

NOTES ON WINTER CROW LIFE IN THE  
DELAWARE VALLEY.

BY WITMER STONE.

SOME years ago Messrs. Samuel N. Rhoads, Henry W. Fowler, and the writer became interested in collecting data relative to the winter habits and distribution of Crows in the lower Delaware Valley, especially with regard to the location of their roosts and the direction of their morning and evening lines of flight. As often happens circumstances prevented the completion of our work, and our notes have remained for a long while untouched. Upon looking them over with a view to continuing the main line of investigation I find some correlative material bearing upon the winter life of the crows of the vicinity of Philadelphia which, seems worthy of publication, and I present it here with due acknowledgments to my colleagues for their valuable aid in gathering the information together.

The immediate vicinity of the Delaware River, from some distance north of Philadelphia all the way to the bay, is a great rendezvous for winter crows. To the passengers on the ferryboats they are a familiar sight, as they mingle with the Herring Gulls, flapping low over the water to pick up such scraps as may go floating by or in more severe weather alighting on the grinding ice cakes, and walking about where the pack has been frozen solidly together.

On the broad meadows which line the shores of the river, both above and below the city, crows abound during the daytime and walk about in search of food until it is time to seek their roosts on the New Jersey side of the river, when the long straggling flights may be seen winging their way homeward, sometimes in the bright glow of a winter sunset, at others in the teeth of a blinding storm, but always stubbornly heading for the particular roosting ground that generations of ancestors have used before them.

It seems a pity that a bird whose habits present such an interesting and unique field for study should be subject to persecution, especially since the Department of Agriculture has shown that his good deeds in the destruction of insects quite equal his depreda-

tion and that if not positively beneficial he is at least "on the fence." Where the law does not stand in the way, however, man usually tries every path that leads to wealth and some enterprising individuals have, from time to time, made a fair profit by trapping these poor hungry winter crows to be used in lieu of pigeons in trap shooting contests.

In severe weather, when the ground is white with snow, the crows have a harder time than ever to secure a living, and hunger makes them comparatively tame, so that they fearlessly approach barn-yards, refuse dumps, and any apparent source of food. It is at such times that the trappers successfully ply their trade.

A piece of ground conveniently near a strip of woodland or fence row, and sufficiently cleared and open to attract the attention of the crows and allow free use of the net, is selected. A rough shelter is constructed for the concealment of the trapper, and near by a spring-pole about fifteen feet in length, is planted at such an angle that the free end is only about four feet from the ground. A similar pole is planted about forty yards off; between these and some distance behind them a row of stakes is driven into the ground, to which the net is attached. These are also provided with trigger releases which restrain the free edge of the net until the spring poles are liberated. The net is an ordinary shad sein, fourteen yards long and thirteen feet wide, and is attached to the spring poles at either end. When set for action the spring poles are bent back and the net is restrained by the triggers. It is then quite inconspicuous and can be almost entirely concealed by a sprinkling of grass. Pieces of horse flesh, which is preferred for bait on account of its toughness, are now scattered along between the poles and at the proper time the triggers and poles are simultaneously set free by a jerk on a rope that is held by the trapper, and the feeding crows are immediately covered and entangled in the meshes of the net.

Trapping is begun in November and continued until March whenever the conditions are favorable; one man often secures as many as five hundred birds in a season, and it is estimated that at least two thousand crows have been killed in one year to test the marksmanship of Philadelphia's trap shooters. The birds are sprung singly from ordinary pigeon traps at twenty to twenty-five

yards rise, the tails being docked about two inches to allow free action in the trap. The crows 'get off' more deliberately than pigeons but their flight is more erratic so that they prove harder to hit. About twenty per cent. usually escape from the grounds though many of these are badly wounded, and probably not five per cent. survive.

One of the most troublesome factors in crow trapping is the presence of hawks in the vicinity of the nets. These birds abound along the river marshes in winter, where they find quantities of Field Mice (*Microtus pennsylvanicus*) to prey upon and naturally in severe weather they take to the crow bait quite as readily as the crows themselves. As long as a hawk is there the crows will not remain on the ground long enough to justify a cast of the net, but continue to hover over and mob him until he is fairly settled at his feast, when they retire to the neighboring trees and await his departure, which is greeted with a rousing demonstration.

