

COW TREES

BY PAUL C. STANDLEY

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Field Museum received recently, through Professor Samuel J. Record, its Research Associate in Wood Technology, herbarium specimens of another Central American tree that yields milk. It was identified as *Naucleopsis naga*, a member of the mulberry family that ranges from Costa Rica to Honduras. E. H. Taylor, of the United Fruit Company, who obtained the specimens in the

Atlantic lowlands of Costa Rica, reports that no use is made of the *palo de vaca*, as it is called in Spanish, except as firewood, but that when the trunk is tapped, there oozes from it a liquid resembling skimmed milk. This was found to taste like cow's milk.

Various other American trees of the same family yield a similar product. *Brosimum utile*, a so-called cow tree that ranges from Venezuela to Costa Rica, greatly interested the famous explorer Humboldt, who observed its use among the native people of Venezuela. He published a classic but perhaps somewhat exaggerated account of the tree and of the manner in which its milk-like latex was collected for use as human food.

During the past three years much publicity has been given to a Central American tree of another group but with the same properties. It is *Couma guatemalensis* Standley, a member of the Apocynaceae, the family of plants to which belong the common dogbanes, periwinkles, and other familiar plants. The Guatemalan cow tree is known from only a few localities on the north coast. The present writer found it eight years ago in swamps at Puerto Barrios, but since the specimens obtainable were incomplete, they were not determined until five years later, when Professor Record procured flowers.

A fine trunk of the Guatemalan cow tree, presented by the United Fruit Company, is now on exhibition in Hall 27 of the Museum. The trunk shows the diagonal cuts made when the bark is slashed to obtain the milk.

Several kinds of cow trees grow in Central America, especially in Panama and Costa Rica, but little use is made of them. *Naucleopsis naga*, the one most recently reported, furnishes a product that is useful to the native people. In Honduras this tree is called *concha de indio*, "Indian bark," and it is claimed that the uncivilized Indians beat the fibrous inner bark into a sort of coarse cloth that they use for clothing. Such cloth still is made by some of the wilder Indians in eastern Panama from the bark of trees of the mulberry family.

rare goat-antelope known as the takin, for use in a proposed habitat group to be added to the series of Asiatic mammals in William V. Kelley Hall (Hall 17).

This heavy-bodied animal, which has curiously shaped horns, inhabits the same mountainous region in which the giant panda is found. When the specimens are obtained it is planned to install them in a case adjacent to that containing the panda group recently completed with specimens obtained by the William V. Kelley-Roosevelts Expedition.

The present expedition is led by Floyd T. Smith of Long Island, N. Y., who is the only white man in the party. For some time past Mr. Smith has been in China making preparations, and organizing a personnel of native hunters, trappers, photographers, taxidermists and other assistants.

In addition to hunting the takin, the expedition will make a systematic survey of several years' duration in a number of provinces of southern China, some of which have never before been thoroughly covered by scientific collectors, and others of which have been barely touched by zoologists. A comprehensive collection of the mammals, birds, reptiles and fishes of the region will be sought, probably running into thousands of specimens. Additional specimens of the giant panda will be hunted.

A MAMMOTH BERYL CRYSTAL

Through the generosity of Trustee William J. Chalmers, a mammoth crystal of beryl has been added to the crystal collection in Field Museum, to which Mr. Chalmers has so liberally contributed for many years. This crystal has the form of a somewhat flattened, tapering, hexagonal prism, three feet two inches long, and of a diameter narrowing from two feet at the base to nineteen inches at the top. Its weight is approximately 1,000 pounds. It was discovered in a quarry at Albany, Maine.

Associated with the beryl in the quarry are nests or scales of white or dark mica and beautiful masses of rose quartz. In general the beryl is light apple green in color, and more or less milky to opaque. Both beryl and rose quartz deepen somewhat in color with increasing humidity in the atmosphere, and by observing these changes quarry workmen say they can foretell weather changes.

