the wing, the first seven being deeply indented on the edge of the inner web, the second to the fifth indented on the outer web; the first six quills are more or less serrated on the outer web, the two first most strongly. The underwing is ochreous white to a great extent, barred in places with various shades of brown. Tail composed of twelve broad feathers, rather narrower at their ends and rounded, the outermost about \(\frac{3}{4}\) inch shorter than the central, all somewhat graduated, giving a round form to the tail when expanded. Feet closely feathered to nearly the end of the toes.

This species is found in the dark caverns that abound in the mountains of the interior, wherein it lies securely at rest during day, issuing out at night in pursuit of partridges, hares, and young deer. Such is the account given of it by the natives. I only once met with it; and that was in the dusk of evening, when we were marching rather rapidly over a mountain defile, some 3000 feet above the sea-level. I was first attracted by hearing a loud deep hoot proceeding out of a hollow between two large rocks on a prominence over our heads. On looking in the direction whence the noise came, I observed a large Owl fly out. was getting late, and we could not tarry; so that I was not able to procure the specimen. I had not at that time handled an example, and therefore set it down as the Bubo maximus, noting, however, that the bird seen was much smaller and had a different This took place in June 1857, when I was assisting the officers of H.M.S. 'Inflexible' in their search for certain Europeans supposed to be held captives at the sulphur-mines near Kelung. It was not till May 1862 that I first procured a This bird is not more uncommon than the majority specimen. of large Raptores, but, owing to its shyness and the inaccessibility of its retreats, is particularly difficult to procure.

[To be continued.]

XXII.—Recent Ornithological Publications.

1. English Publications.

A short time ago we had the pleasure of announcing to our readers the prospect of that great desideratum, a manual of the ornithology of India, being at length supplied for the use of

naturalists. We have now the gratification of being able to congratulate Dr. Jerdon on the completion of the first volume of this important undertaking, which will, we are sure, do much to influence the study of our favourite science in British India. Time after time have we been applied to to point out some book wherein descriptions of the birds of India might be found. Time after time have we been obliged to answer that no such work was in existence. As Dr. Jerdon observes in his prospectus, to obtain acquaintance with what had been already ascertained respecting the fauna of India, it was necessary to search through the voluminous transactions of learned societies and scientific journals; and, excepting to a few more favourably placed, even these were inaccessible. The completion of Dr. Jerdon's work*, of which the first volume is now issued, will put it in the power of every one to acquire at a small expense, and in a conveniently portable form, a manual of the birds of continental India, sufficiently complete to serve as a guide to the fieldnaturalist anxious to discriminate the species of birds he may observe around him, and also of very great value to the student as a book of reference in his cabinet. No one, we think, will question Dr. Jerdon's special fitness to engage himself in his present task, which will not, we may remark, be terminated until not only his 'Manual of Indian Ornithology' is completed but also a whole series of similar volumes relating to the other classes of Indian vertebrates. Dr. Jerdon has passed more than twenty-five years in India, and has been known throughout that time as an ardent cultivator of science and a frequent writer upon various branches of Indian natural history. In 1839, Dr. Jerdon commenced a catalogue of the birds of Southern India in the 'Madras Journal of Literature and Science,' and completed the same with two supplements after several years' devotion to his In 1844 he published a volume of 'Illustrations of Indian

^{*} The Birds of India; being a natural history of all the birds known to inhabit continental India, with descriptions of the species, genera, families, tribes, and orders, and a brief notice of such families as are not found in India, making it a Manual of Ornithology specially adapted for India. By T. C. Jerdon, Surgeon-Major, Madras Army. Vol. i. Svo. Calcutta, 1862. (London, Smith and Elder.)

