



CARNEGIE MUSEUM '62

in the regular and type collections. Two other studies, "Scolecodonts from the Sheffield Shale, Upper Devonian of Iowa" and "Scolecodonts from the Dundee Devonian of Michigan," are in the hands of the Editor. Considerable research was accomplished on a problem dealing with the Silurian scolecodonts from the Island of Gotland in the Baltic Sea off the coast of Sweden. J. J. Burke published the description of a new gastropod from the Conemaugh formation in the *Annals* and presented the type and duplicate specimens, collected in Westmoreland County, to the Section.

During the past thirty years the Section has dreamed of having a series of dioramas illustrating the life of each geological period of the Paleozoic Era to explain more clearly the often fragmentary and colorless fossils exhibited in display cases. The Richard King Mellon Foundation, by providing funds for Paleozoic Hall, is bringing this dream to realization. The diorama foregrounds are now being constructed by George Marchand and Dr. Irving Reimann at Ann Arbor, Michigan. Most will demonstrate a sea bottom based on the fossils found at a particular time in a geological period. Each specimen will be made to look as lifelike as



One Case in the Hobby Hall Exhibit, Stone Age Scandinavians

possible and colored in accord with similar forms found in present-day seas. A painted background by Carnegie Museum's Chief Staff Artist von Fuehrer will blend the life and sea bottom in the foreground gradually into the blurred and indistinct distance. In a display case in front of each diorama actual fossils of the restored species will be exhibited, serving as a key to the life in the diorama. In testing the mock-up cases for these exhibits considerable difficulty was encountered with lighting that caused reflections and mirror effects in the glass. After a great deal of experimenting by the staff these troubles seem to have been overcome. During the year two of the diorama foregrounds, Ordovician and Permian, arrived from Michigan, and by this time next year it is hoped that considerable progress will have been made toward completing Paleozoic Hall.

VERTEBRATE FOSSILS

The Section was extremely fortunate in having Dr. Mary R. Dawson join the staff as temporary Research Associate on October 1. Previous to her arrival in Pittsburgh, she had been Assistant Program Director in the Systematic Biology Program of the National Science Foundation. With her interests in Tertiary rodents and rabbits, Dr. Dawson and the Curator will collaborate on studies of late Eocene and early Oligocene rodent radiations.

Since the formation of the Section in the early days of Carnegie Museum, members of the staff have had a particular interest in the collection and study of late Eocene vertebrate faunas. This has resulted in one of the finest late Eocene collections of mammals in the country, with particular emphasis on specimens from the Uinta Basin of northeastern Utah. In July work was initiated in a locality in central Wyoming, from which a small but extremely interesting and significant late Eocene mammalian fauna had been previously collected. This field work produced nearly four hundred specimens in the space of a week's work, nearly all of them representing small mammals such as rodents, insectivores, primates, and rabbits, which were previously either unknown from this horizon or only poorly known. Initial study of this material was begun in the fall and plans are being made for future intensive work at this and at other late Eocene localities.

A review of the rodents from a Miocene locality in Florida was

completed by the Curator and submitted for publication. He also completed three-quarters of the work on a second paper in the Fossil Mammals of Montana series, this one dealing with rodents from Pipestone Springs. Dr. Dawson, in addition to collaborating on the late Eocene project, also began work on a review of North American later Tertiary ochotonids, or pikas.

Five accessions, totaling some 1500 specimens, were received during the year. In addition to the Eocene specimens already mentioned several hundred specimens from the late Oligocene and early Miocene of Goshen Hole, Wyoming, were added to the collection, as was additional material from the middle Miocene of Split Rock, Wyoming.

In May, in cooperation with the Department of Conservation and Commerce of the State of Tennessee and Robert Hershey of the State Division of Geology, the Curator, Research Associate McCrady, and Field Associate Hamilton visited a cave on the property of Mr. and Mrs. Walter Robinson in Overton County, Tennessee. Two partial ground sloth (*Megalonyx*) skeletons were found preserved in the cave together with one or two other smaller mammals. These were removed by a Museum party in June. Further work at the site in the fall yielded a number of other interesting small mammals, which are now under study by Mr. Guilday. One of the ground sloth skulls is in excellent shape and is probably the best specimen now known for the species.

One major exchange was completed during the year with the Royal Ontario Museum in Toronto. A skeleton of the duck-billed dinosaur *Edmontosaurus* was received in exchange for a partial skeleton of *Stegosaurus* and a slab mount of *Ichthyosaurus*. It is hoped that the duck-bill will eventually be placed on exhibit to complement the mount of *Corythosaurus* already on display in Dinosaur Hall, but a great deal of preparation is still needed on the skeleton before it can be mounted.

Mr. Yarmer prepared a small portion of the ground sloth material, which is removed from the calcite only with great difficulty, and he completed preparation of the summer's collections. He also made several new molds of specimens in the collections, including one of the *Diplodocus* skull from which a number of casts were made.

A large portion of the Section's lower vertebrate collections is still suffering from lack of adequate storage cabinets. New cases

are badly needed to house the fish and reptile collections in the basement storeroom so that they will be accessible for study.

PLANTS

This year 32 accessions, totaling 3033 plant specimens, were recorded. Staff members collected 1952 of these, 655 were procured through exchanges, and 426 were gifts.

Noteworthy gifts included the following: 195 ferns and flowering plants from Hawaii, contributed by Robert Aborn; 49 plant specimens from Ossabaw Island, Georgia, donated by Mrs. J. Kenneth Douth; and 23 flowering plants collected in Vermont and Nova Scotia by Mrs. K. G. Kutchka.

Notable collections were as follows: 1077 ferns and flowering plants obtained in Pennsylvania by the Curator, alone or with W. E. Buker, F. H. Beer, or Robert C. Leberman; 198 plant specimens from the Muddy Creek area, Butler County, collected by the Curator; 210 plants from Pennsylvania and 138 from various western and southern states, collected by Mr. Buker; and 91 plant specimens collected in northwestern Pennsylvania by Mr. Leberman.

The exchanges included 128 specimens from California, Costa Rica, and Latin America, received from the University of California; 337 from Oklahoma State University, collected in Oklahoma and Texas; 56 specimens from the Southern Appalachian Botanical Club; and 134 Pennsylvania specimens exchanged with the University of Pennsylvania.

Some 1850 plants were identified, 2150 labeled, 1000 mapped, and numerous specimens were mounted. In addition, synonymies were checked and labels made for approximately 1650 specimens in the Holland Herbarium. Six loans, totaling 489 specimens, were sent to institutions for study, and we made 7 exchanges, totaling 1314 specimens. Ferns and flowering plants distributed into the cases included 1449 Pennsylvania and 864 General Herbarium specimens.

A tabulation of the mapping of 1961 collections revealed 77 new county records for our collections, including the following 6 new State records: *Galium boreale* var. *intermedium*, *Lycopodium inundatum* f. *elongatum*, *Viola conspersa* x *rostrata*, *Hieracium Trailii*, *Triosteum angustifolium*, and *Asplenium resiliens*. New