

its little scolding note was several times heard before the bird itself was captured by the writer. On the 8th two more specimens were captured. On November 10 a single bird was observed in Lake Forest, hopping in a lively manner in a small apple tree. It showed no fear and several times could have been touched with a walking stick. These four specimens, occurring in localities ten miles apart, might suggest a rather general occurrence of these rare stragglers from the north. The only other occurrence of this bird in Illinois, was when Dr. Velie observed it at Rock Island subsequent to 1852. Mr. Wells W. Cooke informs the writer that the bird taken on November 5 may safely be considered the second record for the State.

THE PRESENT STATUS OF THE ENGLISH SPARROW PROBLEM IN AMERICA.

BY A. H. ESTABROOK.

THE English Sparrow (*Passer domesticus*), was introduced into the United States in the fall of 1850. The first few pairs were liberated at Brooklyn, N. Y. In the few years then following, many others were liberated at different cities in the United States, so that by 1875, they had spread over practically the whole area east of the Mississippi. From the time of its introduction, there was a storm of protest from the practical naturalists who foresaw the result of its introduction, from its behavior in other countries. They knew its record in countries where it had been a longer resident. The people who introduced the sparrow believed that it would be an insectivorous bird, and would take care of the canker worm which was then troubling the people very much. The canker worm is no longer a pest, but its destruction by the sparrow is not granted by the ornithologists. E. H. Forbush, in his report on the Gypsy moth states that the sparrow has been

seen to eat all forms of the moth, but that the bird itself is more injurious than beneficial inasmuch as the sparrow drives away the native birds which would hold the pest in check. Dr. Elliott Coues made, in 1880, an urgent appeal to the people to exterminate the English Sparrow for the following reasons.

1. They do not perform the work for which they were imported.
2. They attack, harass, fight, drive away, and kill native birds, much more insectivorous than themselves.

In 1889 the United States Department of Agriculture published a 400-page volume on the English Sparrow in America. This work takes up the economic status of the English Sparrow, its food relations, and its behavior with other birds. An amazing amount of evidence against the sparrow is gathered here and the author of the bulletin advises the extermination of the sparrow all over the United States.

In April, 1906, the following questionnaire was printed in these publications; 'The Auk,' 'Bird-Lore,' 'American Bird Magazine,' 'The Oologist,' and 'Maine Sportsman.'

Circular of Inquiry with Reference to the Present Status of the English Sparrow Problem in America.

1. Are you familiar with Bulletin No. 1, The English Sparrow in America, published by the Agricultural Department in 1889; and do you agree with the facts there presented and with its conclusions?
2. Are English Sparrows present in your locality? If so, are they increasing or decreasing in numbers?
3. What is being done with you to exterminate them? Please outline methods which you deem effective.
4. What influence have you observed the English Sparrow to have upon native birds?
5. Would public opinion in your locality favor the adoption of effective measures to exterminate the species?
6. Please state the facts and arguments, pro and con, which decide this problem in your own mind. Please send replies as early as possible — before June 1 — to the undersigned. It is hoped to gather a consensus of opinion from all parts of this Country and Canada. The data will be published as soon as possible.

Signed,

March 5, 1906.

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From this questionnaire and from letters sent out by me personally, I have received about eighty answers. I also wrote to all

the Experiment Stations in the United States, and to prominent ornithologists in Canada. These answers practically all agree that the English Sparrow is an obnoxious bird to have, especially to our native bird population. Several letters state that we have no right morally, to kill the English Sparrow, or any other living creature. But it must be plain to anyone that we have as much right to kill a bird that is generally considered obnoxious, as we have to kill mice, rats, fleas, mosquitoes, bedbugs, and the like. This standpoint of false humanitarianism is derided in most emphatic terms in many of my letters.

I will take up the questions in the order in which they appear in the enquiry, and will endeavor to give the main results secured by the questionnaire.

1. Are you familiar with Bulletin No. 1, etc. This was inserted in the questionnaire to see if the bulletin referred to, had, to any great extent, been circulated through the country, and also to see if it had had any marked effect on the ideas of the people in regard to the sparrow. A good portion had seen the bulletin and most of those agreed with it perfectly.

2. Is the English Sparrow present in your locality? Increasing or decreasing?

The data for the distribution of the sparrow I have secured from the Directors of the different Experiment Stations, and from the prominent ornithologists in Canada. The English Sparrow exists in enormous numbers in the whole region east of the Rocky Mountains; with the exception of Florida, where it is found in a few places, and in Texas, Oklahoma, and the northern part of Montana where it is reported absent. West of the Rockies, he is reported in Utah, Colorado, and in and about San Francisco, and Portland, Oregon. It is found throughout Canada, south of latitude 50°, and as far west as the Rockies. It does not seem to be either increasing or decreasing its numbers to any appreciable extent anywhere in this area.

