

## Recent Literature.

RIDGWAY'S NOMENCLATURE OF NORTH AMERICAN BIRDS.\*—So many species of birds have been recently added to the North American fauna, and so many important changes have been made in the nomenclature of species previously catalogued as North American, since the publication of Dr. Coues's "Check List of North American Birds" in 1874, and especially since the appearance of Professor Baird's "Catalogue of North American Birds" in 1859, that a new check list, faithfully embodying these changes and additions, had become a necessity when Mr. Ridgway set about the preparation of the present catalogue.† Mr. Ridgway's well-known familiarity with North American birds, and his abundant resources for their investigation, render the authorship of the present catalogue eminently fitting, while its publication under the direction of the Smithsonian Institution lends to it a standing and an influence that would alone go far toward making it authoritative. Like Audubon's "Synopsis" of 1839, Baird's "Catalogue" of 1859, and Coues's "Check List" of 1874, its publication marks an epoch in North American ornithology, and will form, like the preceding, a datum-point in the history of the subject. It becomes, therefore, a work of high importance and one to the consideration of which we may well give considerable space.

An interval of twenty years elapsed between the appearance of Audubon's "Synopsis" and Baird's "Catalogue." In 1839 our vast western territories were ornithologically almost unknown. Audubon had not then visited the Upper Missouri region, but Townsend had crossed the continent and explored hastily the plains of the Columbia and the North-west Coast, bringing therefrom many new species of birds. But the great central region and the South-west, still Mexican territory, remained untouched. During the twenty years following, this whole vast region was traversed in the interest of science. The various surveys for a railroad route to the Pacific, begun in 1853 and continued for four years, carried several

\* Nomenclature of North American Birds chiefly contained in the United States National Museum. By Robert Ridgway. Bull. U. S. Nat. Mus., No. 21. Published under the direction of the Smithsonian Institution. Washington: Government Printing Office, 1881. 8vo. pp. 1-94.

† The memoir now under notice appeared originally several months since (Proc. U. S. Nat. Mus., Vol. III, pp. 163-246, Aug. 24-Sept. 4, 1880) under the title, "A Catalogue of the Birds of North America." "This catalogue," says its author, "is really the basis of the present one, which is essentially a revised edition, very materially modified, however, by numerous alterations and corrections, involving not only the change of a considerable number of names, but also the writing of a new introduction, etc. The edition the title of which has just been quoted *has not been published separately*, although a number of extras were struck off for private use" (*op. cit.*, p. 5).



lines of exploration across the continent to the Pacific, while a special survey was made of the boundary line separating the United States and Mexico. In the meantime agents of the Hudson's Bay Company and of the Smithsonian Institution had explored the natural history of vast portions of the great northern interior, extending from our northern frontier to the Arctic Sea. The treasures gathered from this wide area had been brought together at the Smithsonian Institution and formed the basis of Baird's monumental work on North American ornithology published in 1858, forming Vol. IX of "Reports of Explorations and Surveys for a Railroad Route from the Mississippi River to the Pacific." It is then perhaps a matter of little surprise that the 491 species known to Audubon in 1839 should have been increased to 760 — an addition of 269 — in 1859. In the nearly equal interval (twenty-one years) next following, almost the whole of the vast unsettled region west of the Mississippi was explored in detail by four regularly organized government surveys, each with their ornithological assistants, while officers of the United States Army and private collectors added greatly to our ornithological knowledge of previously almost wholly unexplored localities, to say nothing of our new territory of Alaska, the ornithology of which has now already received much attention. The accumulation of material thereby resulting has not only added many new forms but thrown much light upon the relationship of others, and rendered necessary many changes in nomenclature. In 1859 we had gathered the first fruits; we now have the mature harvest; but there is still doubtless much left for the gleaners.

