

than with the Cranes, although it represents a family distinct from the Rallidæ. This conclusion illustrates how difficult it is to arrive at any generally acceptable classification of birds, so great do the opinions of individuals differ. Dr. P. Chalmers Mitchell in a recent investigation of this same problem on the basis of osteology comes to a diametrically opposite opinion! (Abst. Proc. Zool. Soc. London, May 25, 1915). The Stone Plover Dr. Shufeldt finds to be probably not closely allied to the Bustards as has sometimes been claimed. On the other hand it shows clearly the relationship between the *Limicola* and the *Longipennis*, and "so far as osteology goes, beautifully bridges across one of the gaps, for we find both pluvialine and larine characters intimately blended all through the skeleton." Dr. Mitchell's views upon this point would be interesting for comparison.—W. S.

**Recent Publications of the Biological Survey.**—Prof. Cooke<sup>1</sup> in a report on the shorebirds points out their value as game and the importance of preserving them from extinction. The Wilson's Snipe, Woodcock, Upland Plover and Eskimo Curlew are the species especially considered and their former abundance and rapid decrease in numbers are reviewed and the causes pointed out. As an illustration of the unchecked slaughter of these birds in the southern States the record of a gunner in Louisiana is cited, who in 20 years from 1867 to 1887 killed 69,087 Wilson's Snipe!

Mr. Alex. Wetmore<sup>2</sup> has been making a field study of the mortality of ducks, shorebirds, herons, etc., in the neighborhood of Great Salt Lake where large numbers of these birds have died under apparently similar conditions to those which attended like mortality at Tulare and Owens Lakes, California.

The cause of the trouble has not been positively determined but seems in all probability to be alkaline poisoning from the water. The increase in irrigation it is suggested has taken up vast quantities of alkali from the soil and in dry seasons the water naturally becomes heavily charged with it. Investigations by experts fail to show that bacteria, nematodes or poison from smelting works have had serious effect upon the birds.

Another valuable paper recently issued is a new edition of Mr. McAtee's 'Important Wild-Duck Foods,'<sup>3</sup> which is in great demand among breeders of wild fowl.—W. S.

**Da Costa on the Economic Value of the Birds of São Paulo, Brazil.**<sup>4</sup>

<sup>1</sup> Our Shorebirds and their Future. By Wells W. Cooke. Yearbook U. S. Department of Agriculture for 1914, pp. 275-294.

<sup>2</sup> Mortality Among Waterfowl around Great Salt Lake, Utah. (Preliminary Report.) By Alex. Wetmore. Bull. 217 U. S. Department of Agriculture. May 26, 1915.

<sup>3</sup> Eleven Important Wild-Duck Foods. By W. L. McAtee. Bull. 205 U. S. Department of Agriculture, May 20, 1915.

<sup>4</sup> Os Pequenos Amigos da Agricultura. Por. J. Wilson Da Costa. Published with the aid of the Secretary of Agriculture of São Paulo, 1914, pp. 1-118, illustrated.