

PROGRESS OF INVERTEBRATE PALÆONTOLOGY  
IN THE UNITED STATES FOR THE YEAR 1882.

BY CHARLES A. WHITE, M.D.

A FAIR amount of work has been done during the past year. No deaths have occurred among American palæontologists, and one new name appears among those mentioned in the present reviews.

In the *American Journal of Science* for January, pp. 40-46, Mr. Alexander Agassiz discusses the resemblance of living deep-sea Echinids with those of Cretaceous age, under the title, "The connection between the Cretaceous and recent Echinid fauna."

In the June number of the *American Journal of Science*, pp. 476-478, and one plate, Mr. John M. Clarke proposes and illustrates three species and two new genera of Crustaceans, *Spathiocaris* and *Lisgocaris*, under the title "New Phyllopod Crustaceans from the Devonian of Western New York." In the July number, pp. 55 and 56, he describes a Cirriped Crustacean from the Devonian, under the the name of *Plumulites devonicus*.

Dr. J. W. Dawson, in Proceedings of the Boston Society of Natural History, Volume XXI, p. 157, has a "Note on Spirorbis from an iron-stone nodule from Mazon creek, Illinois." Dr. Dawson notes the occurrence of a *Spirorbis* in connection with a fossil Millipede of the coal measures. He regards it as identical with a form found in the coal measures of both Nova Scotia and Europe. This was published in 1881, but it was not noticed in my last year's review.

Professor James Hall has prosecuted his great work for the State of New Jersey during the past year as he has been doing in the past. He also prepared a revised edition of all the publications he had previously made on the celebrated Niagara fossils at Waldron, Indiana, with important additions of text and plates, now thirty-six in all, and published the work in Professor Collett's Annual report (the eleventh) of the Geological Survey of Indiana for 1881. He has now in hand another important work for Professor Collett's next report.

Professor Angelo Heilprin has made the following publications in the Proceedings of the Academy of Natural Sciences of Philadelphia for 1882: "On the discovery of Ammonites in deposits of Tertiary age," pp. 94; "On the relative ages and classification



of the Post-eocene Tertiary deposits of the Atlantic slope," pp. 150-186; "On the occurrence of Nummulitic deposits in Florida, and the association of Nummulites with a fresh-water fauna," pp. 189-193; "On the age of the Tejon rocks of California, and the occurrence of Ammonites in Tertiary deposits," pp. 196-214.

In the first of these papers Professor Heilprin states his positive conviction that the Tejon group of California is Tertiary and not Cretaceous, and in the fourth paper he reaffirms this opinion. In the second paper he takes the ground that no true Pliocene deposits occur on the Atlantic slope of the United States.

In September Mr. U. P. James published No. 6 of his "Palæontologist," pp. 46-53. It contains "Descriptions of ten new species of Monticulipora from the Cincinnati group, Ohio."

The well-known Swiss palæontologist, Professor P. de Loriol has, in the Journal of the Cincinnati Society of Natural History, p. 118, Plate v, a "Description of a new species of Bourguetia," from the Ripley group, Cretaceous, of Alabama.

Mr. S. A. Miller has published a new edition of his useful "Catalogue of American Palæozoic Fossils." He has also published the following papers in Volume v of the Journal of the Cincinnati Society of Natural History: "Description of two new genera and eight new species of fossils from the Hudson River group, with remarks upon others;" "Description of ten new species of fossils;" "Description of three new species and remarks upon others;" "Description of three new orders and four new families in the class Echinodermata, and eight new species, from the Silurian and Devonian formations." These papers are one each in the four numbers of the journal, in the order here mentioned. They are all illustrated on Plates 1, 2, 3, 4, 5 and 9 of that volume.

Professor J. S. Newberry opposes the views of Professor Heilprin that the Tejon group of California is of Tertiary age, in an article in the Proceedings of the Academy of Natural Sciences for 1882, pp. 194, 195, entitled "On supposed Tertiary Ammonites."

Professor A. S. Packard, Jr., in an article in the AMERICAN NATURALIST for April, opposing the views of Professor Lankester that *Limulus* is an Arachnid nearly related to the scorpions, calls attention to the fact that scorpions and limuloid crustaceans existed as early as the Carboniferous age, and were then as widely differentiated from each other as now.

Julius Pohlman, in the Bulletin of the Buffalo Society of Nat-



ural Sciences, Vol. iv, No. 2, pp. 41-45, Plates II and III, publishes "Additional notes on the fauna of the Waterline group near Buffalo." One of the species he estimates had a length of thirty inches when perfect.

