Reviews.

Plotidæ of Sharpe's "Hand-list" is replaced by the *Anhingidæ* of the A.O.U. Check-list.

The difficulty experienced by zoogeographers of drawing a dividing line between the Nearctic and Neotropical regions has been overcome by taking the political boundary between the United States and Mexico as the southern boundary of "North America." Lower California and adjacent islands are included in "North America."

The Australian Check-list Committee would do well to accept an extract given in the preface, namely :—" That every technical name be followed by a vernacular name selected with due regard to its desirability."

American ornithologists are fortunate in having so complete a record to assist them.

Correspondence.

NOMENCLATURE OF AUSTRALIAN AVIFAUNA.

To the Editors of "The Emu."

SIRS,—The chief criticism of my work, "The Birds of Australia," by my Australian friends has concerned the nomenclature I have adopted, and, as it seems to me that the principles which I follow are not clearly understood, I herewith explain myself.

The universal nomenclature of zoology is based upon the 10th edition of Linné's "Systema Naturæ," and the acceptance of all scientific names is governed by the International Code, formulated by the various International Congresses of zoologists. The scientific names I am using for Australian birds are those selected in pursuance of the laws of the International Code. By so doing I am choosing the name which has the best chance of being of permanent value, and, moreover, the one which will be easily recognized by every scientific worker, whether he be an Australian or not. For, by subscribing to the International Code, and only preferring the name which is correct according to the Code, I adopt that name which will be utilized by every other ornithologist throughout the world who also obeys the coded laws, whatever his nationality, and whether he knows of my choice or This point appears to have been overlooked by Australian not. ornithologists generally, as, with a conservatism which is antagonistic to progress, they have desired to use a name well known to themselves, though probably unknown to extra-Australian workers. To follow such a course in a work like mine would be fatal to its utility, and therefore could not be considered for a moment.

full generic rank, the method of restriction being correctly employed, no subsequent alterations can be admitted that would depreciate Kaup's division. Hence, *Podiceps* must be used for the Dabchicks and *Dytes* for the Grebes, the later introduced names being of only sub-generic value." —Gregory M. Mathews, *Nov. Zool.*, vol. xvii. Vol. XI.

The strongest feature of the International Code is what is known as the "law of priority." By this law the correct name for any bird is that given by its first describer or discoverer. Now, my rigid acceptance of this law has apparently given offence to my Australian friends, yet therein they show a strange inconsistency. Without exception, workers in ornithology desire to have their work duly recognized, and one way is the quotation of the author of a new species and the use of the name proposed by him. This is especially desired by every working ornithologist, and the only way they can expect to have their claims acknowledged is through the working of the law of priority. Yet these same workers decry my alterations as "upsetting" names commonly in use by them; but if the law of priority is applicable to present-day workers, how much more should it be meted to those whose works are all that speak for them ! It should be remembered that these early writers, whose names I accept, were quite as enthusiastic and earnest as any of our own time. It cannot be denied that it is due to such writers that their names should be recognized, as it is only just that the merit should be given to those whose right it is. That is all I am doing.

The gist of the whole trouble at present is that the "Catalogue of Birds" of the British Museum, which work has been accepted as a standard authority, did not follow the 10th but the 12th edition of the "Systema Naturæ" of Linné, and, moreover, the law of priority was only half-heartedly accepted, custom being allowed to overrule it in many cases. When I made up my "Hand-list" I used the British Museum "Hand-list" as a basis; consequently many alterations have to be now made. However, I am hoping that, by the time I have finished, the nomenclature of Australian birds will be comparatively fixed, and comparable with that of North American birds, which has been arrived at by 30 years' co-operation and criticism. At the present time the Palæarctic avifauna is being carefully worked at, and the correct nomenclature determined, by Dr. Ernst Hartert, of Tring. I am much interested in this, as the majority of the Australian Charadriiformes occur in that fauna as breeding birds.

