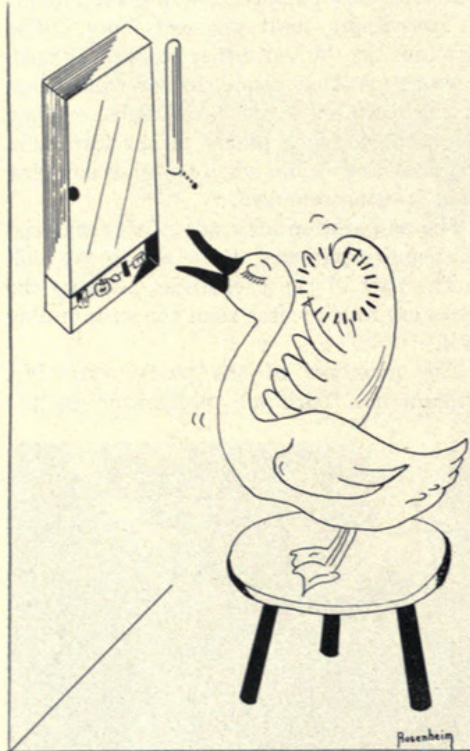


HOW BIRDS ANOINT THEIR FEATHERS

BY AUSTIN L. RAND
CURATOR OF BIRDS

A BIRD'S plumage receives a great deal of care from the bird that wears it. The bill is the only implement for this grooming, and it is run through and along the feathers it can reach, helping clean them and making sure they lie in their proper place in the bird's dress. There are parts of



Cartoon by Emily Rosenheim

the plumage that the bird obviously can't reach, as that of the head, but ducks, at least, surmount this difficulty by rubbing their head against their body.

Many birds have oil glands (the only external glands that most birds have), a pair of glands just above and in front of the root of the tail, on the back. They contain an oily substance, and the usual explanation is that the secretions of those glands are used in dressing the feathers. Certainly birds that have oil glands seem to use them, nibbling at them as though to press out the oil, touching them with their bill and then rubbing the bill through the feathers, and rubbing the head against the oil gland.

The beautiful, soft, whitish bloom seen on some birds' feathers, such as the pale gray of a male marsh hawk and the filmy appearance of some herons' plumage, is caused by specialized feathers called "powder down." Sometimes this powder down is scattered through the plumage; sometimes it is in patches, such as the particularly conspicuous ones in the herons. The tips of the powder down are continually breaking off and sifting over the rest of the plumage,

giving it the bloom that with handling quickly rubs off.

WALNUTS AS A COSMETIC

But birds sometimes rub foreign substances over their feathers—just why we don't know. Grackles have been known to use the acid juice of green walnuts in preening.

In Pennsylvania, starlings have been seen to come to walnut trees when the nuts were almost three-quarters grown, in June, and peck a hole in the sticky hull of a nut, then dip the bill into it, undoubtedly wetting the bill against the pulpy interior, and then thrust the bill into their plumage.

They did this from June to August, especially on hot summer days, but some birds continued this even during light rain. Some years before the above was recorded, when this sort of thing was less known, Edward Howe Forbush, noted ornithologist, cautiously used a similar record in his classical *Birds of Massachusetts and Other New England States*. He writes that his colleague, J. N. Baskett, says he saw a bluejay lift its wing and rub pungent walnut leaves repeatedly into the feathers beneath.

BEER AND MOTHBALLS

Since then such things have been recorded a number of times, including a catbird that anointed its feathers with a leaf and a grackle that found a mothball and, holding this in its bill, rubbed the underside of its spread wing and the part of the body under the wing. After several applications it dropped the mothball and preened its feathers; then again it picked up the mothball and treated the other wing as well as its belly.

Recent experiments with tame song sparrows have shown that they may use beer, orange juice, vinegar, and other things made available to them in dressing their plumage, and it appears that this may be correlated with a little-understood type of activity known as anting, in which live ants are placed on the feathers.

STAFF NOTES

Mr. Bryan Patterson, Curator of Fossil Mammals, has been on study leave at the American Museum of Natural History and at Yale and Harvard universities in connection with a publication on certain fossil mammals that is under preparation. . . .

Mr. Luis de la Torre, mammalogist, returned from his expedition to Guatemala in the first week of December. He brought back a large collection of bats and other mammals. . . . Dr. Hugh Cutler, Curator of Economic Botany, lectured before the St. Louis Academy of Science and at the Missouri Botanical Garden on American food plants. He appeared over station KSD in a television program called "A Scientist

GIFTS TO THE MUSEUM IN LAST MONTH

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

Department of Anthropology:

From: Paul J. Warner, Chicago—2 brass bells, North and South Dakota.

Department of Botany:

From: Paul Humphreys, Whiting, Ind.—35 herbarium specimens, Norway; Dr. George D. Fuller, Chicago—25 herbarium specimens, California.

Department of Geology:

From: Dr. Carlos A. Friz, Chicago—a collection of 98 rocks and minerals.

Department of Zoology:

From: Maj. Howard T. Wright, San Antonio, Tex.—3,094 insects and their allies, Japan, and 2 insects, Korea; Dr. Orlando Park, Evanston, Ill.—384 American beetles; Dr. David Thompson, River Forest, Ill.—a gray fox skull, Illinois; Samuel A. Woods, Culver, Ind.—an American elk antler, Indiana; J. D. Romer, Hong Kong—14 frogs, lizards, and salamanders, China; Boardman Conover, Chicago—3 bird study skins; Capt. J. M. Ross, Chicago—500 shells, Solomon Islands; Mrs. Dorothy Foss, Chicago—a domestic cat skeleton and a juvenile domestic cat skull.

Division of Motion Pictures:

From: John W. Moyer, Chicago—1,200 feet of miscellaneous film on birds and animals.

Library:

From: Col. Clifford C. Gregg, Valparaiso, Ind.; Eugene S. Richardson, Jr., Winnetka, Ill.; Gerhard Regnall, Stockholm, Sweden; and Dr. Julian A. Steyermark, Sarah B. Hodges and Edward L. Brewster, Dr. Wilfrid D. Hambly, and W. C. Adams, all of Chicago.

Annual 4-H Visit

Approximately 1,200 teen-age farm boys and girls from all parts of the United States and Canada, members of 4-H clubs who were in Chicago for the International Livestock Exposition, made their annual visit to the Museum. There were two groups, one on November 29 and one on December 2. The staff of the Raymond Foundation presented a special program for them in the James Simpson Theatre and served as guides on their tours of the exhibits.

Reports on South America." During the last part of the month he visited agricultural centers in Iowa, Minnesota, and South Dakota to study and discuss developments in plant science in the Midwest. . . . Mr. Karl P. Schmidt, Chief Curator of Zoology, will leave January 21 via British Commonwealth Pacific Airlines to attend the Seventh Pacific Science Congress at Auckland and Christchurch, New Zealand, in February.



Rand, Austin Loomer. 1949. "How Birds Anoint Their Feathers." *Bulletin* 20(1), 8-8.

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