

TEACHERS' BULLETIN

CALIFORNIA FISH AND GAME COMMISSION

No. 7

SAN FRANCISCO

JUNE, 1916

WHICH DO YOU WISH?



FIG. 1.—Goldfinch or "wild canary," a valuable native song bird. (Courtesy U. S. Biological Survey.)



FIG. 2.—European house sparrow, or "English sparrow," an undesirable introduced species. (Courtesy U. S. Biological Survey.)

THE EUROPEAN HOUSE SPARROW AND ITS CONTROL IN CALIFORNIA.

By HAROLD C. BRYANT.

DISTRIBUTION.

The European house sparrow, or "English sparrow" (*Passer domesticus*), is of such common occurrence throughout California that many people do not even know that this bird is not a native but was introduced into the State¹. According to a report of the United States Department of Agriculture published in 1889 the house sparrow was first introduced into San Francisco in 1871 or 1872, probably from the eastern states. Later some birds from San Francisco were liberated in Stockton. By 1886 the species was to be found throughout the bay region and well into the interior valleys, as in the vicinity of Stockton, Sacramento, Hollister, and Napa, and also at Eureka. When protection was given song birds in 1901, this sparrow had become so abundant and was considered so destructive that it was blacklisted and given no protection.

¹Owing to much recent discussion favoring the use of the name European house sparrow rather than "English sparrow," the former name has been adopted in this paper. In that the species is found throughout Europe, the appellation European house sparrow seems to fit. "English sparrow," however, is here the best known name and is suggestive of the fact that our birds were originally introduced from England; but in England the species is known as the "house sparrow."

At the present time it may be found in practically every settlement from the Oregon line to the Mexican line, with the exception of portions of southern California. In this latter district some effort has been directed toward the exclusion of the bird. Control measures have been used so sporadically, however, that it seems probable that there are other and stronger reasons why the house sparrow has been slow in colonizing

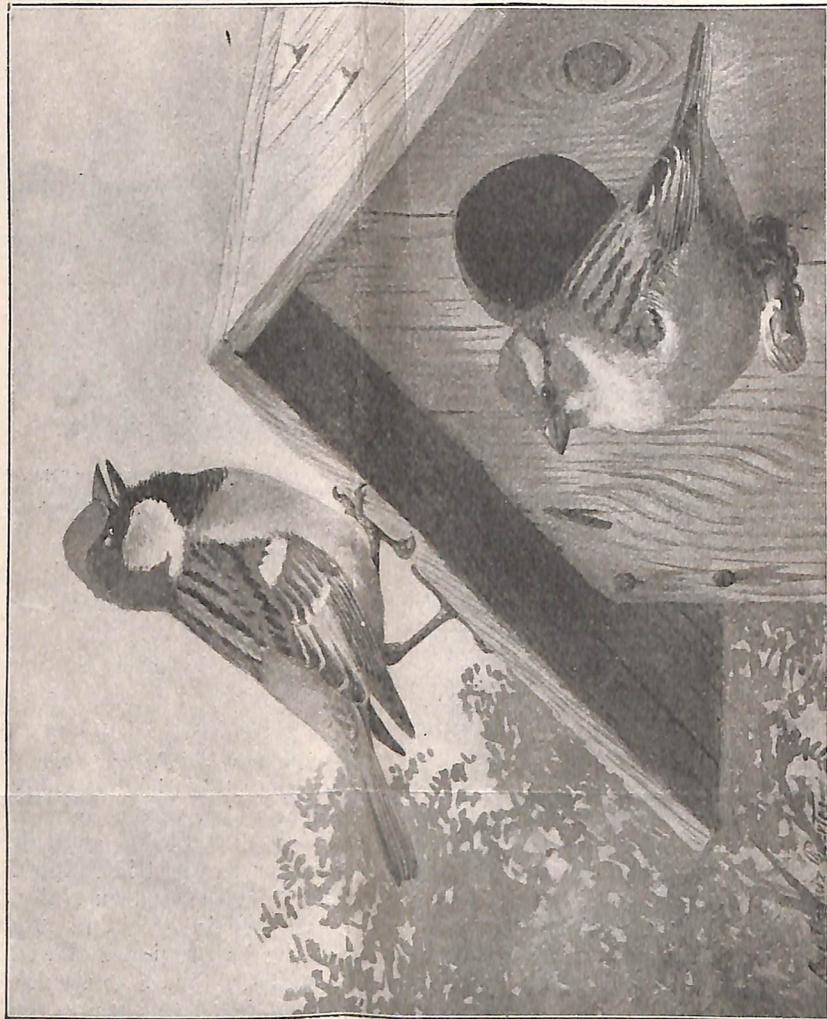


FIG. 3.—European house sparrow, or "English sparrow," from painting by Louis Agassiz Fuertes. (Courtesy U. S. Biological Survey.)

the southern part of the State. The bird did not appear in Los Angeles until 1908, but since then it has much increased in numbers. Well established colonies are now to be found in several other cities in the counties of Los Angeles and Riverside, although they were free from them until 1912 or 1913. The sparrow appeared in the Imperial Valley in 1910 and has since become numerous in all of the towns of the Valley.

