things, that the situation is utterly hopeless. He reviews the cases of the American game animals and of certain birds actually extinct or nearing extinction.

In the way of reports we have Mr. Forbush's annual report¹ of what is now known as the Division of Ornithology of the Massachusetts Department of Agriculture. In this the question of the economic status of the Downy Woodpecker and the Yellow-bellied Sapsucker is considered at length and decided favorably for the birds so far as Massachusetts is concerned. There is also a summary of bird activity in the state by months.

The annual report of the chief of the Biological Survey² once more emphasizes the varied and important work carried on by this Bureau and it is regrettable to know that reports on the birds of Alabama, New Mexico, and Texas have been completed but have not yet been published, we presume from lack of funds. It is most unfortunate that after carrying on valuable research work of this kind no general benefit can be derived from it. The National Association of Audubon Societies presents in 'Bird Lore,' its usual interesting and well illustrated report, which diserves the careful study of all interested in bird protection. Mr. Ahrens, who recently made a tour of the National Parks of America, has published in Berlin a report on the Conservation of Nature in the United States.³

The West Chester, Pa. Bird Club has issued another of its attractive reports and the usual synopsis of the 'Game Laws for 1921' and the 'Directory of Officials and Organizations connected with the protection of Birds and Game 1921' have both been issued by the Biological Survey at Washington.

The Ornithological Magazines.

Bird-Lore.⁴ XXIII, No. 5. September-October, 1921.

Why Birds Interest Me. By Eugene Swope.—A beautiful analysis of the real meaning of wild bird life to the author. "It symbolizes" he says "a life of more spirit and less clay, which I seem to have lost for the most part somewhere along the way." The theme is ably continued by Dr. Chapman on the editorial page.

Three Weeks in the Boat Blind. By Guy A. Bailey.—With some excellent photographs of shore-birds, Black Terns, etc. "Sandpipers,"

¹First Annual Report of the Division of Ornithology. By Edward Howe Forbush. Annual Report Mass. Dept. of A gri. for year ending Nov. 30, 1920. 1921, pp. 1-47.

 $^{^2}$ Report of Chief of Bureau of Biological Survey (for year ending June 30, 1921).

³Ahrens. Mitteilungen über den Naturschutz in den Vereinigten Staaten vornehmlich seit 1915. (Beitr. zur Naturdeinkmalpflege, Band IX. Heft 1 Berlin, 1921, pp. 96-109).

⁴ D. Appleton & Co., Harrisburg Pa. Edited by Frank M. Chapman. \$1.50 per year.

says the author, "are very active and there is no better way to become impressed with the idea than to try taking their pictures."

With the Birds in Alaska. By Mrs. G. W. Gasser.

The educational leaflet treats of the Canada Goose.

Bird-Lore. XXIII, No. 6. November-December, 1921.

A Double Tragedy. By Dr. and Mrs. F. N. Wilson.-With photographs of Quail.

What Birds Signal with their Tails. By Ernest T. Seton.

Cultivating the Birds. By C. S. Thoms.—Photographs of birds at baths and feeding shelf.

Billy a Great Horned Owl. By Dell Coleman.

Migration and Plumage Notes cover the Rusty Blackbird and Brewer's Blackbird. There seems to be a lack of uniformity in 'Bird-Lore' in the use or omission of the possessive form in such names as Brewer's Blackbird, and we had decided that authors were allowed to follow their own inclination in the matter, but when we find the editor himself using both forms on the same line (p. 299) we are forced to decide that he is endeavoring to harmonize the eastern and western schools!

The admirable annual report of the National Association of Audubon Societies occupies more than half of this bulky number.

The Condor.¹ XXIII, No. 5. September–October, 1921.

Nests of Mourning Doves with Three Young. By Margaret M. Nice. Notes on the Rocky Mountain Jay in the Yellowstone National Park By M. P. Skinner.

A Twelve-Month with the Shorebirds. By Allen Brooks.—On the British Columbian coast, in Alberta and in Florida.

Notes from Southeastern Alaska. By George Willett.

The Northward Range of the Allen Hummingbird. By Tracy I. Storer.—Considers it of only casual occurrence north of California. There is as a matter of fact only one record beyond the limits of that state, supported by a specimen.

The Condor. XXIII, No. 6. November-December, 1921.

Home Life of the Black-tailed Gnatcatcher. By Robert S. Woods.

Notes on Fall Migrations of Fox Sparrows in California. By Joseph Mailliard.

The Mind of the Flock. By R. C. Miller.

Nesting Pine Grosbeaks in Plumas County, California, By Richard Hunt.

