

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

ENGLISH SPARROW CONTROL



LEAFLET



No. 61

ENGLISH SPARROW CONTROL¹

By E. R. KALMBACH, *Senior Biologist, Division of Food Habits Research
Bureau of Biological Survey*

RECENT STUDIES of the food habits and economic status of the English sparrow under present-day conditions show that the adult birds are essentially vegetarian, more than 96 per cent of their annual food being obtained from mixed feed, grain of various kinds, weed seeds, and products of the garden. The nestlings subsist to a large extent on insects, but such beneficial work lasts for only a brief span of 10 or 12 days, after which the young become quite as vegetarian as the adults. Consequently, where English sparrows become overabundant there often is a demand and need for local control. This leaflet sets forth economical and effective means for accomplishing this.

A little attention given to measures of prevention may often save much that otherwise might have to be spent on control later. Sparrow abundance usually may be attributed to definite causes. Careless methods of poultry feeding or grain handling may give the birds a lavish food supply. Crevices about buildings may serve as inviting nesting sites, and barn cupolas or vine-covered sides of houses or other structures may provide safe shelters during the winter. The elimination or decrease of any of these facilities, often in itself an improvement in farm practice and equipment, is bound to have its effect on the sparrow population. Certainly complete success in control operations against sparrows can not be expected unless at the same time an effort is made to remove the conditions that attract the birds.

A local sparrow population often may be reduced or even eliminated by destroying the nests and eggs at intervals of 10 or 12 days throughout the breeding season. Such measures are well suited to antisparrow campaigns in restricted neighborhoods or in small towns, where a spirit of community interest aids. A pole, armed at the end with an iron hook, is a handy tool for dislodging nests situated beneath eaves, on rafters, or on tracks for hayforks in barns, and about water tanks or trees.

Bird houses of a size suitable for English sparrows may be erected at convenient locations and visited regularly to destroy the nests and eggs of the undesirable tenants. Such boxes should be constructed with a removable top or front so as to permit ready access to the interior. It is important that those engaged in such measures of sparrow control be qualified to distinguish the nests and eggs of English sparrows from those of beneficial native species, such as bluebirds and wrens, which often occupy similar sites and which are protected by law throughout the United States. It is also incumbent upon operators of the automatic traps hereafter described to visit them at least once a day to release any beneficial species that may be accidentally captured.

¹ This leaflet supersedes Farmers' Bulletin 493, *The English Sparrow as a Pest*, by Ned Dearborn, published in 1912 and revised in 1917.

Incubating female sparrows may be captured at night in nest boxes by holding the opening of a long-handled net over the entrance while the box is struck sharply to dislodge the bird. Sparrows using other cavities as places of nightly resort often may be captured in a similar manner. When these birds occupy barn cupolas or other inclosures at night they may even be captured by hand through the use of electric flash lights, which temporarily blind the birds.

The simple expedient of using firearms against English sparrows needs merely to be mentioned. Most effective results are obtained by inducing the birds to feed at certain places by baiting with grain, which should be scattered in long narrow lanes along which shooting may be directed when the birds flock to them. In this manner numbers of them may be killed with little expenditure of ammunition. The size of shot most suitable for this purpose is No. 10.