In the Journal of the Cincinnati Society of Natural History, Vol. v, pp. 119-121, Plate v, E. N. S. Ringueberg publishes "Description of two new species of Crinoids from the shales of the Niagara group at Lockport, N. Y.

M. C. Schlumberger, of Paris, France, has "Remarks upon a species of *Cristellaria*," in the Journal of the Cincinnati Society of Natural History, p. 119, with illustrations on Plate v. The Foraminifer is from the Ripley group, Cretaceous, of Alabama, and is referred by this author, with some doubt, to the *C. rotulata* of D'Orbigny.

Mr. Samuel H. Scudder, has done much in fossil Entomology, as the following notes will show :

"Fossil Spiders," Harv. Univ. Bull., 2, 302-303. (Reprinted under title : "Our knowledge of fossil Spiders," in *Field Naturalist*, 1, 61-63, Manchester, Eng.)

"Archipolypoda, a subordinal type of spined Myriapods from the Carboniferous formation." *Memoirs Bost. Soc. Nat. Hist.*, 3, No. 5, p. 143-182, Pl. 10-13, figures also in text. [Criticised by Packard recently in *AM. NAT.*]

The general matter was printed in *Silliman's Journal* the year before, but this contains in addition the full description and discussion of all the species and genera, twelve species, four genera.

The first part of Mr. Scudder's *Nomenclator Zoologicus* appeared (pp. 19 + 376), containing a vast number of palæontological genera. The second part is now half through the letter M, and is to contain about 80,000 references, being an index to Agassiz, Marshall, the *Zoological Record* and Scudder.

"The affinities of *Palæocampa* Meek and Worthen, as evidence of the wide diversity of type in the earliest known Myriapods," *Amer. Jour. Sci.* (3), 24 : 161-170. *Amer. Mag. Nat. Hist.* (5) 10 : 286-295.

"A new and unusually perfect Carboniferous cockroach from Mazon creek, Illinois." *Proc. Bost. Soc. Nat. Hist.*, 21 : 391-396.

"Notes on some of the Tertiary Neuroptera of Florissant, Col., and Green river, Wyoming Terr." *Proc. Bost. Soc. Nat. Hist.*, 21 : 407-409.



"Older fossil insects west of the Mississippi." Proc. Bost. Soc. Nat. Hist., 22: 58-60.

"On additional remains of articulates obtained by Dr. Dawson from Sigillarian stumps in the coal field of Nova Scotia." [Note to a paper of Dr. Dawson's.] Phil. Trans. Roy. Soc. Lond., 1882: 649-650.

Proof of Mr. Scudder's memoir entitled, "The Carboniferous hexapod insects of Great Britain," has been read, and will appear shortly in the Memoirs Boston Soc. Nat. Hist., Vol. 3, with one plate. The general part of it appeared in *Geological Magazine* in 1881, under the title, "Two new British Carboniferous insects, with remarks on those already known." The plate contains, among other things, a *chromo* of one Carboniferous wing to show the colors remarkably preserved.

Mr. E. O. Ulrich began, in the October number of the Journal of the Cincinnati Society of Natural History, an important series of illustrated papers on "American Palæozoic Bryozoa." The second paper appeared in the December number, and is to be continued into the succeeding numbers for 1883. In the October number of that journal, pp. 175-177, he publishes "Description of two new species of Crinoids from the Cincinnati group," and illustrates them on Plate v.

In the February number of the *American Journal of Science*, page 151, Mr. C. D. Walcott gave a "Notice of the discovery of a Pœcilopod in the Utica slate formation." In the March number of the same journal, pp. 213-116, he made further publication of the same discovery with the title, "Description of a new genus of the order Eurypterida from the Utica slate." The name proposed for the new genus is *Echinognathus*.

Bulletin No. 1 of the Illinois State Museum of Natural History at Springfield, Illinois, has been issued, octavo, pp. 43. It contains two articles by A. H. Worthen and one by Charles Wachsmuth, but no illustrations.

Mr. Wachsmuth's paper occupies pp. 40-43, and is entitled, "Descriptions of two new species of Crinoidea from the Chester limestone and coal measures of Illinois."

Mr. Worthen's articles are entitled respectively: "Descriptions of fifty-four new species of Crinoids from the Lower Carboniferous limestones and coal measures of Illinois and Iowa;" and "Addenda-corrections and proposed new names for species pre-



viously described in the Geological Survey of Illinois, under names that were preoccupied; and descriptions of two new species of fossil shells from the coal measures of Illinois and Kansas." All these species described and discussed by Messrs. Worthen and Wachsmuth are to be illustrated in the forthcoming seventh volume of the Illinois Geological Survey.