Ornithology,' containing a selection of fifty lithographs representing chiefly unfigured birds of Southern India. Besides these more important undertakings, Dr. Jerdon has written many articles on the various points bearing upon the ornithology of India in the scientific journals of that country, and has on more than one occasion shown the interest he takes in 'The Ibis,' by sending communications to these pages. Above all, Dr. Jerdon has the very great advantage of being able to speak of a very large proportion of the species of birds included in his present work from personal observation. During his quarter of a century's uninterrupted residence in India, he has diligently examined the fauna of the various districts to which his official duties have called him, and, with the exception of the Northwestern Provinces, Punjaub and Sindh, has traversed again and again the length and breadth of continental India. Mr. Blyth, well known as the greatest living authority upon Indian ornithology, has assisted Dr. Jerdon in the progress of the present work through the press, and, as we are informed in our author's preface (where a full and handsome acknowledgment of Mr. Blyth's great services to the cause of Indian natural history is given), "has added much valuable information from his own knowledge and experience." It is with great satisfaction also we learn that the Indian Government, who, we believe, up to the present time have done little in any way to aid the progress of science in India, have to some extent assisted the present undertaking. The late viceroy, Earl Canning, placed the author on special duty, with the view of giving him leisure to prosecute his researches in any quarter, and to devote himself to the progress of his book through the press; and the present viceroy, to whom the work is dedicated, has followed the worthy example set him by his predecessor.

We shall not now say more respecting this remarkable work, which, we believe, signalizes the opening of a new era of progress in the hitherto comparatively neglected field of natural history in our country's foreign possessions, but, in compliance with the author's invitation for assistance, we shall endeavour, on the final completion of the work, to give some sort of commentary upon it. Dr. Jerdon will believe us when we say that

this will be done, not with the object of detracting in any way from the merits of his labours, which deserve our highest commendation, but solely with the view, which should be ever first present to the true follower of science, of eliciting the truth, and of enabling Dr. Jerdon, in a future edition, to correct and supply any errors or omissions that may be detected in the present. In the meantime we most cordially recommend Dr. Jerdon's book to the notice of his brother ornithologists, and more especially to all residents in India who may be inclined to devote a portion of their leisure to the study of one of the most attractive branches of natural history.

The 3rd Number of the 'Journal of the Asiatic Society of Bengal' for 1862 contains Mr. Blyth's report on the additions made to the Museum of the Society up to the month of February of that year. A large series of bird-skins, collected mostly in the Tonghoo district of the valley of the Sitang River, and on the route thither across the hills from the valley of the Irrawádi, contained several novelties—Gecinulus viridis, Crypsirhina cucullata and Temenuchus burmanensis (both already described by Dr. Jerdon in this Journal), Anthocichla phayrii ("a very remarkable thrush-like form"), Pycnonotus familiaris, and Osmotreron phayrii. A list of the names of the other species in Colonel Phayre's collection is likewise given.

In the 5th volume of the 'Transactions of the Royal Society of Victoria' (which we have only lately met with, although its contents appear to consist of communications made to that learned body in 1860) is a paper by Mr. A. Dobree "On the Nest and Eggs of the Coachwhip-bird (Psophodes crepitans) and of the White-fronted Ephthianura (E. albifrons), with some general remarks on the nidification of Australian birds. The nest and eggs of both the above-mentioned birds were unknown to Mr. Gould; and Mr. Dobree's description of them is very full and satisfactory. Mr. Dobree remarks, in regard to the "oftennoticed scarcity of birds in Australia as compared with England," that one reason of this is "undoubtedly" that so many of the Australian species lay a much less number of eggs. "Amongst

the commoner of the Australian birds, the Honey-eaters (Meliphagæ) average two, and some of the species lay only one solitary egg, the Wattle-bird (Anthochæra) two or three, the Sericornis tribe three, the Zosterops three, the Wood-swallows (Artamus) four, &c. This opinion is corroborated by the fact that the few exceptional species, the individuals of which are really numerous, such as the Common Quail (Coturnix pectoralis) and some of the Parrakeet tribe, are found to be great layers, the Quail producing from eleven to fourteen and the Parrakeets from six to fourteen eggs."

Messrs. Ansted & Latham's nicely got-up work on the Channel Islands* contains a list of the birds met with in the islands, and some few notes on the general character of the bird-fauna and its peculiarities. The Catalogue, which includes 198 species (a large number for so limited an area), many of them, however, probably merely stragglers, was prepared for the work by Mr. Gallienne, who says, "The Rook and the Jay are rarely seen here (i. e. in Guernsey), though they are both indigenous to Jersey." We had always understood that just the contrary was the case with regard to the first-named species, although we know efforts have been made to introduce it from England. "The Storm-Petrel breeds in large numbers at Burton, and a few on other rocks near Alderney. The Ring-Ouzel stays with us throughout the year, but, like the Missel-Thrush in England, is more plentiful in winter than in summer."

