

Report on the Natural History portion of the Museum.

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HAVING been requested by the Committee of Management to report on the state of the Natural History collection in the possession of our Society, I have the greater pleasure in doing so, as, although no great additions have been recently received, a very great improvement has taken place within the past year in the arrangement and condition of that which we possess.

I think I shall best serve the interest of the Museum by shortly stating what has been done in each department of Natural History during the past year, by noting the principal deficiencies, and by suggesting simple remedies for them.

With regard to the Geological collection. Mr. Parfitt, our curator, has examined the manuscripts of Mr. Williams, and in them he has discovered a clue whereby he has been enabled to restore to a very large number of the specimens of that gentleman's collection their approximate localities. He has arranged the whole of those for which we have

space stratigraphically, and he has named every specimen which presented sufficient characters.

It is hardly possible to estimate too highly the value of this work. The collection, comparatively useless before, is now of great value, both in a scientific and instructive point of view; and when those portions which are still unarranged are afforded space, it will probably be the best collection existing of the important series of rocks to which it belongs, namely the Devonian and Carboniferous series of Devon and Cornwall.

Of the greater part of the remainder of our Geological collection, although Mr. Parfitt has named nearly all the specimens, I regret to be obliged to state that, excepting as a mere reference to name specimens by, or for the tyro in Geology to become acquainted with the forms which are represented in the different series of rocks, it is comparatively useless, for but few of the localities are known, and for the higher purposes of Geology it is absolutely necessary that the exact locality and bed of rock in which the individual specimen occurs should be fixed.

The more friable and delicate saurian and fish remains have, during the past year, been covered with glass. The only fossils that now absolutely require protection are the larger mammalian remains from the Mendip caverns. Of these mammalian fossils we have a collection of great interest, containing many individual specimens which are either unique or nearly so, and many series of teeth and bones of extinct animals which show the variations the animals underwent in their growth. Among these two previously undetermined jaws have been shown to belong to the *Spermophilus citellus*, or pouched marmot of the Altai mountains, an animal hitherto not found elsewhere than in Siberia. This, among many others, gives an absolute proof

of the close connection which exists between the later cave fauna of England and that which now exists in Siberia.

It would be highly desirable that a catalogue should be published of the more important fossils we possess. If such were done in connection with other local museums it would much facilitate reference, and consequently the study of minute Geology.

The only fossil of importance we have received during the past year is a portion of the skeleton of a very large ichthyosaur, from Stoke St. Mary—I believe the first found in that locality. For this we are indebted to the kindness of Mr. Arthur Jones, our excellent secretary.

Our deficiencies in this department occur in the coal bearing and secondary formations, although we possess many fine specimens, the localities of but few are known, and, as I stated before, the collection is useless in the present state of Geology without them; it makes a fair show to the eye, but is useless for the purposes of science. It is, therefore, earnestly requested by the Committee of Management that those who take such an interest in our work as to favour us with specimens, should take care to affix to each individual fossil or rock specimen a short statement of the exact circumstances of its occurrence, including height of bed, its relative position to other beds, and any other detail of interest which may occur.

In addition to the collection of fossils it would be very desirable to form a good and well-arranged collection of rock specimens attached to each division of the geological series, so as to show the different descriptions of rock which are bedded in each formation, as well as the variations of the same bed in different districts. This might be attained if the members of the Society were to make a well classified collection of each rock they may know of in

their respective neighbourhoods, and would affix to the specimen a statement of the exact circumstances and thickness of the bed. The smaller the specimens are, the better, if they show the characteristic structure of the rock.

With regard to existing Plants and Animals, several considerable improvements in arrangement and additions to our collection have been made during the past year. The Herbarium is in good order, but it only contains 700 out of 1600 British flowering plants. If any person wishes to correspond with the Society for the sake of exchange, or in order to benefit us, a marked catalogue will be supplied him by the curator. We have no Cryptogamia, except a good collection of ferns and smaller marine algæ; and the microscopic forms of vegetable life are altogether wanting.

The only portion of our collection which is in a satisfactory state, as regards the lower orders of animal life, is the cabinet of British Shells. Of these we have 270 out of about 400 species. A similar arrangement may be made with regard to these as I have mentioned with regard to our collection of flowering plants.

Of the Sponges, Zoophytes, Polyzoa, Echinodermata, and Annelids, we have next to nothing; but the collection of Crustacea formed by the late Mr. Baker has been put in order, and, though small, forms a nucleus for a more complete set.

Arrangements have been made for the gradual formation of a complete series of Insects. A considerable number of species have been procured by Mr. Parfitt, and arranged with those of Mr. Baker's collection that were worth preserving. Additions to these are particularly requested.

All the specimens of British Fish we possess are now properly arranged and protected, in the same manner as the skeletons of reptiles, birds, and small mammalia which we received from the late Mr. Baker.

A commencement has also been made of a system by which, as we receive specimens, a systematic arrangement of British Birds and their eggs and nests can be carried out. The few specimens we possess of British Mammalia are now adequately protected.

Mr. Parfitt has mounted many of the skins of Indian birds which were in the cupboards, and he has put in order most of the specimens of various animals we had in spirits.

Altogether the Museum presents an orderly, systematic, and cared-for appearance, which is most creditable to our excellent curator, who is indefatigable not only in arranging and keeping in order the number of objects under his charge, but takes every opportunity of adding to the stock, both by his own personal exertions and by applying to his correspondents on our behalf.

The advantage which the Society possesses in having as their curator a person who, to an accurate knowledge of entomology and botany, joins a love for, and more than average acquirements in, other branches of Natural History, should not be lost sight of. Specimens sent to us will, if valuable, be taken every care of, and the utmost possible use will be made of them. It is trusted that this will encourage those who are fond of this great and growing science to aid in making our museum be, as it should be, the means of instruction to the young, and of study and reference to the advanced student.

W. A. S.