The additions made since 1859 are far less numerous than those which marked the period of twenty years immediately preceding, but the wonder is that they are so many rather than so few, when we consider how fully the Great West had been explored prior to 1860. In comparing the present list with that of 1859, the author observes that it "contains 226 valid species and recognized races which have either been first described or added to the North American fauna since 1859, while, on the other hand, no less than 42 names of the old catalogue have been relegated to the ranks of synonymy, and 20 more removed as extralimital. Furthermore, of the remaining 698 names over 300 have been more or less amended, so that only 395 of the 760 names as given in the old catalogue are retained in the current nomenclature!" (*op. cit.* p. 7). The "actual number of names in the catalogue of 1859 is 764" (*i. e.* 760); in the present catalogue (1881), "924," an "apparent increase of 164." In the present catalogue are added 127 species and 99 subspecies, making the total, as above stated, of 226 new names. The number of names of the old catalogue, or their equivalents, retained in the new, is, species, 637, subspecies, 61, making 698 names in a total of 760, or an elimination of 62. Besides the 62 species wholly eliminated as extralimital or synonyms, 61 are reduced to subspecific rank, and 100 generic and 89 specific names have been changed. In the present catalogue only the species are separately numbered, the subspecies being indicated by letters joined to the number of the species to which the subspecies are respectively referred.



In the comparison above made between the catalogues of 1859 and 1881, based on that given by the author of the later catalogue, there is no intimation that the geographical limits of the two are not the same, which, however, is not the case, the later catalogue embracing the peninsula of Lower California and the islands Socorro and Guadalupe, off the western coast of Mexico, not included in the former. These islands furnish 11 species and 3 subspecies, and Cape Saint Lucas 8 (22 new names in all), of the 226 additions; and there are, besides, 5 of Giraud's "Sixteen Species of Texan Birds" included which were not given in the earlier catalogue, reducing the number of actual additions from within the same geographical limits to 199. As said above, this number of additions is certainly surprisingly large, and one doubtless little anticipated by ornithologists twenty years ago.

It may be further observed in this connection that of the recent additions 20 are from Greenland, 9 from Alaska, and 2 from Greenland and Alaska together. A few others are pelagic, and 38 are from near our southern border, chiefly from the valley of the Rio Grande and Arizona.

In respect to the geographical limits of the area treated in the present catalogue, the author tells us that it includes Greenland and the whole of North America down to the United States and Mexican boundary, besides "the peninsula of Lower California, and the outlying islands of Guadalupe and Socorro, the latter in latitude  $18^{\circ} 35'$ , and about 240 miles off the coast of northwestern [*i. e.*, southwestern] Mexico, the former in latitude  $29^{\circ}$ , and 230 miles southwest from San Diego. Guadalupe and Socorro, like Lower California," continues our author, "are included for the reason that their zoölogical relationships are much closer to North America, as usually (but arbitrarily) restricted, than to the tropical coast-region of western Mexico, their avian fauna in particular being decidedly of 'Nearctic,' affinity with the exception, so far as known, of only two species—a *Polyborus* peculiar to Guadalupe and a *Conurus* found both in Socorro and in western Mexico. Indeed, the greater part of Mexico itself (all, in fact, except the narrow coast-region, or *tierra caliente*, and the lowlands of the southern portion) belongs, ornithologically as well as geographically, to North America, as might easily be demonstrated did space permit; but the enlargement of our field to its proper limits would be quite impracticable at the present time. For the surrender of this our rightful territory, however, we have compensation in the fact that the arbitrary line which we have drawn (*i. e.*, the United States and Mexican boundary from the Gulf of Mexico to the mouth of the Colorado) gives a comparative stability to the list which a greater southward extension of the area, with indefinite limits, would render impossible" (*op. cit.*, pp. 7, 8). Audubon's "Synopsis" included "the vast regions extending from the northern confines of Mexico to the Polar Seas"; Baird's "Catalogue" of 1858, on which that of 1859 was based, was a list of the birds of "North America, [occurring] north of Mexico," but included a number of Mexican species which were, however, especially distinguished in the list as *extralimital*; Coues's "Check List" included North America "north of the present



Mexican Boundary; inclusive of Lower California; exclusive of Greenland." This is, therefore, not the first time that Lower California has been included in a catalogue of North American birds. While agreeing most fully with Mr. Ridgway in all that he says respecting the ornithological affinities of these outlying appendages as well as of a large part of Mexico, we still greatly regret that the southern boundary of the United States has not been uniformly adhered to as the southern limit of North America in our check lists and catalogues of North American birds. Since for convenience's sake an arbitrary line must be selected, at least for much time to come, it seems best for purposes of statistical and historical comparisons to choose the one ostensibly recognized in the earlier catalogues.

