other things an account of bird life at Olney by Mr. Robert Ridgway. The 'Bulletin of the American Game Protection Association' has an illustrated paper on attracting ducks and feeding them on protected bodies of water.—W. S.

The Ornithological Journals.

Bird Lore. XXII, No. 5. September-October, 1920.

The Screech Owl. By H. E. Tuttle.—Contains some valuable notes on habits. Decapitates its victims eating the head first and in the opinion of the author sees as well as a cat in the daytime.

The Tragic Story of a Titmouse. By George Roberts.—Valuable account of habits of the Tufted Titmouse.

A Hummingbird Story. By W. F. Smith.—Remarkable nesting of a Ruby-throat on the sliding block of a porch swing.

Mount Mazama Bird Notes. By L. L. Haskin.

The Tree Swallow on Long Island. By J. T. Nichols.—Nesting on the south shore and notes on field identification marks.

Dr. A. A. Allen has a popular account of how birds moult and the educational leaflet by T. Gilbert Pearson treats of the Grackles. Mr. Pearson also has an article on new bird colonies on the Texas coast and Dr. T. S. Palmer has a sketch of the late William Dutcher.

The Condor. XXII, No. 5, September-October, 1920.

The Pink-sided Junco. By M. P. Skinner.—Its life history in the Yellowstode Park.

The Function of Powder Downs in Herons. By Alexander Wetmore.—Confirms a suggestion of Newton and Gadow that these feathers secrete oily matter used in dressing the plumage. Dr. Wetmore's' tame heron gave abundant opportunity to study the whole operation at very close quarters. The uropygial oil gland was not used at all by the young bird and it was found to be non-functional until the bird was practically grown.

Notes on a Few Birds of the Grand Canyon, Arizona. By M. H. Lee. New and Interesting Records of Pribilof Island Birds. By G. Dallas Hanna.—Includes a record of *Limnocryptes gallinula* new to North America, and complete lists of the breeding birds of each of the five islands.

Notes on Some Birds of Interior Alaska. By L. R. Dice.—An annotated list of 86 species observed near Fairbanks and Tanana and on the Kuskokwim River to Bethel.

The Oologist. XXXVII, No. 9, September, 1920.

Dreams. By R. M. Barnes.—An account of the egg collection of the late R. B. Christ.

Migration Notes. By Johnson Neff.—Deals with the Ozark region of Missouri as does another note several pages beyond.

Concerning the Ornithology of the Long Expedition of 1820. By Geo. E. Osterhout.—Curiously enough the writer fails entirely to mention the

man who in all probability was the collector and discoverer of the new birds—Titian Ramsay Peale, the assistant zoologist of the expedition.

The Wilson Bulletin. XXXII, No. 3. September, 1920.

Some interesting Records of Nebraska Birds for the Year 1919. By C. E. Mickel and R. W. Dawson.—Notes on 34 species.

Notes on the Birds of the Fort Leavenworth Reservation, Kansas. By David C. Hilton.—Annotated list of 82 species.

Whip-poor-will Calls. By Dayton Stoner.—An interesting record showing a number of counts of over 300 calls with but few short intervals between the series, and one record of 710 calls with but four intervals. Doubtless many have attempted to make counts while lying in bed but the reviewer's experience with such efforts is that the monotonous repetition of the call invariably produces sleep and the count is not completed.

Birds Observed near Minco, Central Oklahoma—An Addition. By Alexander Wetmore.

The Ibis. (II Series.) II, No. 4. October, 1920.

A Nominal List of the Birds at present known to inhabit Siam. By Count Nils Gyldenstolpe (continued).

A List of the Birds of the Anglo-Egyptian Sudan. (concluded.) By W. L. Sclater and C. Mackworth-Praed.

