and taking its retail price at one shilling and sixpence per pound,—as per Jackson and Lounsen's Price List,—every pound of the silver would incur a cost, on this head, of seven shillings for its removal.

**Art. VI.**—Notes on Herr Finsch’s Review* of Mr. Walter Buller’s Essay on New Zealand Ornithology. By the Author.

[Read before the Wellington Philosophical Society, August 25, 1868.]

**Herr Otto Finsch** has done me the honor to produce an unabridged German translation of my Exhibition Essay on the Ornithology of New Zealand, and has appended thereto some valuable notes on the nomenclature and synonymy, together with some more precise information as to the geographical range of several of the species. (See *Journal für Ornithologie*, 1867, pages 305—357.)

In the views advanced by the learned reviewer, in treating of the New Zealand Avifauna, I need hardly say, I generally agree; but there are some points on which, as a local ornithologist, I feel bound to join issue with him.

I would, first of all, observe that the reviewer does not appear exactly to comprehend the object or purpose for which the essay was written. He expresses regret that the author did not enter more fully into the natural history of the various species enumerated; and refers to the importance—which, of course, no one will deny—of original observations on the manners and habits of birds, etc.

It is scarcely necessary for me to explain, that in producing the essay, I did not pretend to give an exhaustive account of the birds of New Zealand, or a purely scientific dissertation on the subject. The narrow limits to which the essay was necessarily confined, precluded the possibility of anything like a history of the species; while, on the other hand, it was the desire of the Exhibition Commissioners, that the essayists should popularize their subjects as much as possible.

From the very favorable notice which it has received from the leading scientific reviews, it is gratifying to find that it has proved acceptable to Ornithologists in Europe; but the chief object of the treatise (as correctly stated in the notice of it in Dr. Günther's Zoological Record, 1866), was "to convey to unscientific persons in the colony, some idea of the peculiarities of the New Zealand birds."

The reviewer disapproves of my "determined adherence" to Gray's List, of 1862. It is sufficient to say that in giving an enumeration of the recorded species, I availed myself of the most complete synopsis that had appeared. As stated in the introductory part of the essay, I considered Mr. G. R. Gray's list by far the most complete and satisfactory synopsis that had hitherto been produced.

The information which for many years past I have been assiduously collecting, on the habits and economy of the various species, is reserved

*A translation of Herr Finsch's critique on Mr. Buller's paper has been appended for the information of the New Zealand readers.—*En.

†*Essay on the Ornithology of New Zealand* by Walter Buller, Esq., F.L.S., Wanganui. (See *New Zealand Exhibition Essays*—end of Transactions.)
for future elaboration, and will I trust, ere long, be presented to the public, in the form of a general work on the birds of New Zealand, illustrated by numerous colored drawings by an eminent zoological artist.

As Dr. Haast fairly observes, in his letter covering the translation, since the date of the essay (February, 1865), many important additions have been made to the list of our Avifauna. Many corrections have also been made in the synonymy. I may add that even since the publication of Herr Finsch’s notes, many new species have been added to the list. (See List of 14 new species, at end.)

I beg to offer the following remarks on certain portions of Herr Finsch’s notes.

1.* Herr Finsch complains that I have not brought forward “conclusive matter” as to the specific identity, or otherwise, of Hieracidea brunnea. In a paper forwarded to the Philosophical Institute of Canterbury, in June, 1864, and again in the Essay, I stated my belief, that on a further acquaintance with the species, it would be found necessary to expunge Hieracidea brunnea from our list of species, and to regard it as H. Nova Zelandiae, in an immature state. I have always held that one naturalist has no right to condemn a “species” set up by another, and duly characterized, unless he can prove to demonstration that it has no real existence. There has already been sufficient confusion in this section of our ornithology, and I was unwilling to alter the nomenclature till I could do so with absolute certainty. Since the publication of the Essay I have been able to determine satisfactorily this disputed point.

In December last, during a visit to the Taupo district, I was fortunate enough to discover a nest of this hawk, containing three young ones. The parent birds were beautiful specimens of H. Nova Zelandiae. The young birds, which I brought away, were covered with a thick growth of down, of a bluish-grey color. One of them shortly afterwards died, but the others (which are still alive in my aviary) developed in due time into perfect examples of the so-called H. brunnea.

It will be seen therefore that this form is the young of H. Nova Zelandiae, and not the female, as suggested by Herr Finsch. Falco submiger and Milvus isurus, which are quoted by Mr. Gurney as New Zealand birds, have never been found in this country.