That the birds, if not controlled, will increase to an even greater extent here in California than in the East seems probable because here there are no severe winters to combat.

ECONOMIC STATUS.

The United States Biological Survey has examined the stomachs of thousands of house sparrows in collecting evidence as to the relation of this bird to agriculture. Even in the few instances where the species has been known to prey upon injurious insects and weed seeds, the good so accomplished is found to be far overbalanced by the destruction of cultivated crops. These birds destroy fruit of every kind, buds on cultivated trees, shrubs, and vines, and eat tender young vegetables as they appear above ground. They also damage wheat and other grains whether newly sown, ripening, or in the shocks. The house sparrow eats more grain and less insect food than any native sparrow. Because of its pugnacious habits it drives out the native insectivorous birds, beneficial to the agriculturist. House sparrows mob native birds and break up their nests and eggs. The song of this bird, too, is not in the least attractive, for it is little more than a discordant chatter. As this bird enlivens the paved streets of our great cities, where native birds are seldom found, it makes some friends, but the general sentiment is overwhelmingly against it. Because of the filthy and destructive habits of this sparrow, it is everywhere considered an "avian rat," and state laws give it no protection. A campaign of destruction is not only justified, but highly necessary if crops are to be protected and our native birds encouraged.

CONTROL POSSIBLE.

That the house sparrow may be controlled in much the same manner as rats, mice, and other pests, is evidenced by experiments carried on by many communities. A systematic campaign of destruction in one of the city parks in Boston gave satisfactory results. The little town of Meriden, New Hampshire, by a persistent campaign, succeeded in entirely eliminating the house sparrow problem. In this instance guns were used, and the birds were either killed or driven away. Systematic destruction of house sparrows on the University Campus at Berkeley has also shown that through earnest effort a decrease can be effected in the number of sparrows in a locality. Control measures are particularly feasible in southern California where the sparrow is just making a start.

HOW TO IDENTIFY A HOUSE SPARROW.

In form the house sparrow is stout and stocky, and its thick, conical bill bulges out on each side near the end. Its length ranges from $5\frac{1}{2}$ to $6\frac{1}{2}$ inches. The male house sparrow may be distinguished from all common native sparrows by its ash-gray crown, and its black throat and upper breast. In addition, a conspicuous chestnut collar, or cape, extends from the eyes along the sides and back of the neck. The under parts are whitish, the wings and back are streaked with chestnut and black, and a whitish bar adorns the shoulder. The female lacks the black throat, has a grayish-brown head and rump, the back is streaked with black and reddish-brown, and the breast and under parts are dirty whitish with a brownish tinge. The young are like the female in appearance.

House sparrows are most commonly found in thickly settled districts, and far less commonly in the country. Probably 90 per cent of all the house sparrows in the State are to be found in the large cities. They are gregarious during fall and winter, and even during the breeding season are rarely found singly. The native sparrows most commonly found in the same situations are the song sparrow, the white-crowned sparrow, and the chipping sparrow. The song sparrow is distinguished by the streaked breast; the white-crowned sparrow by the white stripe on top of the head and one through the eye; and the chipping sparrow by the chestnut crown-patch see figs. 5 and 6). The song sparrow, when on

