

of the Malaconotinae." The juvenal plumage of *Sigmados* is discussed and another locality, on the river Dungee, for the Cliff Swallow *Lecythoplastes preussi* is recorded. A number of extreme eastern records for West African birds are also listed.—W. S.

Phillips on Species Crosses in Birds.¹ The present paper is a summary of Dr. Phillips' experiments in hybridizing ducks and pheasants up to the year 1917, when the work was abandoned on account of the exigencies of the war. He states that there has been "an impression that there is seldom anything approaching a Mendelian phenomenon in species-mating among birds." "But" he says "definite types of segregation do occur, dependent upon the degree of relationship of the genetic constitution." Dr. Phillips had already suggested in 1915 that in closely related forms there is, under experimental conditions, a closer approach to orthodox Mendelism than in crosses between more widely separated species.

The Mallard × Florida Duck crosses he says "constitute the most extreme example of segregation thus far discovered in species crosses" in either ducks or pheasants. Genetically the Florida Duck represents substantially a Mallard with the male secondary sex characters not expressed, and by the breeding test is more closely related to the Mallard than either the Black Duck or the Australian Duck.—W. S.

Mailliard on the Birds and Mammals of Siskiyou County, California.²—The present paper is based upon field work conducted by Mr. Joseph Mailliard and two assistants in the interests of the California Academy of Sciences, in Siskiyou County, California, May 10–June 16, 1920. The main portion consists of an itinerary with notes on various species and comments on records in earlier publications.

In conclusion there is a table of all of the species of birds observed by the party with records at seven localities. The whole forms a valuable contribution to the ornithology of northern California.—W. S.

Aves in the Zoological Record.³—Mr. W. L. Sclater has again compiled the bird section of the 'Zoological Record' for 1919, which appeared in August 1921. The list follows the same plan as its immediate predecessors and is characterized by the painstaking care which marks the author's work. We find 837 titles listed of which no less than 39 are by Oberholser. Chubb with 13 and Witherby with 11, are the only other authors who have published more than 10 papers within the year.

¹ A Further Report on Species Crosses in Birds. By J. C. Phillips, *Genetics*, VI, pp. 366–383, July, 1921.

² Notes on the Birds and Mammals of Siskiyou County, California. By Joseph Mailliard. *Proc. Calif. Acad. Sciences*, XI, No. 5, pp. 73–94, July 11, 1921.

³ *Zoological Record* Vol. LVI, 1919. XVII Aves, W. L. Sclater, M. A. Zool. Soc. London. Sold at their House in Regents' Park, London, N. W., 8. Price 6s. August, 1921. pp. 1–71.

We have frequently urged the importance of supporting such an invaluable publication as the 'Zoological Record' without which the nomenclature of systematic zoology would become more or less chaotic, and its progress greatly hampered. The condition that now faces us is critical. Since the suspension of the 'International Catalogue of Scientific Literature' the Zoological Society of London has been publishing the 'Record' at a constantly increasing cost which has now reached approximately £2000 annually. It has undertaken the publication of the volume for 1920 and is sending out blank forms, soliciting subscriptions for that of 1921. If the response is not liberal the publication cannot go on. The subscription price of the entire volume will be £2.10s. and of the 'Aves' section 7s 6d. The British Museum has subscribed for six copies of the 'Record' and it seems as if several of the larger museums of America could do likewise, while *every* museum and university should have one copy and every systematic ornithologist should become a subscriber to the 'Aves'. The progress of ornithology depends upon the continuation of this yearly record of what has been published.—W. S.

Grinnell's 'The Principle of Rapid Peering in Birds.'¹—Dr. Grinnell divides birds into two groups, those which wait passively for the appearance, within reach, of moving objects of food value, and those which are more or less constantly in motion seeking items of food which are stationary. He considers that there is no such thing as "excess-of-vigor" and "joy-of-living" as they are used to explain the lively, joyous actions of many birds, and that an adequate explanation of such activity, involving stern utility should be looked for. He finds that an object moving at a distance is easily picked up by the human eye but a stationary object, like a golf ball in the grass for instance, is looked for by constant, movement of the searcher and, within certain limits, the greater the activity, the sooner the object will be found. It is moreover the rapid movement of the eye as much as anything else that brings success. With birds the critical food period is winter and the nervous activity of birds like Kinglets at this season is really the intense effort to find enough food to satisfy their needs, in which the principle of "rapid peering" plays a most important part. Dr. Grinnell's explanation is ingenious and doubtless correct, while it is an excellent illustration of the attitude of mind necessary to study problems of animal behavior.

Incidentally he refers to such "humanistic terms" as "joy-of-living" being often used "even in our more serious ornithological literature." We question (and doubtless Dr. Grinnell will entirely agree with us) whether there is not a perfectly proper side of ornithology that without humanizing the birds to the ridiculous extremes that some popular writers have done, and without entering the field of ornithological romance,

¹ The Principle of Rapid Peering in Birds. Univ. of Calif. Chronicle, XXIII, No. 4, October, 1921 pp. 392-396.