2. In speaking of the distribution of representative species, north and south, as being a “hitherto unnoticed fact,” I referred, of course, to the New Zealand birds alone. I did not intend to imply that the fact was new in geographic ornithology; on the contrary, I referred particularly to an instance mentioned by Darwin, as occurring in the Galapagos Archipelago. As a further example of this peculiar local distribution, I may instance the Piopio. Turnagra caesiostra is a South Island species, while Turnagra Hectori, Buller (Ibis, 1868), is confined exclusively to the North Island.

Bearing on this subject, Dr. Hochstetter has the following interesting remarks:—“New Zealand was perhaps a large continent when the Moas were first created. And if we suppose this, or at least that the two

*The references are marked in numerals in the appended translation.
islands were formerly contiguous to each other, we of course suppose also that the separation took place so long a time ago, that the originally identical species, after the separation of the two islands, may have been changed in the course of time into the present varieties or species. According to Prof. Owen the birds of South Island present stouter proportions, a compact, rather bulky frame of body, such as *Dinornis robustus*, *elephantopus*, *crassus*, and *Palaopteryx ingens*, while those of North Island are distinguished by more slender and lengthy forms, like the *Dinornis giganteus* and * gracilis*. (New Zealand, p. 191.)

3. A small swallow has occasionally made its appearance in New Zealand. In the summer of 1851, Mr. F. Jollie observed a flight of swallows at Wakapuka, in the vicinity of Nelson, and succeeded in shooting one. A specimen "shot by Mr. Lea, at Taupata, near Cape Farewell, March 14, 1856," I have identified with *Hypochelidon nigricans* (*Chelidon arborea*) Gould, the "Tree-Swallow" of the colonists. The specimen is slightly larger than Australian examples with which I have compared it; but we are informed by Gould, that considerable difference exists both in size and in the depths of coloring of specimens killed in New South Wales, Swan River, and Tasmania. (Handbook 1, p. 111.) It is a migratory species, visiting the southern portions of Australia and Tasmania, arriving in August, and retiring northward as autumn approaches.

Wonderful as it may appear, there can be no doubt that the New Zealand examples are visitants from the continent of Australia, and that to reach this country they have performed a journey, on the wing, of fully a thousand miles!

4. It will be seen, on reference to the Essay, that when I noticed the absence of *Picidae* as a remarkable fact, I was speaking of the peculiarities of the zoological province as a whole, and not of New Zealand birds particularly. It is admitted by our leading ornithologists, that the total absence of this important tribe in the Australasian fauna is one of its most prominent ornithological features.

5. It is to be regretted that Herr Finsch does not cite some examples of the "many birds from the highest latitudes of the eastern hemisphere," which, as he states, "touch on New Zealand as their southern resting place in their winter migrations," especially as the reviewer adds that "the known number of these is continually augmenting under recent investigations." I am at a loss to know to what species these remarks are intended to refer.

6. Whether *Circus gouldi* and *Circus assimilis* are identical, is still, I believe, a disputed point with ornithologists; and as I have not been able to compare specimens, I cannot offer an opinion upon it. Mr. Gould (Handbook 1, p. 58) does not attempt to settle the question, although he expresses an opinion in favor of their identity.

7. The two owls introduced by Herr Finsch into the New Zealand list, namely, *Strix delicatula* and *Scoops Novae Zelandiae*, must be held in abeyance till we have more precise data.

My *Strix Haastii* was only entered provisionally on the authority of Dr. Haast's communication, as quoted in the Essay.

8. Herr Finsch, while admitting that the real native country of *Halecyon cinnomominus*, Swainson, does not appear to be fully determined,
asserts very positively that it does not occur in New Zealand. Local
ornithologists are surely better authorities on such points. I have never
met with the species, and have always considered it of doubtful authen-
ticity as a New Zealand bird. But it must be borne in mind that many
parts of the country are as yet unexplored, and that consequently one is
scarce justified in expunging, on merely negative evidence, a species
introduced on apparently good authority. Dr. Hector is strongly of
opinion that he shot a specimen of H. cinnamominus in the wild west
coast region of the South Island. I submit, therefore, that the question
of its existence in New Zealand is simply undetermined.

9. Herr Finsch admits to the rank of a distinct species Anthornis
rufescens, Pelszeln, while he seems inclined to doubt the specific value of
Anthornis auriocula, which he has never seen.

