

The results of Dr. Britton and Mr. Cowell's expedition bid fair to prove of high economic importance aside from their scientific value. The expedition owed much to the kind assistance of the planters, who detailed their negroes and horses for the service of the explorers. Without such aid, it would have been difficult to penetrate the forest belt, through which trails had first to be cut.

Further remarks were added by Dr. Underwood regarding a dodder in tops of trees in Porto Rico; by Mr. J. H. Barnhart, on an epiphytic *Utricularia* among the specimens from St. Kitts exhibited; by Mr. F. S. Earle, on the few fungi collected; and by Mrs. Britton, on the other cryptogams, which numbered 81, and included a *Vittaria* prothallium.

EDWARD S. BURGESS,
Secretary.

ANTHROPOLOGICAL SOCIETY OF WASHINGTON.

THE 321st meeting of the Society was held on November 5. Professor W. H. Holmes read a paper on the 'Discovery of Human Relics and the Bones of Extinct Mammals in a Sulphur Spring, Indian Territory,' an abstract of which will be published in *SCIENCE*. This paper was discussed by Dr. W. J. McGee, Jos. D. McGuire, F. W. Hodge, Francis La Flesche and others.

Miss Alice C. Fletcher gave an account of 'The Inauguration of the New Department of Anthropology, University of California,' through the munificence of Mrs. Phoebe A. Hearst. For ten years Mrs. Hearst has been gathering museum material, spending fifty thousand dollars a year on its acquisition and looking forward to a time when the collections might be housed in a museum building. Last summer the project took form, resulting in the establishment of the Museum at the University of California with a handsome endowment, the details of which appeared in *SCIENCE*, October 18, 1901.

WALTER HOUGH.

DISCUSSION AND CORRESPONDENCE.

THE GEOGRAPHICAL DISTRIBUTION OF FISHES.

IN *SCIENCE* for November 1, Professor A. E. Ortmann offers some very interesting notes on

my paper (in *SCIENCE*, October 11) on the geographical distribution of fishes. On the points raised I may add a word.

1. There is little or nothing in the present relations of the fish fauna of Japan to that of the Mediterranean to suggest a former connection through a warmer climate to the northward. The forms common to the two regions are chiefly of Indian and rather deep water distribution. One curious anomaly occurs, the existence of a second species of the large trout, *Hucho*, in Japan, the other known species being in the Danube.

2. The views of Dr. Ortmann as to the faunas separated by the Isthmus of Suez and the Isthmus of Panama seem to agree with those expressed by me. Of course, from the standpoint of ichthyology, no one could say when either oceanic connection actually existed. That is a matter for geologists.

3. The fish fauna of the Cape of Good Hope is imperfectly known, that of the southeastern coast of Africa still less. It is certain, however, that some tropical or semitropical genera do pass this barrier at present. In other ages the Cape might conceivably have been less of a barrier through less extension or through warmer climate at its extremity. This again rests with the geologists.

4. I am willing to accept the theory of the former extension of the continent Antarctica on geological grounds, and the known distribution of *Galaxias* would be explained by it. But the case of *Galaxias* would not of itself prove such extension, and the value of zoological evidence in such cases is easily overestimated.

DAVID STARR JORDAN.

PREGLACIAL DRAINAGE IN SOUTHWESTERN OHIO.

TO THE EDITOR OF *SCIENCE*: In his reply (November 15) to Mr. Miller's criticism of my papers on preglacial drainage conditions in the vicinity of Cincinnati, Professor Tight should have added that every one of the smaller streams mentioned by Mr. Miller, in proof of his theory, is of *postglacial* origin and consequently has no bearing on the question.

A view up and down the Ohio from the hill-top at either Madison or Leavenworth, Indiana,

will convince any one at all familiar with such features that he is on the crest of a high watershed which has been cut through in very recent times; recent, that is, in comparison with the period of the alluvial valleys up and down the stream from his point of observation.

GERARD FOWKE.

THE SENEGAL BAOBAB TREE.

It is said by travelers that the fruit of the Senegal Baobab tree is used by the natives to curdle milk. As it is also called 'sour gourd' and cream-of-tartar tree, the curdling is probably due to an acid; and other vegetable acids are also known to be so used. But it seems that other vegetable products that are not acid will also curdle milk. In northern Mexico I was once served with a palatable dish of cooked 'cheese' that the mistress of the house told me she had herself curdled with the juice of berries, some of which she showed me. They were fruit of a *Solanum*, apparently *S. heterodoxum*. She was an intelligent woman, and spoke of that use of the berries as a common custom in Mexican families. Like other fruits of the nightshade family, they had no perceptible acid taste; and the curd which they produced had a consistence similar to that which is produced by rennet. Possibly the action upon milk of the juice of that and other non-acid fruits is similar to the action of rennet, which is thought by some investigators to be a kind of ferment.

C. A. WHITE.

SHORTER ARTICLES.

THE LARGEST DEEP-SEA FISH.

DURING the cruise of the *Albatross* in 1888 in the Pacific Ocean, a fish nearly five feet long was hauled up in a trawl cast in water of the depth of over 1,000 fathoms. Unfortunately it was thrown overboard, but happily not before a photograph was taken of it. Mr. Townsend has ever since hoped to have another chance to secure the species, but without present hope. It became desirable to make allusion to the species at this time, and he has conferred with Dr. Gill and asked to indicate its probable affinities.

The species appears to be most nearly related to *Percophis*, and for the present it may be as-

sumed that such is the case, but it is by no means certain that it is. It is deserving of the generic name *Macrias* with reference to its length as well as bulk, and the specific name *amissus* is appropriate for it as an estray from its relatives as well as to indicate the loss of the type. It is definable as follows:

MACRIAS.

A genus of Percophoid fishes with moderately oblong head, eyes in the second fourth of the head's length, slightly projecting lower jaw, thick lips, small teeth, small jugular ventrals and anal with origin behind that of second dorsal.

MACRIAS AMISSUS.

The body is elongate and between five and six times longer than high; the head forms more than a fourth ($1:3\frac{4}{5}$) of the extreme length; the caudal about a seventh. The head is oblong conical in profile, with the forehead nearly rectilinear; the eyes are in the third eighth of the length, with the diameter equal to about an eighth of that length, and nearly midway between the preoperculum and the front of the jaw; the mouth is quite oblique and the supra-maxillary extends scarcely behind the front of the eye; the teeth appear to be cardiform; the lips thick. The dorsal rays are not sufficiently defined to count exactly, but they approximate the following formula: $DXI-19$.

The specimen was obtained at the *Albatross* dredging station 2788, off Chonos Archipelago, southern Chili, S. A. (Lat. S. $45^{\circ} 35'$, Long. W. $75^{\circ} 55'$), at the depth of 1050 fathoms; bottom green mud; bottom temperature, 36° F.; surface temperature, 58° F.; from an 11-foot beam trawl, Feb. 11, 1888. The dredge haul lasted three hours.

The fish was about five feet long, and is the largest deep-sea fish taken by the *Albatross*—probably the largest ever taken by beam trawl or dredge. Its color was grayish. It had the softness of flesh characteristic of deep-sea fishes, settling down on the deck so that its natural contour does not show in the large 8×10 photograph that was at once made of it.

There being no receptacle available for preserving it in alcohol, it was placed in a cask and salted. Later the cask and specimen were un-