(moving forms of life) that have no backbone, yet, in their adult stage at least, have jointed legs; while I shall consider as lower forms of life, or *worms*, as Linnaeus calls them (Vermes), those that have neither backbones nor (in their adult stage) jointed legs.

On pages xv and xvi he states:

The system I follow is that of Linnaeus, a little modified, as in the fourth edition of my little New England zoology; but this is the first time I have brought Linnean, that is, binomial technical names, into the text of my work. If I use the word *family*, as I may from time to time, I always mean the *genus*, in the binomial sense, as used in Linnaeus. With that other invention, the non-Linnean family, with its everlasting *-idae*, and her sister *-inae*, I have nothing to do. This *-idae* and *-inae* are tag ends that the "scientists" hang onto genera to make up super-genera such as good old Linnaeus never heard of.

This book will cause zoologists much concern because many new binomial names are published with descriptions. Among the fishes (listed on pp. 32–139) only six previous Linnean names were used, and 120 new binomial names are introduced. Many new names are given for the other animals described, probably all of which will be included with the list of synonyms for well-known species of Tahiti. This has been done by Henry W. Fowler for the fishes in a forthcoming publication of his. Curtiss, apparently unacquainted with the extensive zoological literature on South Pacific animals, gave new names to those living around Tahiti because suitable ones were not printed in 1758, and later works are unknown to him.

LEONARD P. SCHULTZ

PALEONTOLOGICAL DISCOVERY IN SIBERIA

A FEW days ago the undersigned received from the U.S.S.R. Society for Cultural Relations with Foreign Countries, in Moscow, the following translation of a recent report on a rare paleontological find in Siberia, which may be of wider interest. It reads as follows:

NOVOSIBIRSK, SEPTEMBER 19

Members of the Komsomol Young Communist League of the "Iskra" Collective Farm discovered the complete skeleton of an ancient fossil animal in a layer of black silt at a depth of six meters. This discovery was made on the bank of the small river Oyesh, near the village of Vakhrushevo, eighty kilometers from Novosibirsk. The skeleton has been handed over to the Novosibirsk Museum, where it has been restored. Scientists have now established the fact that this is a skeleton of a representative of a large species of fossil elephant (*elephas antiquus*) which, in the early glacial epoch, was of wide occurrence. This elephant is one of the predecessors of the mammoth and differs from it by a lesser curvature of the tusks.

In spite of the young age of this elephant, as is evidenced by the jaws and the non-ossified cartilage parts of the body, the height of the skeleton is 270 cm, its length, to the base of the tusks, is 325 cm, the length of the tusk is 150 cm. The skull is smaller than that of a mammoth. The upper and lower jaws of the unearthed specimen have four teeth each.

Scientific workers have left Novosibirsk to study the layer of soil where the elephant was imbedded. . . .

In an interview with a *Tass* correspondent, Academician A. A. Borisyak, director of the Paleontological Institute of the Academy of Sciences of the U. S. S. R., stated the following:

"The skeleton unearthed near Novosibirsk is of outstanding scientific value. This is the first discovery in the Soviet Union of an entire fossil elephant referring to the beginning of the Quaternary period. Hitherto we could judge of such elephants only by separate teeth which were found."

Upon learning of this valuable discovery the Paleontological Institute communicated with the Novosibirsk Museum and intends to send there a scientific collaborator in order to study this specimen of *elephas antiquus* on the spot.

A. HRDLIČKA

U. S. NATIONAL MUSEUM

SCIENTIFIC BOOKS

FLORA OF INDIANA

Flora of Indiana. By CHARLES C. DEAM. 1236 pp. 2247 maps. Indianapolis: Department of Conservation, Division of Forestry. 1940. $3.50.

THIS impressive volume represents the work of many years, as the distribution maps of individual species of flowering plants and ferns attest. It will undoubtedly serve as the model for state floras of the future, and the numbering of genera according to the system of Dalla Torre and Harms provides for interpolation of genera as one wishes. Conversely, the "Flora of Indiana" provides a background for arranging genera in the herbarium in a systematic rather than an alphabetic way. Indiana includes a large proportion of the species of eastern United States, and the comprehensive text references make it a sort of dictionary for the latest recognized names and their place of publication. Nothing, it seems, has been forgotten in making the work complete. There are keys to families and genera, summaries of the herbaria examined, statistical accounts of collectors in Indiana, glossaries, a register of obsolete locality names, and so on. The thirty-six pages of introduction to the