A Contribution to the Study of Nesting Birds. By Collingwood Ingram.—This is a most important paper full of data and suggestion and should be read by everyone interested in the development of nestling birds and the true significance of their plumage and structural characters. Down feathers are classified with more accuracy than in most works on plumage and the extent of feathering in various groups of birds at hatching is discussed. The author believes that the downy covering of Passerine birds is of real service to the species possessing it and not a "functionless ancestral inheritance," and in this we are inclined to agree with him. He looks upon it as obliterative in function, and considers that its absence in birds bred in dark cavities is simply due to the lack of necessity for obliterative markings under such circumstances. He also points out that where the family of young is large and the individuals crowded closely together the down is for the most part lost except on the head, which is the only exposed part of the bird. The case of naked young in open nests he confesses is "somewhat difficult to explain," but he makes the suggestion that the dark color of the skin of the nestling, in many of such species, may serve to partly camouflage them and further that they may be more continuously brooded by the parents.

There is discussion also of the development of the flange of the gape, the "egg tooth," the tubular nostrils of the Goatsucker etc., and a table of the development of down in most of the British species of Passerine and Picarian birds.

Notes on the Birds of North-east Chihli. By J. D. D. LaTouche. Part II.

Some preliminary remarks on the Altitude of the Migratory Flight of Birds, with special reference to the Palaearctic Region. By Col. R. Meinertzhagen,—A notable contribution to this subject with a valuable collection of data obtained from aviators and other sources. His conclusions are that birds rarely occur in migration at an altitude greater than 5000 feet and that the bulk of the flight is conducted below 3000 feet. Incidentally he states his view that birds do not rely to any large extent on land marks to guide them on migration. In this we heartily agree.

British Birds. XIV, No. 4. September 1, 1920.

Notes on the Breeding Habits of the Little Tern. By Thomas Lewis.—With excellent photographic illustrations of nesting behaviour.

The Law of Territory. By J. M. Dewar.

British Birds. XIV, No. 5. October 1, 1920.

The Haunt of the Black-tailed Godwit. By E. L. Turner.—With admirable illustrations from photographs.

Notes on the Nesting of the Nuthatch. By A. H. M. Cox.—Notes the habit of breaking off fresh leaves from twigs which concealed the nest hole from view and of plastering up the hole to suitable dimensions. A count of the pieces of bark etc. carried in for nest construction showed over 10,000.

Some Notes on Diving Ducks. By Charles E. Alford.

The Sale of the Duchess of Portland's Museum in 1786. By H. S. Gladstone.

British Birds. XIV, No. 6. November 1, 1920.

The Black Tern. By E. L. Turner—Beautifully illustrated account of nesting.

Avicultural Magazine. XI, No. 10. October, 1920.

The New Collection at Chateau de Cleres. By H. D. Astley.—M. Delacour is building up a new collection to replace his famous aviary destroyed during the war.

Avicultural Magazine. XI, No. 11. November, 1920.

Notes on the London Zoological Society's Indian Collection. By E. W. Harper—About 40 species of birds received in a shipment including a Psaroglossa spiloptera.

The Emu. XX, Part 1. July, 1920.

Plumage Changes of the Nankeen Night Heron (*Nycticorax caledonicus*); By C. F. Cole.—The plumages would be better understood if the nomenclature now generally adopted were used.

With Camera and Field Glasses in Northwest Victoria. By L. G. Chandler.—Illustrated by some beautiful half-tones.

Australian Species of Tubinares (Petrels and Albatrosses). By W. B. Alexander.—The first instalment of a valuable paper, in which we are gratified to see that the author makes use of subgenera instead of following the extreme generic subdivision advocated by Mathews. (continued in October number).

Penguins. By R. Stuart-Sutherland. (continued in October number). Aboriginal Names of Birds. By E. S. Sorensen.

Discovery and Early History and Notes on the Lyre-Bird (Menura superba).

The Emu. XX, Part 2. October, 1920.

Notes on Additions to the "H. L. White Collection." By A. J. Campbell.

The Birds of Sydney. By A. S. Le Souêf.

Food Pellets of Kingfishers. By Reg. Hays.—With photographs of contents.

Breeding of Bustards. By A. H. Chisholm.

There are some interesting photographs of *Podargus* and in both this and the preceding number, notices and comments on Mathews' latest 'List' of Australian birds.

The South Australian Ornithologist. V, Part 3, July 1, 1920.