A few words further in respect to the scope of the new catalogue. Mr. Ridgway tells us that he is "constrained, by important and carefully considered circumstances, to retain in the list some seven or eight species of Mexican birds treated by Professor Baird in volume ix, Pacific Railroad Reports ('Birds of North America'), and included in the Catalogue of 1859. They were all obtained just across the Rio Grande, and therefore it may be deemed perfectly safe to assume that their occasional occurrence on our side of the river is certain, and their capture there merely a question of time. Ten species published by J. P. Giraud as having been obtained in Texas, but which have not been subsequently recorded from within our limits, are also included, there being every probability of their occurrence there, while Mr. Giraud strenuously maintained, to the day of his death, that they were really collected in that State."

Mr. Ridgway further says: "Neither are we prepared to relinquish certain Audubonian species which at present are known only from the works of their describer (e. g., *Regulus cuvieri*, *Perissoglossa? carbonata*, *Dendroca? montana* [described and figured originally by Wilson] and *Myio-dioces? minutus*), as well as two well-known species given by Audubon on his own authority (*Chrysomitris 'magellanica'* = *C. notata* and *Eudocimus ruber*), having full confidence, as we do, in his veracity." After alluding to three instances in which Audubon was "evidently imposed upon," Mr. Ridgway continues: "But the birds which we have called special attention to above are all so clearly described and accurately figured that we must either regard them as valid species or, as the only alternative, view them as mainly the creation of Audubon's brain and pencil. To do the latter, however, on the purely negative ground that no one else has met with them, seems to us not only a gross injustice to his memory, but, laying aside personal considerations altogether, also a most insecure position to take. The type of *Emberiza [Spiza] townsendi*, described by Audubon forty-six years ago, remains unique to this day; but since it fortunately exists in an excellent state of preservation, we have, in this case at least, positive evidence of Audubon's good faith. The species may now be extinct, and so may 'Cuvier's Kinglet,' the 'Carbonated' and 'Blue Mountain Warblers,' and the 'Small-headed Fly-catcher'; but we have very strong faith that the 'lost' species will even-



tually repeat the history of several others which for a long time evaded the closest search, like *Coturniculus lecontei* (Aud.), the type specimen of which was lost, and a second example not obtained until 1869, or twenty-six years after the species was first described and figured, while now it is represented by a greater or less number of specimens in all the principal collections in this country; or *Centronyx bairdii* (Aud.), which passed through even a worse experience, one eminent ornithologist having the good fortune to obtain more than 75 of this species in less than a year after he had 'ventured to foretell' that 'a second specimen would never be found!' (*op. cit.*, pp. 8, 9). But the cases are hardly parallel, since these and Sprague's Lark, which may be included in the same category, were found as soon as their habitats in the unexplored West were reached by later ornithologists, while the habitats of the other species are the thickly-settled portions of the East, long since thoroughly explored. Despite their being so "clearly described and accurately figured," ornithologists still guess at their generic affinities, and the opinion has more than once been hazarded respecting several of them that they were really based on some immature phase of plumage of common species. Some of these, as the Carbonated Warbler, are not so easily dismissed, since they need be scarcely less rare than Kirtland's and Bachman's Warblers, and some of the other now recognized *Helminthophagæ*, to elude capture altogether. Again, as has been suggested to me by a well-known ornithologist, hybridity may well come in for consideration in this connection, especially in reference to Cuvier's Kinglet, since the fact of hybridity between different species of *Oscines* is now well established. In regard to Audubon, it may be noted that 10 species, now admittedly exotic, were given by him as North American, with definite localities assigned to them. To have excluded all these "lost" or apocryphal species, and also all the (so far as now known) extralimital species from the list proper, and to have given them in supplementary lists only, would have thrown more sharply into relief the extent of our exact knowledge of our *ornis* than is the case in numbering them consecutively in the principal list.\* Eliminating the species not certainly known to have been taken north of Mexico, together with the "lost" species of Audubon and Wilson, reduces the list of registered forms from 928 (this number includes four given in the "Addenda" to the catalogue) to 888.

