

erroneously so published in the 'Pocket Edition' of the Check-List, although it appears correctly '*macularia*' in the regular edition.

Dr. Grinnell's work closes with a 'Hypothetical List' of 61 species erroneously accredited to California or recorded upon evidence which he is unable to accept as conclusive.

Altogether this list is admirably prepared and gives us the status of the Californian avifauna up to date by one whose opinion upon this subject is accepted as authoritative, although there may be differences of opinion as to the number of geographic races that it is desirable to recognize even in so diversified a State as California.

There may be expressions of regret at the absence of data on migration, nification and taxonomy, but the author has explained in the introduction that the list is solely distributional and he has consistently adhered to his plan.—W. S.

Wood on the Eyelids of Birds.¹—Dr. Wood here presents the results of investigations made in conjunction with Prof. Slonaker in the physiological laboratories of Stanford University, largely upon the eye of the English Sparrow, although various other species were also examined. He considers in great detail the muscular structure of the eyelids and the method of lachrymal drainage. Not only is the activity of the lids reversed from what we find in the mammals, the lower not the upper one being movable, but the whole method of closing is different. The Ostrich, Seriema and certain birds of prey have filoplumous feathers which serve the purpose of eyelashes in mammals and closely resemble them. The Sparrow's eyelashes, however, do not apparently offer any protection to the eye while the Parrots have no trace of eyelashes.

Dr. Wood's paper is a careful piece of technical work, and similar studies in the anatomy of other avian organs would be welcome.²

The confusion that may arise when the technicalities of two branches of science are brought together is curiously illustrated in Dr. Wood's treatise. He constantly makes use of the word 'tarsus' familiar to ophthalmologists as indicating a plate of condensed connective tissue on the edge of the eyelid, but when he addresses ornithologists who know the tarsus only as the usually exposed portion of the bird's foot above the toes, this term is somewhat confusing!—W. S.

Cooke on the Distribution and Migration of North American Gulls.³—In this pamphlet Prof. Cooke treats the Laridæ in the same

¹ The Eyelids and Lachrymal Apparatus of Birds (reprinted from *Ophthalmology*, July, 1915). By Casey A. Wood, M. D. Repaged 1-18.

² cf. p. 84, *antea*.

³ Distribution and Migration of North American Gulls and their Allies. By Wells W. Cooke. Bull. No. 292, U. S. Dept. of Agriculture. October 25, 1915. pp. 1-70. (For sale by Supt. of Documents Gov't. Printing Office, Washington, D. C. 15 cents.)