REVIEWS.

ART. I. *Report of the Expedition for exploring Central Africa, from the Cape of Good Hope.* (Published for the Subscribers only.)

IN the year 1834, some spirited individuals resident at the Cape, from a desire to promote the objects of science and likewise to benefit the commercial interests of the colonists, raised a fund for the purpose of fitting out an expedition to explore a portion of Central Africa. With these ends in view, rather a numerous party equipped in a very efficient manner, were dispatched from the Cape, the arrangements and whole superintendence of the expedition being committed to the care of Dr. Andrew Smith; and, among the instructions placed in his hands, particular directions were given for collecting all the materials in his power, relating to the natural history of the districts which he was about to explore.

After an absence of about eighteen months, the party have returned; and a report, containing a description of the route which they pursued, a list of the various specimens collected, and a general summary of their whole proceedings, is now laid before the subscribers.

The undertaking appears to have been very judiciously and ably conducted by Dr. Smith, who seems to have met with the most zealous cooperation on the part of the missionaries; he thus concludes his narrative —

"The importance of the services which were rendered by the various missionaries we visited will, ere this, have been apparent; yet, comparatively speaking, but a small proportion of their real utility has been noticed, from the necessity of abstaining, on the present occasion, from particular details. To all of them I consider the Association to be deeply indebted for whatever degree of success has attended the exertions of the expedition; and to the Rev. Mr. Moffat especially, for the friendly reception and kind treatment which we experienced from Umsiligas.* To the general activity and good feeling of the majority of the members of the party itself, I am bound to attribute, in a great measure, the fortunate result of the enterprise; and, should it ever be my good fortune to obtain leave to proceed on another journey of the kind, I should be delighted to have with me nearly all of the individuals of the late party, and more than delighted to have those gentlemen the fruits of whose talents† are this day conspicuous before you.

"Having now given a general outline of the proceedings of the expedition, I shall sum up concisely what appears to me to have been some of the principal results:—

"1st. It has put us in possession of much information respecting many tribes even hitherto unknown to us by name; and has enabled us also to extend very considerably our knowledge of those which had previously

---

* An African chief. † 497 drawings.

been visited, by having brought us in immediate connexion either with them, or with persons who could furnish information regarding them.

"2dly. It has enabled us to ascertain the geographical position of many places previously doubtful; to lay down the sources and courses of various rivers which run to the eastward; and otherwise obtain what will considerably add to the utility of our maps of South Africa.

"3dly. It has enabled us to extend considerably our knowledge of natural history, not only by the discovery of many new and interesting forms in the animal kingdom, but also by additional information in regard to several previously known; and has put us in possession of a splendid collection, which, if disposed of, will, in all probability, realise a sum more than equal to the expenses which have been incurred.

"4thly. It has enabled us to ascertain that the Hottentot race is much more extended than has been hitherto believed; and that parties or communities belonging to it inhabit the interior as far, at least, as the inland lake, which we were told is not less than three weeks' journey to the north of the Tropic of Capricorn.

"5thly. It has made us aware of the existence of an infinity of misery in the interior with which we were previously unacquainted; a circumstance which, in all probability, will lead, eventually, to the benefit of thousands, who, without some such opportunity of making known their sufferings, might have lived and died even without commiseration.

"6thly. It has enabled us to establish a good understanding with Umsiligas, and insure his services and support in the farther attempts which may be made to extend our knowledge of South Africa, which, without his concurrence, could never be well effected from the Cape of Good Hope; and,

"Lastly. It has furnished a proof that the plan upon which the Association proceeded was calculated to accomplish the objects it had in view; and has given reason to believe that a party, similarly equipped, when assisted by the knowledge we now possess, may, with proper regard to the seasons, penetrate far beyond the latitude of 23. 28. (our southern limit), and with a termination equally fortunate as that of the late undertaking."

An appendix attached to the report is principally occupied with specific descriptions of the new animals brought home by Dr. Smith, accompanied by some general observations respecting them, which latter we extract.

"As some time must necessarily elapse before the objects of the natural history department collected by the expedition can be examined and described in England, it may be expected that some account of those esteemed new to science should at present be produced. Had there been proper books of reference for such an undertaking to be consulted here, a detail of the kind might have been furnished with some satisfaction; but as that is not the case, what I now submit is offered with diffidence, and not without a belief that it will be discovered to abound in inaccuracies. Independent of which, it must of necessity be very limited, and will include only such quadrupeds and birds as are not distinctly noticed in Griffith's *Translation of the Animal Kingdom*, or Latham's *General History of Birds*. As neither of those works contains the many species which have lately been discovered, and are characterised in more recent publications, it will only be necessary to reject the name which I have given, if the subject of it have been already described.