The Birds of Rivers Murray and Darling and the District of Wentworth, Part II. By A. Chenery and A. M. Morgan.

Australia's Mockingbird. By Edwin Ashby.—The calls of the Victorian Lyre-Bird (Menurus novae-hollandiae.)

El Hornero. II, No. 1. July, 1920. [In Spanish.]

The Penguins of the Coasts and Islands of the Argentine seas. By Roberto Dabbene.

List of the Birds of Uruguay. By Juan Tremoleras.—254 species listed with a few recorded localities for each.

Short Notes on Antarctic Birds. By A. G. Bennett.—On the birds observed on the Shetland del Sur Islas and the Orcadas del Sur in 1913–14, 1914–15 and 1917–19 illustrated by half-tones from photographs.

The Young of the Stork (*Euxinura maguari*). By Miguel Fernandez. Notes on Mallonhaga of Argentine Birds. By F. Labille.

Notes on Mallophaga of Argentine Birds. By F. Lahille.

On Fossil Birds of the Republic of Argentine. By Lucas Kraghevich. **Revue Française d'Ornithologie.** No. 138. October 7, 1920. [n French.]

Guide for the Amtaeur Ornithologist Visiting Africa. By Dr. Millet-Horsin.

Le Gerfaut. X, No. 3. 1920. [In French.]

Remarks on the Life History of the Cuckoo. By L. Coopman.

Birds of Prev Useful or Injurious. By Ch. Groud.

Observations on the Song of Some Thrushes. By A. Mercier.—Deals with the sommon European species.

Ornithologische Monatsberichte. Vol. 28, No. 7-8, July-August, 1920. [In German.]

The Forms of Bird Calls. By H. Stadtler and C. Schmitt.

Two New Weavers from Middle Africa. By M. Sassi.—Ploceus (Melanopteryx) holomelas (p. 81) P. (M.) aureonucha (p. 81) both from Mawambi.

Ornithologische Monatsberichte. Vol. 28, No. 9-10, September-October, 1920.

Feining of Wild Doves (Columba palumbus) for the protection of their Young. By F. Sellbach.

A New Crested Lark from French Guinea. By H. Grote.—Helicorys modesta nigrita (p. 98).

Ornithologische Monatsberichte. 1917 and 1918 are at last available for notice. The former volume contains numerous observations on the birds of northern France; discussion on the validity of Fulica stenoleuca Peckelhoff as distinct from F. atra, and an historical article on Reichenbach's 'Natural History of Birds' by A. Jacobi. The following new forms are described by O. Neumann from New Guinea: Chaetura novaeguineae mamberana (p. 153); Edoliisoma schisticeps reichenowi (p. 153); E. s. moszkowskii (p. 154); E. s. bernsteini (p. 154); Aplonis cantorides longipennis (p. 155).

In the 1918 volume there are additional papers on French and Russian birds; discussion on the forms of the European Creepers (*Certhia*); the sexual characters of *Bombicilla garrula* by F. Tischler and on the Corvidae of West Russia. J. Gengler describes as new *Corvus corax dardaniensis* (p. 110) from Macedonia, in the September–October issue.

Journal für Ornithologie. Vol. 65, No. 1. January, 1917. [In German.]

An Ornithological Bibliography of Pommerania. By F. Koski. (completed in April.)

Bird Migration in the Western Sahara. By H. Geyer von Schweppenburg.

The Different Methods of Recording Bird Notes. By H. Hoffmann.

Observations of the Birds of Pottsdam and the Arrival in Spring. By H. Anel.

Some African and other birds are described in the proceedings of the Ornithologisal Society which may date from here.

Journal für Ornithologie. Vol. 65, No. 2. April, 1917.

The Belief in the Hibernation of Birds and Its Origin. By A. Wesemuller.

Journal für Ornithologie "Sonderheft," April, 1917.

Bird Migration in Helgoland in the Years 1912 and 1913. By P. Kruss.—Daily lists with direction and strength of wind and a list of 71 species observed.

Journal für Ornithologie, Vol. 65, No. 3. July, 1917.