2. GERMAN, RUSSIAN, AND DUTCH PUBLICATIONS.

Wiegman's 'Archiv für Naturgeschichte' for the past year, besides the usual elaborate report on the progress of our favourite science for the previous year, from the pen of our good friend Dr. Hartlaub (which we assume, as a matter of course, that every ornithologist will refer to), contains an article by Herr Landbeck, of Santiago, in Chile, on the Coots of his adopted country†. Mr. Landbeck does not seem to be acquainted with

^{*} The Channel Islands. By David Thomas Ansted and Robert Gordon Latham. 1 vol. 8vo. London, 1862.

^{† &}quot;Ueber die Chilesischen Wasserhühner aus der Gattung Fulica, Linn.," von Ludwig Landbeck in Santiago, Arch. f. Nat. 1862, p. 215.

Dr. Hartlaub's masterly review of the species of this genus, published in the 'Journal für Ornithologie' for 1853, or with modern ornithological writings generally, so far as they bear on this subject. We are enabled to state, on the highest authority, that Landbeck's supposed new species, Fulica rufifrons, is Fulica leucopyga of Hartlaub's monograph, and that Landbeck's F. chloropoides is F. stricklandi, and Landbeck's F. chilensis F. armillata of the same work. "The original specimen of the very large F. chilensis of DesMurs and of Gay is certainly not the bird described under that name by Landbeck. Fulica chilensis of Landbeck is the very common 'Focha de ligas roxas' of Azara. The true F. chilensis, of which the type is in the Paris Museum, has no red on the legs, and is altogether a larger bird.' Landbeck, however, gives an interesting notice of the colossal Fulica gigantea, which appears to occur only in the high lakes of Northern Chile, at an elevation of some 16,000 feet, among the Andes.

In the 'Bulletin of the Imperial Society of Naturalists of Moscow' for 1861 will be found some field-notes*, by Arthur Nordman, on the Amurian Tetrao urogalloides, the eastern representative of the Capercailzie of Europe. Mr. Nordman's hunting-grounds for this bird were in the neighbourhood of the Russian colony Staro-Michailowsk, on the right bank of the Amoor, about 200 wersts from the mouth of that river. The Tetrao urogalloides seems quite as different in its manners and customs, as in its plumage and structure, from T. urogallus; and those who are acquainted with the curious habits of the European bird during the pairing-season will read with much interest Mr. Nordman's excellent description of the different but equally singular behaviour of its Amurian representative during the same period.

Since we last addressed our readers, Dr. Schlegel has kindly forwarded the first part of the new Dutch Zoological Journal+,

^{* &}quot;Einige Beobachtungen über den Auerhahn am Amur," von Arthur Nordman; Bull. Imp. Soc. Nat. Mosc. xxxiv. p. 261.

[†] Nederlandsch Tijdschrift voor de Dierkunde, uitgegeven door het Koninklijk Zoologisch Genootschap Natura Artis Magistra te Amsterdam

Naturelle des Pays-Bas'*, and of which Dr. Schlegel has already spoken in these pages (see anteà, p. 120). The first part of this work, which is issued under the distinguished editorship of Dr. Schlegel, Dr. Bleeker, and Mr. J. F. Westerman, commences with a paper by Dr. Schlegel, on the genus Gracula. Dr. Schlegel excludes Gymnops calvus of the Philippines and Ampeliceps coronatus of Tenasserim, and enumerates the following species of what he considers true Graculæ.

- 1. G. religiosa of Lower India and Ceylon.
- 2. G. venerata of Sumbawa.
- 3. G. javanensis of Malacca, Java, Sumatra, and Borneo.
- 4. G. intermedia of Bengal, Nepal, and Tenasserim.
- 5. G. lidthii, sp. nov. ex patr. ignota.
- 6. G. ptilogenys of Ceylon.
- 7. G. dumontii of New Guinea and the Aru Islands.

Of each of these full descriptive characters, with accompanying observations, are given. We may remark that Mr. Wallace's lately rediscovered Gracula pectoralis, of New Guinea† (P. Z. S. 1862, p. 164, pl. xx.), should be added as an eighth species to the list; and that, on the same distinguished authority, we can give the island of Flores as an additional locality for G. venerata.

