



THEY LIVE IN THE MUSEUM

The two ivory-billed woodpeckers in this woodland group have been dead for over 60 years. Yet through a clever combination of modern museum methods and recently made sound films, they are made to go through the motions of life, and call out with the voices of their own remote grandchildren.

MUSEUM SCIENCE

Stuffed Birds Now Move and Sing in Museum Exhibits

BIRDS and beasts mounted in museum cases can now "perform" for visitors, flying and leaping, singing and calling in their natural voices, just as you would see and hear them in the woods. It is all owing to a new technique in museum preparation worked out by Prof. A. A. Allen, noted ornithologist of Cornell University, which combines sound-effect movies with the mounting of prepared specimens against a realistic background of stones, trees, and other environmental materials brought in from the wild.

When you stop in front of the museum case, you first see the mounted specimens. They are like all other modern museum specimens—very lifelike and natural, but still and silent, as though under a magician's spell.

Then you press a button. Immediately a motion picture screen rolls or slides into the place of the glass case front. On this the same group is projected in exactly the same position, from a motion picture machine. The birds and animals "go into their dance," moving and sing-

ing exactly as they did in nature when the sound film was taken by the naturalist-cameraman in the woods.

The film, as a matter of fact, has been used as a guide in setting up the museum group. The birds and beasts are put into exactly the same position that they occupied in the first frames as it was photographed.

The first group to be installed is one of ivory-billed woodpeckers in a Louisiana swamp. Stowed away in the Cornell University Museum was a pair of ivory-bills that were collected about 1875 and mounted in the conventional manner of that day on blocks of wood. It was Professor Allen's idea to make these birds live again.

Accordingly last year he directed the Brand Cornell-American Museum expedition into the swamps of northern Louisiana, and with the assistance of the Louisiana Conservation Department he and his colleagues, Paul Kellogg, George Sutton and James Tanner, were successful in securing motion pictures and voice recordings of the rarest of North

American birds. They likewise shipped back a section of the trunk of a swamp maple containing a deserted nesting cavity made by a pair of ivorybills.

Of course no birds were collected, but the 60-year-old mounts in the Cornell Museum were soaked up and remounted by E. J. Sawyer to match the first frames of the motion pictures which the expedition secured. The commonest bird associates of the ivorybill in the Louisiana environment were added to the group, each one matching a sound picture. A pileated woodpecker, somewhat similar to the ivorybill in size and color, but entirely different in voice, was painted on the background by Mr. Sawyer, and a parula warbler nesting in pendent Spanish moss, and a prothonotary warbler nesting in a hollow stub were mounted to match motion pictures and added to the foreground.

One after another these birds can be brought to life. While the whole group does not move as a unit, the closeups of the various components moving and calling help to give realism to the group in its entirety and thereby achieves the ambition of the artist, the taxidermist and the director of the museum, and comes nearer to satisfying the nature-loving public.

Motion pictures and sound have already been secured by the Cornell ornithologists for another group. It now awaits only the funds for its construction.

This group portrays the ruffed grouse and its associates in a New York state woodland in May. The central figure is that of a male grouse in full display on a mossy log with a female stepping on to her nest oblivious to his charms. In the background is another male grouse on his drumming log. A song sparrow is seen amid pussy-willows, a pair of brown thrashers atop a brush pile, white-throats scratch in the leaves of the foreground, a flicker digs his nest cavity in a birch, a pileated woodpecker returns to its nest in a dead beech, a late flock of Canada geese are flying across

● RADIO

December 22, 5:15 p.m., E.S.T.
TOYS OLD AND NEW—Watson Davis,
Director of Science Service, Wash-
ington, D. C.

December 29, 2:30 p.m., E.S.T.
THE YEAR IN SCIENCE—Watson
Davis, Director of Science Service,
Washington.

In the Science Service radio series over
the Columbia Broadcasting System.

the sky, and a barred owl sits in a hollow tree.