In regard to the nomenclature of the list, it is needless to say that the system is trinomial, and its merits and advantages are thus tersely set forth by our author: "The adoption of trinomials for the designation of nascent species—a direct result of the synthetic method of study which has supplanted the former analytic treatment of the subject—has caused perhaps the greatest difficulty encountered in the compilation of this catalogue, it being in many cases very difficult to decide whether a given form should be treated as having passed the 'varietal stage,' and therefore to be designated by a binomial, or whether it is yet incompletely differentiated,

\* It should be here stated, however, and as will be more fully noticed later, these discriminations are all duly and prominently set forth in the "Appendix" of the list.



and to be subordinated in rank by a trinomial appellation." In a footnote the author adds: "It should not be inferred from our remarks in this connection that we find the use of trinomials inconvenient in practical application. On the contrary, no other method seems at all adequate to the proper discrimination between isolated and intergrading forms, and the difficulty in the cases above alluded to arises wholly from the want of sufficient material to decide the question of intergradation or the contrary." In regard to the treatment of doubtful cases "the greatest care has been taken," and "previous conclusions" have been "carefully reconsidered, with the aid of all the material accessible, including many specimens not previously in hand. This reconsideration of the subject has, in not a few cases, resulted in a reversal of former opinion, specimens from important localities not before represented often deciding the point one way or the other. Every form whose characteristics bear unmistakably the impress of climatic or local influences, gradually less marked toward the habitat of another form, with which it thus intergrades, and all forms which certainly intergrade, no matter how widely distinct the opposite extremes may appear (*e. g.*, *Colaptes auratus*, and *C. mexicanus*, and the different races of *Passerella*), together with intergrading forms whose peculiarities are not explained by any known 'law' of variation, have been reduced to subspecific rank. On the other hand, where the difference between allied forms is slight, but at the same time apparently constant, and not necessarily coincident with a difference of habitat (*e. g.*, certain small Thrushes and the various forms of *Junco*), specific rank is upheld. There are some forms which future investigation, based upon adequate material, may decide to be of different rank from that accorded them here. We cheerfully acknowledge our fallibility, but at the same time would say that we have endeavored to be as consistent as possible, giving the rank of each form as it appears in the light of our present knowledge, independent of previous conclusions" (*op. cit.*, pp. 9, 10). That the revision here presented is impartially and conscientiously made there can be no doubt, evidence of which is afforded by the cancelling of 4 species and 6 varieties for the erection of which Mr. Ridgway is himself either wholly or in part responsible, while others for which Professor Baird stands sponsor share a similar fate. The really few changes in this respect from the status in Baird, Brewer, and Ridgway's "History of North American Birds" and Coues's "Check List" augurs well for a reasonable degree of fixity so far as forms now recognized are concerned.

As already indicated, nomenclatural changes, simply as such, are numerous, affecting many generic as well as specific names. Very few of them are, however, now for the first time introduced; quite a proportion have gradually gained currency during the last five years, but many of them date from April, 1880.\* While quite a number of the long-familiar

\* See Coues, "Notes and Queries concerning the Nomenclature of North American Birds," Bull. Nutt. Orn. Club, V, pp. 95-102, April, 1880. Ridgway, "Revisions of Nomenclature of certain North American Birds," Proc. U. S. Nat. Mus., 1880, pp. 1-16, "March 27, 1880."



names of several of our commoner species of birds has given place to obscure ones of earlier date, the reasonableness of the change is in most cases apparent, while in others the necessity is doubtful, and their adoption will result rather from a desire for unanimity than from conviction that the change was demanded or even desirable.

As a general criticism we may note the tendency to a multiplicity of genera, — a tendency from which there are already many signs of a reaction. The average in the present catalogue is almost exactly two species to a genus, but of course many of the genera have extralimital species. With the reduction of so many forms formerly regarded as specific to the rank of geographical races, and the consequent wider range of variation admitted within specific groups, it would seem consistent to reduce rather than increase the number of genera and to degrade many of the so-called generic groups, if they must be retained at all, to the rank of subgenera, and also preferable as tending to show with greater precision the degree of relationship many of the so-called genera hold *inter se*. The course adopted by Dr. Coues in his "Key" and "Check List," in reference to the genera of Wading and Swimming Birds, has always seemed to us commendable, although of late repudiated, in practice at least, by Dr. Coues himself.

That the end is not yet reached, either as regards additions to our avian fauna or the status of some of the rarer and less well-known forms, is evident (see, *e. g.*, the several papers in the last number of this Bulletin by Mr. Brewster, in which new forms are added and the status of others changed), and doubtless if a check list be prepared say in 1890 it will differ widely from that now under consideration. Consistency even already demands the recognition of several additional subspecific forms, which we are surprised to see have been so long passed over, especially among the birds of Florida, where the resident form of the Bluebird, the Bluejay, the Red-winged Blackbird, the Meadow Lark, and the Yellow-winged Sparrow are quite as well entitled to varietal recognition as many that have already received this distinction.

