

CORRESPONDENCE.

The Heath Hen.

Editor of 'THE AUK:'

The Heath Hen (*Tympanuchus cupido*) has never been in greater danger of extermination than it is at the present time, and unless there is a change for the better the species will be destined to share the fate of the Passenger Pigeon, the Great Auk and the Labrador Duck within a very few years. The only living representatives of the species are now on Martha's Vineyard Island, Massachusetts where their last stand is among the scrub oaks and meadows located near the central portion of the island. Since the Commission on Fisheries and Game, now Division of Fisheries and Game, established the Heath Hen Reservation in 1908, the bird has been subject to great fluctuations in numbers. For a few years it thrived under the protection and care provided by the reservation and by the Spring of 1916 the numbers, according to a census made by Mr. E. H. Forbush, had increased from 55 to 800, and Mr. William Day then Superintendent of the reservation, estimated not less than 2,000 birds. In May of the same year a destructive fire swept over the island which not only killed many nesting females, but also destroyed much of their cover and food supply. The subsequent appearance of many Hawks further aided in reducing the numbers so that in the following year less than 150 birds remained. For the three following years the Heath Hen seemed to rally from this catastrophe by a steady increase which reached a maximum of 600 birds in 1920, according to an estimate made by Mr. Allan Keniston, the present Supt. of the reservation. The following year the number of birds seen was 314, in 1922 only 117 were counted and this year, 1923, the usual census reveals a count of less than 50 birds. Never since 1908 when the reservation was established has the Heath Hen been reduced to such small numbers. The Division of Fisheries and Game has done all in its power to maintain and to increase this unique bird, but their best efforts have failed. The response to a questionnaire sent out by Mr. William C. Adams, Director of the Division has shown conclusively that public opinion favors saving the Heath Hen at all reasonable costs.

The members of the Nuttall Club at Cambridge and the Brookline Bird Club of Brookline in answer to the questionnaire made recommendations to the Director that a life history study be undertaken and also that an investigation be made of the conditions which govern the existence of the bird on the island, in order that some definite proposal could be offered which might be an aid in saving this bird. Dr. John C. Phillips has taken the initiative in causing this study to be made and he with the assistance of J. E. Thayer, C. H. Mackay, T. Barbour, W. P. Wharton, C. F. Batchelder, A. Hemenway, W. M. Tyler, and F. A. Foster, have provided the means necessary for its execution.

The present status of the Heath Hen as revealed by the census taken during April (1923) and repeated in May indicates clearly that some action must be taken at once without waiting for the present study to be completed or else the opportunity may be gone for ever. The extraordinary decrease in numbers since 1920 can be explained only in part by unfavorable weather during the breeding season, poaching and other minor causes. From a biological point of view it seems that the great factor in this rapid decline is due to the excess males, an abnormal relation in numbers of the sexes, caused primarily by the fire of 1916. This condition did not manifest its effect immediately as might be expected, but if our analysis of the situation is correct, is now causing the destruction of the species. It is well known that rodents such as rabbits and rats may be exterminated by capturing the animals and freeing all males, a condition comparable to that now existing in our only colony of the Heath Hen. Furthermore gamekeepers in Europe especially in England and Scotland regularly kill the excess male birds in order to insure the vigor of the stock and the increase in numbers of individuals. The same method is now employed by certain persons in America who are attempting to propagate Ruffed Grouse and other gallinaceous birds on a large scale.

The Heath Hen, judging from studies of allied species, is probably polygamous and may practice polyandry (we hope the investigation may definitely establish the truth of this supposition). Among birds in which these conditions maintain the females are harassed during the entire breeding period with the result that irreparable damage is done to the eggs and young. The study of the Heath Hens thus far made, clearly indicate that the excess number of males is extreme. Consequently it seems advisable to trap as many of the males as possible, band them and keep them confined in large individual pens until the end of the breeding season. This plan if successful should be repeated each year until the readjustment has been accomplished.

This procedure may not be the means of saving the Heath Hen, but it is our last straw, and those in charge of the investigation feel that it may be a most important factor in helping the race to recuperate.

Yours truly,

ALFRED O. GROSS,

Bowdoin College,
Brunswick, Maine.

" Blue Feathers "

Editor of 'THE AUK:'

An article on "Blue Feathers" appears in the April number of 'The Auk' which purports to be a contribution to knowledge and presumably is to be judged by the standards which investigators are supposed to maintain in their publications. Furthermore, this paper is stated to represent work done on a grant for research from the "Heckscher Foundation for the Advancement of Research, Established by August Heckscher at Cornell University" (p. 275).