

Outside	{	depth, 4.50, 3.25, 3.
		diameter, 9, 7.80, 7.50.
Cavities	{	depth, 2.20, 2.10, 2.
		diameter, 3.25, 3.20, 3.50.

Helminthophila sordida. Dusky Warbler. Common from January until late September, in all the large canyons. Rare on the Island in October, but common on the mainland coast.

Dendroica auduboni. Audubon Warbler. Common, October to February inclusive.

Anthus pensilvanicus. American Pipit. One specimen secured, October 18, on the high mesa.

Mimus polyglottos leucopterus. Western Mockingbird. Fairly common. On the low cacti-covered mesas back of Smugglers' Cove, April 2, I found several unfinished nests in the cacti and holly bushes. The feathers of the foreheads and skins of several specimens were stained by the juice of the cactus apples. The Mockingbirds of the islands have been reported by some collectors as being somewhat different from *M. p. leucopterus*. This theory we have clearly disproved, the specimens taken being identical with mainland specimens, as far as discernible by us.

Salpinctes obsoletus pulverius. San Nicholas Rock Wren. Fairly common in suitable localities over whole Island. Thirteen specimens preserved during October. In coloration of the back feathers, specimens range from rich brown to very pale grayish-brown, some of the browner ones comparing very closely with the coast mainland specimens.

Thryomanes leucophrys. San Clemente Wren. Very common on all parts of the Island, especially so on the brush and cacti-covered hillsides of the northeast coast.

Hylocichla ustulata. Russet-backed Thrush. Common in the larger canyons in October.

Hylocichla guttata nana. Dwarf Hermit Thrush. Common over entire Island, October until April.

Ixoreus naevius. Varied Thrush. Near Howland's in January and February several specimens were taken. Several secured in the canyons near Mosquito Harbor, March and April. None seen during October.

Long Beach, California.

SOME HINTS ON THE PREPARATION OF AN OOLOGICAL COLLECTION

By ROBT. B. ROCKWELL

THE time has not long passed when egg-collecting as a fad was very popular in this country, and as a result a great many collections were formed in different parts of the country, many of them thru their vast size being veritable monuments to the rapacity of the "collecting mania." This unnecessary and in many instances wanton destruction called forth the just protests of a growing army

of bird lovers and students, who while they realized the necessity of judicious collecting in all lines of scientific work, entered a strenuous objection against the collecting of vast numbers of nests and eggs, most of which found their way into the dusty drawers of private collections, far from the reach of the public or of research work along oological lines. So pronounced has this feeling against "egg-collecting" become within the past few years, that many collectors have stopped entirely and many others have become much less active. In the case of the many very large private collections it is to be hoped that the great destruction to bird life caused in amassing the collections may be counteracted to some extent, at least, thru their donation to some public institution where their educational value would be of some importance, while a great many of the smaller collections will probably be disposed of in a similar manner or else made a part of larger private collections.

It is to be hoped that egg-collecting as a fad will continue to receive the disapproval of bird-protectionists and of the public in general, but it is equally desirable that in their zealous espousal of the cause, they do not burden the true oologist with the unpleasant term "egg-collector"; for the judicious collecting of nests and eggs is just as important and just as necessary a part of the study of ornithology today as it was forty years ago (altho possibly on a somewhat smaller scale) and the student of birds' nests, eggs and their breeding habits who has nothing left to learn need only proclaim the fact and we will hail him as the peer of all our revered pioneer ornithologists.

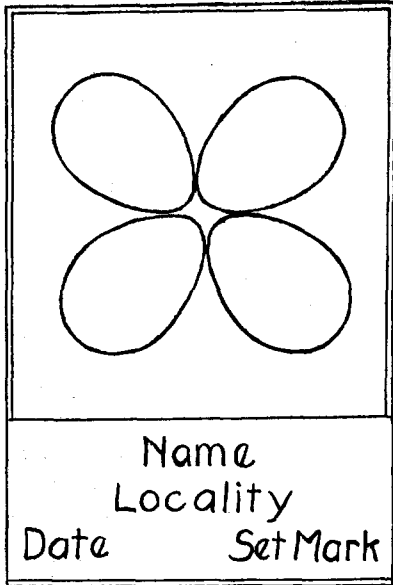
But in order that a collection of birds' eggs, either public or private, may be of any scientific or educational value it must be arranged and labeled in a thoroly comprehensive manner. No other class of specimens requires careful labeling so much as eggs, for where is the man who can tell the difference between eggs of the Rough-winged and Violet-green Swallow, or between those of the Oven-bird and the Long-tailed Chat in a strange cabinet, and of what possible use can a collection be put to unless the observer knows definitely what he is looking at?