Specimens of the former were sent to me by Dr. Haast, before being
forwarded by him to Vienna, for examination. I hesitated to pronounce
it a new bird, as the rufous coloring on the head appeared to be the re-
result of flower stains. On communicating my doubts to Dr Haast, he
admitted that (when freshly killed), the feathers of the head were more
or less stained with the yellow blossoms of Senecio cassinioides, on the
nectar of which the birds had been feeding.

Of the specific distinctness of Anthornis auriocula, I never entertained
any doubt. Independently of the golden irides, which at once distinguish
it from A. melanura, it is much larger than the last named species, and
the tints of the plumage are altogether lighter. The following are the
measurements of this species:—

Extreme length, 9½ inches; wing, from flexure, 4½; tail, 4½; tarsus,
1½; middle toe and claw, 1½; hind toe and claw, 1; bill, along the
ridge, ½; along the edge of lower mandible, 1.

10. It would unquestionably be wrong to separate, generically, the
two species of Popokatea, Mohoua albicilla and M. ochrocephala, in the
manner proposed, for they are closely allied. In form they resemble
each other; although their plumage is different, and their habits are
precisely the same. They are representatives of each other in the North
and South Islands respectively.

In the same division (Certidae) the addition of a new species,
Xenicus Haasti, Buller is recorded (see Ibis, 1868.)

11. Mr. Gould, in his recent Handbook, has retained the specific title
of Zosterops carulescens; but there can be no doubt that, following the
law of priority, Zosterops lateralis, Latham, is the correct appellation.

The family Luscinidae has recently received another addition in
Iphenoecus rufescens, Buller, from the Chatham Islands (see Ibis,
1868.)

12. If our Rhipidura flabellifera is to be regarded as identical with
R. albiscapa, Gould, it must at any rate take the rank of a well defined
local variety. A comparison of specimens presents several appreciable
points of difference, and these distinctive marks being constant, the species
according to the generally accepted rule, is entitled to recognition. But
ornithologists are not agreed, and probably never will be, as to what
amount of difference constitutes a “species,” and what a “local variety”
or race. In treating of the Australian species, Gould remarks:—“Spec-
cimens from Tasmania are always much darker than those of the Con-
tinent, and have the tail feathers less marked with white; others from Western Australia, again, are somewhat lighter in color, and have the white markings of the tail more extensive than in those I collected in South Australia or New South Wales." The species from Western Australia has been characterized as new by the learned Berlin professor, M. Cabanis, under the name of *Rhapidura preissi*; and I consider that the New Zealand bird has quite as good a claim to rank as a distinct species.

13. We must accept Herr Finsch’s conclusions with respect to *Strigops grayi*. But it must be remembered that the species rests entirely on the authority of a single skin in the British Museum, which may yet prove to be a mere variety of *Strigops habroptilus*. Dr. Haast writes me that he has obtained scores of Kakapo on the west coast of the Canterbury Province, and that they all belonged to the last-named species. I have compared specimens from the South Island with an example brought to me by the natives from Taupo (North Island) and cannot detect any difference.

14. Herr Finsch’s notes on the *Platycecri* are very valuable, as they contain the results of careful research among that section of birds. With regard, however, to *Platyceorus fosterii*, Finsch, I may observe that the absence of the red spots on the sides of the uropodum, can scarcely be deemed a sufficient specific character; for the extent of these markings varies considerably in different examples. In very young birds they are scarcely apparent.

Admitting the specific validity of *Platyceorus unicolor*, Vig., I doubt very much whether it can be regarded as a New Zealand bird. Herr Finsch allows that it is of "unknown origin," and none of the collections in this country contain specimens of it.

*Platyceorus alpinus*, Buller, from the wooded heights of the South Island, has recently been added to the list of species (see Ibis, 1868).

15. The statement by Mr Gould, referred to in the Essay (page 13), will be found in Gould’s Introduction to the Birds of Australia, as published in the separate form. The following is the passage:—"The family Cuiculidae is very fairly represented in Australia, since we there find species belonging to the greater number of the Old World genera, and one Sylphrops, which has not hitherto, I believe, been found elsewhere; each of which, with the exception of Centropus and Eudynamys, like their prototypes, are parasitic in their nidification; and depend upon other birds for the hatching of their eggs and the feeding of their offspring." (p. 67.)

