

important articles relating to the smut-fungi, and a full index complete this important contribution to our knowledge of this group.

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#### ARCHEOLOGICAL NOTES.

##### ICHTHYOLOGICAL NAMES.

MUCH attention was given by the older ichthyologists, notably Conrad Gesner, Rondelet, Artedi, Linné and Cuvier, to classical names of fishes, and their identification with well-known forms. In this country Louis Agassiz, upon the occasion of his rediscovery of *Parasilurus aristotelis* (*Proc. Amer. Acad.*, III., p. 325), was one of the first to bring home the importance of comparing ancient and modern vernacular names of plants and animals, his remarks being ably seconded by a later communication from Professor Sophocles in the same volume.

Within recent years President Jordan and H. A. Hoffmann<sup>1</sup> have attempted a thoroughgoing revision of classic and modern designations of the Hellenic fish fauna, overlooking, however, some of the best work that has been done by their predecessors in this field. For instance, they seem to have taken no heed of the extremely valuable historical and bibliographical works of Artedi, nor of the indispensable commentaries of A. Koraes on the fishes mentioned by Galen and Xenocrates. *A propos* the last-named author, we owe to Koraes the correction of Artedi's error in confusing the physician Xenocrates with the illustrious philosopher of the same name who flourished, as the Swedish naturalist gravely tells us, '*anno mundi 3630, circiter*.'

Amongst the numerous attempts that have been made to identify Aristotelian species, two or three are of superior merit. These are the '*Index Aristotelicus*,' published by the Berlin Academy, Aubert-Wimmer's '*Aristoteles Tierkunde*' (Leipzig, 1868), and Sundevall's '*Thierarten des Aristoteles*' (Stockholm, 1863). A work that might serve as a model for a revised *Synonymia Piscium Græca*, apart from the author's peculiar ideas on animal

symbolism, is D'Arcy W. Thompson's '*Glossary of Greek Birds*' (Oxford, 1895). Writing in the same year, H. Lewy argues very plausibly for a Semitic origin of a great many Greek names of plants and animals, including fishes. Thus, when we say tunny, carp, chameleon, etc.,—though Mark Twain can not consistently allow this—we approach pretty closely to the speech of Adam. Other contributions of real value that deal with the etymology of the Greek fauna are the following: Nicolas C. Apostolides, '*La pêche en Grèce*' (Athens, 1883); T. de Heldreich, '*La faune de Grèce*' (Part I., Athens, 1878); D. Bikélas, '*Sur la nomenclature de la faune grecque*' (1878), and Dr. Erhard's '*Fauna der Cycladen*' (Leipzig, 1858). Finally attention may be called to the newly discovered Byzantine '*Fish Book*,' a work dating presumably from the thirteenth century, for the elucidation of which scholars are indebted to Professor Krumbacher, of Munich.

Before leaving this subject, there is one feature in Homeric zoology which deserves notice. Fish, the great delicacy of Attic days, never enters into the diet of the great chiefs, who partake of great meals of roast meat in contradiction of all that we know of any historical Greeks, as Professor Mahaffy has shown, from the earliest to the present day. Even the early athletes trained on cheese, and the people were probably never a meat-eating race. The Dublin professor is inclined to believe, with all its implied significance respecting authorship, that the exclusion of fish from Homeric banquet scenes is 'a piece of deliberate archaism.'

##### PREHISTORIC DARWINIANS.

ZELLER and Osborn have critically investigated the extent to which evolutionary ideas were developed among Ionian philosophers several centuries before our era, and it is doubtful if their main conclusions can be controverted. One must marvel, therefore, at the fertile ingenuity of a French writer, M. Henri Coupin,<sup>2</sup> who has out-Champollioned Cham-

<sup>1</sup> J. P. Mahaffy, '*Problems in Greek History*,' p. 49 (London, 1892).

<sup>2</sup> 'Le poulpe et la croix gammée,' *La Nature*, May 20, 1905, p. 396.

<sup>1</sup> 'A Catalogue of the Fishes of Greece,' etc., *Proc. Acad. Nat. Sci. Phila.*, 1892, pp. 231-285.

pollion in deciphering for us records which purport to show the prevalence of evolutionary ideas amongst Pelasgian races upwards of 2,000 years before Christ.

Compared with this feat of modern philologists, the reading of the handwriting on the wall, or of cuneiform inscriptions, is as mere child's play, for in the present case the records that have come down to us from proto-Mycenæan times are neither written nor inscribed. They are different from the papyrus rolls obtained at Herculaneum, although, like them, they have lain buried for ages in the spot aptly termed by Fouqué a 'prehistoric Pompeii' (Thera). In what form, then, are the records? Vase-paintings, scenes and symbols represented on *objets d'art*,—in a word, pictographs! But we may read even picture-writing, provided only we have the key. This M. Coupin triumphantly declares he has found: "Avec cette clef," says he, "on peut lire sans difficulté une foule de petits 'rébus' que personne ne comprendrait sans elle." The key is furnished by a new interpretation of the swastika, a design which has been exhaustively discussed in this country by Thomas Wilson, in the Smithsonian Report for 1894, and more recently by Mrs. Zelia Nuttall. That it is capable of unlocking terrible and profound mysteries may be judged from the following specimens of M. Coupin's 'translation':

On this bronze fibula (Fig. 11) one reads from right to left: 'From aquatic animals (fishes), through the generative force of the sacred octopus, birds are descended.' On another design: 'Birds have issued from the water by virtue of the sacred octopus, or by a virtue analogous to that of the sacred octopus. \* \* \*'

Already we have had to endure learned disputations tending to show that the far-famed Polyphemus was founded upon seamen's accounts of the gorilla, the present habitat of that animal affording no difficulties to the theorist; and within the last year or two, all semblance of discrimination has been abandoned by certain German writers in their interpretations of Homer's Scylla. Now that we have encountered Darwinism in full swing something like forty centuries ago, it remains

only to bring to light a Coptic version of the nebular hypothesis, or a table of lunar distances from the ruins of Yucatan. Through abuses, even a good method may be brought into undeserved reproach; and this seems to be strikingly true of mythological interpretation.