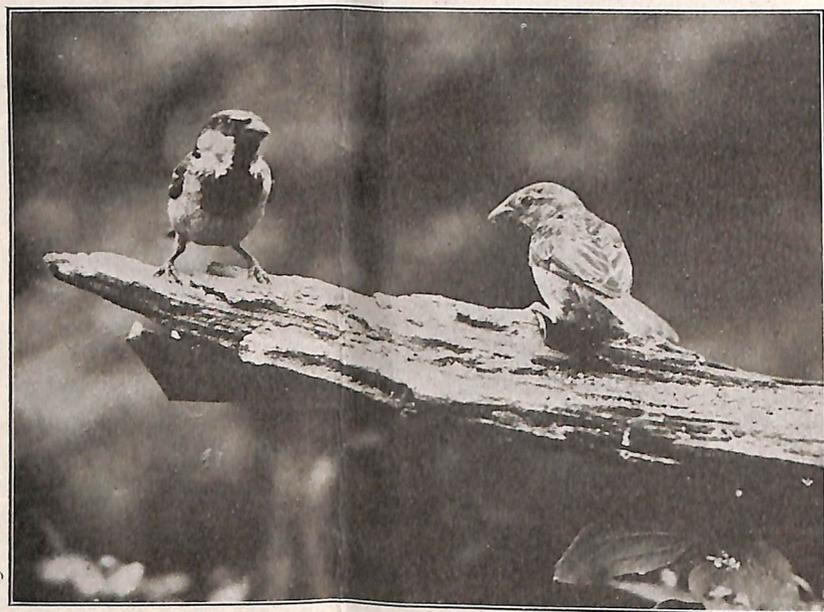


FIG. 4.—Male and female European house sparrow. (Courtesy National Geographic Magazine.)

the ground, is easily distinguished by his manner of holding up the tail like the wren. The linnnet, or house finch is our most common member of the sparrow family. It has a wide range and often nests around dwellings in cities. The male linnnet differs from the house sparrow in having a red head and throat. The females are more difficult to distinguish; the breast of the female linnnet, however, is streaked with brown, whereas that of the house sparrow is plain grey.

METHODS OF DESTROYING HOUSE SPARROWS.

The United States Department of Agriculture issued in 1912 a bulletin giving a number of methods of destroying sparrows (Farmers Bulletin, No. 493). Some of these methods, although practicable in the East, have proved unsuccessful in California where complications arise because a constant food supply is available throughout the year. The funnel trap so widely used in eastern states and poisoning operations cannot be recommended here. Where snow covers the ground for a portion of the year, hunger overcomes caution and the sparrows will

enter traps or take poisoned food, whereas tests carried on in and around Berkeley, under the auspices of the California Museum of Vertebrate Zoology, with the same kind of trap and with poisoned grain, have shown these methods to be far less effective, only a few sparrows being caught or poisoned during experimentation of several weeks. Furthermore, although grain poisoned with strychnine is easily prepared and is recommended by the United States Department of Agriculture, its use in this State for the destruction of birds and animals is forbidden by law, because of the attendant danger (Penal Code, Sec. 631).

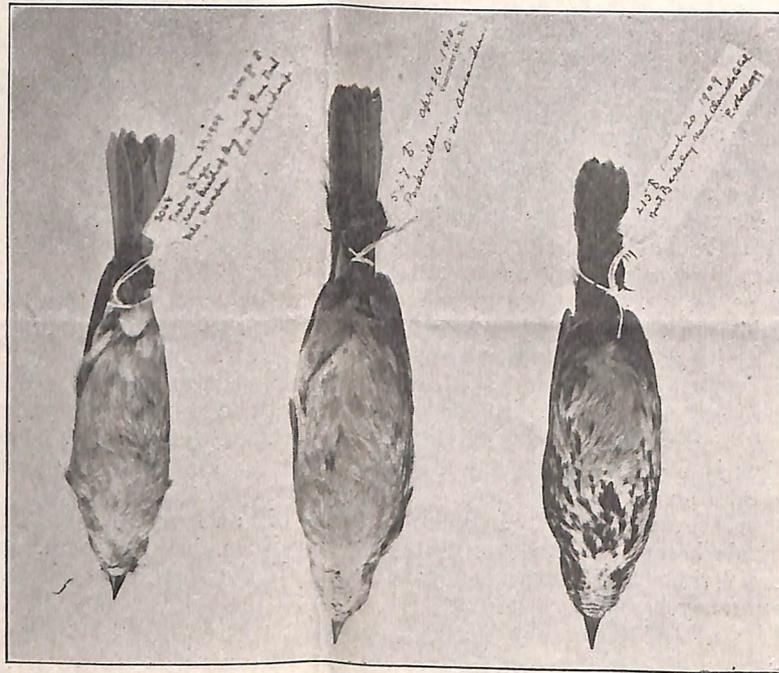
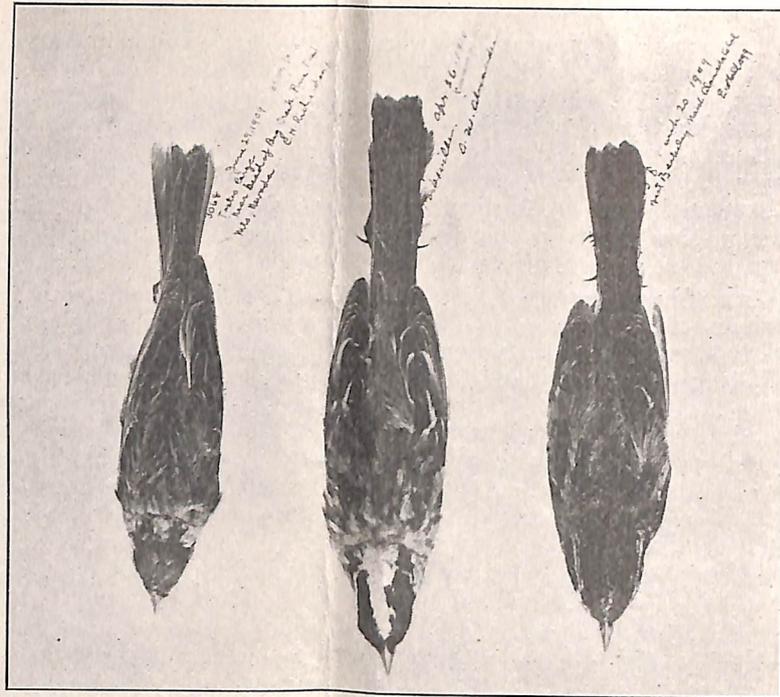
Systematic destruction of nests and eggs. The house sparrow is very prolific and nests from two to four times in a year. The checking of this rapid increase forms an important part of sparrow control. But it should be remembered that if a nest is destroyed a new one is built, whereas the destruction of adults prevents nest building. Destruction of an adult bird is therefore worth as much as that of several young ones. The nests are bulky structures, made of weed stems and grass and are lined with feathers. Some nook in a building is most often appropriated as a location, but trees and vines are sometimes used. An iron hook on the end of a long pole is useful in destroying those nests which cannot be reached otherwise. With care, parent birds may often be trapped on their nests and so destroyed. For this purpose a small net may be used.