Passing now from the "Catalogue" to the "Appendix," which occupies nearly as many pages as the catalogue itself, we find a most important contribution to the historical phase of North American ornithology, and one evincing most painstaking, laborious, and, we may well say, exhaustive research, so far as its scope extends, which is mainly a comparison of the present status of the subject with that of 1859. The matter is arranged in a series of twelve "tables," numbered *a* to *l*. These designate (*a*) the species eliminated from the Catalogue of 1859, with indication of the reason for each elimination; (*b*) the "species or races" described or added to the North American fauna since 1859, the newly described forms being indicated by the use of special type, while references are given respectively to the place of first description or to the original record. In this list are distinguished for the first time\* *Mniotilta varia borealis*,

\* In these remarks the original and revised editions are treated as the same work.



*Chondestes grammica, stigata, Buteo borealis socorroensis* as new races, and *Tinnunculus sparverioides, Thrasaëtus harpyia*, and *Actodromas acuminatus* as additions. (c) Genera described or added since 1859, and generic names orthographically emended since that date. Under this heading are briefly discussed the status and history of three "genera" among the Thrushes, including a defence of *Merula* as a generic designation for our common Robin, and the genera *Myiodiotes, Utula*, etc. (d) Species included which are not yet known to have been taken within the prescribed limits. (e) Old World species of regular occurrence in Greenland or merely casual visitants to Eastern North America. (f) "Palæarctic" and oceanic species occurring in Alaska or on other parts of the Pacific coast. (g) "Palæarctic" species found in both Greenland and Alaska but not at intermediate points. (h) Tropical American species occurring only in the southern portions of the United States. (i) Supposed valid species described by Audubon and Wilson, but not since met with, and of which there are no known specimens extant. (j) Untenable species and races described since 1858. (k) Exotic species apparently wrongly attributed to North America. (l) Partial list of foreign birds which have been introduced, or which have been captured after escape from confinement. Each of these lists is appropriately annotated, the annotations varying in character with the special requirements of the several categories, and the information thus succinctly presented is not only of the most useful and interesting kind, but hard to find when wanted without this admirable index of references.

The "Addenda" gives, first, a commentary on 6 species, 4 of which are supplementary to those contained in the Catalogue itself. Then follows a list of the families of North American birds, with the number of genera and species of each recorded in the Catalogue, and finally a "Concordance" of the two Catalogues of 1859 and 1881, in which the corresponding numbers of each are given in parallel columns.\* There is also an "Index to the Genera."

As already noted, the present "Nomenclature" is a "revised edition" of Mr. Ridgway's "Catalogue" of a few months' earlier date. But it should be added that in a footnote to page 5 of the present work is given a schedule of the more important changes from the first edition, which embrace a new introduction, various changes of generic, specific, and English names, and corrections of authorities. The work is exceedingly free from typographical errors, and in every way evinces the exercise of the utmost care in its preparation.—J. A. A.

RIDGWAY'S REVISED CATALOGUE OF THE BIRDS OF ILLINOIS.†—The present catalogue is based primarily upon the same author's "Catalogue

\* The numbers of the old catalogue are also given in the new, following the English names and enclosed in brackets.

† A Revised Catalogue of the Birds ascertained to occur in Illinois. By Robert Ridgway. Illinois State Laboratory of Natural History. Bulletin No. 4. Bloomington, Ill., May, 1881. 8vo. pp. 161-208.



of the Birds ascertained to occur in Illinois," published (Ann. Lyc. Nat. Hist. New York, Vol. X, pp. 364-394) in 1874, but adds 31 species to the 311 then recorded, making (one having been eliminated) 341 now enumerated, besides 11 additional varieties. The author acknowledges his indebtedness to the several lists of the birds of Illinois published by Mr. E. W. Nelson, and to various private sources. The preface recounts the geographical extent, topographical features and meteorological characteristics of the State which tend to give it so diversified a fauna. Then follows a table of the families represented, with the number of species of each and the number which breed in the State. A bibliography of 26 titles of papers relating to the ornithology of Illinois succeeds, and then the catalogue itself. The species known to breed (213 in number) are distinguished by an asterisk; the annotations are brief, and relate mainly to the abundance, the season of occurrence, and the distribution of the species within the State. An "Appendix" gives a list of 42 species "which probably occur in Illinois," but which have not been actually taken there. The nomenclature is that of Mr. Ridgway's recently published Catalogue of North American birds.