#### NAMES OF THE GORILLA AND ORANG-OUTAN.

THE discussion by Mr. Forbes in *Nature* (LXIX., p. 343) on the derivation and proper form of the word *orang-outan*, which in Malay means 'forest-man,' leads one to inquire why the specific name of the gorilla, first bestowed upon it by Savage in 1847, should have become almost universally superseded by the title subsequently proposed by Owen. Authors who agree with Owen in regarding this ape as generically distinct from the chimpanzee employ the designation *Gorilla* for the genus, but not for the species. Thus, Huxley in his 'Natural History of Man-like Apes,' and Flower and Lydekker in their treatise on 'Mammals' refer to it as *Gorilla savagei*. On the other hand, the older views of Wyman and Savage are endorsed by such expert mammalogists as P. L. Sclater and Arthur Keith, who defend the appellation of *Anthropopithecus gorilla* (Savage).

It seems to be pretty clearly established that only one species of the gorilla is known, the scientific discoverer of which was Savage; and to this species only one name is applicable, which is that which has become everywhere familiar in popular usage. The story of the origin of the name is interesting, since it harks back to the voyage of Hanno, the famous Carthaginian navigator of the fifth century before our era. There is not the slightest reason for discrediting the narrative of the 'gorillas,' as related in the *Periplus*, Pliny confirming the fact that their skins were exhibited in Carthage, and nearly all authorities agreeing that the southernmost limit of the expedition, where these animals were taken, was only a few degrees above the equator. But the identification of Hanno's 'gorillas' with anthropoid species now inhabiting equatorial Africa is a more difficult matter, though it appears certain they were not the apes which

we are accustomed to understand by this name, or to which Battell gave the name of Pongo, or 'greater monster.' They are supposed by many to have been chimpanzees.

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WORK OF THE DEPARTMENT OF TER-  
RESTRIAL MAGNETISM OF THE  
CARNEGIE INSTITUTION OF  
WASHINGTON FOR 1905.

*Office Work.*

I. *Continuation of the study of the secular variation* and compilation of data and preparation for publication on a comprehensive, uniform plan. [The investigations have already progressed far enough to have warranted beginning at once the observational work referred to below.]

II. Discussion and publication of the data on the *magnetic perturbation* observed during the *eruption of Mont Pelée*, Martinique, 1902. [It is hoped to have this work in published form by end of year.]

III. *A general study of the laws of the diurnal variation* to serve as the basis for determining corrections and their reliability for the reduction of field observations.

IV. *Special investigation of magnetic storms* with the view of determining a working method for the discussion and analysis of such fluctuations. [These studies are being conducted under the direction of Professor Adolf Schmidt, at Potsdam, with the aid of funds supplied by the department. Professor Schmidt hopes to be able to contribute a paper on the subject towards the close of the year.]

V. Continuation of a *card catalogue* of publications and investigations in terrestrial magnetism and terrestrial electricity and allied subjects and collecting of information of work done and being done so as to avoid as far as possible needless duplication.

*Field Work.*

In pursuance of the plan for the completion of a general magnetic survey of the accessible regions of the globe within a period of fifteen to twenty years and of the general investigation of the secular variation, the following

observational work is now in actual progress. In all likelihood, the requisite funds for this vast undertaking will be supplied chiefly by the Carnegie Institution of Washington, and in fact it is the expectation that the operations under the auspices of this institution will probably cover about three fourths of the total area to be surveyed. However, the successful execution of the plan requires the harmonious cooperation and concerted action of all civilized countries; accordingly, definite steps in this direction will be formulated in conformity with the advice of leading investigators.

A. *Magnetic Survey of the North Pacific Ocean.*—A wooden sailing-vessel, the brig, *Galilee*, of San Francisco, built in 1891, length 132.5 feet, breadth 33.5 feet, depth 12.7 feet, displacement about 600 tons, carrying a crew of eight men and sailing-master, has been chartered and is now being fully adapted for the purposes of the expedition.

The scientific leader and commander of the vessel—Mr. J. F. Pratt—is one of the most efficient officers of the United States Coast and Geodetic Survey. Commander Pratt has had thirty years' experience in astronomical, geodetic, hydrographic and magnetic work, and has had command both of sailing-vessels and of steamers engaged in coast-survey work. By the courtesy of the Secretary of Commerce and Labor and the Superintendent of the Coast and Geodetic Survey he has been granted the necessary furlough and will enter the temporary employ of the Carnegie Institution for the purpose of assisting in the inauguration of the magnetic survey of oceanic areas. The other members of the scientific corps will be Dr. J. Hobart Egbert, magnetic observer, surgeon and naturalist, and Mr. J. P. Ault, magnetic observer.

The first cruise will be in a region where the various methods to be employed can fully be tested and controlled, viz.: San Francisco, San Diego, Honolulu, Umanak, Aleutian Islands, Sitka. The magnetic elements are to be determined as follows: Declination by two compasses (a liquid one and a dry one) using various azimuth devices, horizontal inclination by a new method being devised which,