"During the journey, we traversed or visited three distinct zoological provinces, each supplying certain animal forms, which, if not restricted to

itself, certainly occurred in that relative proportion which warranted its being regarded as their favourite, if not their prescribed, resort.

"The first district includes within its limits, Africa south of the Ky Gariep; the second, the country between the latter and Kurrichaine; and the third, the tract between Kurrichaine and the Tropic of Capricorn. Each of those provinces, again, would admit of being subdivided into smaller ones, which, individually, would establish paramount claims to the possession of certain forms, and at the same time furnish members of others, whose head quarters would be readily traced to other localities. Thus, most of the species we met with appeared to have each a natural or chosen domicile, where an evident congregation of its members existed; and, by discovering some of these, I was obliged to discard opinions which had been formed during our early movements, as to the paucity of members in certain species, and their very limited range. The country in the vicinity of the Ky Gariep supplied us with a few specimens of several species, certain of which must at least have been wanderers, as their more common habitats were eventually discovered either immediately beyond Latakoo, or between Kurrichaine and the Tropic. But of three of the species obtained near that river, no additional specimens were afterwards discovered: it may therefore be expected, that of these the *partridge* will be found in abundance on the grassy plains which skirt the range of mountains that extends towards the remote sources of the Ky Gariep; the thrush, in numbers, either on the banks of the various streamlets to the eastward, or in the district interior to Delagoa Bay; and the Falco chiquera may also have its African metropolis in the same direction.

"Scarcely had we passed the northern limit of the first district, when objects foreign to it presented themselves to our notice; and by the time we reached the latitude of Latakoo, which may be regarded as the centre or head quarters of the second province, we found many novelties to engage attention, at the same time that we were kept in remembrance of the *first* district, by the occasional appearance of species common even in the vicinity of Cape Town.

"In advancing towards the third province we lost several species, particularly of birds, common near Latakoo; and we occasionally met with new ones, but the individuals were in number so limited, that they might be regarded as emigrants, rather than fixed inhabitants of the district. On reaching the vicinity of the third province, objects hitherto unseen were immediately procured; and before we had penetrated it to any extent, the number of those was considerably increased, and some species known to inhabit Northern Africa were obtained, such as Merops Minulus, Psittacus Meyerii, Anser gambensis, &c.

"Certain species of quadrupeds and birds were found common to the three districts; namely, Cercocebus pygerythræus, Mephitis Zorilla, Cynictis Ogilbyii, Canis mesomelas, Hyæna crocuta, Leo Malaniceps, Bathyergus hottentotus, Elephas africanus, Gazella euchore, Boselaphus Oreas, Strepsiceros Koodoo, Vultur fulvus, Neophron ægyptiacus, Helotarsus typicus, Elanus melanopterus, Accipiter musicus, Accipiter Gabar, Milvus parasiticus, Nilaus (Lanius capensis *Shaw*), Bucorvus (Corvus albicollis), Picus biarmicus, Columba capensis, &c.

"Others to the second and third, such as Macroscelides brachyrynchus, Ichneumon ratlamuchi, Rhinoceros simus, Rhinoceros Keitloa, Equus Burchellii, Camelopardalis australis *Sw.*, Aigoceras equina, Antilope melampus, Cephalopus Burchellii, Vultur occipitalis, Neophron caruncu-latus, Cratopus bicolor (Loxia maculosa *Burch*), Estrelda Granatina, Pterocles variegata, Pterocles semitorquata, &c.

"And to the third only, Galago Moholi, Macroscelides Intufi, Sciurus Cipapi, Aigoceras ellipsiprymnus, Prionops Talacoma, Cratopus Jardine, Euplectes Taha, Estrelda Lipiniani, Estrelda bengala, Polystictice,

Quopopa, Perdix sephæna, Perdix Coqui, Perdix Swainsonii, Perdix Lechoha, &c.

"In the second district some few species were obtained which did not present themselves to our observation either in the first or third; but the members of nearly all of those were so limited that we may, without hesitation, conclude they were proper to provinces which were not reached by the expedition.

"The range of species, generally speaking, appeared to vary considerably as to extent; and in no case was it possible to discover any cause or causes, depending upon external circumstances, which could enable us to account, in a satisfactory manner, for such a diversity. There is, doubtless, a something besides either food or temperature which influences, nay, regulates, the distribution of animal forms; but what that may be, will appear more and more evident only as we get divested of the opinion that we already know sufficient of the scheme of the Creator to enable us to explain the manifold difficulties which it offers to our enquiry, by the assumed aid of certain external agencies, which, in all probability, will eventually be found to have not even the most remote share in the occurrences.