I would like to impress that the Code is made governing all zoology, and that its provisions are therefore extensive. Laws to control Australian ornithological names, not subservient to the International Code, as suggested by some writers, are, of course, a practical impossibility. Objection has been made to the alteration of generic names on account of their pre-occupation in other branches of zoology. To those who would thus plead for the retention of an invalid name I would point out the inconvenience such a course would cause to workers who have to review faunas. The only means of knowing whether a name refers to an insect, mammal, or bird is by the operation of the law of priority, and hence validity of the earliest name. Otherwise, we should have the absurdity of never knowing whether a writer was dealing with an insect or a bird, and consequent confusion. The recorders in the Zoological Record would be faced with problems, and their work might contain errors which would entail endless research to rectify. In consequence of writers not strictly observing the laws, slight errors of this description have crept in, even as late as the last volume.

I have been taken to task for using trinomials. When Dr. Hartert introduced trinomials into a paper on Australian birds, the comment in *The Emu* (vol. v., p. 167, 1906), reads :—" It would therefore appear that, in spite of all the 'immigration restriction,' trinomial nomenclature has got into Australia after all." Yet, on p. 140, A. G. Campbell had written regarding the birds of Kangaroo Island :—" Concerning the nomenclature for these intermediate or island forms, it is difficult to prescribe. I would suggest the specific name *halmaturina* and should subsequent research and more material warrant it, that the same name be also sub-specifically applied to" Then on page 143 he writes, "*Zosterops halmaturina* (new subspecies)," though this is the bird (others also named similarly) which he concluded should be considered *specifically* distinct.

Such inconsistent naming is quite obviated by the use and recognition of the trinomial system of nomenclature.

Australian ornithologists are agreed that there are such things as island forms and representative races, which are now generally called sub-species. As stated by one of the "old school" of British ornithologists, "no careful student of animals can deny that sub-species really do exist in nature, but the question is whether it is advisable to give them a special name." The necessity of some method of terminology for distinguishing subspecies is now accepted by Australian workers, but they have consistently used binomials.

A. J. North, in "Austr. Mus. Special Catalogue," No. I, vol. i., pp. 288, 289 (1904), transcribes a paper by Dr. Dwight, jun., from The Auk, vol. xxi., p. 64 (1904), of which I attach sentences : -" Another, but less potent, cause for the rise of the sub-species is found in the unnecessary prominence accorded to it in our books and other publications. Wherever we turn, we find it, to all appearances, on equal terms with full species. . . ." North then adds :-- "Trinomial nomenclature has not yet been adopted by Australian ornithologists, although that does not protect Australian ornithological literature from the hair-splitting of the most ardent sub-species maker resident elsewhere. Comparatively very few British and Continental ornithologists make use of the sub-specific distinction. It is useful, however, and has this advantage-one knows at a glance that the added trinomial refers only to a geographical variation of a typical form, whereas in binomial nomenclature one may possibly discover, after the loss of much time in searching out an original description, that the supposed specific value does not exist, and that a name has been given to a form that very often does not merit even subspecific recognition."

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Here is the opinion of a worker who, though not using trinomials, can perceive the benefits accruing from their usage. The benefit North points out, however, is only one of many. Nomenclature is only an aid to scientific knowledge, and its correct use is such that by means of it relationships can be easily expressed. The use of binomials for sub-species is misleading, as thereby the relationships are completely hidden, whilst trinomials, as North notes, show at a glance the value and status of a form. Since North wrote, British and Continental ornithologists have almost unanimously approved of the trinomial system, the only exceptions being the last remnant of the Stricklandian school.

By means of trinomials we can show the connections of the Australian avifauna in an easily understood manner, which otherwise is not practicable. In this connection I will quote Von Shering (Auk, xxi. (1904), p. 313), who thus expresses my views :—

"These facts of geographical distribution show us that the only system of nomenclature well applicable to the discussion of zoographical problems is the trinomial.

"The use of binomials as employed in the excellent 'Hand-list' of Dr. Bowdler Sharpe may be more advantageous for collection purposes, but it combines in a very inconvenient manner welldefined species with local races. Such facts as the vast distribution of *Pitangus sulphuratus* (L.) and *Myriozetetes similis* (Spix.) are completely hidden by the use of binomial nomenclature."