A second ornithological paper is commenced in the same number, being a list, by Mr. Otto Finsch, of the Parrots living in the Zoological Gardens at Amsterdam. When this is completed, we propose to institute a comparison between it and that of the species living in the Zoological Society of London's Gardens, as given in their lately published catalogue; of the Vertebrata living in their Gardens. Meanwhile we may notice that

onder redactie van H. Schlegel, P. Bleeker, en G. F. Westerman. Jahrg. 1, Afd. 1. Amsterdam, 1863.

- * We much regret that, in our own notice of this new work (anteà, p. 105), we have inadvertently written Gypaëtus for Gypo-hierax—the latter being the form which Dr. Schlegel unites to Haliaëtus.
- † See also Mr. Gray's critical remarks on the synonyms of this species, Ann. Nat. Hist. ser. 3. vol. x. p. 472, and Mr. Wallace's reply, *ibid.* xi. p. 15.
- ‡ List of Vertebrated Animals living in the Gardens of the Zoological Society of London, 1862. London, Longmans, 1862.

he describes a new species (of *Pæocephalus*), under the name *Psittacus versteri*, from Guinea, allied to *P. senegalus*. The plate of the new Pigeons of the genus *Ptilopus* referred to by Prof. Schlegel in his letter to us (anteà, p. 120), is given in the first Number of this work, but not the descriptions.

3. SCANDINAVIAN PUBLICATION.

Professor Sundevall has again contributed a valuable work to the Transactions of the Royal Academy of Science at Stockholm*, entitled "Ett försök att bestämma de af Aristoteles omtalade Djurarterna," Stockholm, 1862. The volume is a careful compendium of the Aristotelian natural history, compiled on a system which has not hitherto, so far as we are aware, been attempted in any language, and which enables the student at once to ascertain and gauge the amount of knowledge attained by the great master, on each species which came under his ob-The first portion of the work consists of a life of Aristotle, with especial reference to his opportunities for obtaining natural information, and a careful and lucid summary of his system, compared, step by step, with the conclusions of modern science, and shows how the grand outline of the map of nature, which it needed Linnæus and Cuvier to fill up, was traced with tolerable exactness by the mighty Greek. His divisions evalua and avaiua correspond with those of Vertebrata and Invertebrata, and although the subdivision of the former into ζωοτόκα and ἀοτόκα is somewhat confused with the parallel separation into $\mathring{a}\pi\tau\epsilon\rho\alpha$ and $\pi\tau\epsilon\rho\omega\tau\dot{\alpha}$, it yet is marvellous how, in the far more recondite Invertebrate kingdom, Aristotle had a glimpse of the grand distinctions between Crustaceans (μαλακόστρακα), Cephalopods (μαλάκια), Molluscs (ὀστρακόδερμα), and Insects (ἔντομα).

Prof. Sundevall has certainly elucidated the systematic conceptions of Aristotle with greater clearness than his German predecessors in the same field, J. B. Meyer ('Aristoteles Thierkunde'), and Lenz ('Zoologie der alten Griechen und Römer'). The subsequent chapters are devoted to a summary of the account given by Aristotle of each species, arranged in accordance with the

^{*} K. Svensk, Vet. Akad. Handl. Band. iv. No. 2, 1862.

Linnean system, (1) Mammalia, (2) Aves, (3) Reptilia, (4) Insecta, with distinct Greek and Latin indices to each chapter, and appendices on the fabulous creatures. Every student desirous of ascertaining at once the knowledge possessed by the father of natural history on each species which came under his observation can thus obtain it at a glance. We can only regret that a manual so convenient for scholars in every country should not have been rendered more generally available by publication in a Latin rather than a Swedish dress. The identification of some of the birds may be questioned, and must depend on a careful comparison of the existing fauna of Greece and Asia Minor, which Lindermeyer, our best authority, has not yet accomplished in a satisfactory manner. We should not be disposed, ourselves, to transfer the κύανος of Aristotle from Petrocossyphus cyaneus to Tichodroma muraria, nor to assign the epithet κορυδαλός to the more northerly Alauda arvensis, probably confounded with Galerida cristata (κορυδός), in preference to the conspicuous Melanocorypha calandra.