Trapping. Although the funnel trap, as noted above, has not proved successful in California, certain other trapping methods are feasible. Bird nets which can be sprung by pulling a cord are capable of capturing large numbers in a short period of time. A sieve trap, which is nothing more than a framework covered with wire, propped up with a stick, and sprung by a cord attached to the stick, is of use where sparrows feed commonly in a yard. It will doubtless be found, however, that after a few trials the birds will not again go near such a trap. Mouse traps of the "Gee Whizz" type baited with cornmeal or oatmeal can also be recommended. Several persons in Berkeley have been able to capture sparrows regularly each day by using traps of this kind. In fact, these mouse traps are probably as effective as any trapping method yet tried out in California. With the aid of a lantern on a dark night a sparrow roost may be raided and a large number of birds destroyed.

Shooting. Although a slower method, and in most instances a more expensive one, shooting is to be recommended above all other devices. An old rifle with the rifling worn out is more desirable than a new, well-made gun. Cartridges filled with dust shot may be procured for 22- or 32-bore rifles. Such loads carry but a short distance and are not dangerous; hence this method can be used in a city yard provided permission is obtained from the local authorities. An auxiliary barrel fitted to a shot-gun also makes an effective weapon. When shooting is first undertaken 15 or 20 birds can be secured in an hour's work. Later the birds become so cautious that only 4 or 5 can be shot in the same space of time, and in the end practically all the remaining birds are driven away.

CO-OPERATION.

Just as co-operation is needed to hold ground squirrels in check, so it is needed for any successful campaign against the house sparrow. An individual in a community may be instrumental in reducing the number of sparrows on his own property, but there will be no evident diminution



Figs. 5, 6.—Dorsal and ventral views of three common native sparrows; the song sparrow, distinguished by its streaked breast; the white-crowned sparrow, distinguished by its white crown patch; and the chipping sparrow, distinguished by its chestnut crown patch. All are beneficial native sparrows, protected by law.

unless his neighbors do likewise. In many places the handling of the sparrow problem by the city may lead to the best results. The appointment of a man to supervise and carry out sparrow destruction is to be recommended rather than a bounty system. The bounty system, except under extraordinary circumstances, serves no useful purpose. Fraud and graft are usually associated with this plan, and the drain on the treasury necessitates the repeal of the law at just the time when it is becoming most effective. Sparrow clubs, in which each member is required to show a certain quota of nests or birds each week or month, have been found effective in England. Organized campaigns by clubs or by organizations formed for the purpose may be instrumental in holding sparrows in check in many communities. Competitive blue-jay hunts by sportsmen's organizations are popular. Why not house sparrow hunts? If such are instituted, however, precautionary measures should be taken to furnish assurance that no native sparrows are killed.