To rid themselves of this nuisance the trappers are compelled to net a number of hawks, nearly all of which prove to be the Red-shouldered Hawk (*Buteo lineatus*). This fact is interesting, as previous experience showed that nine tenths of the hawks shot on the Delaware meadows were the Red-tailed Hawk (*B. borealis*). A few of the latter species and one Black Hawk (*Archibuteo lagopus sancti-johannis*) have been netted.

Fortunately for the crows trapping can only be carried on successfully in winters when the ground is covered with snow for a considerable period. The abundance of the pigeon supply also materially affects the demand of crows, and these facts do not tend to draw a great many men to this interesting field of business. Furthermore, the temporary retirement of the chief crow trapper, who has been spending some time in jail — on another charge — has given the birds a respite of late, which we trust will continue.

One of the most interesting facts developed in the investigation of this crow trapping was that both the Fish Crows (*Corvus ossifragus*) and Common Crows (*C. americanus*) were caught in the same net, and that the former species was by no means rare, being clearly distinguished by both trappers and gunners under the name of Pigeon Crow and regarded as better for trap shooting than the larger species, since it was not necessary to 'dock' so much of the tail to get the birds in the traps.

An inspection of the barns and corncribs where the crows were confined until sold, showed that about one in five was of the smaller species. This is of course not an index of the relative proportion of the two species, but simply of those caught, and doubtless indicates that the Fish Crow was more susceptible to the allurements of the trapper than his larger brother. The abundance of the Fish Crow in winter on the meadows to the north of the city is interesting since, so far as Mr. Fowler has been able to ascertain, the species does not nest so far up the Delaware River. On the Tinicum meadows, below the city, it has frequently been reported as a summer resident, but careless observers and collectors have more than once confused the two species, and so far as my personal experience goes such nests as I have examined in this locality were unquestionably the property of *C. americanus*, though I am still of the opinion that the Fish Crow breeds there also, and that a colony of nests in the Lazaretto woods belongs to the latter species. Farther down the river the Fish Crow undoubtedly nests regularly as well as along the New Jersey coast, while of late years several pairs have occupied tall trees in the small parks in the heart of Philadelphia. The pair which have been domiciled in Logan Square, directly opposite the Academy of Natural Sciences, have been frequently observed and seem to be quite oblivious to their surroundings, feeding their young on the lower branches of the trees to the astonishment of the House Sparrows, and even making depredations upon the disarticulated skeletons which our taxidermist had put out on the roof to bleach.

Our observations would seem to indicate, that the Fish Crow is a resident species along the river but that it pushes farther north along the valley in severe winter than its normal breeding range extends. That it mingles much more with the Common Crow than some of the older writers would have us believe seems certain, although this may apply only to the district under consideration and similar spots where the ranges of the two overlap.

As the Fish Crow is not a very common species in collections, Mr. Fowler secured at my request a series of twenty-five specimens, all of which are now in the Academy's or in my own collection. The difference in color as compared with the Common Crow and the increased gloss of the plumage is constant through the whole

series. In size the largest Fish Crow fails to equal the smallest Common Crow, though exceptional examples approach more closely in dimensions of wing than is generally supposed. The bulk of the specimens, however, differ widely, and emphasize the distinctness of these two species. Indeed, to my mind it is the only distinct type of Crow in the United States apart from *C. americanus*, all the others, even *C. caurinus*, being apparently geographic derivatives of the latter. The measurements of twenty-five specimens are as follows:

Wing, 9.56-11.55; average, 10.68 ins.  
Culmen, 1.41-1.63; average, 1.52 ins.  
Bill from nostril, 1.02-1.20; average, 1.10 ins.

Some of the largest individuals are females, and there does not seem to be much difference in the average size of the two sexes.

A series of fifteen Common Crows from the same vicinity yields the following measurements, which will show the comparative dimensions of the two species as found in the Delaware Valley in winter.

Wing, 11.60-13.35; average, 12.28 ins.  
Culmen, 1.75-2.03; average, 1.86 ins.  
Bill from nostril, 1.25-1.52; average, 1.34 ins.

The average size of the skulls of the two species is as follows:

*C. americanus*, length, 3.58 ins.; greatest breadth, 1.48 ins.  
*C. ossifragus*, length, 3.03 ins.; greatest breadth, 1.28 ins.