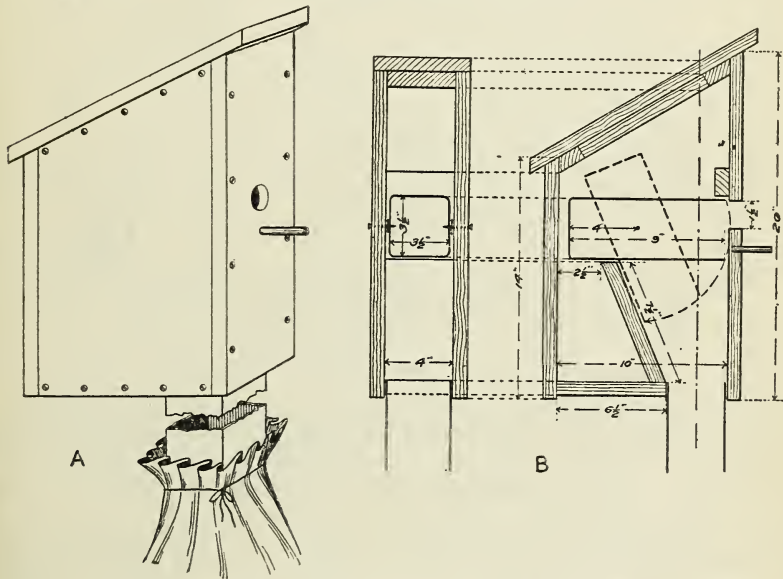


FIGURE 1.—A, Tesch nest-box trap; B, details of construction

B 4 202 M

English-sparrow traps are of two types, nest-box traps and bait traps. The former are effective chiefly during the nesting season

Nest-box Traps

but are useful in reducing the local breeding population. Nest-box traps may either be automatic or require the attention of an operator. The automatic type, though time-saving, is somewhat less certain in its operation. The Tesch nest-box trap, invented by Charles H. Tesch, of Wisconsin, is among the simpler of the self-operating type (fig. 1) and has the advantage that, after the capture of a bird, it resets itself. As described by Dearborn, the essential parts of the trap are: (1) A box, (2) a tipping chamber within the box, (3) a down spout below it, and (4) a bag at the lower end of the down spout. The dimensions of the several parts are given in Figure 1, B. The tipping chamber is made of tin, the down spout of wood or tin, the box of wood. The roof board is cleated across the ends, and also

lengthwise between the cross cleats, for the attachment of the sides, as shown in Figure 1, B. A closely woven 2-bushel bag is suitable for the lower end of the down spout. One of coarser fabric would allow a draft through the spout and thus detract from the efficiency of the trap. In building this trap the front wall is the last piece to go into place. It is fastened there by screws, so that the trap may easily be overhauled. It is a good plan to attach with shellac a few feathers or bits of hay to the floor of the tipping chamber near the rear end to excite the interest of sparrows and encourage them to enter.

Hand-operated nest-box traps are simple in construction and are operated by a cord that trips a shutter or door, which closes the entrance. (Fig. 2.) Although their operation requires personal attention, they are useful when the offending birds are few in number.

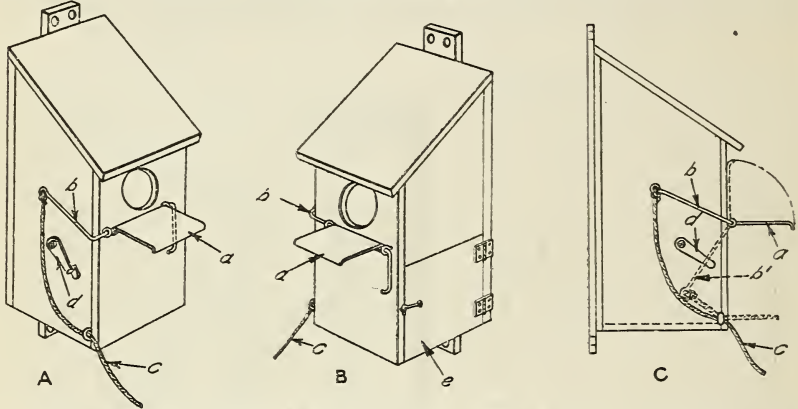


FIGURE 2.—A and B, perspectives, and C, sectional view of a hand-operated nest-box trap

Bait traps are of greatest value during periods of cold weather or heavy snowfall, when the natural food supply of the birds becomes scarce. Of all the bait traps, the sieve type (fig. 3) is the simplest and under many conditions the most effective.

It is built after the fashion of an ash or sand sifter, having a frame about 4 feet square and 6 inches deep. This is covered on one side with 2-mesh hardware cloth. A small opening near one corner closed by a door permits the transfer of captured birds into a bag or small wire cage. (Fig. 4.) When the trap is set, one edge is supported about 18 inches from the ground by a stick surmounted with a small chip to permit its easy withdrawal when the trap is sprung, by pulling a string leading to a blind. The likelihood of the trap falling because of wind or other disturbance may be lessened by driving a few short stakes along its back edge, thereby keeping it in proper alignment. The sieve trap is particularly useful in poultry runways and about feed yards.