main catalogue of plants include an account of seven recognized plant areas of Indiana: the Dune Area along the shores of Lake Michigan; the Lake Area in the north, characterized by many plants of the coastal plain; the Tipton Till Plain, composed of flat lands extending south to the limit of Wisconsin drift, in which native plants have been almost exterminated by agriculture; the Illinoian Drift, south of the Tipton Till, including ravines, oak flats and sandy terraces; the Prairie Area, now chiefly in the northwest; the Lower Wabash Valley, often inundated, and the northeastern limit of many species of the Mississippi Valley; the Unglaciated Area, with chestnut oak and accompanying species which have penetrated across the Ohio River. Statistics show 1,838 native and 302 introduced species, with many additional varieties and forms. Notations on the period of flowering, comparative morphology under varying habitat, behavior of species under cultivation and rate of increase of introduced plants provide much of interest to the amateur. Thus of *Ampelamus albidus* (p. 769) we read: "The beekeepers widely publicized this plant as an excellent honey plant under the name of bluevine. We introduced it for this purpose at Bluffton and some seed escaped and we have been trying to exterminate it now for eight years without success."

One of the most interesting passages in the book will be found on pages 1125 to 1129, where detailed explanation is given of habitat terms such as "slough," "bog," "pond" and "prairie."

The eighty-seven pages of excluded species (more than 700 items) represent previous incorrect determinations, unsubstantiated records, etc., and reveal the pitfalls which beset the careful worker. The "Flora of Indiana" upholds Dr. Coulter's statement in the preface: "It is safe to say that in no other regional Flora has such meticulous care been taken to secure absolute accuracy in determination, as well as the very latest word in these special studies."

HENRY K. SVENSON

BROOKLYN BOTANIC GARDEN

LAND MOLLUSCA OF NORTH AMERICA

Land Mollusca of North America (North of Mexico). Vol. 1, Part 2. By HENRY A. PILSBRY.[1]

IT was my pleasure to review in SCIENCE (Vol. 91, No. 2360, pp. 292–293) Vol. 1, Part 1, of this important publication. I refer the reader of the present note to that review, in which the scope, significance, as well as the timeliness of this endeavor are discussed.

In Part 2, which covers the families Polygyridae and Sagdidae, the author has employed the same thoroughgoing methods that he employed in Part 1.

Students of North American land mollusks will here find keys to assist in quickly locating their species in the proper superspecific categories adopted in the present system, as well as adequate text and illustrations for the determining of the species and subspecies themselves.

Table I is in continuation of the one published for Part 1 and briefly calls attention to the strides that have been made since Binney published his Memorial volume in 1885, and also the significant part that Dr. Pilsbry has played in bringing our knowledge of the subject to its present status.

TABLE I

	Species older than 1885	Species here accepted	Subspecies here accepted	Pilsbry's species	Pilsbry's subspecies
Family V. POLYGYRIDAE					
subfamily Polygirinae					
Genus Polygyra					
Subgenus Polygyra	2	2	5		
Subgenus Daedalochila	18	21	20	2	10
Genus Stenotrema	10	24	13	9	3
Genus Praticolella	5	7	7		1
Genus Mesodon					
Subgenus Mesodon	12	19	18	3	9
Subgenus Patera	2	6			3
Subgenus Appalachina	1	2		1	
Subgenus Inflectarius	2	4	4	1	
Genus Trilobopsis	1	5	6	2	3
subfamily Triodopsinae					
Genus Triodopsis					
Subgenus Triodopsis	4	11	19	2	9
Subgenus Xolotrema	3	4	5		1
Subgenus Neohelix	4	4	4		1
Subgenus Cryptomastix	5	8	10	1	6
Genus Allogona					
Subgenus Allogona	1	2			
Subgenus Dysmedoma	2	2	2		
Genus Vespericola	2	6	8		2
Genus Ashmunella	1	27	39	14	25
Family VI. SAGDIDAE					
subfamily Sagdinae					
Genus Lacteoluna	1	1			
subfamily Thysanophorinae					
Genus Hojeda	1	1			
Genus Thysanophora					
Subgenus Thysanophora	2	2			
Subgenus Lyroconus	1	1			
Genus Microphysula	1	2	2	1	1
Total of Part 2	81	161	162	36	74
Contents of Part 1	53	188	210	66	97
Total for the two parts	134	349	372	102	171

These volumes are spans in the bridge that will easily carry the student of North American mollusks from the distant 1885 to the present without going through the gigantic task of bridging the gap personally.

I am sure that all of us pursuing this branch of science will voice gratitude and appreciation to him, his associates and the powers that be at the Academy of Natural Sciences of Philadelphia for the service that they have rendered us.

PAUL BARTSCH

U. S. NATIONAL MUSEUM

[1] 1940. Monograph No. 3. The Academy of Natural Sciences of Philadelphia. pp. vi + 575–994, index, ix pp., 203 text illustrations, about 1,500 figures. $7.50 to subscribers of complete set; separate, $10.00.