4. Portuguese Publication.

For the first time since the institution of 'The Ibis,' we have to record the appearance of ornithological matter in one of the languages of the Spanish Peninsula. Two papers, which claim some notice in these pages, have lately been published in Lisbon. Of one of them, an article by D. Jose de Souza "Upon the Birds of Portugal"*, we know little more than the title, but we have taken steps to get further information concerning it. The second publication is a pamphlet in Portuguese, upon the different modes of collecting and preparing zoological specimens, by J. V. Barbosa du Bocage, the Director of the Zoological Section of the National Museum at Lisbon†. It commences with a sketch of the origin and history of the National Museum of Portugal, and of its spoliation by the French at the period of the French invasion. This act was accomplished under the superintendence

^{*} In the 'Gazeta Medical de Lisboa,' for July 16, 1861.

^{† &#}x27;Instruccões praticas sobre o modo de colligir preparar e remetter productos zoologicos para o Museu de Lisboa,' por J. V. Barbosa du Bocage. Lisbon, 1862.

of Geoffroy St. Hilaire himself, who, being sent out for that express object, packed up and transported to Paris everything deemed worthy of being added to the galleries of the Musée d'Histoire Naturelle in the Jardin des Plantes. Nor was any recompense awarded for this act of spoliation until quite recently, when, in 1859, mainly, we believe, through the exertions of S. Barbosa du Bocage himself, a series of duplicate specimens was obtained from the authorities of the Jardin des Plantes, which, to some extent, replaced what the unfortunate Portuguese lost in 1808. After an outline of the history of the museum since its establishment, our author proceeds to give full instructions how such of his countrymen as are willing may best assist him in the efforts he is now making to restore their national museum to its former preeminence, by collecting and remitting examples of animals of all classes. A list of the principal desiderata of the museum is then given, and finally a catalogue of the birds of Portugal, to which a few notes on some of the species is added. From this part of the publication, which mainly concerns ourselves, there is not much, we confess, to be gathered; but we trust that it may only be the precursor of a more extended work on the ornithology of Portugal. Such a publication would greatly add to our knowledge of the laws of distribution of European species and their varieties—a most interesting subject, which is, as yet, still in its infancy.

5. American Publications.

Besides a new part of Mr. Elliot's monograph of the *Pittæ*, several ornithological pamphlets have reached us from the other side of the Atlantic since we last addressed our readers.

From Boston we have a "Catalogue of the Birds found in the vicinity of Calais, Maine, and about the islands at the mouth of the Bay of Fundy," which has been published in the 'Proceedings of the Boston Society of Natural History' for September last. This list was drawn up by Mr. George A. Boardman, but has been "rewritten in a systematic form," and communicated to the Society, by Mr. A. E. Verril. Little more than the names of the species (according to Baird's nomenclature), and the period of the year at which they occur, is given.

From New York Mr. Elliot sends us remarks, reprinted from the 'Annals of the Lyceum of Natural History of New York' for January 1862, on the occurrence of Barrow's Golden-eye (Bucephala islandica) within the limits of the United States. After noticing that several European species of Ducks had, within a few years past, been obtained in the New York market (namely, the English Widgeon, English Teal, and others), Mr. Elliot states that several examples of the Golden-eye had recently been found exposed for sale in Washington market, in company with specimens of the American Golden-eye (Bucephala americana), and proceeds to point out, with details, the differences between the two species.

At Philadelphia Mr. Cassin gives, in the 'Proceedings of the Academy of Natural Sciences,' a "Catalogue of the Birds collected by the U.S. North-Pacific Surveying and Exploring Expedition, in command of Capt. John Rodgers." The collection, which embraces 163 species, was made in different parts of the world—South Africa, China, Japan, and Western America. One of the most interesting localities visited appears to have been the Island of Tombaro, or New Ireland, where the following birds were obtained :-

Lamprotornis metallicus.

Eclectus linnæi.

Carpophaga van-wyckii, sp. nov.

Carpophaga luctuosa.

Eclectus polychlorus. The series of sea-birds, especially of those of the Northern Pacific, appears to have been particularly fine, embracing such rarities as Uria carbo, Pall., Uria arra, Pall., Phaleris pusilla (Pall.), and a new large Petrel allied to Fulmarus glacialis, which Mr. Cassin calls Fulmarus rodgersii, from the South Indian Ocean. Mr. Cassin promises us further notes and figures of the more remarkable species when the part of Commodore Rodgers's Report relating to Natural History is published.

In the same number of the 'Proceedings of the Academy of Philadelphia' (p. 404), Mr. Elliott Coues describes the adult dress of Æchmophorus clarkii, one of the Grebes included in his previous Synopsis of the family, of which we spoke in our last Number (anteà, p. 107).