Warren, B. H. and
Henshaw, H. W. -

The common crow.

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Director

NATURAL HISTORY LEAFLET NO. 5

R. N. DAVIS
Curator

The Common Crow (*Corvus Americanus*) And It's Egg-Eating Habit

From *The Times*, Scranton, Pa., October 20th, 1914

Farmers, poultry raisers and sportsmen are asked to send their views on the crow to Dr. B. H. Warren who edits weekly the natural history column in the *Times*.

From the time of Audubon and Wilson, both great naturalists, there has been more or less difference of opinion among ornithologists as to the true economic status of the common crow and the gaudy, garrulous blue jay. Both are plentiful throughout Pennsylvania, where they are found during all seasons.

The crow and jay are omnivorous. They kill and devour noxious forms of animal life. Zoologists who are hostile to these birds are of the opinion that the penchant which they possess for eating the eggs and young of many species of beneficial wild birds is by all odds greater than benefits conferred by the devouring of harmful forms of insect life. Crows in addition to robbing nests of wild birds, steal eggs of domestic fowls and also devour their young. Crows likewise do damage in corn fields, but to offset such loss to the farmer, they also destroy many cutworms, beetles and grasshoppers.

Practical field ornithologists who are disposed to regard the crow and blue jay with favor, frankly admit that these birds rob nests of both eggs and young, and they also do not deny that crows (i. e. depraved individuals) will sometimes eat eggs of domestic fowls

and likewise carry off for food young chickens, ducks and turkeys. Some eminent naturalists who defend crows and jays seem to believe that the different forms of insect life they consume in the course of the year more than counterbalance the losses occasioned by the destruction of great numbers of wild birds of both game and nongame varieties by the black and blue-coated pilferers.

Leading naturalists who give particular attention to food habits of birds base their opinions mainly on the examinations of the crops and gizzards of adult birds, captured during all months of the year and also, when practicable, of the viscera of young, when under parental care. The careful examination of food substances taken from the alimentary tracts of feathered victims, if examined by experts, may in most cases, be regarded as quite conclusive. In the case of egg-eating birds, however, the belief is entertained by many naturalists—Dr. B. H. Warren of the Everhart Museum, being one who holds this view—that these examinations of stomachs as collected by the great majority of field workers should not be taken as conclusive. This idea is advanced because so far as can be learned few, if any, collectors who have gathered in large numbers the crops and gizzards of such typical egg-devouring birds as crows, ravens and jays have not been able to secure any considerable number of these birds in the act of eating eggs,

THE COMMON CROW—Continued

or very shortly after these feathered nest-robbers had swallowed such food. The urgent necessity for a speedy examination of the crop and gizzard of a crow or jay which devours an egg is clearly shown by the following letter recently received at the Everhart museum from Dr. C. B. Cochran of West Chester, Pa., one of the leading food chemists of the country.

West Chester, Pa., Oct. 12th, 1914.

To Dr. B. H. Warren, Director, Everhart Museum, Scranton, Pa.

Dear Dr. Warren: I am unable to answer your question by knowledge obtained by actual observation. However, I am willing to express an opinion based upon my knowledge of the digestive apparatus of birds and of the phenomena of digestion in these animals. It is my belief that the white or yolk of eggs taken into the alimentary canal of the crow would rather rapidly pass through the crop, the glandular stomach and the gizzard, so that in a half hour after ingestion it would be difficult to detect the edible portion of the egg in any of these organs.

In its passage through the glandular stomach the egg would be mixed with gastric juice and from that time digestion and absorption of the proteid matter would proceed rapidly. It is my opinion that if a crow was shot two hours after it had been eating eggs it would be very difficult to find egg substance in any part of the alimentary canal, even though the contents of the canal were submitted to chemical analysis.

If a single small-sized egg, like that of a robin, was mixed with other animal food in the alimentary canal of a crow, it would be exceedingly difficult at the end of an hour, or perhaps in a considerably shorter time, to detect the presence of egg substance.

If the examination was limited to crop and gizzard the evidence of an egg might be lacking at the end of one-half hour.

Very truly yours,

(Signed)

C. B. COCHRAN.

Under date of October 8, 1914, Mr. H. W. Henshaw, chief of the biological survey at Washington, D. C., in referring to a report on crows recently made by Dr. Warren to the biological survey, says, in part:

Dear Dr. Warren: In the absence of Mr. Nelson, I am acknowledging receipt of your two letters of October 6th and 7th respectively, enclosing certain notes on crows and other birds. We find this data of much interest and are very glad to incorporate some of it in our permanent records. With regard to the crow I am impelled to add the following notes for your consideration. Taking the country at large there is no doubt of the general fact that the crow here and

there does a good deal of damage, but on the other hand, a comprehensive view of the relations of the crow to the farmer will show that he is not as black as sometimes painted.

NOTES FROM H. W. HENSHAW

Crow notes from chief of biological survey:

We have considerable evidence which indicates that in the destruction of the eggs and young of wild birds, the fish crow is a worse offender than the common species. This obnoxious habit is doubtless aggravated by the fact that the former bird has easy access to numerous defenseless species which nest in colonies and as frequently the birds destroyed are on game preserves the loss is keenly felt. Strange to say the same can be said of the other maritime species (*Corvus caurinus*) of the northwest coast, where destruction to various water fowl has been recorded. This kind of work on the part of the common crow is most frequent in and about parks, preserves and suburban communities, where all species enjoy equal protection and where this bird soon becomes very bold in his hunting. Under such conditions, where it is our desire to foster certain species in rather abnormal abundance, the reduction in the number of crows seems to be the only practical course. In the examination of over 1,100 stomachs of crows collected throughout our eastern and central states, this one redeeming feature has been revealed; that the bulk of the damage is done early enough in the season, as a rule when the crows have young, so that probably most of the birds may raise a second brood at a time when there is little fear from crows. The actual loss of bird life, therefore, is probably not as great as it appears to be.

In the destruction of poultry, the problem is of entirely local character. We have heard complaints of this kind coming from one farmer, whereas, his neighbor never loses a chick or egg. The proximity of a nest of young and hungry crows and the availability of a poultry yard where none too careful methods of housing the nesting fowls and young chicks are employed seem to be the important factors governing such work. Frequently the destruction of one particular brood of crows will terminate all damage of that sort about the farm.

The fact that we have numerous testimonials from farmers who raise considerable poultry entirely unmolested by crows, even though the birds are abundant in the general vicinity, leads us to think that careful poultry management will reduce this evil to a minimum.

It is our opinion that legislation governing the crow is at present ideal in most of our states, where actual protection is not afforded and yet few wholesale campaigns of destruction are enacted.

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