

CORALS AND JELLYFISH

A collection of sponges and corals of many kinds is on exhibition in Albert W. Harris Hall (Hall 18). From these specimens Museum visitors may obtain a hint of the beauty of form found in submarine gardens and on coral reefs of the warmer seas, as well as an idea of the animal forms concerned in their production.

The dried sponges, whether more or less horny like our common bath sponges, or calcareous, or siliceous like the delicate glass-rope sponges such as "Venus' flower basket" from the depths of the ocean, are the skeletons or rigid supporting tissue of simple marine animals. The dried corals of many kinds, the sea-fans and sea-feathers, likewise represent skeletal remains of the animals which produced them. The sponges, much more primitive than the corals, illustrate the beginnings of a "body" and of "tissue" among animals.

Small coral skeletons are sometimes the remains of a single individual, but larger ones are usually the product of whole colonies. Many are robust and hard enough to stave holes in the bottom of a ship; others are fragile and easily broken. The Museum collection contains many specimens of the latter kind in a perfect state of preservation. The animals responsible for their existence belong to a group in which the living tissue is almost always exceedingly delicate and perishable. It becomes so altered by any attempt at preservation, that away from the ocean only pictures or models can give an idea of the appearance of these animals in life. While alive, many are transparent and have a beauty of texture, of radial symmetry and of color, which is lost in the dried specimens. Further, they present characteristics of structure and appearance of which the dried material gives no idea.

The exhibit fortunately includes a number of the famous Blaschka glass models which serve to illustrate some of the characters of the invertebrate animals concerned. Collectively these may be called the Polyps. Some of them are simple, transparent, hydra-like forms or small thimble-like medusae; others are stalked like minute flowers in branched clusters, forming colonies which are fixed or may be floating, supported by an inflated bladder in the Portuguese man-of-war, by a disk like a tiny watch glass in Porpita, or by a float with a little sail in Velella. Others are jellyfish, large and small, free-swimming or attached, many with a complicated life history. To those who have lived on the seashore, these are as well known as are the related sea anemones, large polyps attached to the rocks and often flower-like when expanded, but contractile, stinging, and disagreeable on contact.

Most widely known, and most important from a practical standpoint since they act as geological agents, are the colonial forms which take up lime and other substances from the sea, combine and redeposit this material within their tissue, and thus form coral. Of these, various kinds are included in the collection. The simplest are the so-called Millepores or stinging corals—erect, foliaceous, brittle clumps which cannot be handled with impunity when alive. They generally grow associated with the Madreporites or stony corals. Under favorable conditions of temperature and currents such as are found frequently in tropical seas, these grow in such abundance as to form enormous reefs which are often serious barriers to navigation. At times they also produce harbors and islands. Brain-corals, star-corals, stag-horn-corals, butterfly-corals, rose-corals, etc., are common collective

names applied to various well-known genera of reef-corals. The organ-pipe corals, storied batteries of small carmine-red tubes, each housing a single polyp, are found only in the Pacific. A few horny black corals with a tough axial skeleton, the "dead-men's fingers," handsome in life but most unattractive when dried, the sea-fans which keep their appearance fairly well on drying, and the sea-feathers, Gorgonians, usually twisted and dilapidated in dried state, all have a horny axial skeleton clothed with a tissue full of lime spicules.

Closely related to all these is the red coral, which actually is often pink or white, with a hard skeleton capable of being carved, and esteemed for ornament since antiquity.

To the zoologist, the material and geological importance of corals and other polyps is of secondary interest, their significance residing rather in their simple structure, their often complicated life history, their biological relationships with Algae and Crustacea, the instances they afford of vegetative multiplication, of alternation of generations, of division of labor and specialization of function. Multicellular animals with a mouth but without a head or sense organs and without alimentary tract, they occupy a unique and isolated position low in the animal kingdom.

—B.E.D.

MUSEUM TO CLOSE CHRISTMAS AND NEW YEAR'S DAY

In order to permit as many employees as possible to spend Christmas and New Year's Day with their families, Field Museum will be closed on those days. Only such watchmen as are necessary for safety will remain on duty. In other years, when the Museum has been open on these holidays, there have been so few visitors that it is believed the closing will cause little if any inconvenience to the public.

Distinguished Visitors

Among recent distinguished visitors to Field Museum were M. Jean Delacour, the noted French ornithologist, and Mr. E. G. Boulenger, Director of the London Aquarium. A group of members of the National Academy of Sciences visited the Museum November 18.

NEW MEMBERS

The following persons were elected to membership in Field Museum during the period from October 16 to November 15:

Associate Members

Miss Jane Adams, W. J. Holliday, Mrs. Paul S. Magnuson, Harold W. Norman, Allen S. Pearl, Walter Swiecinski.