16. The remarks in the Essay on *Chrysoococcus*, although they may coincide with Mr. G. R. Gray’s views, were the result of an actual examination and comparison of specimens. Mr. Gould, the best authority on Australian birds, has the following observations on the subject: in his recent Handbook (vol. I, p. 623) he states: "The New Zealand *Eumyracoccyx lucidus* being now considered distinct from the species found in New South Wales, it becomes necessary to determine which specific appellation was first applied to the latter; this I believe to be *Chrysoococcus plagiosus* of Latham, which I therefore adopt, and again (page 827) "After a careful examination, I have come to the conclusion that the stout-billed bird is the *C. plagiosus* of Latham, and that the narrow-billed
one is identical with the Javan species, to which Horsfield gave the appellation of C. basalis. Having the type specimen of C. basalis, New Zealand skins to which the specific term lucidus was originally applied, and examples of C. plagosus, wherewith to compare it, I am the more certain of being correct in these conclusions."

17. Dieffenbach was in error in supposing that Eudynamis taitiensis lays its eggs in the nest of Rhipidura flabellifera; and Mr. Ramsay is equally mistaken in accommodating to this species the nest of Anthornis melanura. Both species of cuckoo in New Zealand avail themselves of the large pear-shaped nest of Gerygone, and leave the care of their young entirely to the little foster-parent. Ramsay reports an egg of Chrysococcyx lucidus taken from the nest of Anthornis. But his information was received third-hand at Wellington, and from enquiries I have since made on the spot, I am inclined to doubt the authenticity of the discovery. We are informed, however, in Bennett's Wanderings of a Naturalist (p. 207), that a fantailed flycatcher (Rhipidura albiscapa) was shot at Byde, near Sydney, in the act of feeding a solitary young bird in its nest, which, when examined, was found to be the chick of the bronze-cuckoo of the colonists, and that both the specimens are preserved in the Australian Museum.

18. The extent of range to be accorded to Ardea flavirostris will manifestly depend on the acceptance or rejection of Herr Finsch's views as to its specific identity with Ardea intermedia, Wagl., and Herodias plumifera, Gould, (egretoides, Bonap.). I am disposed to adopt that view, although the examples I have examined present some diversity.

Ardea Nova Hollandiae, Latham, of which I have obtained several specimens in the North Island, is a fresh addition to this section of our ornithology.

19. A remarkably small species of bittern, "standing only seven inches high," has recently been discovered on the west coast of the South Island, and two specimens (male and female) have been received at the Canterbury Museum; but I have not yet had an opportunity of examining this bird. It is probably the diminutive bittern referred to by Ellman in the notes on New Zealand birds, which appeared in the Zoologist of 1861.

20. In the section Scolopacidae, a new bird from the Chatham Islands, Gallinago pusilla, Buller, has recently been added (vide Ibis, 1868.) Himantopus leucocephalus, Gould, may also be added to the list. Several examples which have fallen under my notice are clearly referable to that species.

The mark of doubt may now be removed from Recurvirostra rubricollis, as there can be no question about the specific identity of the two birds.

21. With reference to the remarks on Notornis, it is sufficient to observe that Herr Finsch has been entirely misled by the report of Mr. D. Mackay, who, in writing of the Strigops habroptilus, misnamed it Notornis Mantelli. The only two known examples of Notornis, both of which were obtained by Mr. Walter Mantell many years ago, are now deposited in the British Museum. I am far, however, from considering the species extinct, having recently obtained reliable information of its present existence in certain remote districts of the South Island.
22. There can be no doubt whatsoever as to the specific distinctness of *Ocydrorus Earl*, and *O. Australis*, the former of which inhabits the North Island, whilst the latter is confined to the South. I agree, however, with Herr Finsch in the opinion that *Ocydrorus brachypterus* has no real existence. Individuals vary, to a considerable extent, both in size and in the coloration of their plumage.

Two specimens, however, brought by Dr. Hector from the south-west coast of the South Island, belong unmistakably to a new species, which I propose to name *Ocydrorus nigricans*. The following is the diagnosis of this new species:

**General plumage**, brownish-black, each feather margined with rufous; throat, cinereous tinged with brown; tail, black; under coverts, transversely barred with pale rufous; primaries obscurely banded with rufous. The rufous coloring prevails on the breast, but shades into dark cinereous brown on the abdomen.