Most effective of the self-operating bait traps is the funnel trap. (Fig. 5.) This is a development of the Newton trap used for sparrows and rats in Europe, and the principle involved is simple. The birds, decoyed by bait scattered in front of and inside the trap, are induced to enter the first of two chambers by passing through a small opening at the apex of the half-funnel forming the entrance. (Fig. 5, B, 15.) The size of this aperture may be adjusted by a set

of six flexible wires woven into or soldered to the tip of this half cone. (Fig. 5, A.) In their efforts to escape from the first chamber, the birds naturally find their way to the small opening at the apex of the inner funnel, which is situated above the floor of the trap. (Fig. 5, B, 16.) When they finally drop to the floor of the last chamber, their escape is practically impossible, since it will be only by chance that they will find the point of entry. A small door in the last chamber permits the removal of captured birds.

The funnel type of trap may be readily constructed by anyone handy with tools. It may be made of $\frac{3}{4}$ -inch-mesh galvanized poultry wire, but when built of such material it should be reinforced along all edges and about the door to the inner chamber with No. 8 or No. 10 wire to make it rigid. The more readily obtainable galvanized hardware cloth of a 2-mesh also may be used. By the use of a little solder to seal all edges, this material will give a solid trap without the necessity of reinforcement wires. Its visibility, however, is greater than one made of poultry wire. This may be overcome somewhat by painting it a dull green or brown.

The accompanying working drawings (figs. 6 and 7) and the following description, taken in the main from Dearborn, give a clear idea of the method of constructing the funnel trap in two sizes, 3 and 4 feet long, respectively:

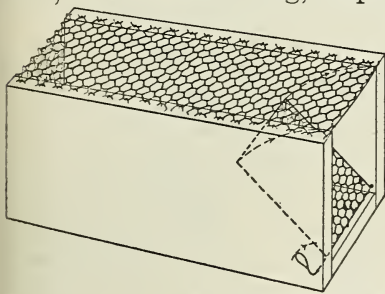


FIGURE 4.—Receiving box for removing sparrows from traps

The second chamber and the angles between the first funnel and the walls of the antechamber are floored with netting. The patterns in Figures 6 and 7 are for making a trap 3 feet long, $1\frac{1}{2}$ feet wide, and 1 foot high. Paper patterns for the two funnels can be made by first drawing the concentric circles, as shown in Figure 6, and then laying off the straight lines, beginning with the longest. The wavy outlines indicate that the pattern is to be cut half an inch outside of the straight lines to allow an overlap for fastening the cones to the top and sides of the trap. When hardware cloth is used and the edges are joined with solder, the extra half-inch lap need not be added. Figure 7 shows how all the parts of a trap, having the above dimensions, may be cut from a piece of netting 4 feet wide and 6 feet long. The full lines in this figure indicate where the netting is to be cut and the broken lines where it is to be bent. The numbers at the angles in Figures 6 and 7 correspond with those in Figure 5, B, which shows in outline the relation of the different parts as they appear when assembled. A trap of the above dimensions is as small a one as can be used satisfactorily. Where sparrows are very numerous a larger size is recommended.

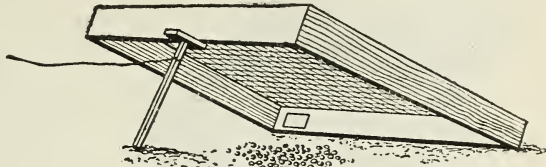
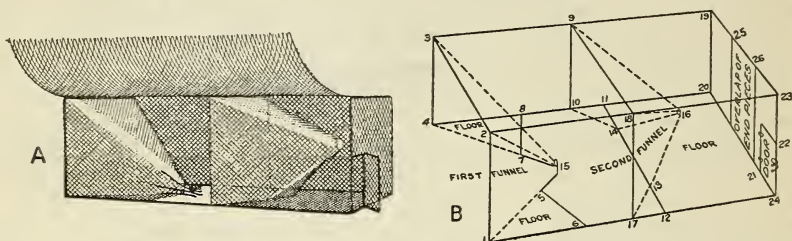


FIGURE 3.—Sieve trap

A trap 4 feet long, 2 feet wide, and 15 inches high can be made from a piece of netting 4 by 10 feet. This is a good size for parks and large private grounds.