"When countries shall have been carefully traversed, and the animal productions inhabiting them exclusively, or in common with other countries, minutely examined, both as relates to their physical characters and their habits, then the naturalist may be able to indicate principles which the great book of nature, and not simply the books of men, will maintain and extend. If persons could spring into existence, and enter upon the course which one of the first observers of the day is following, could study as he is studying, and enquire as he is enquiring, then might Mr. Swainson yet aspire to see the day when mind and matter would alike proclaim the accuracy of his views, and when African travellers, at least, would declare they found little to gather which was not in corroboration of the contents of his interesting volumes.

"The facts which we have collected are in direct support of the opinions maintained by Mr. Swainson; and the observations we have had occasion to make will be of interest only, provided naturalists feel satisfied to proceed, by endeavouring to discover what are not, instead of what are, the the ways, means, and ends of Omnipotence, in the regulation of man and the animal world." *

In deviating from a plain narration of facts to touch upon the ground of speculative enquiry, and in doing homage to the opinions advanced by a talented writer of the present day, Dr. Smith appears to us not to have evolved his own ideas with that clearness and precision which, from the general tenor of his observations, we might have expected. If persons could spring into existence, and enter at once upon the course which Mr. Swainson is pursuing, would it hasten, in the smallest degree, the time when mind and matter shall declare the accuracy of his views, unless those views be the result of sound philosophical induction, originating in the cautious observance of facts, and in the unbiassed investigation of zoological phenomena? If we may venture to throw out a hint to Dr. Smith, judging from the decided sentiments

* We do not quite see the author's meaning here, after what he has remarked in the preceding sentence. — *Ed.*

which he has expressed, we would suggest to him the expediency of making public the facts which he has collected, apart from any theoretical indications which they may appear to present. If as an African traveller he has really gathered nothing, save what is in corroboration of the conclusions arrived at by Mr. Swainson, we should say, — Record your observations, but leave their theoretical application to others. Not that we mean to convey the slightest expression of hostile feeling towards these views of which Dr. Smith avows himself so staunch an advocate; but, if it be desirable that the observations made during the progress of the present expedition should be received with perfect confidence by all parties, we think it would be the safest course to avoid giving the impression, that they are about to be put forward with some ulterior object, rather than with a view of simply extending our present positive information with respect to the innumerable forms of animated existence, their varied attributes, and their adaptation to their respective localities.

The supposed new forms described in the appendix to the report, consist of about sixty birds, and thirteen quadrupeds, among which is a new species of rhinoceros, of which the following are given as the characters.

"*Rhinoceros Keitloa.* — Colour, a rusty greenish yellow, clouded with pale olive brown; horns of equal length, the anterior one curved and rounded, the posterior straight, and laterally compressed; size of the Rhinoceros africanus. Inhabits the country north and south of Kurrichaine."

The following is a general statement of the number of specimens collected relating to natural history: —

"180 skins of new or rare quadrupeds; 3379 skins of new or rare birds; 3 barrels containing snakes, lizards, &c.; 1 box containing insects; 1 box containing skeletons, &c.; 3 crocodiles; 2 skeletons of crocodiles; 23 tortoises, new or rare; 799 geological specimens; 1 package of dried plants; 457 drawings."

"*Reptiles, Lizards, Tortoises, and Insects.* — From what has already been stated, it will have been understood that the classification and description of the objects belonging to the above divisions of the animal kingdom cannot here be attempted with advantage; the remarks, therefore, which are offered in regard to them must deal in generalities. Generic forms, unknown in the colony, and even yet in the records of science, are contained in the collections; and the species belonging to genera already indicated are, generally speaking, different from those which occur to the southward of the Orange River. Among the snakes obtained, two of the most beautiful belong to the genera Bucephalus and Chrysopelea. The first measured nearly 6 ft. in length, and is of an uniform, fine grass-green colour: it forms the sixth species of this genus, which, as far as I know, is peculiar to South Africa. The second is smaller in size, but also marked by lively colours, and is the second species of the genus which I have found in this country. Soon after passing Kurrichaine, we came in communication with the haunts of the larger

forms of this class, and procured specimens of a species of Python, which I had formerly obtained near Port Natal. The poisonous snakes have been found to bear nearly the same proportion to innocuous ones which they do in the colony.