I have hitherto accepted that the Australian ornithologist thoroughly understands how the trinomial is used, and what is considered a sub-species. It may not, however, be out of place to emphasize the point that a sub-species is considered as a representative race—that is, two birds living together in the same districts cannot be considered sub-species, however slight the differential features might be; these must be permanent to make the two birds specifically distinct, otherwise the differences must be put down to individual variation. If two birds, referable to the same species, but inhabiting different areas, be found to show constant slight separable characters, these are ranked as sub-species, even though certain individuals in each area may be inseparable.

A good instance in Australian ornithology may be quoted as an example. In my "Hand-list" I read :—

Oreocichla cuneata, De Vis.

- ,, heinei, Cabanis.
- " lunulata, Latham:
- " macrorhyncha, Gould.

I have here four binomials which may represent four species, or four sub-species, or four species and sub-species—no one can tell which without examination of the four birds.

By the terminology I propose adopting we should have instead-

Turdus lunulatus cuneatus, De Vis.

" heinei, Cabanis.

,, lunulatus, Latham.

" macrorhynchus, Gould.

This shows at once that one species of Thrush is recognizable, and that four races inhabiting different areas have been adopted, and that the oldest-named form is *lunulatus*, Latham.

The changing of well-known names is, of course, upsetting, but that Australians will refuse to accept them I do not admit. There are many workers sufficiently interested in their avifauna to wish to give every bird its correct name. It is surprising how quickly one takes on a new name. The alterations pointed out by Sharpe a few years ago are now accepted.

Now let me explain "virtual tautonymy." The Linnean genera are usually complex, and no indication as to the typical species is evident. Linné himself made it known that the bestknown species should be regarded as the type; but then the question arises, Which was the best-known species of Linné? The only method of ascertaining the type has hitherto been that of elimination, which, of course, selects the least-known species to Linné. That of necessity proved unsatisfactory, more especially through the fact that Brisson's independent creation of genera influenced later authors.

Recently, the selection of types by the designation of subsequent writers was approved of; but here again nothing satisfactory could be attained.

When Linné introduced his genera, the birds had been usually known by a single Latin name. Very often previous authors had differed, and two names would be current. Linné strongly objected to the idea of using the same name for the genus and species, or, as we now call it, "tautonymy." Therefore, when he selected for the name of a genus a name previously used for a species, he combined with it a new specific name. When there were two names current he combined the two for his new name. Thus the Wryneck had been known as Iynx to some authors, by others it had been called Torquilla. Linné made of this bird a new genus, which he called Iynx, and the bird itself he called I. torquilla. Brisson called his genus Torquilla.

Instances as simple as the above are rare, but this will show the reasoning simply.

It is the opinion of the Nomenclatorial Commission that if the species having in its synonymy the same name as Linné's generic name be selected as type it will save much confusion. I am prepared to endorse this opinion.

Thus, Linné created a genus *Charadrius*, and included a number of species. The species *Hiaticula* was known previously as *Charadrios sen. Hiaticula*. I would certainly accept this species as Linné's typical species. It is only reasonable to suppose that Linné was more familiar with this bird than with the bird that has passed duty as type—viz., *Pluvialis*. That has nothing

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much to do with the matter, but I believe it a justifiable suggestion.

Then, as regards *Tringa*, the species *Ocrophus* (wrongly spelt *Ochropus*) is indicated as having been known as *Tringa*, and I would accept this as type. Linné notes that the prior name of the (at present) type was *Canutus*. Here, again, it seems to me that Linné would be more familiar with *Ocrophus*, a Swedish breeding bird, than with *Canutus*.

The acceptance of this "virtual tautonymy" will fix the types of some genera which otherwise would be a source of great trouble, and I consider it a most scientific method of selecting the types of the Linnean genera.

In explanation of my inability to admit so many genera, I write the following *re* the genera *Charadrius* and *Tringa* as accepted by me :—

Charadrius, as I use it, includes Charadrius, Ochthodromus, Ægialites, Peltohyas, and Eudromias of the Cat. Birds, xxiv.

