

4-H Winners Visit Museum

As it has for many years past, the Museum welcomed some 1,400 farm boys and girls from all parts of the United States and Canada on November 29. They were in Chicago as winners of awards for excellence of achievement in their home communities, coming as delegates to the National Congress of 4-H Clubs held annually in conjunction with the International Livestock Exposition. They were assisted in making the most of their Museum visit by the entire staff of Raymond Foundation lecturers.

"PEBBLE PUPS" SNAP UP BOOK WITH SPECIMENS

The Museum Book Shop staff recently reported that they are victims of a relentless and heavily concentrated attack—by "pebble pups"—and, at last report, the mass invasion shows no indication of subsiding. For those not familiar with these formidable invaders, pebble pups are the junior equivalents of rockhounds, as adult rock-collectors call themselves.

The cause of all the furor in The Book Shop is a new book published by the Museum, *For Pebble Pups, A Collecting Guide for Junior Geologists* written by Dolla Cox Weaver, Raymond Foundation lecturer. Accompanying the book is a set of 18 representative rock and mineral specimens to be used as a handy reference with material in the book.

Written for the amateur collector from eight to twelve years of age, the 95-page book, which includes 27 photographs, provides numerous facts with which the average adult is unacquainted. Mrs. Weaver, a specialist in geology, introduces her pebble pups to the wondrous world of rock and mineral collecting, telling them of volcanoes, caverns, open-pit mines, cliffs, and mountains and describing various rocks and minerals and their sources. The author outlines the simple equipment needed by the young collector and suggests other readings should he want to go on with this rewarding hobby.

For *Pebble Pups* and its accompanying set of rocks and minerals can be purchased for \$1.25 at The Book Shop of the Museum.

J. R.

Daily Guide Lectures

Free guide-lecture tours are offered daily except Sundays under the title "Highlights of the Exhibits." These tours are designed to give a general idea of the entire Museum and its scope of activities. They begin at 2 P.M. on Monday through Friday and at 2:30 P.M. on Saturday.

Special tours on subjects within the range of the Museum exhibits are available Mondays through Fridays for parties of ten or more persons. Requests for such service must be made at least one week in advance.

EXHIBIT SHOWS IRIDESCENCE IN HUMMINGBIRDS

BY EMMET R. BLAKE
CURATOR OF BIRDS

IRIDESCENCE in hummingbirds is the theme of a new exhibit recently installed in Hall 20, the Museum's gallery of bird habitat groups. This exhibit was first opened to the public early last month as one of several displays featured on Members'



YOU HAVE TO COME TO THE MUSEUM . . .

. . . no photograph, not even one in full natural colors, could begin to tell the story of this new exhibit of hummingbirds in which their startling iridescence is brought into view by an ingenious system of automatically alternating lights. Included in the exhibit are seven out of 350 described species that embrace a total of more than 650 varieties.

Night (October 7). It is strikingly different from any other in the hall, and in certain respects unlike any other exhibit in the Museum.

Soon after entering Hall 20 from the east (Stanley Field Hall) the eye is caught and held by one or several brilliant spots of color—ruby, emerald, purple, or golden bronze—that appear to be suspended in a velvety black void at the end of the Laysan alb-tross case. Even as one watches, additional spots of color appear, at intervals of 10 seconds, until a total of seven are visible. Soon all disappear for a few moments until the cycle starts once more. One's first impression is of assorted jewels of great brilliance displayed in a darkened case. Not until one approaches very closely is it apparent that the "jewels" are, in fact, the iridescent plumage of hummingbirds illuminated by small concealed spotlights.

The phenomenon of iridescence is not uncommon in the Animal Kingdom. Among birds it is especially conspicuous in hum-

mingbirds. Although most members of this family are green above, males of many species have additional patches of iridescent feathers that seem to glow or sparkle, and to change in color with the incidence of light. The physical basis of iridescence may be of several types; in birds the phenomenon is caused by interference of the light waves

reflected from the surfaces of the barbules with the light waves reflected from deeper portions of the barbules.

Unlike the traditional static museum display, the new exhibit is essentially dynamic in that it undergoes a cycle of changes activated by an electric timer circuit. Although the principle of mechanized dynamic natural-history exhibits is not new, it represents an important step in the evolution of museum educational techniques and is gaining in popularity. Iridescence in Hummingbirds is the latest of six such exhibits thus far installed in the Museum. The others include Fluorescent Minerals (corridor between Halls 36 and 37), three of the four new Physical Geology dioramas in the center of

Hall 34, and X-raying a Mummy in the Hall of Egyptian Archaeology (Hall J).

Free interchange of ideas, as well as specimens, between natural history museums the world over is traditional, and always a matter of deep satisfaction. New techniques developed by one institution are quickly made available to all by means of publications and correspondence, and especially by periodical tours of inspection that enable museum personnel to exchange ideas. Our latest exhibit, for example, is modeled after a similar display seen by the Museum's President, Stanley Field, while on a visit to the British Museum.

It is gratifying that certain exhibition techniques, now considered standard, originated in our Museum. Of special note is the revolutionary cellulose-acetate process that was developed by Leon L. Walters for the treatment of reptiles and related animals. The more recent anthropology halls of the Museum introduce exhibition concepts that have stimulated great interest.



Reynoso, Alvaro. 1955. "Exhibit Shows Iridescence in Hummingbirds." *Bulletin* 26(12), 7-7.

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