The writer has spent some ten years in experimenting with the many different ways of labeling eggs in the cabinet, and what at first seemed a very simple thing indeed, has thru repeated trials and much studying grown to be a rather complicated proposition. It is therefore the purpose of this paper to set forth some of the results of these experiments, with the hope that some of the CONDOR readers may find some hints herein that will be of use to them. Many of the ideas will probably prove old and hackneyed to some of the readers, but if benefit derives to even a few the purpose of the paper will be fulfilled.

The question of proper housing for the collection is far too broad a question to deal with at length. I have used several designs of cabinets, all of which have proven more or less satisfactory, provided the vertical spacing of the drawers was economized and the drawers ran smoothly. I have also experimented with the Cambridge Cans: metal boxes with a tongue and groove flange on the cover and clasps which make the case air tight. These cans are fitted with tin runners which are adjustable according to the depth of the drawers or trays, but while the theory may be correct the mechanical imperfections of all of these cans I have seen make them impossible for a finely prepared collection. By far the finest case I have seen is the one being adopted by many museum and private collectors and is giving perfect satisfaction. It is of metal strongly cased in wood with a swinging door which closes air-tight by means of binding clasps and a rubber pad. The drawer runners are of hard wood and very smooth and the trays are of hard wood with compo-board bottoms. Taken in all it is an ideal cabinet (in everything but gen-

eral appearance) being dust, insect, and mouse proof, with beautifully smooth sliding trays, and every inch of space economized, leaving very little to be desired.

The next item is probably trays. Except for a number of "freak" shapes there are but two styles of trays, the square and the oblong. I will not try to change any reader's opinion as to the proper shape for trays, but if you haven't tried the square trays, just experiment a little and no argument will be necessary.



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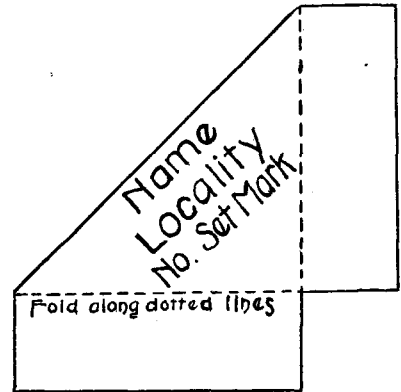
ILLUSTRATES HOW THE OBLONG TRAY SHOULD BE LABELED

Trays 2½, 3, 4, 6, and 8 inches square will accommodate all sizes of eggs and sets. The two smaller sizes work well if made ¾ inch deep, while the 6 and 8-inch trays should be at least 1¼ inches deep, as the large eggs roll about in a shallow tray. The 4-inch tray should be made in two depths so as to conform to either of the other sized trays, as trays of two depths in the same drawer look badly.

After many trials I went back to cotton as the best material upon which to lay the eggs. Sawdust dyed black gives a beautiful effect to a drawer of eggs and brings out the color values of the eggs in good shape, but it is very dusty, forms an ideal home for many forms of insects, is heavy and easily displaced by any slight jar. Grated cork, plaster paris, and similar substances have all been thoroly tried but have proven uniformly unsatisfactory. Colored cotton of any kind, while rather pleasing to the eye upon first glance, destroys the fine shades of color of the eggs, and makes a display rather of cotton than of eggs. A fine

grade of white cotton shows the exact shade of each egg, without detracting from it in the least; can be made to hold the eggs nestled securely but lightly, to prevent their rolling; is free from insects, practically without weight, can be handled pleasantly and easily and is eminently the most satisfactory of all materials for this use.

The question of how to label a set of eggs in a tiny tray, without detracting from the general appearance of the eggs themselves is the one thing which has caused me more sleepless nights than any other phase of this subject. I tried laying tiny slips with the name of the species upon the cotton beside the eggs, but they were always crooked or out of place and gave the drawer a decidedly bedraggled appearance. Little blocks of wood with the label pasted on and set in front of each tray looked very well, but the weight of the wooden blocks and the large amount of work necessary to complete the labeling caused this to be abandoned. Little labels stuck vertically in front or back of the eggs in the tray produced a remarkable display of labels with no eggs to speak of in sight. After almost despairing of ever solving the problem I hit upon the plan of making a three-cornered

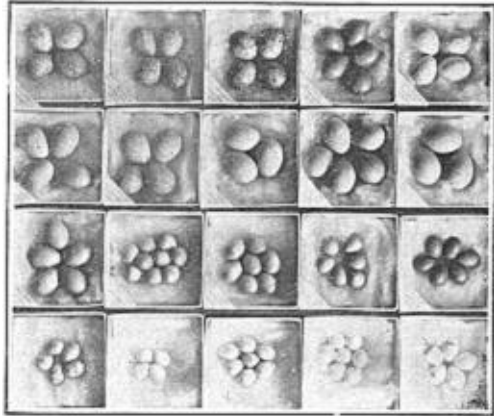


TRIANGULAR LABEL FOR THE SQUARE TRAY

label to fit on a corner of the tray with ears or laps to paste on the sides of the tray. The accompanying sketch and photos will show how well this overcame all objections. There is sufficient room for all necessary information on the label, it is easy to make, is permanent when once pasted in place, and most important of all does not interfere with the eggs in any way, and does not detract from the general appearance of the display. I have given these labels a thoro trial and they seem to fill the bill perfectly. For use with the oblong trays a label pasted across the front or back of the tray, leaving the exposed portion of the tray square, has proven the most satisfactory; but where it is necessary to conserve space this label is practically useless, as it takes up so much room.