In removing sparrows from either a funnel or a sieve trap, the receiving box shown in Figure 4 will be found useful. It should be about 6 inches square and 18 inches long, inside measurements. The door, hinged at the bottom and made to turn inward, is con-

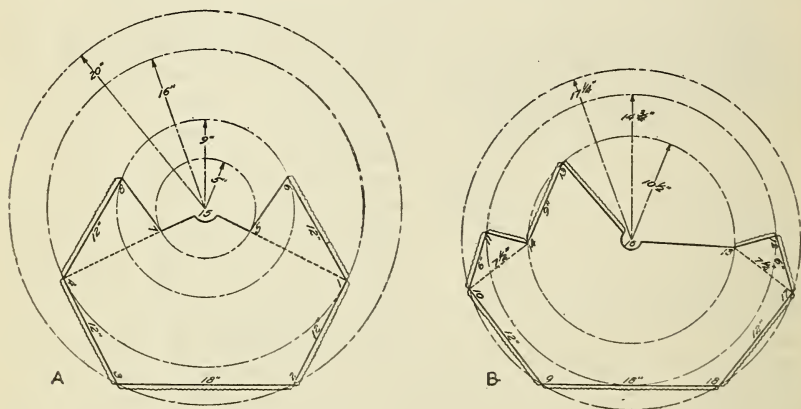


B4293M

FIGURE 5.—Funnel trap: A, Side raised to show interior; B, diagram—numbers correspond to those in Figures 6 and 7

trolled by the part of its wire frame extending through the side of the box to form a handle. The box as it appears in the figure is ready to be placed before the open door of the trap from which birds are to be driven.

Traps of the funnel type may be used in areas where sparrows are in the habit of feeding, and as operations are continued the traps should be shifted from place to place to allay the suspicions of surviving members of the flock. Baits containing canary seed, hempseed, small wheat, oats, or cracked corn, or even fine mixed chick feed, are



B4291M

FIGURE 6.—Patterns for a funnel trap 3 feet long, 1½ feet wide, and 1 foot high: A, First funnel; B, second funnel

satisfactory. The lure of these baits is proportional to the scarcity of other food in the vicinity. During periods of heavy snowfall they become well-nigh irresistible and may result in the capture of all but a few of the most wary male birds. Young birds out of the nest show no hesitancy in following bait lines into traps, even when other foods are available, so that at times the bulk of the year's broods may be captured by systematic trapping as early as July or August.

An inexpensive and under some conditions an extremely efficient device for trapping English sparrows about poultry yards may be had in the wooden-base, snap type of mouse trap, baited with a little bread or a kernel of wheat thrust tightly into the hole in the trigger. By attaching a small light board or metal plate to the trigger itself a treadlelike perch may be made, where a greater quantity of bait can be exposed and on which birds may alight directly, thus springing the trap. Such traps may be placed on the roofs of sheds or other buildings not habitually frequented by poultry, doves, or small native birds. After a number of sparrows have been caught the traps should be moved to a new location or else left exposed for a time but not set, in order to overcome any suspicion the birds may have of danger.

Where poisoning is not prohibited by law, poisoned baits may be used effectively in reducing the number of English sparrows. Experience has shown that strychnine is the safest and most effective poison, and, as a rule, small-sized wheat is an excellent medium for conveying it. Field operations also have demonstrated that a bait of considerable strength, two or three kernels of which will be fatal to sparrows, is better than a weaker one. Such a bait tends to keep at the minimum the number of birds recovering from slight doses of poison, the peculiar actions of which have a pronounced deterrent effect on the surviving members of a flock.