The Wilson Bulletin.² XXXIII, No. 3. September, 1921.

The Roadside Census. By Margaret M. Nice and L. B. Nice.—Interesting tabulations of numbers of species and individuals seen from an automobile.

¹ Cooper Ornithological Club, W. Lee Chambers, Eagle Rock, Los Angeles Calif. Edited by Joseph Grinnell. \$2 per year.

² Lynds Jones, Editor, Oberlin Ohio, \$1.50 per year.

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An Annotated List of the Land Birds of Sac County, Iowa. Part II. By J. A. Spurrell.

Notes on the Distribution and Migration of Nebraska Birds. By M. H. Swenk and R. W. Dawson.

The Oölogist.¹ XXXVIII, No. 9. September, 1921.

Birds of North Hero Island, Vermont. By C. M. Brooks.

Some Summer Birds of the Wisconsin Woods. By C. C. Sanborn.

The Oölogist. XXXVIII, No. 10. October, 1921.

Nest and Eggs of Thryospiza mirabilis. By H. H. Bailey.

Journal of the Museum of Comparative Oölogy.² II, No. 1-2, August 16, 1921.

Five articles by W. L. Dawson in defence of egg collecting and on the operations of the 'Museum' occupy about half of the number, while two others by Mr. Dawson treat of 'Beach Sand as a Drawer Lining', and 'The Season of 1917,' the later an extended account of field operations of Mr. Dawson and his associates near Tucson, Arizona, and in the Patagonia mountains, with notes on the rarer and more interesting species and a nominal list of all of the species observed. Mr. Dawson also contributes a number of short notes including a list of notable bird occurrences at Santa Barbara, covering nineteen species.

There are two other short articles, one by R. S. Sutherland on Penguins and another by J. K. Jensen on 'Nesting Boxes as a Help for a Collector of Birds' Eggs'. Many good sets of eggs of hole-nesting birds, the author explains, are lost by cutting into the tree either before the set is complete or after the eggs have been hatched. By putting up nest boxes the eggs may be under constant observation and be collected at just the right time. Decidedly a novel argument for the erection of nest boxes!

This issue is illustrated by many excellent half-tones. Incidentally we learn that two "trial issues" of Mr. Dawson's 'Birds of California,' each of 32 pages, appeared in March last, but apparently these issues have been discontinued as he states that it is still impossible to make a final announcement as to the method of publication.

The Ibis.³ (11 Series) III, No. 4. October, 1921.

Bird Notes from Southern Spain. By J. H. Stenhouse.

Some Notes on the Winter Avifauna of the Camargue. By Ludlow Griscom. (see antea, p. 129).

A Note on Lampribis in East Central Africa. By J. P. Chapin.

An Account of the Birds met with during a two months shooting Trip in Northern Rhodesia. By S. R. Clarke.

Notes on Some Birds from the Near East, and from Tropical East Africa. By Col. R. Meinertzhagen. This paper contains critical studies of various species with discussion of their differentiation into subspecies.

² W. L. Dawson, Editor, Santa Barbara, Calif. \$1.50 per year.

³Wheldon and Wesley Ltd, 28 Essex St., Strand London. W. L. Sclater, Editor 52 shillings per year.

¹ R. M. Barnes, Editor, Lacon, Ill., 50 cts per year.

In connection with the Crested Larks (*Galerida*) the several races were carefully compared with the humidity and rainfall of their habitats, both as regards the entire year and the nesting season, with the result that no correlation was found to exist. There was however a direct correspondence between the tone of coloration of the bird and that of the soil upon which it lived, and the author concludes that protective coloration is responsible. Futhermore he finds that three races of Crested Larks have lived in the Giza Zoological Gardens, near Cairo, for many years subjected to identical conditions and have molted true, showing no tendency to change the coloration of their plumage, a result that coincides with Prof. Sumner's experiments with Californian White-footed Mice, but is directly opposed to those of Mr. Beebe with doves.

So many of the present day discussions on the nature of subspecies hinge upon this very question that it is imperative that we shall have a number of identical experiments carried on with the greatest care to eliminate possible disturbing factors.

We are not satisfied in systematic zoology to finally admit a subspecies without a large series of specimens and why should we discuss the fundamental nature of a subspecies and reach a conclusion with only two or three experiments from which to take our data?

Notes on the Birds of Alcudia Majorca. By Capt. P. W. Munn.

Subspecies and their Part in Evolution. By J. L. Bonhote.—A continuation of the discussion contained in previous letters to 'The Ibis' from Loomis and Lowe and Praed. Mr. Bonhote very rightly, we think, contends that the term subspecies should be restricted to geographic forms, the origin of which by the way he definitely attributes to "the climatic conditions of their habitat," which is directly opposed to Col. Meinertzhagen's conclusions presented in this same issue of 'The Ibis' and commented upon above.