Sustaining Members

Richard H. Peel

Annual Members

Mrs. Herbert W. Becker, Charles D. Bradley, H. W. Campbell, Mrs. Robert Carpenter, Barret Conway, Charles H. Cooper, Mrs. Joseph H. Defrees, Dr. J. E. Fitzgerald, Ettore Gengevi, S. R. Harrington, H. Rea Hixson, C. W. Hoff, Frank G. Hough, Miss Laura E. Jackson, William S. Keck, Philip C. Kiohr, Lawrence B. Lehman, Mrs. W. A. Llewellyn, Miss Charlotte G. Lovely, John R. Magill, S. A. McMurray, Mrs. Frederick D. Montgomery, Dwight S. Parmelee, Miss Mary L. Patrick, C. J. Peterson, Mrs. Holman D. Pettibone, Mrs. C. Eugene Pfister, A. A. Pitt, Athol E. Rollins, Dr. Edward V. Schulte, Miss Lucille Shurtleff, Mrs. Halsey Steins, Mrs. John Sheppard Stone, Paul W. Tatge, Ernest H. Thompson, Mrs. Lawrence H. Vilas, Eric M. Wallgren, Mrs. E. W. West, Samuel Weiner, Miss Bertha Wright.

DECEMBER GUIDE-LECTURE TOURS

Conducted tours of exhibits, under the guidance of staff lecturers, are made every afternoon at 3 P.M., except Saturdays, Sundays, and certain holidays. Following is the schedule of subjects and dates for December:

Week beginning November 30: Monday—Valuable Fur-bearers; Tuesday—Plants of Unusual Interest; Wednesday—Animal Life in the Orient; Thursday—General Tour; Friday—North American Indians.

Week beginning December 7: Monday—Peoples of the South Seas; Tuesday—Story of Coal; Wednesday—Chicago Winter Birds; Thursday—General Tour; Friday—Egyptian Hall.

Week beginning December 14: Monday—The Story of Plant Life; Tuesday—Fish, Amphibians and Reptiles; Wednesday—Man Through the Ages; Thursday—General Tour; Friday—Trees and Their Uses.

Week beginning December 21: Monday—Marine Life; Tuesday—Hall of Races of Mankind; Wednesday—Rocks and Minerals; Thursday—General Tour; Friday—Christmas holiday, Museum closed.

Week beginning December 28: Monday—Eskimo Life; Tuesday—African Animal Life; Wednesday—Prehistoric Plants and Animals; Thursday—General Tour; Friday—New Year's holiday, Museum closed.

Persons wishing to participate should apply at North Entrance. Tours are free and no gratuities are to be proffered. A new schedule will appear each month in FIELD MUSEUM NEWS. Guide-lecturers' services for special tours by parties of ten or more are available free of charge by arrangement with the Director a week in advance.

Gifts to the Museum

Following is a list of some of the principal gifts received during the last month:

From Miss Agnes A. Wood—a Zulu cattle whip of plaited buck hide with carved handle, South Africa; from Museo Nacional—667 herbarium specimens, Costa Rica; from Rev. Brother Elias—65 herbarium specimens, Colombia; from School of Forestry, Yale University—77 herbarium specimens, Costa Rica and Colombia; from Professor Manuel Valerio—65 herbarium specimens, Costa Rica; from Bailey Hortorum, Cornell University—172 specimens of plants, Mexico; from University of Texas—203 herbarium specimens, Mexico; from Professor J. Soukup—47 herbarium specimens, Peru; from Professor A. O. Garrett—69 herbarium specimens, Utah; from James Zetek—16 herbarium specimens, Canal Zone; from Frank Von Drasek—6 specimens of minerals, Arkansas; from Utica Hydraulic Cement Company—4 specimens of cement rock and products, and 2 of vermiculite, Illinois and North Carolina; from Sharat K. Roy—a specimen of fluorescent agate, Arizona; from Dr. Calvin W. McEwan—2 wild boar skins and skulls, and 40 specimens of frogs, turtles, lizards, and snakes, northwest Syria; from Dr. Alfred E. Emerson—33 termites, Galapagos and Solomon Islands; from Leslie Wheeler—5 hawk skins, Paraguay; from Chicago Park Commissioners—an orang-utan and a green tree snake; from Chicago Zoological Society—one specimen each of black bear, binturong, gibbon, rattle-snake, sand snake, water-dragon lizard, and green tree boa, and 4 specimens of birds; from Donald Culross Peattie—2 salamanders and 2 lizards, North Carolina; from Sam D. Sakin—7 frogs, Michigan; from T. P. Haines—6 snake skulls; from Dr. Jay F. W. Pearson—142 bats, Bahamas; from Henry Field—5 bats, England; from Robert and Richard Baldwin—a black rail and a black rail egg, Indiana.

Cane and Beet Sugar

Sugar cane is a tall grass of ancient cultivation in southern Asia, now established in almost all other tropical regions. For the extraction of sugar, the cane is crushed between rollers, and the juice expressed is mixed with lime to aid in the separation of impurities. The clarified juice is then boiled until it thickens and the sugar crystallizes out.

Beet sugar, obtained from a variety of the common garden beet, is chemically identical with cane sugar. To extract the sugar, the beets are cut up and treated with hot water. The impurities are removed with the addition of lime and carbonic acid. The juice is then concentrated by boiling and the sugar allowed to crystallize.

The various stages in the manufacture of cane and beet sugar are shown in Hall 25.



1936. "Corals and Jellyfish." *Field Museum news* 7(12), 4-4.

View This Item Online: <https://www.biodiversitylibrary.org/item/25711>

Permalink: <https://www.biodiversitylibrary.org/partpdf/355800>

Holding Institution

Field Museum of Natural History Library

Sponsored by

University of Illinois Urbana-Champaign

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the Chicago Field Museum.

For information contact dcc@library.uiuc.edu.

Rights Holder: Field Museum of Natural History

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.