

Stejneger's 'Review of Japanese Birds.'—Parts VIII * and IX † of Stejneger's 'Review of Japanese Birds' treats of the Nutcracker and the Wrens. In the first the synonymy, number, and relationships of the forms of the Nutcracker are considered at length. Two forms, a slender-billed eastern (*Nucifraga caryocatactes*), and a thick-billed western (*N. macrorhynchos*), are recognized, in accordance with the published conclusions of Dr. Blasius and V. von Tschusi-Schmidhoffen, as opposed to those of Mr. Scebohm. In the second paper two forms of Japanese Wrens are distinguished, namely, *Troglodytes (Anorthura) fumigatus*, inhabiting Japan proper, and *T. f. kurilensis* (subsp. nov.) from the Kurile Islands.—J. A. A.

Stejneger and Lucas on Pallas's Cormorant. ‡—While the extinct Great Auk of the North Atlantic has formed the subject of numerous papers, including several voluminous monographs, and is represented in museums by about 80 skins, 70 eggs, and "countless bones," the great extinct Pallas's Cormorant (*Phalacrocorax perspicillatus* Pall.) of the North Pacific is comparatively little known, a good detailed description of it being first printed in the present paper, from the original manuscript of the late Professor Brandt of St. Petersburg. So far as known, according to Dr. Stejneger, the only remains of the bird extant are two excellent fully adult specimens in the Museum of the Imperial Academy of Sciences of St. Petersburg, another in the British Museum, a fourth in the Leyden Museum, and a few bones (including the principal parts of the skeleton) in the United States National Museum, the latter collected by Dr. Stejneger on Bering Island. The only locality where Pallas's Cormorant has been seen within historic times was at Bering Island, where Steller found it, in 1741, in great numbers; but it appears to have been wholly exterminated during the following century, mainly by man's agency. Though not flightless, like the Great Auk, it was of heavy build and of slow locomotion, in the air as well as on land, and thus fell an easy prey to the natives of the island, who used it for food during the long winters.

A large colored plate of the British Museum specimen, by Wolf, is given by Elliot in his 'Birds of North America,' and the same specimen is figured by Gould in the Zoölogy of the Voyage of the Sulphur. These, with a few wood-cuts, comprise the published illustrations of the species.

As already intimated, the only bones of this species extant in museums are those collected by Dr. Stejneger, in 1882, at Bering Island. These comprise the rostral portion of a cranium, a lower mandible and the right ramus of another, two nearly complete sterna, three nearly perfect pelves, various limb bones, and a few vertebræ. Detailed descriptions of them,

* Review of Japanese Birds. VII.—The Nutcracker (*Nucifraga caryocatactes macrorhynchos*). By Leonhard Stejneger. Proc. U. S. Nat. Mus., 1888, pp. 425-432.

† IX. The Wrens. *Ibid.*, pp. 547-548.

‡ Contributions to the Natural History of the Commander Islands. X.—Contributions to the History of Pallas' Cormorant. By Leonhard Stejneger and Frederic A. Lucas. Proc. U. S. Nat. Mus., Vol. XII, pp. 83-94, pl. ii-iv. (Published Feb. 5, 1890.)

with figures, are given by Mr. Lucas, who compares them with the corresponding parts of *Phalacrocorax carbo*, *P. urile*, and *P. dilophus*. Mr. Lucas finds *P. perspicillatus* "to have been a much heavier bird than *P. carbo*, and a bird of weaker flight; with more robust and muscular legs, and a more slender and more feeble head and neck."—J. A. A.

Lucas on the Osteology of the Thrushes and Wrens.*—Mr. Lucas concludes "that the Miminæ hold a somewhat intermediate position between the Wrens and Thrushes, and if the characters described are of sufficient value to be considered *family* characters (which is extremely doubtful) each of the groups under consideration seems to have equal right in that respect.

"The Wrens, as represented by the species in hand, form a harmonious group, agreeing very closely with one another in their osteology, and presenting some well-marked distinctive characters.

"The Thrushes also, when compared with the Wrens, present well-defined characters, and while differing among themselves more than do the Wrens, these differences are nevertheless very slight.

"Aside from *Galeoscoptes*, the Miminæ are fairly well marked, having a very characteristic shape to the maxillo-palatine process. This maxillo-palatine is so entirely different from that of the Wrens that from what little experience I have had I should hesitate to unite two groups so dissimilar in this respect. On the other hand, *Galeoscoptes* has such decided leanings toward the Thrushes, not only in its skull, but in other portions of the skeleton, that it would seem to connect them with the Miminæ. Be this as it may, *Galeoscoptes* is certainly nearer to the Thrushes than any other member of its group, while *Harporhynchus* seems to be the farthest removed."

It would thus seem that the position of the Miminæ as a subfamily of the Turdidæ was more in accordance with the osteological characters of the Miminæ than is its present position among the Troglodytidæ. "In fact," says Mr. Lucas, "it seems more and more clear that the Miminæ should not be included in the very sharply defined family Troglodytidæ." On the other hand, he believes that the true affinities of both *Chamæa* and *Certhia* are with the Wrens.

Mr. Lucas's important paper is illustrated with figures of the skull, sternum, and pelvis in *Merula*, *Campylorhynchus*, and *Harporhynchus*.—J. A. A.

Shufeldt on the Osteology of the Ardeinæ.†—This paper contains a detailed description of the osteology of *Ardea herodias* and *Nycticorax violaceus*, with excellent figures of the principal parts of the skeleton in

* Notes on the Osteology of the Thrushes, Miminæ, and Wrens. By Frederic A. Lucas. Proc. U.S. Nat. Mus., 1888, pp. 173-180.

† Osteological Studies of the Subfamily Ardeinæ. By R. W. Shufeldt, M. D., C. M. Z. S. Journ. Comp. Med. and Surg., July and October, 1889. (Separates repaged.)