He also considers that each species contains a combination of factors not present in other species while the subspecies of the same species all contain exactly the same factors, though their somatic expression has been originally altered by the environment and has become inherited:

On this basis there are certainly a number of so-called species which will have to be regarded as subspecies since they are clearly geographic forms differing from subspecies only in the fact that no intergrades now exist. We might ask how are we to ascertain just what are the factors that make up a species and how are we on this basis to relegate a given form to the category to which it belongs.

We must admit that we still fail to find any indication in the evidence to be obtained from forms in nature, of any difference except in degree between the species and the subspecies. It may be possible that certain widely separated species may have originated in some other way but most species are so obviously exaggerated examples of geographic races between which the intergrades have dropped out that it is impossible to imagine any other origin. Vol. XXXIX 1922

There is in Mr. Bonhote's valuable paper one statement that seems somewhat contradictory, though we may not have understood him correctly. On page 721 referring to statements of Lowe and Praed he says: "they imply that variations (subspecies) caused by environment cannot be inherited; and hence it would follow that a true subspecies could have had no influence on evolution and could never develop into a new species," and then proceeds to criticise their statement; and yet he himself says (on page 725) "a geographic form could never become a separate species." Perhaps his criticism referred only to the first half of their statement.

Another contribution to this subject is by Miss Maud D. Haviland in which she criticises the use of certain terms by other writers in a different sense from that usually understood, and in this connection we might be pardoned for calling attention to her use of the word "geno-type" which in ornithological literature is almost universally used to denote the type of a genus.

Among the reviews we find Mr. Mathews credited with recording a very important discovery" in the last part of his 'Birds of Australia,' i. e., that the types of Gould's species are not all in Philadelphia. We did not know that anyone had ever made such a claim, but the location of each type was thoroughly worked out some years ago by Stone and Mathews (Austral Avian Record I No. 6–7.)

Bulletin of the British Ornithologists' Club. CCLXII.¹ October 29, 1921.

Mrs. A. C. Meinertzhagen presents a description of a new Golden Plover from the Orkneys, *Pluvialis apricarius oreophilus* (p. 6) and Col Meinertzhagen a Rock Pigeon, *Columba livia butleri* (p. 6) from Gebeit, Sudan; M. J. Nichol describes *Galerida cristata halfae* (p. 7) from Wadi Halfa and *Charadrius varius allenbyi* (p. 7) from Egypt. T. Iredale separates the Palaearctic Red Phalarope as *Phalaropus fulicarius jourdaini* (p. 8) type from Spitzbergen. D. A. Bannerman describes *Anthreptes ogilvie-granti* (p. 9) from River Ja, Cameroon.

Stuart Baker describes *Dacaeum minullum subflavum* (p. 12) from Belgaum; H. C. Robinson *Cyornis rubeculoides klossi* (p. 12) south Annam, and J. D. LaTouche eleven new birds from China.

British Birds.¹ XV, No. 5. October 1, 1921.

Notes on the Great Auk. By W. H. Mullens.—Additional to those in Gurney's 'Early Annals of Ornithology' with reproductions of some early figures of the bird.

A Note on the Red-backed Shrike. By J. H. Owen.—Does not have a collected larder but hangs its prey on any convenient thorn.

British Birds. XV, No. 6. November 1, 1921.

Observations on the Breeding Habits of the Merlin. By W. Rowan.

Editor. 20 shillings per year.

¹ H. F. & G. Witherby, 326 High Holborn, W. C., London. P. R. Lowe, Editor. ² H. F. & G. Witherby, 326 High Holborn, London, W. C., H. F. Witherby

A Short Description of the Sequence of Plumages in some Palaearctic Surface-feeding Ducks. By E. Lehn Schioler.

Avicultural Magazine.¹ XII, No. 9. September, 1921.

Nesting Notes on the Yellow-billed Cardinal (Paroaria capitata). By Capt. Gerald Rattigan.

The Yellow-backed Whydah. By E. Hopkinson.—Observations in Gambia.

Avicultural Magazine. XII. No. 10. October, 1921.

Zebra Finches at Liberty. By the Marquess of Tavistock.—They do well even in a small garden, never wandering far from home.

Bateleur Eagles. By F. D. Welch.—Variation in their coloration discussed.

Voices of Some Owls and Remarks on Coloration. By F. D. Welch. Avicultural Magazine. XII, No. 11. November, 1921.