3. What is being done with you to exterminate them? Outline methods.

In a great many localities, much is being done towards extermination; nearly one half of those answering were doing something to hold them in check, but as these few are scattered throughout

the country, no lasting, permanent effect is secured. The methods used are mostly that of poisoned grain, destroying nests and young, and shooting.

4. What influence have you observed the English Sparrow to have upon native birds?

The influence of the sparrow upon native birds is the crucial point in this discussion. It is not a question of how many insects it eats; it is whether our native birds would be better off without the intruder or not. There were two people, who liked to see the bird about in winter, when the other birds were away. A larger number honestly believed that the bird was doing a good service in the eating of weed seed. These few, however, admitted that the English Sparrow did attack and harass other birds. The rest of the letters were against the sparrow. Many give personal experiences of the sparrow's pugnacity and plead for a sure and certain method to get rid of the species. Others are up and doing and are killing off thousands each year, by poison and the gun. I will quote here three extracts:

"I have frequently observed that the English Sparrow chased the Robins off the State College Campus (Harrisburgh), and last year at my residence on the Penn. State College, I saw a male sparrow kill and drop from the nest four young Pewees, about a week or two old. The parents which are recognized as being among the most insectivorous birds, were entirely helpless in the presence of the intruder and destroyer of their young."—*H. H. Surface, Pa.*

"Have seen them rob Bluebirds' nests, drive away Robins, Wrens, and Crested Flycatchers."—*H. Link, Indiana.*

"The Purple Martins long disputed the possession of their boxes with the sparrows but eventually were compelled to give them at least half the compartments in each box. The Swallows and Bluebirds were driven out nearly altogether for many years, but of recent years have made increased use of the boxes. The Purple Martins are practically gone, and I doubt if the Bluebirds or Swallows would be allowed to nest, if the sparrows occupying the boxes were not turned out and their nests destroyed, as I have been in the habit of doing."—*James H. Fleming, Toronto, Ontario.*

5. Would public opinion in your locality favor the adoption of effective measures to exterminate the species?

Public opinion, in many localities, would favor extermination, but in many places, so-called humanitarians were, and are, still bitterly opposed to sparrow destruction, as in Boston in 1889. But the greater portion of the letters report communities to be entirely indifferent, and difficult to arouse to any definite action. As is always the case, a pest must become overwhelming, before the general public will pay the slightest heed.

6. State facts and arguments, pro and con, which decide this problem in your own mind.

Two letters used the argument that it was cruel to kill any living thing, no matter how good the reason, basing it on the point that the other animals had as much right to live as we had. It was also wrong to teach boys to kill things as it made them cruel. The great majority of writers were thinking of the great danger to our native birds, and this was a sufficient cause to demand extermination.

In Canada the consensus of opinion is the same as in the United States. But there the winters are more severe and so the bird does not attain to so great numbers but shows there, as here, the same fighting qualities that have made him most inimical to our native species.

There are several methods of extermination feasible; destroying nests and young, shooting, and by poisoning. The poisoned grain is prepared by dissolving one grain of strychnine sulphate in one half pint of boiling water. Pour this while hot over two quarts of cracked corn or wheat, stirring well until all the liquid is absorbed. Dry thoroughly, without scorching, and put away labelled. One kernel of this prepared grain will kill a sparrow. Great care must be used with this, and it should be used only when our other granivorous birds are away.

The English Sparrow, or House Sparrow as it is sometimes called, has been a pest in every country in which it has been introduced. At present in New Zealand the people are obliged to take the most drastic measures to exterminate them. They had become so extremely numerous that concerted action became necessary and was demanded by the people, who are now slowly exterminating them. A special officer was appointed in each county, whose sole duty it was to carry on this work. The ex-

pense is borne by a special tax levied on each county. In Australia, the sparrow is increasing to extraordinary numbers and the people are up in arms against it. As the agricultural interests there are involved, the time seems ripe for action. The sparrow is an exotic species to America, and following the law of introduced species, has become a pest and the time is sure to come when the people will demand extermination. When the whole country, or a great section of the country, comes to a definite decision in the matter, then is the time for all to work together and to clean out the species till not one is left. For if any are left, their great ratio of reproduction, four to five broods of five eggs each, each year, would soon render the work useless and leave the people more discouraged than now. The repression of the sparrow cannot be undertaken locally with any lasting or permanent effect, for the killing of a few thousands is as a drop in the bucket, and the small vacuum would soon be filled by others swarming in from neighboring parts.

The letters I have received show that some here, some there, are doing honest work toward sparrow extermination, and while I do not want in the least to discourage them in their efforts, the results are only temporary and the work must be kept up continually. If one State or group of States set to work carefully within their borders, some lasting results will be obtained and the continuous work need only be kept up on the borders of the territory where the sparrow has been exterminated. But a far better way is to have the whole country do this extermination, now, at once, and all over the United States.