DIVING IN A MICHIGAN LAKE FOR MUSEUM MATERIAL

By LEON L. PRAY
STAFF TAXIDERMIST

Preliminary studies, required for a projected preparation of a habitat group showing fresh-water fishes as they appear under water, were completed during August. The first step in this project was made about a year ago when Mr. Loren P. Woods, Assistant Curator of Fishes, Mr. Frank H. Letl, Preparator of Group Accessories, and the writer made a field trip to Magician Lake, in the vicinity of Dowagiac, Michigan. Diving equipment, built by Mr. Ronald Lambert, of Zion, Illinois, and used on the Leon Mandel Expedition to the Galapagos Islands, was employed on this brief reconnoitering trip with gratifying results. Richer weed beds were desired, and after careful deliberation Lake LaGrange in Cass County, Michigan, was decided upon for a 1942 expedition to make final collections.

The Museum was assisted in making arrangements by Mr. and Mrs. Gordon Cole, of Dowagiac. Early on the morning of August 19 we set forth for a two-day trip, with Mr. Lambert and Mrs. Marian Gray added to our original 1941 party, and with Staff Reporter Eddie Doherty and Photographer Leonard Bass, of *The Chicago Sun*, assigned to cover the story.

UNDERWATER SURPRISES

Boats were ready for us on arrival at Lake LaGrange. In short order our party now numbering seven members, was in bathing attire and hard at work with diving helmet and air pump. Between 10 A.M. and dusk many submersions were made. We located rich and varied water plants spread over the floor of the lake in groves, thickets, and extensive forests with deep, open waterways between.

The complete contrast in appearance of the underwater scene from the horizontal view afforded through the wide window of a helmet, as compared to the foreshortened top-water view seen through a glass-bottomed bucket, always impresses new observers. Water that appears to be shoulder deep from the surface turns out to be twelve to eighteen feet deep when one descends with the helmet. Plants that seemed squatty from the boat tower and arch above the diver in grand array.

FISHES STUDY THE DIVERS

While under water, either when walking on the bottom or seated comfortably on a rung of the chain and pipe ladder hung from clamps on the stern of the boat, fishes appeared to lose all fear of us. They came right up to the helmet window, peered in, and looked each diver over from head to foot as though they were consumed with curiosity about us. Fishes to be shown in the proposed group in Hall O will include black bass, pickerel, yellow perch, wall-eyed pike, sunfishes, crappies, bullheads, and minnows.

Outstanding among the plants to be shown are the pond weeds (*Potamogeton*), milfoil (*Myriophyllum*), and hornwort (*Ceratophyllum*). These had a bright green appearance under water. The sunlight filtering through the dense water filled the entire scene with a hazy golden-green.

The footing upon which the plants in a lake grow is rather startling to one making his first few dives in a helmet. Bottoms of weedy lakes and ponds are covered with debris of varying depths, so that the diver may be plodding along easily one minute, only to plunge suddenly into some unsuspected pocket of soft material. Our party found it preferable to use the ladder-seat for underwater study on account of the uncertainty of footing. Stirring up of fine sediment was avoided by riding the ladder a foot or two above the bottom.

Visibility was good in Lake LaGrange. The "water-bloom" of microscopic plants and animals which clouds so many lakes during the earlier part of the summer was at this time rapidly disappearing.

Another day was spent exploring the underwater flora, collecting plants, and making photographs and notes to be used in constructing the Museum's fish group typical of a northern lake.

It will be many months before the group for which these studies were made can be completed. A great deal of detailed work must be done in the preparation of the plant reproductions and the specimens of fishes.

Staff Notes

Dr. Paul S. Martin, Chief Curator of Anthropology, has been appointed Research Associate (with the rank of full professor) in the Department of Anthropology at the University of Chicago. Although continuing his duties at Field Museum, Dr. Martin will from time to time give special lectures for classes at the University, and later will give a special course in museology at the Museum. Dr. Fay-Cooper Cole, Chairman of the Department of Anthropology at the University, has been appointed Research Associate in Malayan Ethnology at Field Museum. These appointments evidence the development of closer co-operation between the University and the Museum.

Mr. John W. Moyer, Staff Taxidermist, has completed the manuscript for the Taxidermy Handbook to be published by the Boy Scouts of America for their Merit Badge Series. Staff Artist Arthur G. Rueckert did the technical drawings, and photographs of several mounted specimens of birds and animals in the Museum's exhibits will be used.

Mr. Llewelyn Williams, Curator of Economic Botany, currently engaged on an expedition for the Museum and the Venezuelan government, has returned to Caracas after extensive explorations in the interior along the Orinoco and tributary streams.

At the request of Director Floyd Young of the Lincoln Park Zoo, Staff Taxidermist C. J. Albrecht recently performed a "mercy killing" by shooting Deed-A-Day, the zoo's elephant, which was suffering from an incurable ailment. Mr. Albrecht was called upon because of his knowledge of the huge animal's anatomy, and his skill with the rifle, exemplified by the fact that he ended the elephant's life with a single shot.

Mr. J. Francis Macbride, Associate Curator of the Herbarium, recently visited Washington, D.C., to engage in work on the flora of Peru.

MR. ELMER S. RIGGS, CURATOR OF PALEONTOLOGY, RETIRES

Mr. Elmer S. Riggs, Curator of Paleontology, retired from the service of the Museum on September 15. A staff veteran, Mr. Riggs has been associated with the Museum since 1898. Except for a year as Museum Assistant at the University of Kansas, from which he was graduated, Mr. Riggs has spent his entire working career at this museum, coming here shortly after the completion of post-graduate studies at Princeton University. He conducted twelve Museum expeditions in the western United States, two in Canada, and two in Argentina and Bolivia, spending altogether a full four years in the last-named countries. He and the men who worked under his supervision on these expeditions were responsible for collecting a major portion of the Museum's paleontological material, a collection which ranks with the largest and most important in the world. During the course of this work, Mr. Riggs discovered numerous genera and species previously unknown, and his publications upon these are notable in the literature of his science. A farewell tea was given in his honor by the Museum staff on September 14. His colleagues in the Department of Geology presented Mr. Riggs with three large volumes containing the record of his accomplishments during his forty-four years at the Museum.

Amygdules

The principal sources of agate are certain areas of northern Uruguay and southern Brazil. When visited by a Museum expedition in 1929 the largest output was from the Catalan Grande Region of Artigas Province, Uruguay. There the agates come from shallow trenches dug in the stony soil of cattle ranges. The numerous stones are piled and the agates separated. The agates are amygdules, that is, fillings of bubbles which are formed by the escaping steam in cooling and solidifying lava.