Shrikes as Cage-Birds. By Dr. E. Hopkinson.

The Emu.² XXI, Part 2. October, 1921.

The Naretha Parrot (*Psephotus narethae*) sp. nov. By H. L. White. Discovered by F. L. Whittock at Naretha, West Australia. With a colored plate.

A Central Australian Expedition. By Capt. S. A. White.

Further Notes on the Lyre-Bird. (Menura superba). By Tom Tregellas.—Photographs of its haunts, nest, dancing mound etc.

Notes on the Australian Tubinares. By E. W. Ferguson.—Petrels and Albatrosses.

The 'Times' on John Gould.—A reprint of a review of his work in this famous London newspaper. With a portrait.

Notes on Birds Observed at Ebor and the Nullarbor Plain. By A. S. Le Souef.

Further Notes from Peel Island, Moreton Bay, Queensland. By N. V. I. Agnew.

Birds of Barunah Plains and District. By James Russell.

Under 'Camera Craft' appears a photograph of a pair of nesting Emus with their young.

Revue Francaise d'Ornithologie.³ No. 150. October, 1921. [In French.]

Three Articles on the transporting of their young by birds of prey.

Birds of the Mamara Forest and the Environs of Rabat. By F. R. C. Jourdain.

Revue Francaise d'Ornithologie. No. 151. November, 1921. [In French.]

Meeting of the French Ornithological Society.

¹S. Austin & Sons, 5 Fore St., Hartford, England. 25 shillings per year.

² H. F. & G. Witherby, 326 High Holborn, London, W. C. J. A. Leach, Editor. 21 shillings per year.

⁸ A. Menegaux, Editor, 55 Rue de Buffon, Paris. 5 francs per year.

El Hornero.¹ II, No.3. August, 1921. [In Spanish.]

Petrels and Albatrosses of the South Atlantic. By Roberto Dabbene.— An extended discussion of the Tubinares of the region and their distribution.

Remarks on the Neotropical Species of the Genus Anthus. By C. E. Hellmayr.—Recognizes A. furcatus with two subspecies; A. lutescens with three; A. correndera with five; A. nattereri with one, A. hellmayri with three and A. bogotensis with two. Of these A. correndera catamarcae (p. 186) Catamarca; A. hellmayri brasiliensis (p. 190) Plains of Itatiaya, Brazil and A. h. dabbenei (p. 191), Rio Traful, Argentina, are described as new.

List of the Birds of the Falkland Islands. By R. H. Wace.

Some Notes on the Birds of Paraguay. By C. Fiebrig.

A Study of Birds in Relation to Agriculture. By F. Lahille.

L'Oiseau.² II, No. 9. September, 1921. [In French.]

Breeding of Lorius lory. By Mrs. M. Burgess.—Received the prize of the Societe Nationale d'Acclimatation for rearing this parrot in captivity for the first time.

The Egrets of Venezuela. By E. Tejera.

L'Oiseau. II, No. 10. October, 1921. [In French.]

Breeding of Sturnia sinensis. By A. Decoux.

Le Gerfaut.³ II, No. 2. 1921. [In French.]

Death of Alphonse Dubois.

Ornithological Observations (in Belgium) May 1, 1920-April 30, 1921.

Compiled by G. van Havre.

The value of Birds.

Tori.⁴ III, No. II. April, 1921. [In Japanese.]

Obituary and portrait of the late Dr. Isao Ijima.

Breeding of the Green Peafowl, *Pavo muticus*.—With photographs of the young.

The Molting of Some Charadrine Birds. By N. Kuroda.

Notes on Two Stragglers, Panurus biarmicus russicus and Turdus atrigularis. By S. Uchida.

Notes on the Habits of Richardson's Skua. By T. Moruyama.

Birds Seen in Hiroshima City. By H. Nakao.

A List of Ornithological Papers which have appeared in the Zoological Magazine. By N. Kuroda.

¹R. Dabbene, Editor, Mus. Nac. de Hist. Nat., Buenos Aires, Argentina. \$6 per year.

² Societe d'Acclimatation, 198 Boulevard St. Germain, Paris. 25 francs per year.

³ M. de Contreras, Editor, 52 Place Georges Brugmann, Bruxelles, Belgium. 10 francs per year.

⁴ Science College, Tokyo Imperial University, Tokyo Japan.

A Study of the Avifauna of Gajo-land (Sumatra). By F. C. van Heurn and Baron Snouckaert van Schauburg.

The Birds of Homer. By J. S.

On our Knowledge of a Sumatran Woodpecker. Chrysocolaptes lucidus chersonensis. By E. Stresemann.

