"These species represent only a small number of the birds which have been observed but not taken for identification." — W. L. M.

Report on Introduced Pheasants in Massachusetts.— There has recently been printed as Document No. 2049 of the Massachusetts House of Representatives, a valuable summary of the history of introduced pheasants within the state. Originally introduced in 1896, from 100 to 2500 have been liberated annually by the Game Commissioners, and the bird is now fairly common. The report touches upon the use of pheasants as game in other countries and other parts of the United States. Details are given of the life history, and methods adopted in rearing the birds. The special adaptability of pheasants to artificial propagation is the prime reason for their extensive distribution.

An open season on pheasants was allowed during only one year since their introduction. The birds increased and reports of damage began The Commission says: "During the past two years numerous complaints have been made relative to damage to farm crops. Many verbal complaints have been received of which we have no record. Of the formal reports which have been filed at this office, 21 persons complained of damage to corn, 15 to garden truck, 3 to peas, 2 to tomatoes, 2 to fruit, 1 to potatoes. In many instances the potential value of the crop partially or wholly destroyed reaches several hundred dollars, instances being cited where three entire plantings of early sweet corn were pulled up. In some cases fictitious claims have been made, where the damage attributed to the pheasants was done by domestic fowl and by crows. There is no question that in certain localities where the pheasants have increased abnormally very great damage may result unless an effective check is applied, and while in many instances real damage has been done to crops, we have many unsolicited testimonials to the fact that pheasants, though numerous, have never done appreciable damage."

Examination by the Biological Survey of stomachs collected at localities where damage to crops was attributed to the birds, resulted in the following showing: 37 percent of the food counts in the bird's favor; 27 percent is adverse, and the remainder practically neutral. Many notes on pheasant food based on field observations and on a few other stomach analyses are included.

The most interesting part of the pheasant report comprises the able recommendations regarding public policy in relation to the bird. "Apart from the insect-eating capacity of the bird, it has a high food value as a table bird. The present market price is \$2.50 to \$3 a pair, and many thousand dollars' worth of pheasants are imported annually.

"It would be logical, therefore to increase as much as possible the number

¹ Special Report of the Massachusetts Board of Commissioners on Fisheries and Game, relative to the Habits of those birds commonly known as Pheasants. Doc. 2049 Mass. House of Representatives, 1914.

of birds raised in Massachusetts, feed them upon the insects for the suppression of which the public is spending annually at least a million dollars, and each autumn kill the surplus old birds for food." Admitting that damage is caused in some cases, the Commissioners continue: "Thus, while the individual farmer may have actually been damaged in a very substantial way, the community has been benefited by the insect-eating value of the pheasant, and the State should reimburse the farmer for damage to his crops in cases where substantial damage could be shown; or, in case of persistent damage, provision should be made for killing the individual pheasants which have thus acquired the perverted habit of eating as special food farm products of particular value to man."

This is a clear convincing statement of a necessary corollary to the theory of state ownership of wild game. Massachusetts has advanced further than any other state in the practical working out of game protection under this theory. For years it has reimbursed cultivators for losses occasioned by deer, and it now proposes to apply the same method to the pheasant problem. As a matter of fact the principle set forth must be applied to all wild animals protected by the state. If citizens are unable legally to protect their property then they must in justice be paid by the state when they suffer loss on account of animals which are the property of the state.

The reviewer has hitherto argued for exemptions in state protective laws in favor of owners whose property was being damaged. The Massachusetts plan is however more logical, more in accord with modern ideas as to strict and comprehensive protection, and is simpler in operation. In Massachusetts, reports of damage are now investigated jointly by a representative of the game commission, and one of the state board of agriculture in coöperation with the complainant. The damage is assessed, and the amount paid. Thus the matter is definitely settled in one transaction. Permission to kill injurious animals, for a few days or a season, would involve long drawn out and expensive inspection and seems not nearly so practicable a scheme as the Massachusetts plan. We must do something to satisfy complainants or our protective laws will create antagonists instead of supporters. Massachusetts is doing this in a sane and logical way and other states would do well to follow her example.

A contingency beyond remedy by the process outlined above, is damage caused by the increase or incursion of overwhelming numbers of any species. Such an emergency could be met by declaring suitable open seasons, and by instituting coöperative destructive measures.— W. L. M.