Baits for English sparrows are of two types—coated baits and soaked baits. As the name implies, each kernel of the coated bait carries an adhesive outer layer containing the poison. In soaked baits the poison is imparted to the grain by a soaking process that carries much of it to the interior of the kernels. Coated baits are quick and certain in their action and give excellent results especially after a flock has been prebaited for a while with wholesome food. Their preparation may appear a bit complicated, however, to those not used to such operations, and if the bait is subject to much handling there is danger that the coating may shatter off. Exposure to the weather also quickly lessens their effectiveness. Soaked baits are less subject to deterioration, and although somewhat slower in action, they have given satisfactory results in certain anti-English-sparrow campaigns in western States. When they are freshly made and still damp their action is fairly rapid.

The coating for a quart of wheat bait may be prepared by mixing one-eighth of an ounce of pulverized strychnine alkaloid with $1\frac{1}{2}$ teaspoons of starch or wheat flour and moistening with sufficient cold water to make a paste of the consistency of thick cream; three-fourths of a gill of boiling water should then be added and the mixture stirred well to

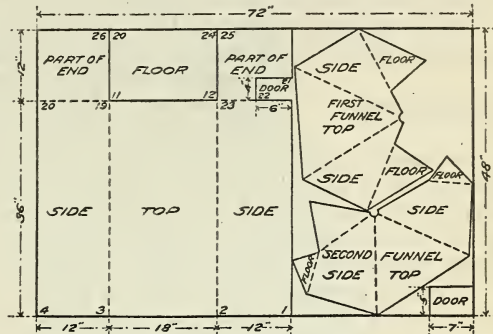


FIGURE 7.—Diagram for cutting out the parts of a funnel trap 3 feet long, $1\frac{1}{2}$ feet wide, and 1 foot high

Coated Bait

make a clear, smooth paste. It may be necessary to heat this somewhat to get the proper results. The paste should then be poured over a quart of small-kerneled wheat reasonably free of dirt, and the whole stirred until the poisoned paste is thoroughly distributed. The bait can be mixed by shaking it in a 2-quart fruit jar. It should then be spread out thinly and allowed to dry thoroughly if it is to be stored. The utensils used may be cleaned with a hot soap solution, after which they should be well rinsed.

In preparing a soaked bait, the soluble sulphate of strychnine is used in place of the rather insoluble alkaloid. One-eighth ounce of

Soaked Bait

the poison should be dissolved in a scant cupful of boiling water. This is then poured over 1 quart of small-kerneled wheat, which previously has been thoroughly dried by being kept overnight thinly spread beneath a stove, on a radiator, or in some other warm, dry place. A 2-quart fruit jar with a tight-fitting top may be used in preparing this bait, as it can be inverted or shaken at intervals until all the solution has been absorbed. The bait should then be spread out to dry.

Unused poultry runs, roofs of poultry houses, and back yards not frequented by domestic pigeons and poultry may be used as bait areas. Where it is not possible to exclude pigeons or

Distribution of Baits

poultry, a covered frame of convenient size, screened with 2-inch poultry netting and raised about 2 inches from the ground, may be used as a portable inclosure in which to place the baits. At the close of poisoning operations any surplus bait should be removed before the area is again opened to poultry or pigeons. Manure and trash piles about barnyards and even city streets may at times be used advantageously as baiting grounds for English sparrows. As in the case of trapping operations, the degree of success with poison depends on the scarcity of food. Periods of snowfall always are an advantage; at such times small areas may be swept clean for scattering bait.

Sparrows are quick to detect danger and to associate their misfortunes with areas in which these occur. For this reason it is preferable to have a number of spots reserved for poisoning. Pre-baiting with wholesome food for a period of several days before poisoned baits are exposed also increases the chances of success. Besides being a most economical and effective method when employed alone, poisoning has been found to be particularly valuable as a follow-up process after a campaign of trapping. The few birds that, through experience, have become trap shy are likely to succumb to the lure of poisoned baits.

Though poison is an economical and effective weapon in the control of English sparrows, its use is fraught with certain dangers. For this reason poisoning should be conducted only by adult persons fully aware of the dangers to poultry, livestock, and other farm animals from the careless handling of poisoned baits. Sections abounding in native seed-eating birds should be avoided, since carelessly exposed poisoned baits might endanger beneficial species, many of which are protected by State and some by Federal laws.