The Black-necked Grebe. By van Dedem.

On Quaternery Nomenclature, and its Use in Ornithology. By A. Laubmann.—This is an attempt to place an additional burden upon our already overtaxed system of nomenclature. As we have already pointed out elsewhere many of our nomenclatural troubles have been due to the fact that we try to do too many things with our names. The quadrinomial undoubtedly indicates more accurately the genetic relationships of the bird indicated but it becomes useless as a name because it is too cumbersome.

Yearbook of the Netherlands Ornithological Club. II, No. 2. [In Dutch.]

Proceedings of the Club Meeting of March 30, 1921.

Trip to Belgium. By Baron Snoukaert van Schauburg.—Account of the museums, etc.

A Visit to Savoy. By G. J. Van Oordt.

On the Occurrence of *Serinus canarius germanicus* in the Netherlands. By P. A. Heus.

Yearbook of the Netherlands Ornithological Club, "Festnummer" published on the tenth anniversary September, 1921. [In Dutch.] The 1920–1921 Expedition to New Guinea.

On the Birds of the Mamberamo Country North and Central Dutch New Guinea.

Danske-Fugle.² II, No. 1. 1921. [In Danish.]

1920 Migration and Bird-banding for Denmark.

Ornithologische Beobachter.³ XVIII, No. 9. June, 1921. [In German.]

Review of the Work of the Swiss Station for Bird-banding in Bern for 1920. By A. Hess.

Ornithologische Beobachter. XVIX, No. 11, August, 1921. [In German.]

Avifauna of Forest Canton Lakes and Gothard. By J. Gengler.

Ornithologische Beobachter. XVIX. No. 1. October, 1921. [In German.]

Ornithology of Lappland. By A. Hess.

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¹ Club van Ned. Vogeilk., Doorn, Holland.

² P. Skovgaard, Mogensgade, 32, Viborg, Denmark.

³ R. G. Zbinden & Co., Basel, Switzerland. 10 francs per year.

Proceedings of the Bavarian Ornithological Society. XV, No. 1. April, 1921. [In German.]

Netta rufina as a breeding bird in the Bodensee. By R. Lauterbon. On the Influence of Meteorological Factors on Bird Song. By A. Schwan.

On the Song of the Yellowhammer, By B. Hoffman.

Ornithologische Monatsberichte. Vol. 29, No. 9–10. September– October, 1921. [In German.]

H. Grote describes Eremomela pusilla tessmanni (p. 84), and Pentholaea albifrons reichenowi (p. 93).

Ornithologische Monatsberichte. Vol. 29, No. 11–12. November-December, 1921. [In German.]

H. Grote describes *Erythropygia quadrivirgata rovumae* (p. 109) from Mbarangandu River, Africa.

Ornithological Articles in Other Journals.

Fisher, G. Clyde. Reminiscences of John Burroughs. (Natural History, XXI, No. 2, March-April, 1921.)

Overton, Frank. Photographing Great Horned Owls. (Ibid.)—A series of remarkable illustrations some of which represent the bird in flight.

Beck, Rollo H. Visiting the Nests of Seabirds by Automobile. (Ibid No. 4, July-August, 1921.)—Experiences on Christmas Island.

Baxter, Evelyn V. and Rintoul, L. J. Report on Scottish Ornithology in 1920, including Migration. (The Scottish Naturalist, No. 115– 116, July–August, 1921, and No. 117–118, September–October, 1921.)

Gross, Alfred O. The Audubon Societies of Brunswick. (The Maine Naturalist, I. No. 2, October, 1921.)

Miller, Carrie E. Birds of Lewiston-Auburn, Maine. (Ibid.)—A short popular article. Bird Notes which follow contain two Maine records of the Mockingbird.

Lloyd, Hoyes. Bird Notes by the Way in the Maritime Provinces (of Canada). (The Canadian Field-Naturalist, January, 1921.)

Rowan, William. Some Notes on the Belted Kingfisher. (Ibid. February, 1921.)—A careful study of a nest and young.

Taverner, P. A. The Evening Grosbeak in Canada. (Ibid, March, 1921.)—An historic resume with a detailed account of specimens of a breeding female and fledgling, taken by Wm. Rowan in Manitoba. The former curiously enough seems referable to the British Columbian form rather than to the eastern bird.

Soper, J. Dewey. Gleanings from the Canadian West. Part 1. Avian Fauna of Islay, Alberta. (Ibid.)—An annotated list of fifty-one species.

¹ Dultz & Co., Landwehrstr 6, Munich, Germany. 25 Mk. per year.