It is admitted, even by ornithologists who separated the genera *Charadrius* and *Ægialites* (including *Ochthodromus*), that "structurally there is no difference between *Ægialites* and *Charadrius*," and that there is a complete passage from forms with a distinct nuptial garb to those which have none, through species like the Kentish Plover (*C. alexandrinus*), so that it is impossible to separate genera on that account.

I cannot follow my late friend, Bowdler Sharpe, in separating *Charadrius australis* widely from *Eudromias morinellus (auctorum)*. The only structural difference is the scaling in front of the metatarsus, which is covered with hexagonal scales in front in all other species of *Charadrius* (as defined above), but with larger transverse scutes in the so-called *Peltohyas*.

Even if it were admitted as a generic character, I cannot see how so much importance can be attached to this difference as to make a sub-family on account of it. That such undue importance cannot be attached to this peculiarity is clearly shown by the figures on pages 91 and 308 of the Cat. Birds, xxiv., where the front of the metatarsus is covered in the middle with unbroken transverse scales, while towards the tibia the scales are broken up into small hexagonal scutes.

Tringa, as I use it, includes Totanus, Helodromas, Heteractitis, Tringoides, Terekia, Glottis, Pseudoglottis, and Rhyacophilus of the Cat. Birds, xxiv.

This genus—according to the most modern rule of fixing genotypes, to be called *Tringa* and not *Totanus*—is divided into no fewer than eight genera by Bowdler Sharpe, as above. The reasons for this division are, however, in my opinion, not valid. The comparative lengths between the bills and feet, metatarsus and feet, or bills, &c., are artificial characters, which need not be of any taxonomic value, and in the present case certainly are not. Also, the other characters relied upon in the "Catalogue of Birds" (xxiv., pp. 338, 339) are of minor importance, as they are bridged over from one supposed genus to the other by intermediate ones. There is no other course than to unite them.

Erolia, as I use it, includes Pelidna, Pisobia (Limonites), Ancylocheilus, and Heteropygia of the Cat. Birds, xxiv.

The species here united are distinguished from the genus Tringa (above) chiefly by the entire or almost entire absence of connecting webs between the anterior toes, and in life a more flexible, softer bill.

On account of slight differences in the comparative length of the bills and feet, or legs, shape of the bill, and colouration, the birds obviously belonging to this genus have been placed in four different genera—a proceeding which only adds to the difficulty of their study, and has no advantage whatever.

Of course, colour cannot be considered as of generic value, or else what will one do with an albino ?-I am, &c.,

GREGORY M. MATHEWS.

Langley Mount, Watford, Herts., England, 7/4/11.

[Australian authors have been following the British Museum Catalogues. Are they wrong in doing so? It is interesting to note Mr. Mathews' conversion from the binomial to the trinomial system since the publication of his "Hand-list" (Emu, Suppl., vol. vii., 1908). In the interests of Mr. Mathews' new and important work on "The Birds of Australia" (the initial parts of which, however, although in subscribers' hands, have not yet reached the editors of The Emu for notice), and of an Australian "Check-list" of birds, now being compiled by the R.A.O.U., Mr. Mathews' letter is published at length.—EDS.]

THE BIRDS OF LORD HOWE AND NORFOLK ISLANDS. To the Editors of "The Emu."

SIRS,-In his "Alterations in the Nomenclature of 'Hand-list of the Birds of Australia," * Mr. Gregory M. Mathews, with ruthless pen, strikes 21 species from his "Hand-list," and gives this curt note in his explanatory remarks :---" I do not include the avifaunas of Norfolk and Lord Howe Islands, as these certainly are not Australian."

Why this sudden and remarkable change of opinion on the part of Mr. Mathews? So far as I can ascertain from my small collection of authors, Mr. Mathews was the first to incorporate, without any reservation, the birds of these two islands in a "Hand-list"; that purported to relate exclusively to the "Birds of Australasia" (not "Australia," as quoted in the recent " Alterations ").

