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ORNITHOLOGISTS
SEE WHAT BIRD
STOMACHS HOLD

Federal Experts Describe
Diet of Owls, Ducks,
Passenger Pigeons

Passenger pigeons no longer darken the skies over the Ohio Valley. They are long extinct. But here in Pittsburgh Phoebe Knappen ^{today} has been telling America's bird experts what she has found in stomachs of these birds, and showing them lantern slides.

Phoebe Knappen is a member of the U. S. ^{or} Biological Survey in Washington, D. C., a food expert in the laboratory instead of the kitchen. She studies the food habits of birds by looking into their stomachs and classifying the contents. A few months ago she found 11 stomachs of passenger pigeons that had never been examined, lost sight of for a generation. Quite a find, because the last passenger pigeon died in the Cincinnati zoo in 1914—witness to America's foolish waste of her wildlife resources in the past.

Today members of the American Ornithologists' Union, holding their annual meeting in the Carnegie Museum auditorium, listened to Miss Knappen's report of what she found in the stomachs of these 11 passenger pigeons.

Pigeon's ¹stomach

Animal matter she said, constituted only about 10 percent of the birds' food, and one adult may-beetle (June bug to many Pittsburghers) made up the bulk of this 10 percent. One stomach had no animal matter in it, and only a trace was found in 7 others. In 2 cases, the trace was nothing more than the head of an ant.

H. Z.

Miss Knappen said that the passenger pigeon was chiefly a vegetarian. She found 90 percent of the food in this class, made up of 13 kinds of plant. More than half of the vegetable food was acorns and acorn mast. Other favorites on the passenger pigeon menu were oak galls, corn, wheat, and poke berry.

Gravel and Feathers Included

Not everything that reaches a bird's stomach is food, though. Miss Knappen found that gravel and feathers made up more than 15 percent of the stomach contents she examined. She didn't class these as food, although the birds did use the gravel in digesting their food. Maybe the birds snapped up the feathers floating in the air, ^{she suggested} mistaking them for winged seeds of birch, elm, or maple. Small amounts of feathers are often found in stomachs of the dove family, Miss Knappen explained, ^{this results from birds swallowing} and usually ~~these birds swallow~~ bits of their own feathers while preening.

Duck Foods Studied Too

The passenger-pigeon stomachs furnished rare data of historical scientific interest, but the ornithologists were more deeply concerned with facts presented today on the food of diving ducks. Dr. Clarence Cotton, who is in charge of the Biological Survey's food habits section, made the report on these birds' diets.

Canvasbacks, redheads, and other diving ducks that were once the prize game of wildfowlers have declined so rapidly that conservationists are now making every effort to increase the populations of these birds. Restricting hunting is one way of doing this, and the season is closed this year on canvasbacks and red-heads, but the Biological Survey is also restoring and improving large ^{refuge} areas for the birds. This, Dr. Cotton explained, means providing food, and studies have to be made to find out what the quacking guests on the refuges like to eat.

Miss Knappen

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"A knowledge of the food and feeding habits of the various species," said Cottam, "is fundamental to the successful planning of any wildlife restoration plan. The only sure way to get this knowledge is to look at the stomachs of birds collected at different seasons and in different localities."

As a guide to its studies of diving ducks, the Biological Survey has examined 7,000 stomachs accumulated for over 50 years. Results of these analyses formed the basis for the paper read today by Dr. Cottam.

Diving ducks feed in water from 2 to 20 feet deep, and some go even deeper. Submerged ~~potamogeton~~ pondweeds are their principal plant food, and sage pondweed is perhaps the best single duck food known.

Dr. Cottam pointed out a great difference among the various species. Redheads, canvasbacks, ringnecks, and ruddy ducks he classed as predominantly vegetarians, while the scaups are more omnivorous. All of the more typical sea ducks, he said, draw most of their sustenance from the animal kingdom.

To Hear About Owls Tomorrow

The ornithologists will hear some more about bird diets tomorrow, too. Clarence F. Smith, another Biological Survey food expert, is scheduled then to talk about "Some Food Tendencies of San Francisco Barn Owls."

Smith, it was learned today, also intends to tell about his experiments with bird boxes for barn owls. He placed a number of boxes at nest and roost sites, and every one found a barn-owl tenant. What he found out about bird boxes for these owls applies as well in the Pittsburgh area as it does near San Francisco, he says.

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Smith found his feed facts by analyzing pellets regurgitated by the owls, instead of examining stomachs. Raptorial birds (hawks and owls) churn the feathers, fur, and bones of their victims into small pellets and regurgitate these, instead of passing them on through the digestive tract. Smith had 87 of these pellets of the barn owl as a basis for his report.

Meadow mice, he found, were the ^{favorite} piece de resistance for the barn owls, except where pocket gophers were more abundant. Birds formed less than 1 percent of the owls' feed. Such information, he pointed out, is essential in formulating wise regulations for bird protection.

The sessions of the A. O. U. meeting are open to the public. They will continue in the Carnegie auditorium until tomorrow afternoon. Friday the visiting ornithologists will make a field trip to study birds at the Pymatuning Swamp.

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