

fact of a wide and essential variation rather than the accident of the existence of a connecting link.

One more example and I am done. The cougar, or puma, is a perfectly distinct and well marked kind of cat, noteworthy not only for the sharpness with which its color and other points differentiate it from its spotted relatives, but also for the extent of its range. It seems to me it would be unwise because of any trivial differences to establish various species of cougars, separating the different races by terms of the same weight by which we separate, for instance, any one of them from the totally different jaguar. Here again the essential point is the likeness the cougars bear to one another, and their wide unlikeness to the great spotted cats. The Latin name we give them should indicate, by the employment of the generic term, their resemblance to all other cats, and by the employment of the specific term their fundamental agreement among themselves on points wherein they differ from all other cats. Of course, it would be possible to make the pumas into one genus, with another for the leopards, another for the lions, etc., etc.; but this again seems to me to be clumsy and, on the whole, misleading.

I quite realize that there is a certain amount of presumption in a layman criticising any conclusion reached by a trained scientific expert of the standing of Dr. Merriam. It must be remembered that my criticism is directed only to the expediency of the terminology by which he expresses certain of his results, and not in the least to the results themselves; in fact, it is because I am so ardent an admirer of Dr. Merriam's work that I wish to see it made, without any sacrifice of accuracy, so comprehensible in its terms as to be easily understood by the lay mind.

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CURRENT NOTES ON ANTHROPOLOGY.

CONTRIBUTIONS TO ETHNO-BOTANY.

IN the last number of the *Internat. Archiv für Ethnographie*, the editor, Dr. Schmeltz, reviews the progress of ethno-botany, referring with special emphasis to Professor Guppy's 'plant names of Polynesia' (published by the Victoria Institute, 1895). Such studies cast a light upon the early migration of tribes which cannot be obtained from other sources.

An interesting example is given in the *American Anthropologist*, February, by Mr. Walter Hough. It is upon 'The Hopi in relation to their Plant Environment.' How important their floral world, sparse as it is, has been to this people may be judged from the author's remark: "There is almost no plant which the Hopi do not use in some way, and there is none to which they have not given a name." An ample list is added, including the native name, the botanical title and the use to which the plant is put.

CANNIBALISM IN EUROPE.

WE rarely reflect how near in time modern civilization is to savagery. Less than a thousand years ago the Picts of Great Britain were man-eating barbarians. The recent researches of Matiegka, in Bohemia, prove that anthropophagy prevailed there in the bronze age (*Centralblatt für Anthropologie*, January, 1897). If we can trust mediæval authorities quoted by Dr. Krauss in the *Der Urquell*, B. I., they held distinctly in memory the period when the Wends and Slavs 'killed, cooked and ate' their aged relatives.

But this is quite surpassed by the evidence adduced by the same writer that the southern Slavonians even down to well within the present century were familiar with the custom of ceremonially eating the flesh of their enemies. Indeed, one of their songs, as late as 1820, refers to it as a recognized procedure. To taste the broth

made with the head of some famous warrior was believed to confer on women the possibility of similarly heroic offspring!

THE PRE-HISTORY OF NORTHERN EUROPE.

MAN first entered northern Europe in the Neolithic period; but that period, for that locality, is divided into an older epoch, when flint implements were not polished, and a later, when they were polished. The first of these was the age of the oldest Danish kitchen-middens; the oak was abundant there and in Scandinavia; but the men of the time did not carry on agriculture. The climate was warmer than it had been since. This epoch closed about 3000 B. C.

About that time the cultivation of barley and wheat was introduced, polished flint implements were manufactured, the beech began to abound, and the later refuse heaps and the dolmens were constructed. The distribution of this early culture indicates that it approached the north of Europe from the Iberian peninsula and probably from North Africa.

Such are the conclusions reached by Dr. E. H. L. Krause, in *Globus*, Bd. LXXI., No. 9, from the works of Andersson, Montelius and Meitzen.

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SCIENTIFIC NOTES AND NEWS.

HOW FLOWERS ATTRACT INSECTS.

PROFESSOR FÉLIX PLATEAU, of Ghent, has been making further careful experiments in the open air to determine what part the corolla and other conspicuous parts of the inflorescence of flowers bear in attracting insects, and has reached some results strikingly at variance with generally received opinions.

His first series of experiments (see *SCIENCE*, N. S., III., 474) were made on composite flowers with radiate inflorescence and resulted in the conclusion that their form and color play no part in attracting insects, these being guided

by some other sense than sight—probably by odor.

In a second series he mutilated flowers of *Lobelia*, *Oenothera*, *Ipomoea*, *Delphinium*, *Centaurea*, *Digitalis* and *Antirrhinum*, with a wholly similar result, viz, to show that the colored organs of these flowers play a very unimportant rôle.

Further experiments, related in a third paper, lead him to make the following statements as their conclusion:

1. That insects show the most complete indifference for the different colors which flowers of the same species or of the same genus may present.

2. That they fly unhesitatingly toward flowers habitually neglected by them on account of their total lack or small supply of nectar, the moment one places in them an artificial nectar, represented by honey.

3. That they cease their visits to flowers from which the nectiferous portions have been eliminated (but in which the inflorescence remains intact) and that they renew their visits if one afterward replaces the eliminated nectar by honey.

The details of these experiments and observations are given with the utmost care and their importance cannot be questioned. The results are published in the *Bulletin* of the Belgian Academy.

SCIENTIFIC EXHIBITS OF THE GOVERNMENT AT THE TENNESSEE EXPOSITION.

DR. W. F. MORSELL writes that the government scientific exhibits for the Tennessee Exposition, which opens on May 1st, are well advanced. Exhibits will be made by the National Museum, taken from its numerous departments, and the Smithsonian Institution will include in the complete set of its publications the book prepared in celebration of its semi-centennial. The Bureau of International Exchanges will show the extent of its work, and astronomical photographs will be sent from the Astrophysical Observatory. The Zoological Park will send a model of the Park about seven feet square, and the Bureau of American Ethnology will present a Kiowa camping circle.

The exhibit of the United States Geological