THE BIOLOGICAL SURVEY 1

The Biological Survey is quietly working for the good of our agricultural interests and is an excellent example of a government bureau which conducts original scientific research, the findings of which are of much practical utility. For more than twenty years it has studied the food habits of birds and mammals that are injurious or beneficial to agriculture, horticulture and forestry; has distributed illustrated bulletins on the subject and has labored to secure legislative protection for the beneficial species. The cottonboll weevil, which has recently overspread the cotton belt of Texas and is steadily extending its range, is said to cause an annual loss of about \$3,000,000. The Biological Survey has ascertained and given wide publicity to the fact that at least forty-three kinds of birds prey upon this destructive insect. It has discovered that fifty-seven species of birds feed upon scale insects—dreaded enemies of the fruit-grower. It has shown that woodpeckers as a class, by destroying the larvæ of wood-boring insects, are so essential to tree life that it is doubtful if our forests could exist without them. It has shown that cuckoos and orioles are the natural enemies of the leaf-eating caterpillars that destroy our shade and fruit trees; that our quails and sparrows consume annually hundreds of tons of seeds of noxious weeds; that hawks and owls as a class (excepting the few that kill poultry and game birds) are markedly beneficial, spending their lives in catching grasshoppers, mice and other pests that prey upon the products of husbandry. It has conducted field experiments for the purpose of devising and perfecting simple methods of holding in check the hordes of destructive rodentsrats, mice, rabbits, gophers, prairie-dogs and ground-squirrels—which annually destroy crops worth many millions of dollars; and it has published practical directions for the destruction of wolves and coyotes on the stock ranges of the west, resulting during the last year in an estimated saving of cattle and sheep valued at upward of a million dollars.

 $^{\rm 1}\operatorname{President}$ Roosevelt in his annual report to the congress.

It has inaugurated a system of inspection at the principal ports of entry on both Atlantic and Pacific coasts by means of which the introduction of noxious mammals and birds is prevented, thus keeping out the mongoose and certain birds which are as much to be dreaded as the previously introduced English sparrow and the house rats and mice.

In the interest of game protection it has cooperated with local officials in every state in the union, has striven to promote uniform legislation in the several states, has rendered important service in enforcing the federal law regulating interstate traffic in game and has shown how game protection may be made to yield a large revenue to the state—a revenue amounting in the case of Illinois to \$128,000 in a single year.

The Biological Survey has explored the faunas and floras of America with reference to the distribution of animals and plants; it has defined and mapped the natural life areas -areas in which, by reason of prevailing climatic conditions, certain kinds of animals and plants occur—and has pointed out the adaptability of these areas to the cultivation of particular crops. The results of these investigations are not only of high educational value, but are worth each year to the progressive farmers of the country many times the cost of maintaining the survey, which, it may be added, is exceedingly small. I recommend to congress that this bureau, whose usefulness is seriously handicapped by lack of funds, be granted an appropriation in some degree commensurate with the importance of the work it is doing.

FIELD MUSEUM OF NATURAL HISTORY 1

THE Field Museum is open to the public from 9:00 A.M. until 4:00 P.M.; visitors within the museum may remain until half-past four. The badge of the association admits members to the museum during the meeting. The museum is situated in Jackson Park at the continuation of 57th Street; is five minutes'

¹Information for visitors attending the convocation week meeting.