As an illustration of the size to which crystals may grow, the specimen is a striking one. The prismatic angles are a true 60°, the typical prismatic angle of crystals formed in the hexagonal system. This shows that the shaping is by no means accidental.

Beryl is a comparatively rare mineral, chiefly known in its gem forms of emerald and aquamarine. It is becoming of economic importance as the chief source of metallic beryllium. Beryllium is one of the lightest of metals, much lighter than aluminum, and is therefore useful in airplane construction and in other ways. Also it is as hard as steel and does not corrode on exposure to the air. The development of a commercial demand for the metal may bring to light adequate supplies of raw material, so that within a short time instead of commercial beryl being a by-product of gem mining, as in the past, the gems, emerald and aquamarine, may become by-products of metal-mining. —O. C. F.



Huge Beryl Crystal

SPECIAL SUNDAY LECTURES
FOR MUSEUM MEMBERS

The final three illustrated lectures of the current series for Members of Field Museum will be given on Sunday afternoons in January. Following are the dates, subjects and speakers:

January 11—The Nile and Beyond

Major A. Radcliffe Dugmore, F.R.G.S., F.R.P.S., London

January 18—A Naturalist in the South Seas (The Story of the Cornelius Crane Pacific Expedition as told in *Jungle Islands*, which was reviewed in *The Chicago Tribune*, December 6, 1930, and which is on sale at Field Museum.)

Karl P. Schmidt, Assistant Curator of Reptiles, Field Museum; leader of the scientific section of the Cornelius Crane Pacific Expedition for Field Museum, 1928-29

January 25—Explorations in Plant and Animal Life

Dr. Arthur C. Pillsbury, of Berkeley, California

The lectures will be given in the James Simpson Theatre of the Museum, and will begin promptly at 3 p.m. Each Member of the Museum is entitled to two seats for each lecture, to obtain which he should show his membership card to an attendant at the theatre on the afternoon of the lecture. Upon presentation of the card Members will be given two tickets of admission to the reserved section of the theatre. Seats in the reserved section which have not been claimed by 3 p.m. will be offered to the public.

RAYMOND FOUNDATION
PROGRAMS

Three special entertainments for children, provided by the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures, will be given at Field Museum in January and February. Each of the programs will be presented twice—at 10 A.M. and 11 A.M.—in the James Simpson Theatre of the Museum. Following are the dates and subjects:

Saturday, January 24—"The Black Journey"—motion pictures of a trip across Central Africa.

Saturday, January 31—"A Dog-sled Trip in Canada," "The Ojibwa Build a Birch-bark Canoe," and "Gathering the Wild Rice"—motion pictures and story-hour.

Thursday, February 12 (Lincoln's Birthday)—"My Father," "Abe's First Law Case," and "The Call to Arms"—motion pictures of episodes in the life of Abraham Lincoln.

Children from all parts of Chicago are invited to attend these entertainments. Admission is free.

CHANCELLOR-STUART EXPEDITION
RETURNS FROM AITUTAKI

Bringing some 400 specimens of beautiful fishes of the Pacific, the Chancellor-Stuart-Field Museum Expedition to Aitutaki has returned to this country. In addition to the ichthyological collections, the expedition made some 14,000 feet of motion picture film illustrating various phases of the life of the natives in Aitutaki, as well as undersea scenes taken with a diving bell and a special camera.

The expedition was sponsored and led by Philip M. Chancellor of Santa Barbara, California.

Aitutaki is one of the most remote and least known islands of the Pacific Ocean. Few white men have ever visited it, and the natives are a people whose life is entirely unmodified by civilization. The island is surrounded by coral reefs, and the fish collected by the expedition were obtained chiefly from the waters over these reefs.

EXPEDITION TO SEEK SPECIMENS
OF TAKIN

Operations have been begun in southern China by a Field Museum expedition, sponsored by Marshall Field, the immediate object of which is to obtain specimens of the



Standley, Paul Carpenter. 1931. "Cow Trees." *Field Museum news* 2(1), 3–3.

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