At a turn of the switch, the displaying grouse begins to shake his head and hiss, the female takes her place on the eggs, and the male in the background starts to drum so that one not only hears the rhythmic thumps but sees exactly how the sound is produced. The song sparrow and the brown thrashers sing, the flicker throws out chips of dead wood, the pileated woodpecker calls and disappears into his hole, the wild geese pass overhead honking, the owl hoots.

The use of sound motion pictures to give greater realism to museum groups, Professor Allen points out, has endless possibilities. There is no reason why mounted lions should not roar, wolves howl and deer snort as well as the birds sing when the cinematographer and sound technicians take their places with the taxidermist, the artist and the collector in gathering the material and setting up the habitat groups of the future. Furthermore, the usefulness of the museum groups can be greatly extended because the motion picture film is easily duplicated and can be shipped all over the country, while the original group is available to only the comparative few who visit the museum.

Science News Letter, December 19, 1936

DENDROLOGY

Christmas Holly Trees Have Their Flowers Too

See Front Cover

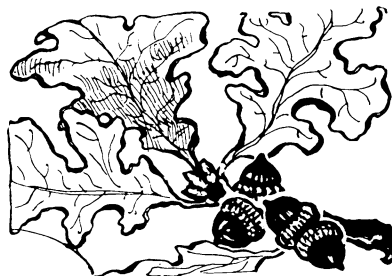
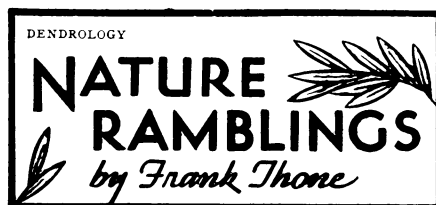
DESPITE the popularity of the familiar red holly berries for Christmas decorations, few of us are familiar with the rare beauty of the holly tree's flower. The illustration on the front cover of this week's SCIENCE NEWS LETTER is one of the superb enlargements in Walter E. Rogers' book on *Tree Flowers*.

Prof. Rogers tells why many holly trees bear no berries at all. The holly flowers are of two sexes; the berry-less trees are those with exclusively staminate flowers. The two flowers are very much alike in general appearance.

Science News Letter, December 19, 1936

Coming!

The *Science News Letter* for December 26 will contain the Science Review of the Year. Important scientific achievements in 1936 will be classified by sciences. An excellent issue for your permanent records. Order extra copies now.



Christmas Oak

OAKS had a Yuletide significance to our ancestors of northern and western Europe that we have forgotten, to a very considerable degree. It is regrettable, too, that we have done so, for some of these ancient oak observances were picturesque and meaningful.

Bringing in the Yule log was a mid-winter ceremony that survived as long as houses were heated by open hearths and wood was the fuel. The Yule log was usually an oak log. But when coal began to be substituted, and then closed stoves came in (we have commonsense-skeptical old Dr. Benjamin Franklin to thank for that!), such mass uses of wood fuel passed out.

Oaks figured prominently, too, in the ancient Celtic rites of the mistletoe, for the mistletoe shrub is a semi-parasite that gains part of its nourishment from the sap of hardwood trees, again usually oaks, at least in European woods. To be sure, there are mistletoe species that grow on evergreens, but nobody except a botanist would recognize them as such. And the girls don't want to receive Yuletide attentions exclusively from botanists!

Oaks even helped provide the Christmas feast, for the mighty wild boar, whose smoking head burdened many a castle's high table at Yuletide, fed on acorns and beechnuts in the forests. And acorns, ground into flour, sometimes kept famine at bay when there had been a bad grain crop.

Oaks provided timbers for houses and castle and cathedral roofs, planking and ribs for ships, staves for such house-gear as casks and pails. Oak bark went into the tanner's pits to make leather. Oak galls, soaked with scraps of iron, furnished monastery scribes with ink that after centuries remains unfaded. In

oaken coffins men were borne at last to the churchyard.

Small wonder then that people regarded the oak so highly, and even in pagan times made a god of it. If oak trees were green in winter like firs and spruces and pines, the chances are that our Christmas trees would all be oaks.

Science News Letter, December 19, 1936

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