In the Land of the Tuareg. (Eastern Sahara.) By H. Geyer von Schweppenburg. (continued in April, 1918.)

Bird Observations at Rossiten, during 1916. By H. Thienemann.

New Birds Described by Reichnow. Page 391: Turdus pondoensis, Pondo-land, S. E. Africa; Dryonastes tsinlingensis, Schensi, E. China; Bradypterus usambarae, Usambara, E. Africa; Calamocichla palustris,

Massailand; Cinnicerthia paramosa, Ecuador, "Paramos Grenze"; Turdinus tanganjicae, Tanganika. Page 392: Ploceus quilimanensis, S. Mozambique; P. epipolius, Kilwa, E. Africa; P. pondoensis, Pondoland.

Journal für Ornithologie, Vol. 65, No. 4. October, 1917.

New Contributions to Our Knowledge of the Birds of the Province of Posen. By J. Hammling (continued in January and April, 1918).

Remarks on Some Turkestan Birds. By P. Kollibay. (continued.)

On the Song etc., of the Swift. By B. Hoffmann.

The Geographical Races of *Turdus viscivorus* L. By F. von Lucanus.— T. v. jubilaeus (p. 511) susp. nov. Caucasus.

New Species described by Reichenow. Gerygone stictilaema (p. 514) and Chaetura burgersi (p. 514) both from Sepik, N. Guinea. Many of these descriptions of Dr. Reichenow are very unsatisfactory, being exceedingly brief with no mention of a type specimen.

Journal für Ornithologie. "Sonderheft," 1918.

On Bird-banding Experiments during 1913 to 1916 and Bird Migration on Helogoland, 1914–1917.

Journal für Ornithologie. Vol. 66, No. 1. January, 1918.

New Species of African Birds Described from 1905 to 1914. By A. Reichenow.—A list of 979 species and genera with reference to place of publication.

Journal für Ornithologie. Vol. 66, N. 2, April, 1918.

Contributions to the Ornithology of Macedonia. By R. Schlegel.

Queries and Problems in Bird Song. By C. Schmitt and H. Stadler.—The Nightingale, Cuckoo and Titmouse.

Journal für Ornithologie. Vol. 66, No. 3. July, 1918.

On the Ornithology of Northeast France. By W. Bachmeister and O. Kleinschmidt.

Two Years of Field Ornithology in the Rokitno Swamps [Western Russia]. By W. Grafsmann.

Journal für Ornithologie. Vol. 66, No. 4, October, 1918.

Bird Observations at Rossitten, 1917. By H. Thienemann.

Review of the Birds of Kurland. By A. Reichenow.

The Systematic Position of *Urocynchramus pylzovi* Przev. By J. Domaniewski.—A new family Urocynchramidae proposed for it as it differs materially from all of the Fringillidae, in which family it has previously been included.

Descriptions of New Birds by Reichenow.—Page 437: Dendropicos obsoletus camerunensis, Kamerun; D. o. kirensis, Kir, Africa; Sylvietta zedlitzi, South Kavirondo, Page 438, S. ladoensis, Lado; Serinus dorsostriatus intensitinctus, Massailand; S. icterus songeae, Songea; Poliospiza angolensis deserti, Damaraland; Phonygammus neumanni, Lordberg, Sepik; Page 439: Trichoglossus aberrans, New Guinea.

Journal für Ornithologie. "Reichenow Festschrift." 1917. Vol. 65, pt. II. Published in commemoration of the seventieth birthday of Anton

Reichenow; comprising a sketch of the ornithologist and twenty-seven papers by members of the German Ornithological Society. Among these may be mentioned the following:

Important Observations on the Paraguayan Forest Region. By Hans von Berlepsch.

The Ornithological Position of the Tuareg Mountains. By H. Geyer von Schweppenburg.

The Biology and Distribution of our Species of Certhia. By W. Hagen. The Influence of Season, Age and Sex upon Moult. By O. Heinroth.

On the Hygienic and Economic Value of Birds. By C. R. Hennicke.

The Specific Validity, Winter Plumage and Melanism of Uria mandtii. By A. Jacobi.

