Field Museum News

Published Monthly by Field Museum of Natural History, Chicago

Vol. 11 APRIL, 1940 No. 4

GROUP SHOWING CHICAGO AREA FLORA BRINGS 'ETERNAL SPRING' TO MUSEUM

By JULIAN A. STEYERMARK
ASSISTANT CURATOR OF THE HERBARIUM

"If Winter comes, can Spring be far behind?"

The Department of Botany has completed a new spring woodland habitat group which makes it possible to say that *eternal* spring has come to Field Museum! In all future years, when winter comes, at this institution spring will not only be not far behind—it will actually be here.

The springtime group is the second to be completed in the series designed to show characteristic plant ecological formations. It is installed in the Hall of Plant Life (Hall 29) adjacent to the group of alpine plants of the Rockies with which this series was begun in 1938.

The new diorama shows a bit of woodland such as may be seen in the latter part of May in various parts of the Chicago area. It illustrates a typical mesophytic forest of mixed hardwoods along a small stream. Such woods may still be seen near Chicago today in the vicinity of Palos Park, Monee, Thornton, and a number of the Cook County forest preserves.

Springtime Aspect of Northern Illinois Woodland

This diorama, construction of which was recently completed in the Museum's Hall of Plant Life, represents a scene typical of the Forest Preserves of Cook County during the latter part of May. It emphasizes what many Chicagoans are inclined to forget—that this region possesses one of the most luxuriant and colorful of spring floras.

The principal trees and shrubs shown in the exhibit—sugar maple, white oak, linden, elm, ash, black cherry, witch hazel, and pale dogwood—are typical species nurtured by the rich soil of such woodlands. This type of forest is more or less duplicated over large portions of the eastern and central United States in areas of fairly rich soil and moderate rainfall. The trees shown in the diorama have reached a near climax stage in the forest succession. This is indicated by the relative abundance of such shade-tolerant species as sugar maple and linden. The seeds of these species germinate in dense shade and thrive under conditions which are adverse to the more light-demanding types, and thus it is the shade-tolerant species which can succeed one another and become eventually the dominant ones present in the climax or near climax forest of this type.

It is in these rich mesophytic forests of the eastern and central United States that the most luxuriant and colorful spring flora is developed. In fact, some of the most picturesque and vari-colored wild flower displays are to be found in the spring of the year in such woodlands.

Most of the spring-flowering woodland species seen in the diorama have only a brief period of bloom. After lying dormant for a year, they respond to the warmth and rays of the sun, together with the increased moisture, and soon grow vigorously to produce a showy floral array. Then the woods become alive with bright colors rivaling those of the rainbow. Some of the most beautiful and most delicately flowered species are to be found at this time. The lily, crowfoot, violet, and mustard families are especially conspicuous. The lily family is represented in the diorama by white and purple trilliums, Solomon's seal, and the dogtooth violet (adder's-tongue lily) which has begun to form fruit. In the crowfoot family are such species as the yellow-flowered buttercup, white and pink rue anemones, the handsome red and yellow columbine, and the hepatica, only the leaves of which show this late in the spring since the hepatica is one of the earliest of the spring-flowering plants. Three kinds of violets appear: the common blue violet, the yellow violet, and the handsome spurred purple violet, the last named favoring moist habitats.

Within the confined space of the woodland scene a variety of habitats may be observed. The most conspicuous is that of various kinds of plants which occur in close proximity to the stream. This is a direct effect of the relatively more or less moist soil. It is striking, although perfectly natural, to find the beautiful blue clumps of bluebells (Virginia cowslips), and the brightly contrasting blue and white flowers of the blue-eyed Mary, growing close to the stream and in the lower section of the woods. The buttercup (*Ranunculus septentrionalis*) is also an inhabitant of these low moist places.

In contrast to the moist habitat there is found the spring flora of the drier portions of the woodland. In such places occur plentiful clumps of the May-apple with its umbrella-like leaves surmounting the stem, the delicate pink-, rose-, and lilac-hued wild geranium, and the profuse lilac and blue-purple fragrant clusters of wild blue phlox (sweet William.) Grass-like clumps of the sedge (*Carex*) liven this portion of the woodland with splashes of yellow and green.

Also scattered throughout the rich woods, but favoring the moister portions, are Jack-

in-the-pulpit with its three-parted leaves and peculiar, striped, arching flower, and the dark green clumps of kidney-shaped leaves of wild ginger whose somber purplish-brown flowers hug the ground closely and are not easily seen unless the leaves on the forest floor are pushed aside.

The preparation of the group has been in charge of Mr. Emil Sella, Chief Preparator in the Department of Botany. He was materially aided by the skillful assistance of various Works Progress Administration artisans assigned to the Museum, who worked under his supervision. Mr. Sella was responsible also for the preliminary field studies and the collecting of required material. The background was painted by Staff Artist Arthur G. Rueckert from photographs and field sketches.

THAT "FIRST SPRING ROBIN" WAS HERE ALL WINTER

By EMMET R. BLAKE
ASSISTANT CURATOR OF BIRDS

Each year considerable popular furor is created by the alleged return from the south of the first robin. Long before the winter snows and frigid temperatures are entirely dissipated, excited local observers telephone Field Museum authorities to report this first harbinger of spring. Usually the event is widely featured by the public press.

