GREENWAY, JR. 1941. Birds of lower Amazonia. Bull. Mus. Comp. Zool. 88:85–344.

PARKER, T. A., III, A. CASTILLO U., M. GELL-MANN, AND O. ROCHA O. 1991. Records of new and unusual birds from northern Bolivia. Bull. Br. Ornithol. Club 111:120–138.

SNETHLAGE, H. 1937. Ein neuer Tyrannidae aus Amazonien. Ornithol. Monatsber. 45:174–175.

TODD, W. E. C. 1925. Sixteen new birds from Brazil and Guiana. Proc. Biol. Soc. Wash. 38:91–100.

TRAYLOR, M. A., JR. 1979. Tyrannidae. Pages 1–240 *in* Checklist of birds of the world, vol. 8 (M.A. Traylor, Jr., Ed.). Harvard Univ. Press, Cambridge, Massachusetts.

ZIMMER, J. T. 1940. Studies of Peruvian birds. No. 34. The genera *Todirostrum, Euscarthmornis, Snethlagea, Poecilotriccus, Lophotriccus, Myiornis, Pseudotriccus* and *Hemitriccus*. Am. Mus. Novit. No. 1066.

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Extensive Folivory by Thick-billed Saltators (*Saltator maxillosus*) in Southern Brazil

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Although folivory is a successful foraging strategy for numerous taxa (e.g. Ellison 1960, McNaughton 1979, Otte 1981, Watt 1981, Brown 1984), few birds are folivorous. In part, this is because flight is energetically too expensive to be feasible on an energy-poor diet of leaves (Tucker 1971, Morton 1978); the energy content of leaves is only about one-half that of fruits and one-fourth that of arthropods (reviewed in Jenkins 1969). Furthermore, because digestion of leaves is slow, large storage chambers in the gut are necessary (Grajal et al. 1989). Volant birds, however,

[1] Deceased.