Gould says $\ddagger := `` I think it will be well to append an account$

* The Emu, vol. x., p. 318.

† The Emu, vol. vii. (Jan., 1908). ‡ "Handbook Birds Aust." (1865), App., p. 523.

of the species pertaining to other countries, about twenty-four in number, which have been figured in the folio edition . . .

as I believe that the interest of the present volumes will thereby be enhanced to those who possess the illustrated work. The species alluded to comprise the curious *Didunculus strigirostris*, *Semioptera wallacei*, *Strigops habroptilus*, and a few others from New Zealand, Norfolk and Lord Howe Islands, &c." Eight species of birds peculiar to Lord Howe or Norfolk Islands were included in this appendix.

In 1888 Dr. Ramsay included in his "Tabular List of all the Australian Birds at Present Known to the Author" a list of species found on Lord Howe and Norfolk Islands. Although the two pages containing this list are headed "List of Australian Birds," the fact that they are placed at the end of the volume, and include not only the species peculiar to, but also the mainland species recorded from these islands, already included in the preceding pages, warrants the conclusion that Dr. Ramsay regarded the island species as belonging to a region separate from Australia.

North,* under the heading "Nests and Eggs of Birds Found Breeding on Lord Howe and Norfolk Islands," says :—"These remote insular dependencies of New South Wales, situated in the Pacific Ocean, possess a great interest to students of Australian ornithology, as within their limited areas several genera of birds are found that are represented in the Australian and New Zealand regions. Both islands, however, in regard to their avifauna, decidedly belong to the Australian region. . . ." This list comprises twelve species peculiar to these islands and three common to the mainland also.

In my "Birds of Lord Howe and Norfolk Islands "† I remarked that "it may be said that the whole avifauna of these islands is more distinctly Australian in character, although the Wood-Hen (Ocydromus sylvestris) and the extinct Notornis alba and Nestor productus may be regarded as of greater value in determining the original route of migration."

From a zoogeographical point of view these islands would appear to belong to separate regions, neither of which can be regarded as originally Australian. In his "Zoogeographic Scheme for the Mid-Pacific,"‡ Hedley places Lord Howe Island on the extreme south-west and Norfolk Island on the eastern extremity of his "Limit of Continental Area," and the route of migration of fauna from Antarctica is shown as passing through New Zealand and Norfolk Island, with a lateral branch to Lord Howe Island. If this scheme were adopted for the avifauna of these islands they would more properly be assigned to the Neo-Zelanic region. Recent discoveries in the terrestrial mollusca of Norfolk Island

^{* &}quot;Nests and Eggs of Birds Found Breeding in Australia and Tasmania" (1889), p. 407.

[†] Proc. Linn. Soc. N.S.W. (1909), vol. xxxiv., p. 640.

[‡] Proc. Linn. Soc. N.S.W. (1889), p. 391.

and the Kermadec group, however, will probably result in altering this arrangement. Lord Howe Island may still be regarded as Neo-Zelanic, while Norfolk Island will probably be separated entirely, and classed, with the Kermadecs, as Oceanic.

New Zealand authors do not appear to have regarded Lord Howe and Norfolk Islands as belonging to their region. On the other hand, Australian authors have in several cases "tacked" them on to the mainland, while Mr. Mathews bodily incorporated them, only to unceremoniously eject them again !

I am strongly of opinion that the avifauna of Lord Howe and Norfolk Islands should be included in any list of Australian birds. Both politically come under the control of Australia-Lord Howe Island being a dependency of New South Wales, and forming part of the State electorate of East Sydney! while Norfolk Island, though not a dependency in the proper sense of the term, is under the administration of the Governor of New South Wales, and will, in all probability, shortly be placed under the control of the Commonwealth.