Probably every one who has a collection has the eggs arranged to conform to the A. O. U. nomenclature, which is without question the best plan of arrangement. It is also very advantageous to arrange the eggs so that the families or genera may be separated from each other. Little strips of wood about a quarter of an inch wide and the same high as the tray, placed between the trays of different genera, accomplish this neatly and easily and thus show at a glance the different types of coloration in the family or genus. These strips can only be used where the trays do not exactly fit the drawer, but as it is very seldom that a drawer is found that will hold a certain number of trays without any waste space this difficulty is of very little moment. On these strips may be pasted the family and generic names if desired.

If one wishes to have drawers fit the trays exactly, for trays of the size mentioned above, a drawer 24 inches square inside is the most convenient size, as 24 is exactly divisible by 3, 4, 6 and 8.



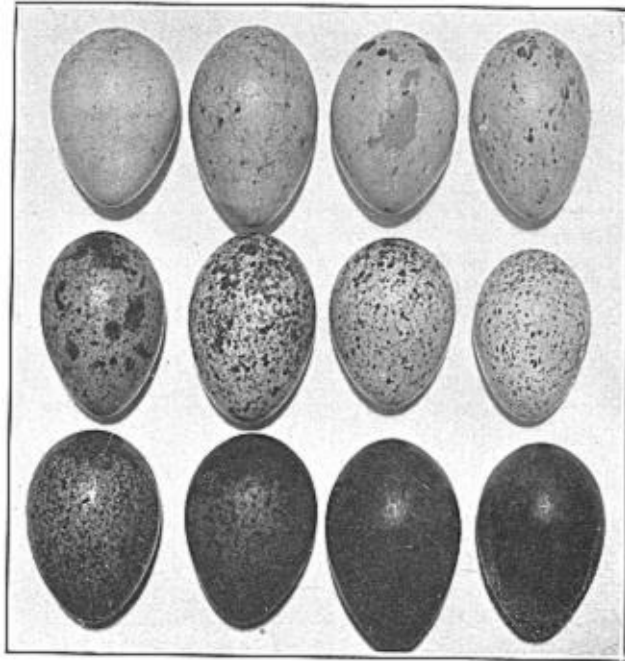
CORNER OF A CABINET DRAWER SHOWING HOW INCONSPICUOUS THE TRIANGULAR LABELS ARE

Without any question the data accompanying any collection of eggs is the most important feature of the collection and there are many methods of housing the data slips. The old-fashioned way was simply to lay the slips loosely in the drawer with the eggs, which is not only dangerous to the eggs, but also leaves many opportunities to lose the data, without which the sets are useless. A book composed of large envelopes into which the data may be slipped works fairly well, but has many disadvantages. The best idea I have seen in this line is one which originated with the well known oologist, Fred M. Dille, and which covers every requirement fully. It is no less than a modification of the vertical card system, in which a large durable envelope with a data blank printed upon it is used instead of the cards. The salient points of each data are written on the envelope, the data enclosed in the envelope and then filed in vertical card files according to the A. O. U. number. The advantages of this system are many: by repeated handling the original data becomes soiled and often mutilated (especially is this true in public collections) while the envelopes if made of durable manila paper will stand a great deal of handling without injury, and even if they are worn out a new one may be copied from the original without injury to the set represented. Again, as nearly every collector has a different sized data blank it would be practically im-

possible to file these slips under the vertical system unless they were enclosed in something of uniform size. And last but not least the great ease with which any desired data may be found in a vertical system of this kind makes it the handiest system imaginable.

Another idea which Mr. Dille has worked out is an "autograph data" blank, which is of the same design as his regular blanks, but which he sends to collectors who furnish him with sets and has them write the original data on *his* blanks but over their own signatures, thus giving him the original data on uniform blanks.

A tabulated register of all sets coming into and leaving the collection, which



A SERIES OF THE EGGS OF THE AMERICAN CROW
SELECTED TO SHOW VARIATION

gives the date, species, locality, collector, incubation, from whom secured and to whom disposed, is also a great assistance in a well ordered collection, altho many collectors seem to feel that this is superfluous.

One might continue indefinitely to jot down the hundreds of little hints and ideas that are produced by continuous experimenting, but I have covered the points which have always given me the most trouble and I hope they may prove of benefit to the reader interested in this line.

Denver, Colorado.