Actually, the first robin of the spring is a permanent resident in the Chicago area. Robins, like many other local birds, sometimes experience only partial or modified migration. As a species, they are much less numerous in winter than during the breeding season, and may even seem to have deserted the region entirely. However, a few hardy individuals usually linger all winter in sheltered situations where the active bird watcher may find them "conducting business as usual."

The reports of first spring arrivals often are based upon the unexpected identification in mid-winter of these scattered individuals. Among the migrant species which may be found in winter, at least occasionally, are kingfishers, red-breasted nuthatches, mockingbirds, brown creepers, brown thrashers, hermit thrushes, bluebirds, kinglets, cedar waxwings, bronzed grackles, cowbirds, towhees, white-throated sparrows, fox sparrows, song sparrows and purple finches.

Much can be done to encourage the wintering of species which normally migrate south by planting shrubbery or hedgerows and by providing sheltered feeding stations. The latter should not be undertaken, however, unless they are to be maintained throughout the winter. Migration is correlated with a finely adjusted seasonal physiological cycle which prompts and to some extent controls the birds' geographical movements. Once the peak of this cycle is passed, the migrating urge is modified to such an extent that the bird can no longer migrate even though physically capable of extended flight. Migrants which have depended too long upon the bounty of artificial feeding stations usually starve if suddenly thrown upon their own resources in mid-winter.

SOUR MUSICAL NOTES IN AFRICA BRING MAYHEM AS PENALTY

Wailing off-key saxophonists, unmelodious trombonists, and over-vociferous trap-drummers would do well to remain away from Africa. Members of certain tribes on that continent used to mutilate their own bad musicians for errors in harmony as well as for mistakes in transmitting messages by signal drums, according to Dr. Wilfrid D. Hambly, Curator of African Ethnology. They have no inhibitions against cutting off the ears, slitting the corners of the mouth, or chopping off the hands of those whose musciainship on their drums and other native instruments fails to meet approval.

Two large wooden drums from Cameroon, West Africa, elaborately carved with representations of mythical animals, ancestral figures, and mystical symbols, are now on exhibition in Hall D. Such drums, according to Dr. Hambly, are kept near the residence of a chief, and he alone may strike them, to call his men to war, or summon them to a palaver. A protecting hut is often built over the drum, and it marks the place of public assembly, symbolizes the dignity of chieftainship, and constitutes an idol to which a stranger entering the village is expected to pay his respects.

Signal drums, depending on atmospheric conditions, can carry messages between five and fifteen miles. Some are merely hollowed logs; others are skin-covered instruments. The study of the drum language is no easy task, and there are few white men who can interpret or make the signals. While drummers are subject to cruel penalties as above related for mistakes, they have some compensation in the fact that their art gives them an exalted social position among their fellows. The signal drums themselves are regarded as being endowed with life and sex instinct, and every part has a patron spirit to whom supplication is made.

The Africans have another type of drum, the friction drum, which leaders of American "swing" orchestras would find ideal as an addition to the various ear-splitting contrivances now in use. This drum has a wooden rod passing through the membrane, and projecting for about a foot and a half. The player first rubs his hand with resin, and then strokes his palm down the stick. This vibrates in such a way as to send out heart-rending wails and groans.

Fulgurites—sometimes called "lightning tubes" and "petrified lightning"—are exhibited in Clarence Buckingham Hall.

KNICKERBOCKER EGG COLLECTION RECEIVED AS A GIFT

A special exhibit of birds' eggs, selected for their rarity, and their variety of form and color, was placed in Stanley Field Hall of the Museum a few days before Easter. It will be continued on display through the month of April.

The eggs in the exhibit were chosen from a larger collection, assembled many years ago, and recently received by the Museum as a gift from the late Charles K. Knickerbocker, of Chicago. At the time these eggs were collected America was faced by no such conservation problems as exist today. In more recent years large scale collecting of eggs has been discouraged by museums and other organizations interested in wild life conservation, in order to help prevent the extermination of species which might otherwise occur in some cases. It has been felt that enough specimens have been collected by private individuals to serve the interest of the science of ornithology. This gift has made Field Museum a repository of valuable material for ornithologists of the future, as well as those of the present day, to study.

Of more than 1,400 known kinds of North American birds, some 500 are represented by eggs in this collection, which totals more than 10,000 specimens. With other large collections previously in the possession of the Museum, the institution has now virtually all species of North American birds' eggs in series adequate for study and statistical research.

Among the birds whose eggs are now rare, which are well represented in this collection, are the California condor, golden eagle, wild turkey, sandhill crane, everglade kite, Mississippi kite, and such shore birds as the rare solitary and pectoral sandpipers. The game birds are well represented, especially various species of grouse and ptarmigan. Also included are a number of exceptionally fine series of the eggs of various large birds of prey, such as the hawks and eagles. —R.B.

SPECIAL NOTICE

Members of the Museum who have changed residences or plan to do so are urged to notify the Museum of their new addresses so that FIELD MUSEUM NEWS and other communications may reach them promptly. A post card for this purpose is enclosed with this issue.

Members going away during the summer, who desire Museum matter sent to their temporary addresses, may have this service by notifying the Museum.