**Extreme length** (stuffed specimen), 20 inches; wing, from flexure, 7; tail, 5½; tarsus, 2¼; middle toe and claw, 2¼; hallux and claw, 1; bill, along the ridge, 2; along the edge of lower mandible, 1⅜.

In one of the specimens (apparently a young bird) the colors are altogether darker, and the markings on the under tail coverts are wanting.

Dr. Hector found this species frequenting the sea beach, and feeding on shell-fish and other marine productions. He never met with it at any distance from the sea shore.

23. There is no observable difference between our *Rallus assimilis* and some examples of the Australian *Rallus pectoralis*. The species is liable to great variation of plumage. *Hypotenenidia Dieffenbachii* must however, be regarded as a distinct species, and peculiar to the Chatham Islands. My specimens of *Ortygometra affinis* differ somewhat from the Australian *O. palustris*, Gould.

24. Another interesting species of duck (*Anas gracilis*, Buller) has recently been added to the New Zealand list (see *Ibis*, 1868).

25. I have never met with *Larus Schimperi* in this country, nor is there a specimen in any of our collections. The authority on which it rests as a New Zealand bird—a label in the Mayence Museum,—is wholly insufficient.

By *Larus pacificus*, Latham, Mr. Layard evidently meant the common black-backed gull (*Larus dominicanus*, Licht.)

*Larus* (Bruchigavia) *melanorhynchus*, Buller, has recently been added to the list (see *Ibis*, 1868).

26. On a more careful examination of the specimen, from which my original notes were taken, and on comparison of the description in Gould's *Handbook* (i. p. 536), I am induced to consider this bird not only a true Anthochorea, but also identical with *Anthochorea carunculata*, Gould, in which case the name proposed by Herr Finsch, *Anthochorea Bulleri*, must of course sink into a synonym of the former.

From a hasty examination of the unique specimen in the Auckland Museum, made thirteen years ago, I concluded that it belonged to the genus *Mimus* and entered it under that head, in my note-book. Some years afterwards, when writing a paper for the Philosophical Institute of Canterbury (June, 1864), I included this bird under the provisional title of *Mimus carunculatus*, and it found its way under the same name into the *Essay.*
It was only very recently that, through the kindness of Captain Hutton, Curator of the Auckland Museum, I had an opportunity of making a further examination of the specimen.

27. The two species of Creadion—*C. carunculatus* and *C. cinereus*—are totally distinct.

Herr Finsch is therefore wrong in his surmise that the latter is the young of the former.

*Creadion cinereus* has never been found in the North Island, where *C. carunculatus* is comparatively common. I have seen the young of the latter species, which differs in no way from the adult, except in the paleness of the tints and in the smaller size of the caruncles.

28. Another species of *Nestor* from the west coast of the South Island, *Nestor occidentalis*, Buller, has recently been described. (*Ibis*, 1868.)

29. In addition to the species enumerated in the above notes, I may mention the diminutive penguin, *Spheniscus undina*, Gould, (smaller than *S. minor*) of which I have obtained specimens on the west coast of the Wellington Province.

The following is a list of the additional species referred to in the above notes as occurring in New Zealand, which have been added to the Avifauna since the publication of Herr Finsch's critique.

2. *Xenicus Haasti*, Buller.
5. *Nestor occidentalis*, Buller.
7. *Ardea Nova Hollandiae*.
8. *Botaurus* . . . . . .
9. *Himantopus leucocephalus*.
11. *Ocydromus nigricans*, Buller.
12. *Anas gracilis*, Buller.

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**Art. VI. A.—Notes on Mr. Walter Buller’s “Essay on the Ornithology of New Zealand.”** By Dr. Otto Finsch, Bremen.* Translated from the German, by Mr. R. L. Holmes, F.M.S., Assistant Secretary New Zealand Institute.

[Read before the Wellington Philosophical Society, August 25, 1868.]

The short Treatise of twenty pages, with the above title, appeared at the time of the “New Zealand Exhibition,” 1865. A silver medal was awarded to the author by the Commissioners, “For his interesting Essay

*A translation of Mr. Buller’s Essay was published in Germany, by the distinguished ornithologist, Dr. Otto Finsch, with the following notes and critical remarks appended. A copy was sent to Dr. Haast, Canterbury, at whose request these notes were translated into English, and forwarded to the Wellington Philosophical Society. The original Essay was distributed among Naturalists, in 1865, and is included in the present volume. (See Part III.)—En.**