SAN DIEGO SOLVES SPARROW PROBLEM.

The city of San Diego has recently taken steps to rid itself of the house sparrow. On April 5, 1916, the city council passed the following ordinance:

ORDINANCE NO. 6566.

An Ordinance Appropriating the Sum of One Hundred Twenty-five Dollars for the Purpose of Providing Ways and Means for the Extermination of English Sparrows from the City of San Diego.

BE IT ORDAINED by the Common Council of the City of San Diego, as follows:

SECTION 1. That the sum of one hundred and twenty-five dollars (\$125.00), or so much thereof as may be necessary, is hereby set aside and appropriated out of Account 24, Series A, General Government Fund, as provided by Ordinance No. 6430 of the ordinances of the City of San Diego, entitled, "An ordinance fixing and declaring the budget allowance of the City of San Diego and the various departments thereof for the fiscal year beginning January first, 1916," for the purpose, and for the purpose only and exclusively, of providing ways and means for the extermination of English sparrows from the City of San Diego.

SEC. 2. That this ordinance shall take effect and be in force on the thirty-first day from and after its passage and approval.

The job of destroying sparrows inside the city limits was given to one man. During the first month this man handed over to the police department 323 dead sparrows, for which he received five cents apiece. Later when the sparrows became more difficult to obtain he was awarded ten cents apiece. From last reports the sparrows are well under control.

Other cities in the State may well follow the example set by San Diego. Even in cities where sparrows are far more numerous the appropriation of a small sum of money and the appointment of an energetic and ingenious man to carry on the work of destruction will lead to a near solution of the sparrow problem. A city that can advertise itself with the slogan "No house sparrows here" adds to its reputation.

HOUSE SPARROWS AS FOOD.

The flesh of the house sparrow is palatable and nutritious and is widely used for food in Europe. There is no reason why it should not be utilized here since such utilization will result in reducing the number

of sparrows. House sparrows may be cooked by almost any method, but the following recipes are highly recommended:

Sparrow sandwich. Take white or sweet potatoes, pare and cut in two parts. Gouge out each half. After cleaning birds, remove head and feet, season and insert a piece of butter in the body cavity, then insert bird between the halves of the potato. Tie with threads or toothpick and roast in oven.

Sparrow en casserole. Take twenty sparrows, brown them nicely in melted butter, and put in casserole; then add twelve mushrooms or a cup of canned ones, one cup of French peas, one pimiento chopped fine, one teaspoon minced onion, and one of minced parsley. Cover all with stock or boiling water. Cook in oven for one hour. Make gravy from stock in casserole by adding a tablespoonful of flour mixed with water.—*Craig R. Arnold.*

SOME DON'TS.

1. Do not kill a sparrow unless you are sure it is a house sparrow. If not sure of your identification, consult some one who knows.
2. Do not kill a sparrow having a white stripe over the top of the head (white-crowned sparrow), nor one having a streaked breast (song sparrow), nor one with a chestnut-colored crown patch (chipping sparrow). These are native sparrows, are beneficial, and are protected by law.
3. Do not use a gun within city limits without proper permission.
4. Do not encourage sparrow destruction by children; this work should be done by resourceful men who know house sparrows from native sparrows.

SOME DO'S.

1. Do destroy the house sparrow, or "English sparrow," whenever and wherever possible, through netting, trapping, and shooting.
2. Do destroy nests and eggs and raid roosting places of this bird.
3. Do stir up interest in house sparrow destruction and promote organized campaigns.
4. Do continue your interest from year to year and thus keep this bird pest under control in your community. In so doing you help preserve crops and encourage native song birds.

SUMMARY.

The house sparrow, commonly known as "English sparrow," is a pest in California and its numbers need to be controlled. Methods successfully used in the East have proved ineffectual here because of widely different conditions, but determined effort will control house sparrows here. House sparrows when recognized should be killed by destroying nests and eggs, by trapping, and by shooting. Particular care should be exercised in the use of control measures to assure protection of native species. Through co-operation alone can the control of the house sparrow be attained.

N. B. For help in planning a campaign, consult the nearest game warden or write to Bureau of Education, Publicity, and Research, Fish and Game Commission, Berkeley, California. Specimens of house sparrows to aid in identifying this bird and preventing the destruction of native sparrows will be furnished to organizations on request.

Two bulletins: "How to destroy English sparrows" (Farmers Bull. No. 383), and "The English Sparrow as a Pest" (Farmers Bull. No. 493) may be consulted at libraries or procured from the Division of Publications, U. S. Department of Agriculture, Washington, D. C.