The Owls of Egypt. By A. Koenig.

The Numerical Relation of the sexes in the Bird World. By F. von Lucanus.

On the Avifauna of the Lower Senegal Country. By O. Neumann.—With a list of 293 species.

A few Remarks on the Avifauna of Nova Zembla. By H. Schalow.

Do Migrating Birds Require Preparation for their Flights? By J. Thienemann.—Dates of arrival and remarks on the condition of the stomach and crop.

The Plumage of the Pine Crossbill (Loxia curvirostra), By F. Tischler. List of birds observed in the Sahara Country. By O. Graf von Zedlitz. Comment on Turdus viscivorus jubilaeus which here appears as "new" but with a reprint of Lucanus' earlier paper.

Aquila. 1915. XXII. [In Hungarian and German.]

(These annual numbers are full of articles dealing with the migration economic value habits and distribution of Hungarian birds with many local lists. In the following notice only the more important papers or those of more general interest are mentioned.)

Histology of the Skin of Birds. By E. Greschik.

On the Structure of the Spleen in Birds. By E. Greschik.

Bird-banding by the Hungarian Ornithological Society in 1914 and 1915. By J. Schenk.

Materials for an Avifauna of Serbia. By D. Lintea. (concluded in 1916.)

On Fossil Remains of Bubo maximus and Syrrhaptes paradoxus. By K. Lambrecht.

Aquila. 1916. XXIII.

Bibliography of Palaeo-ornithology to the end of 1916. By K. Lambrecht.

Biography of Otto Finch and others.

Bibliography of Hungarian Ornithology 1915–1916. By T. Csorgey. Aquila. 1917. XXIV.

On the Digestive Canal of Androglossa aestiva. By E. Greschik.

Origin and Development of the European Bird Fauna. By K. Lambrecht.

Aquila. 1918. XXV.

The Morphology of the Tongue of Birds. By J. Greschik.

A Nomenclature of the Birds of the Kingdom of Hungary. By Stefan Chernel.—410 species listed but the nomenclature does not follow any code, the 10th or 12th edition of Linnaeus being cited for a species according to which will cause the least change in the names.

On the Digestive Canal of Regulus cristatus. By E. Greschik.

Aquila. 1919. XXVI. *

International Bird Protection.—The Paris convention of 1902.

Positive Data on the Food of Our Birds. By E. Csiki—Elaborate tables of food of the Magpie.

Ornithological Articles in Other Journals.1

Soper, J. Dewey. Nesting of the Ruby-crowned Kinglet at Guelph, Ontario.—A valuable account of the species. (Canadian Field Naturalist, April, 1920.)

Townsend, Charles W. Notes on the Summer Birds of the Gaspe Peninsula, Provence of Quebec. (*Ibid.*)

Clarke, W. Eagle. The Attempted Breeding of the Bee-Eater (Merops apiaster) in Midlothian. (Scottish Naturalist, September-October, 1920.)

Rintoul, L. J. and Baxter, E. V. The Shoveller as a Scottish Breeding Species. (*Ibid.*)

'Adams, C. C., and others. Plants and Animals of Mount Marcy, New York. Part II. (Ecology, 1, July 1920.)—Bird data mostly from Eaton's 'Birds of New York.'

Allen, Elsa G. The Eggs of Birds. (American Forestry, 1920.)

Ruttledge, R. F. Some Notes on the Habits of the Wren. (Irish Naturalist, November, 1920).—Sings in every month of the year and sings on the wing.

Illidge, R. Wrens of the Brisbane District. (Queensland Naturalist, II, No. 3).

Chisholm, A. H. Courtship Among Birds. (*Ibid*).—Comments on Lankester's statements.

Baker, E. C. Stuart. Notes on Two Collections of Birds from Seistan. (Records of the Indian Museum, XVII, Part II.)

Wait, W. E. Occurrence of the White Wagtail in Ceylon. (Spolia Zeylanica, XI, Part 42.)

^{*} The above bring our notices of the German ornithological journals, which were not accessible during the war, up to date.