No. 3, Volume 1, of the Bulletin of the American Museum of Natural History of New York, has been published, containing sixty-one pages of text and four plates. It is wholly devoted to an important work by Professor R. P. Whitfield, "On the fauna of the Lower Carboniferous limestones of Spergen Hill, Indiana, with a revision of the descriptions of its fossils hitherto published, and illustrations of the species from the original type series." Professor Whitfield proposes three molluscan genera, namely, *Leptopsis*, *Bulimorpha* and *Eotrochus*. The greater part of these species were published without illustrations by Professor Hall in 1856, in the Transactions of the Albany Institute, and have become widely known under the designation "Spergen Hill fossils."

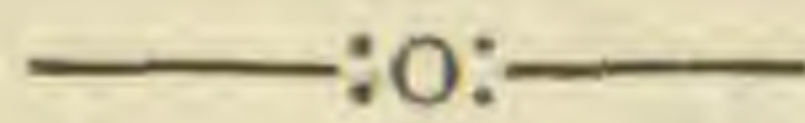
In the March number of Annals of the N. Y. Academy of Sciences, pp. 193-244, he published "Descriptions of new species of fossils from Ohio, with remarks on some of the geological formations in which they occur." This is a preliminary publication of matter that is to appear in a forthcoming volume of the Ohio Geological Survey. Forty-seven new species are described and one new Cephalopod genus (*Trematoceras*) proposed. The formations from which the fossils come, are of Devonian and Lower Carboniferous age.

In the Proceedings of the Academy of Natural Sciences of Philadelphia for 1882, pp. 17-34 and Plate 1, Professor Henry S. Williams published "New Crinoids from the rocks of the Chemung period of New York." He has also published from the Cornell University press, Ithaca, N. Y., a "Catalogue of the fossils of the Chemung period of North America," pp. 14, 8vo.

During 1882 I have made four palæontological publications, as follows: "Conditions attending the geological descent of some fresh-water gill-bearing Mollusks," *American Journal of Science* for May, pp. 382-386; "New molluscan forms from the Laramie and Green River groups, with discussion of some associated forms heretofore known," Proceedings of the U. S. National Museum, Vol. v, pp. 94-99, Plates III and IV; "Molluscan fauna of the



Truckee group, including a new form [*Latia dallii*], pp. 99-101 Plate v; "Fossils of the Indiana rocks, No. 2," Eleventh annual report of the Indiana Geological Survey, pp. 347-401, Plates 37-55. Four new species are described in this work, but it is mainly a republication of forms more or less well known. Seven new plates were prepared expressly for this work, but the remaining twelve plates are made up of figures which were engraved over twenty-five years ago by John W. Van Cleve to accompany a work on fossil corals, which he did not live to accomplish.



## NOTE ON THE GENUS CAMPELOMA OF RAFINESQUE.

BY R. ELLSWORTH CALL.

THE earliest known forms of this subgenus of the great molluscan family Viviparidæ appears to have been described by Thomas Say as a *Limnæa*,<sup>1</sup> the type of the group being the form now common in collections under the name of *decisa*. The form on which the description was based is illustrated by Fig. 6, on Plate III, and is reproduced as Fig. 13 by W. G. Binney in his monograph of this family published as Smithsonian Miscellaneous Collections, No. 144. In a subsequent corrected edition of the Encyclopædia the same form and plate appear, bearing however the name of *Paludina decisa* Say. This reference is the first in which any of the forms of this group are referred to *Paludina*, a subgenus not represented in North America so far as known. In several instances European malacologists appear to have confounded these American forms with different exotic subgenera. They have been referred by these foreign systematizers variously to *Ampullaria*,<sup>2</sup> *Melania*,<sup>3</sup> *Helix*,<sup>4</sup> *Cochlea*,<sup>5</sup> and *Melantho*. Mr. W. G. Binney appears to be the first among American authors to employ the name of *Melantho* for these mollusks, though in this he followed the unpublished work of Dr. William Stimpson.<sup>6</sup> It is

<sup>1</sup> Nicholson's Encyclopædia, ed. 1, 1817, and ed. 2, 1818.

<sup>2</sup> Deshayes. Encyc. Meth., Tome II, p. 32.

<sup>3</sup> Menke. Syn. Meth., p. 134.

<sup>4</sup> Wood. 2d Supplement, p. 226. (Hauley's ed., 1856.)

<sup>5</sup> Lister. Conchyliologie, Tome 127. Quoted on the authority of W. G. Binney.

I have no means of personal verification.

<sup>6</sup> Vide Preface to Smithsonian Misc. Coll., No. 144, p. iii.