The continent of Australia, with Tasmania, has been divided into regions or sub-regions by various writers. For example, Professor Spencer * proposed the Eyrean, Torresian, and Bassian faunal sub-regions. Hedley † proposed four regions for the marine fauna-viz., the Adelaidean (from Melbourne along the south coast of Australia), the Peronian (east coast of Tasmania, Gippsland, and New South Wales), the Solanderian (from Moreton Bay to Torres Strait), and the Dampierian (from Torres Strait to Houtman's Abrolhos). For the avifauna, Hall ± subdivided each of Spencer's regions into three areas.

There appears to be no valid reason why the two groups-Lord Howe Island with the Admiralty and other islets, and Norfolk Island with Phillip Island, Nepean Island, and the smaller islets-should not be attached to Australia as an avifaunal sub-region, for which I propose the name Phillipian, in honour of Captain Phillip, first Governor of New South Wales, under whose administration Norfolk Island was settled, and Lord Howe Island was discovered by the settlement party, in charge of Lieutenant Henry Lidgbird Ball.

A check-list of the birds of Australia should certainly include all species found in any of the dependencies of Australia. In 1908 Mr. Mathews adopted the title of "Hand-list of the Birds of Australasia." This, in a geographical sense, should include a far wider region than even the continent of Australia, Tasmania, and their respective dependencies. If, as now appears to be the case, he proposes to amend the title by substituting "Australia" for ' 'Australasia," the lesser region still should include all the dependencies of the Commonwealth, and amongst these are Lord Howe, Norfolk, and the Macquarie Islands. The latter, from a

^{* &}quot;Horn Scientific Expedition Report" (1896), vol. i., p. 197.

[†] Proc. Linn. Soc. N.S.W. (1903), p. 880.

t "Key to the Birds of Australia (1899).

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zoogeographical standpoint, are certainly Neo-Zelanic, and not Australian, but no one has hitherto suggested that they should be separated from Tasmania.—I am, &c.,

A. F. BASSET HULL.

Sydney, 26/5/11.

THE PROHIBITION OF EXPORTATION.

To the Editors of "The Emu."

SIRS,-I have noticed in the Commonwealth Gazette of 25th March, 1911, a proclamation prohibiting the export of Australian birds, and, in addition, their feathers, eggs, &c. The idea is an excellent one, and some such measure of protection should long ago have been adopted for the preservation of our birds. There are one or two species, however, mentioned in the schedule of the Gazette the exportation of which, in the interests of a large number of other more useful birds, should not be stopped. If the prohibition as regards these birds be insisted upon it will certainly have disastrous results. The first of these is the Galah (Cacatua roseicapilla), and another the Sulphur-crested Cockatoo (Cacatua galerita). The Galah occurs in New South Wales and Southern Queensland in such numbers that it is a real pest to wheat-growing farmers. Unless the bird-trapper is on the spot, the farmer, station-owner, or manager will simply poison the lot, and with them large numbers of Pigeons, Parrots, Black-breasted Plovers, and many other species.

It is impossible for the wheat-grower to overlook the ravages of the flocks of Galahs which infest the standing wheat crops, as the damage done is very considerable. Knowing the value of many of the birds which will inevitably be destroyed, the farmer will not use poison if the bird-trapper is coming around periodically. Hence, if the exportation is stopped, the trapper is unable to make a living, and no corresponding good results. One very beautiful species, the *Polytelis barrabandi*, is almost extinct, through the poison laid for the Galahs, and unless the poisoning is stopped the poor bird is gone for ever. The "Green-Leek" was very plentiful a few years ago, but now it is hardly to be found. In fact, on the Murray and Murrumbidgee it has almost completely disappeared.

If the exportation of the Galah and Sulphur-crested Cockatoo be allowed to continue it will mean the saving of these birds and many others from total extinction, while there can be no fear that they themselves will suffer such a fate. I am well aware that the Galah has its good qualities—every bird has—but they are practically *nil* in comparison with the damage the bird does.—I am, &c.,

MAX EGGER.

Jerilderie, 10th April, 1911.



Hull, A. F. Basset, Arthur Francis Basset and Egger, Max. 1911. "Correspondence." *The Emu : official organ of the Australasian Ornithologists' Union* 11(1), 52–61. <u>https://doi.org/10.1071/mu911052</u>.

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