The bird fauna of Illinois is stated to embrace members of 17 "orders," "according to the latest and most improved classifications," among which are the "orders" *Trochili*, *Cypseli*, *Caprimulgi*, and *Sarcorhamphi*!

Illinois takes the lead among the States in respect to number of species of birds, Massachusetts following next with (including the latest additions) 330, the much greater geographical area of Illinois, and especially its greater extent in latitude, together with its central position, more than compensating for the maritime position of Massachusetts. There is no area, however, in the United States in which so many species have been ascertained to occur as in the last named State.—J. A. A.

MEARNS'S BIRDS OF THE HUDSON HIGHLANDS.—Two installments\* of Dr. Mearns's excellent memoir (see this Bulletin, Vol. V. p. 175) have appeared during the last year, completing the List as far as *Ortyx virginiana*. The high praise accorded the earlier installments is equally merited by those now under notice, Mr. Mearns's "List of the Birds of the Hudson Highlands" ranking easily among the best of our long list of contributions to local ornithology. There is much said about the habits of various species that is entertaining or new, while the dates of migrations for periods of eight to ten years, and the averages and extremes of measurements of generally a large series of specimens of each species, give data of high value. In respect to nomenclature, the list is abreast with the latest well-grounded innovations.—J. A. A.

RATHBUN'S "BRIGHT FEATHERS OR SOME NORTH AMERICAN BIRDS OF BEAUTY."—Part II of this work, recently issued, is devoted to the

\* A list of the Birds of the Hudson Highlands, with Annotations. By Edgar A. Mearns. Bull. Essex Inst., Vol. IX, p. 11-25 (*Egiothus linaria* to *Quiscalus purpureus*), Nov., 1880; pp. 109-128 (*Corvus frugivorus* to *Ortyx virginiana*), Feb., 1881.



Rose-breasted Grosbeak (*Goniaphea ludoviciana*). The colored plate illustrates the adult male and female, but the sixteen quarto pages (pp. 25-40) of text leave the history of the species still unfinished. In noticing Part I (this Bulletin, Vol. V. p. 234) we were compelled to speak unfavorably of the literary execution of the work, and regret that the present issue will not permit of more favorable notice. A single sentence, a portion of which we may italicize, may serve to point our criticism: "The tender blades of golden hued grasses were gently crowding aside the dead leaves of the preceding autumn, like true lollards of a murmuring hour." (p. 26). As nearly or quite three-fourths of the text consists of quotations from other authors, bearing mainly upon the utility of the Rose-breasted Grosbeak as a destroyer of the Colorado potato beetle, but including also a long extract from Audubon, the not too fastidious reader may find little to offend his taste.—J. A. A.

HOLTERHOFF'S NOTES ON WESTERN BIRDS.—These notes, as the title of the paper\* indicates, relate to the breeding habits of a few of the lesser known species of Western birds. The observations here recorded were made in Southern California in the spring of 1880, and have reference to some 40 species, among which are included the Curve-billed Thrushes and the *Poliophtile* of the region in question, about which, as well as of various other species, much interesting information is communicated.—J. A. A.

RIDGWAY ON A DUCK NEW TO THE NORTH AMERICAN FAUNA.—In the "Proceedings" of the United States National Museum†, Mr. Ridgway records an immature male Rufous-crested Duck (*Fuligula rufina*, Steph.) supposed to have been shot on Long Island Sound. The specimen was found in Fulton Market, New York City, some nine years ago by Mr. George A. Boardman, of Calais, Maine, by whom it was then sent to the Smithsonian Institution. The specimen was then looked upon as a hybrid, and was put aside and forgotten. It received no further attention until recently when it was identified by Mr Ridgway as above stated. In making the record Mr. Ridgway takes occasion to describe the species in its various phases of plumage, and adds a few critical remarks on the generic synonymy of the group to which it belongs.—J. A. A.

RIDGWAY ON THE AMAZILIA YUCATANENSIS (CABOT)‡.—This species was not long since referred by Elliot to the *A. cerviniventris* of Gould, which determination was later accepted by Mr. Ridgway. A comparison

\* A Collector's Notes on the Breeding of a few Western Birds. By E. [i. e., G.] Holterhoff, Jr. American Naturalist, March, 1881, pp. 208-219.

† On a Duck new to the North American Fauna. By Robert Ridgway. Proc. U. S. Nat. Mus., April 13, 1881, pp. 22-24.

‡ On *Amazilia yucatanensis* (Cabot) and *A. cerviniventris*, Gould. By Robert Ridgway. Proc. U. S. Nat. Mus., April 13, 1881, pp. 25, 26.



of Cabot's type with Texan specimens of *A. cerviniventris* shows that the species are distinct. Comparative diagnoses are given of the two species, with some remarks respecting their distribution.—J. A. A.

HARVIE-BROWN'S SECOND REPORT ON SCOTTISH ORNITHOLOGY\*.—The first third of the report gives a "Journal of the Winter of 1879-80," and is mainly a record of the weather, with references *passim* to the effect of meteorological conditions upon the movements of various species of birds, especially in relation to the vernal migration. The remainder of the report gives observations on some 65 to 70 species, mainly in relation to their abundance at particular localities during the period named as compared with former years. The importance of such a record, extended through a series of years, especially in relation to the increase and decrease of particular species, and to the causes to which such fluctuations are due, is sufficiently obvious. The Redpolls (*Linota linaria*) are reported to have warmly lined their nests with feathers in the unusually backward cold spring of 1879, while at the same locality in the more favorable spring of 1880 they almost wholly neglected this precaution. The report abounds with especially suggestive observations in relation to little understood points in bird-life, and leads one to hope that not only these reports will be continued, but that we shall have others equally detailed for other districts, including, indeed, large portions of our own country.—J. A. A.

GODMAN AND SALVIN'S "BIOLOGIA CENTRALI-AMERICANA."—Part I of the "Zoölogy" of this important work† appeared in September, 1879, and nine other parts have followed at short intervals, Part X, the last issued, bearing date April, 1881. As the title indicates, the work treats of the fauna and flora of Mexico and Central America, or of the region extending southward from the United States and Mexican boundary to the Isthmus of Darien. It is issued in parts, each averaging about 96 quarto pages of text and 6 hand-colored lithographic plates. The zoölogical portion is estimated to form, when completed, about 12 volumes of 500 pages each. Each subject is paged separately, and will thus be complete in itself. The zoölogical portion may be had separately, but the different subjects in zoölogy will not be sold apart from the others. The editors of the work have been collecting material for this great enterprise during the past twenty-two

\* Second Report on Scottish Ornithology—October 1st, 1879, to September 30th, 1880. Compiled by Mr. John A. Harvie-Brown, F. R. S. E. &c. Proc. Nat. Hist. Soc. of Glasgow, Vol. IV, Part II, April 1880, pp. 291-326. (For notice of Report for 1878-79 see this Bulletin, Vol. V, p. 233.)

† Biologia Centrali-Americana; or, Contributions to the knowledge of the Fauna and Flora of Mexico and Central America. Edited by F. Duane Godman and Osbert Salvin. Zoology, Parts I-X. Aves, by O. Salvin and F. D. Godman, pp. 1-152, pll. i-x. 4to. London: Published for the Editors by R. H. Porter, 10 Chandos Street, Cavendish Square, W., and Dulau & Co., Soho Square. September, 1879-April, 1881.



years, and have themselves visited different portions of the country for this purpose. Besides this they are able to avail themselves of collections received from correspondents and naturalists specially employed in visiting previously unexplored districts. In the elaboration of their work they have called to their aid many eminent specialists to whom have been assigned all the Vertebrates except the birds, and all the other groups of animals except one division of the *Lepidoptera*, as well as the plants. The ornithological portion, which alone demands attention in the present connection, is by the editors, who long since became identified with the ornithology of the region in question. The installments of this portion of the work which have thus far appeared are as follows: Pp. 1-32, pll. i-iii, Sept., 1879; pp. 33-56, pl. iv, Nov. 1879; pp. 57-80, pl. v, Feb., 1880; pp. 81-104, pll. vi, vii, Apr., 1880; pp. 105-128, pl. viii, Aug., 1880; pp. 129-152, pll. ix, x, Febr., 1881. The arrangement is that of Sclater and Salvin's "Nomenclator Avium Neotropicalium," and in the treatment of the subject the authors have advanced as far as the genus *Geothlypis*. Of each species a short Latin description is given, and all the more important references to the literature are duly cited. The text otherwise relates mainly to the geographical distribution of the species, which is treated with great fullness, with, as occasion requires, remarks on their affinities and nomenclature. There are, however, here and there brief references to their habits. The ten plates thus far published contain figures of 25 hitherto unfigured species.

The work very naturally embraces a large number of North American species, which occur either as winter migrants into Mexico and Central America or whose range extends southward beyond our borders; of the 130 species thus far treated just one-half occur north of Mexico. The authors are, of course, rigidly orthodox in respect to nomenclature, adhering strictly to the binomial system, although in their text they speak of this or that binomially named form as a "race" of some other similarly designated form. To illustrate: all of our Thrushes of the *Hylocichla* group are treated as species, *Turdus swainsoni*, *T. ustulatus*, *T. aliciae*, *T. auduboni*, etc., all being accorded specific rank, while *T. ustulatus* is spoken of in the text as a "western race of *T. swainsoni*." *Sitta aculeata*, *Certhia mexicana*, *Thryothorus berlandieri*, *T. bairdi*,\* etc., are also recognized as species, while such forms as *Catherpes mexicanus conspersus*, *Cisnothorus palustris paludicola*, *Dendroica dominica albilora*, etc., are wholly denied recognition. In short, the geographical varieties or races, now usually treated as subspecies by American writers and designated by a trinomial name, are, with few exceptions, raised to the full rank of species, while those not so recognized are ignored as not requiring special designation. There is apparent, however, a misunderstanding on the part of our authors as to what American writers mean by a race, as is evident in comments at sundry points, as, e. g., under *Dendroica dominica*, where, speaking of Mr. Ridgway's race *albilora*, they say: "The difference at

\* *Thryothorus bairdi* = *Thryothorus bewicki* var. *leucogaster*, Baird (nec Gould).



most is very slight; and its value is further diminished by the fact of Guatemalan specimens having a slight yellowish tinge on the lores, breaking down the chief point of distinction between Mr. Ridgway's races" (*op. cit.*, p. 135). It is just such intergradations as these which prevent the recognition of these forms as "species" but not as "races," for races are supposed to intergrade, while species are not. It is just this difference that we seek to recognize by the third term in the trinomial system of nomenclature. Races, in their extreme phases, are as certainly recognizable as species, and often present wider differences of coloration and size than frequently occurs among closely allied species; but whereas in the latter we know no connecting links, we expect them to occur between races at points geographically intermediate to the regions where they respectively present their greatest degree of differentiation, and to find at such intermediate points more or less difficulty in deciding whether the form there occurring is to be referred to the one phase rather than the other. In respect to the commingling of certain races in Mexico, and the argument based thereon, it is necessary to consider the season of capture of the specimens in question before concluding that because two supposed races have occurred at the same localities they are not, after all, geographically distinct in their breeding habitats.

Hitherto we have had no general treatise on the birds of the region to which the present work relates, the abundant literature of the subject being widely scattered in special papers or more general works, usually not easy of access, and often inaccessible, to the general student. The importance and usefulness of the present work cannot therefore be easily overestimated. A similar work for South America would be a great boon to even the specialist, but it seems almost too much to hope for at present. The execution of the "Biologia," as regards typography and illustrations, is almost needless to say is excellent, for nothing less would be expected at the hands of its accomplished and enterprising authors.—J. A. A.

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### General Notes.

NEST AND EGGS OF THE PAINTED FLYCATCHER (*Setophaga picta*).—For my knowledge of the nidification of this species, and for the nest and eggs in my collection, I am indebted to Mr. Herbert Brown, who became familiar with the birds while in Arizona. From Mr. Brown's observations it appears that they differ somewhat in their habits from *Setophaga ruticilla*, as they seldom or never catch insects on the wing, but pick them from the leaves and branches of the trees; one specimen was seen feeding her young with what appeared to be moths and long-legged flies. The nesting-site was on a hillside in a slight depression in the ground. A nest, now before me, was taken from a hole in a road bank, in the Santa Rita Mountains, by Mr. Brown, June 6, 1880. It is loosely constructed of