"Crocodiles, of moderate size, were found inhabiting the principal rivers beyond Kurrichaine in considerable numbers, and are much dreaded by the natives, who, like their cattle, dogs, &c., often suffer from their voracity. One which we shot had just swallowed a Rooye-bok (Antelope Melampus), which had been caught in the act of drinking, and it was extracted entire from its stomach. Besides crocodiles, we found in the same river a new species of box tortoise, belonging to the genus Sternotherus, and which has been provisionally designated Sternotherus africanus. The shell of this species sometimes measures 2 ft. in length. But few specimens were procured; a circumstance not arising out of the scarcity of individuals, but from the difficulty of catching them, the deepest pools being their exclusive abodes.

"As regards the collection of insects, it is (and that from necessity) but small; yet, nevertheless, it will furnish some interesting species. The interior does not appear to present that rich field for the entomologist which is done by the districts nearer the coast. It is true a portion of the most favourable season for the collection of insects passed when we were in situations where but few trees or little underwood existed, and where, at certain seasons, the country is densely covered with grass.

"*Botany.* — From there having been no person attached to the party for the specific purpose of collecting and drying plants, little of interest has been obtained in this department. That beauty and variety which characterise the productions of the vegetable kingdom within the colony were not observed at any great distance beyond the Orange River; and though numerous forms of the smaller and less showy plants in all probability exist in the different districts we visited, yet the means and the time for detecting them were wanting. Few trees were observed, and the Acacia Giraffæ had but few rivals, as far as regarded size. Shrubs, from 1 ft. to 6 ft. in height, prevail in abundance, from Vaal River to some distance north of Latakoo, and to a great distance north-west and west of it; also upon the granite and limestone formations, over which we principally travelled, beyond Kurrichaine. Indeed, in the latter district, they, associated with dwarf trees, formed almost a continuous coating to the surface of the country, which coating became denser and denser as the Tropic was approached. The few seeds which were collected have, by direction of the committee, been planted in the botanical garden of Baron Von Ludwig; and the dried specimens of plants have, by a like order, been reserved to form a portion of the general collection destined for Europe.

"*Mineralogy and Geology.* — An extensive collection of geological specimens has been formed, which will enable the Association to dispose of four series, and, at the same time, reserve one, the finest and most complete, for the Association. The specimens possessed are calculated to furnish a correct knowledge of the prevailing geological groups which occur between Graaff-Reinet and the Tropic, and show what a great share the trap and granitic series possess in the structure of South Africa. No organic remains were detected, though extensive limestone formations, with a distinct stratification, and abounding in caverns, were examined in three different positions, the last in about latitude 25°. The notes possessed in relation to those points will admit of ample illustration when the subject can be treated in detail."

Naturalists in this country will eagerly anticipate the arrival of so extensive a series of zoological specimens, and we ob-

serve, that it is intended to retain for a time the most valuable part of the collection, for exhibition in Europe, with a view of raising funds for enabling the Association to pursue its original object, by sending out other expeditions. Looking at the thing as a matter of pecuniary advantage to the Association, we would strongly urge the committee to reconsider the policy of the course which they propose to adopt. Unless some particularly advantageous plan can be devised, with reference to the manner in which the collection is to be shown; we doubt whether the sum raised by its exhibition in England would amount to one tenth of the expenses which must unavoidably be incurred in making the necessary arrangements.

[At a general meeting of the members of the Association, held March 19. 1836, immediately after the return of the expedition, it was resolved, unanimously, — That the only adequate thanks which can be rendered to Dr. Smith are, that he be requested to undertake the next expedition.]

MISCELLANEOUS INTELLIGENCE.

Art. I. *Short Communications.*

[A correspondent has put into our hands the following translation of a passage which has just appeared in the second volume of Raspail's work upon vegetable physiology (p. 624.). As the evidence laid before the parliamentary committee relative to the British Museum, has been published in the course of the past month, in which allusions are repeatedly made to the public Continental museums, the opinion entertained by a French naturalist, with respect to the one at Paris, is certainly deserving attention. — *Ed.*]

Museum of Natural History at Paris. — Here reform should penetrate with its pitiless hammer; for here long established customs have become abuses scarcely susceptible of correction by other means. The Museum of Natural History is a kind of oligarchical republic, independent of the power which protects and supports without controlling it. This republic is governed by irremovable professors; and the rank is in some measure hereditary, since these professors constitute a self-electing body. Their number is limited to ten, and they have the power of proposing their own sons and sons-in-law. It is thus easy to imagine that the museum may one day be ruled by a single family of professors. This would undoubtedly be the result if one professor should have only sons, and the rest daughters: