to conclude that the population falls within a range able to be fitted safely with a band size of 2.00 mm in diameter and still have enough play for comfort. The most frequently occurring APTW in the sample was at a value of 1.57 mm (Figure 1). This size seems to fall between the majority of the sample population indicating that it too may be the most common anterior-posterior tarsal size in natural populations. If so, then play on the legs of these birds may be around 0.46 mm, leaving almost half a millimeter of room so that no snow, dirt and debris can become affixed between the leg and the band. This is a concern with the Bird Banding Laboratory (Mary Gustafson pers. com.).

During the course of this project, there have been a total of 35 recaptures (~32% of the population banded) over a time period of 30 days (May 16 - June 14). Upon assessment of each of the recaptures, none of the Pine Siskins banded with size 0A bands showed wear on the foot or tarsal areas relative to the currently prescribed size 0 band. The only noticeable effect was common discoloration of the band and a small amount of dirt collection on the outside of the bands. Examination of the tarsi, thigh, and ankle joints showed no sign of abrasion, cuts, or any other physical characteristics that may accompany tight ring fit as compared to size 0 bands.

During some band applications, there may be an incomplete perfect circle formation around the bird's leg. This did not seem to pose a problem, as it does not appear to hinder movement of the size 0A ring for the bird anymore than the size 0 band would.

ACKNOWLEDGMENTS

I thank Mr. Steve Thompson, Dr. Robert Yunick, and Ms. Mary Gustafson for their review comments on this study.

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News, Notes, Comments

Forty-first Supplement to the AOU Check-list of North American Birds

The recent *Auk* (114:542-552, 1997) includes this last supplement to the sixth edition of the *AOU Check-list*. This supplement serves more to announce changes both in higher taxonomic groupings and in sequence listing. Many of the changes have been based on the DNA-DNA hybridization studies of Sibley and Ahlquist. Many changes deal with Neotropical species within the check-list area.

In summary:

a) 7 species are added to the North American list because of new distributional information;
b) 10 species are added to the main list because of splitting of species previously on the list;
c) 12 species are changed because of splits from extralimital forms (with a net addition of 2 species);
d) 2 species are removed from the list because of being merged with another species;
e) 1 species moved to hypothetical list;
f) 2 names are changed because of nomenclatural priority;
g) 30 names are changed because of generic reallocation;
h) 2 species are changed because of merger with extralimital species; and
i) 9 English names are changed.

Besides changes in the sequence of listing species in certain groups (e.g., ducks, emberizids), the following taxonomic changes affect species occurring in the U.S. or Canada:

1) Cathartidae is moved from Falconiformes to Ciconiiformes.
2) Falconidae organized with 3 subfamilies.
3) New World quail becomes family Odontophoridae.
4) The Spruce Grouse is known as *Falcipennis canadensis.*
5) The Olive-sided Flycatcher is known as *Contopus cooperi.*
6) The Cliff and Cave swallows are moved to the genus *Petrochelidon.*
7) North American titmice (*Parus*) are divided into the genera *Poecile* for chickadees and *Baeolophus* for titmice. The Plain Titmouse *Parus inomatus* is divided into Oak Titmouse *Baeolophus inomatus* and Juniper Titmouse *B. ridgwayi.*
8) Kinglets (*Regulus*) placed in their own family Regulidae.
9) Solitary Vireo divided into 3 species: Blue-headed Vireo, *Vireo solitarius*; Cassin's Vireo, *V. cassinii*; and Plumbeous Vireo, *V. plumbeus.*
10) Olive Warbler moved into its own family Peucedramidae.

Peter Lowther

A Tip for Storing and Dispensing Bands

One problem with banding kits is efficient storage and retrieval of bands. Many techniques have been employed to overcome this problem and to avoid the tangles of wires that so often characterize these kits. Some common techniques include keeping bands in the supplied package and feeding them from the open end, using large wire "safety pins" over which bands are slipped, and using empty 35 mm film canisters with a hole cut in the top through which to slip bands. I have also seen banding kits with nails in the lid to attach each string of bands. Obviously the search is still on for a convenient method to store and dispense bands, keep band strings separate and labeled, know which end of the string has the next number, and deal with the extra wire as bands are used.

In wrestling with this problem, I hit upon a solution that elegantly solves these problems, is virtually cost free, and is so simple that I now wonder why I did not see it sooner. I pass it along in hopes that this tip will make life easier for my fellow banders to manage bands in the field.

What I now use to hold and dispense bands are the clear plastic cassette cases that come with sound recording tapes. I drill a hole near the top of an end that is large enough to slip a band through.

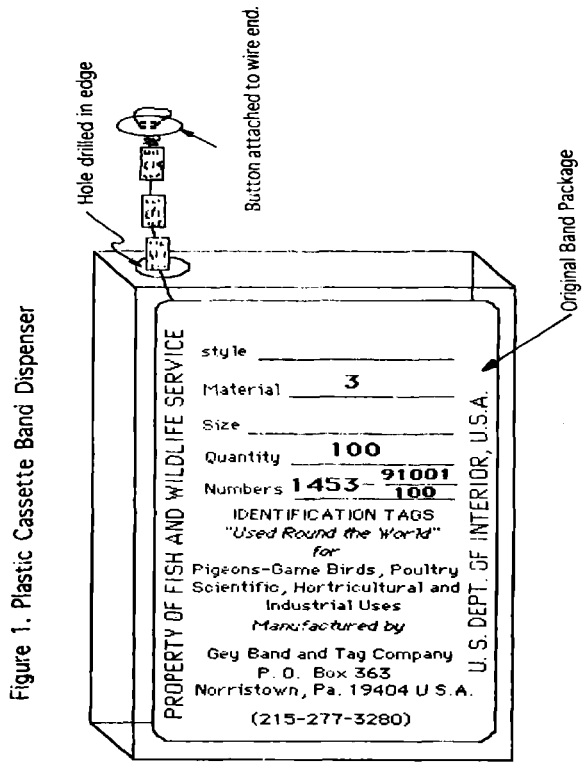

Figure 1. Plastic Cassette Band Dispenser

I then open the case, lay in the entire string of bands still attached to the wire, and feed the low number end through the hole. A button is placed on this end of the string by twisting the wire through the button holes. The button prevents the string from slipping back into the cassette. As bands are removed from the wire, I wrap the excess wire around a fold in the wire at the base of the button. For labeling, I save the original band package, trim it up a bit, and slide it into the case between the plastic and label, and close the case. Now I have a completely labeled container for each band size. Cassette containers are the same size and shape, so they store easily. In the field, they do not roll around, do not get twisted with other strings, do not tangle with equipment, and greatly ease handling, selecting, and removing the correct band from the correct string. It is easy to determine the number of bands remaining in cases through the

clear plastic, and since all bands are contained in the case, the potential for damage to, or loss of, bands is virtually eliminated. The system is especially useful when more than one bander is working at a station, as each bander can select and work with the needed band cassette, and immediately return it to the table to its correct location for next use. I hope this tip will make your banding life easier.

Try it; you will like it!

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A SAFER METHOD OF HANDLING SHRIKES AND OTHER BITING BIRDS

Those of us who have handled birds with serious biting capability soon learn the penalty for inattention. Grosbeaks and cardinals... even those cute little chickadees!... can draw blood. A Loggerhead Shrike (*Lanius ludovicianus*) banding project taught me greater appreciation for that hooked beak with its impressive biting power! After using several boxes of band-aids for my bleeding fingers, I devised a simple, inexpensive method for handling such birds.

Raptor banders use tubes of various dimensions for immobilizing their captures. The darkness of the tube serves to calm the bird, preventing it from injuring itself or its handler. Since I wanted to reduce stress to both shrike and bander, I wondered why not use a tube for these feisty little "honorary raptors." So, using a common, empty toilet paper tube, I cut V-shaped slots in one end, then closed that end with tape, leaving an 1/4"opening for air supply. (Fig 1).

I found this technique worked very well to keep the bird calm, preventing overexertion. (Placing a captured shrike in a collecting bag is not advised, as they struggle in the bag until they're exhausted.) After removal from trap or net, insert the bird head first into the tube. This leaves feet, legs, and tail exposed for banding and measuring. Wing measure can be accomplished by sliding the tube forward while still keeping the head covered.

Soiled tubes are easily and inexpensively replaced. Any tube used for a diseased bird should be discarded immediately. Using this method in hot weather is not recommended because of the potential for overheating.

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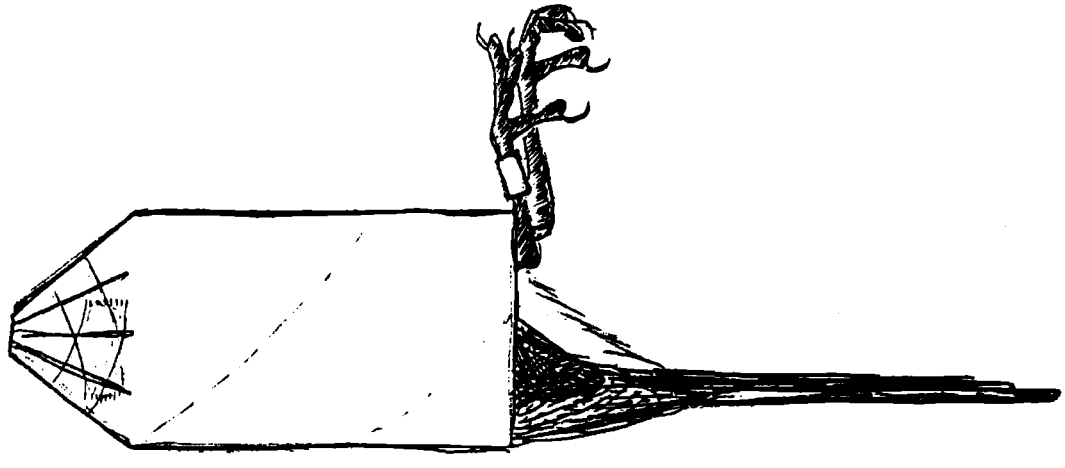


WHAT GOES AROUND–GETS CAUGHT!!

An improved trap for shrikes.

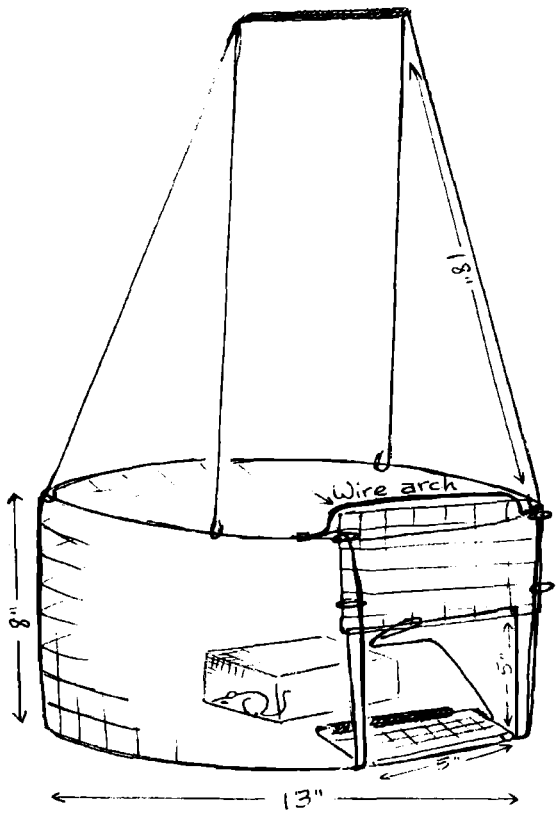
Several years ago I embarked on a Loggerhead Shrike (*Lanius ludovicianus*) banding project, investigating the survival rate of young shrikes in wintering populations. The key to this study is, of course, a successful trap. To capture the large numbers needed, I went to areas of winter concentration in Florida and Texas. Working from my car, placing the trap on roadsides, I started out using a square Potter trap with a small mouse in a bait cage in the center. While shrikes were readily attracted to the trap, many seemed unable to find the door, so they'd get frustrated and leave. Since my success rate was only around 60%, I decided to improve the trap.

Typical Potter traps are square. If for no other reason, they're square because they're made of square wire mesh, which is easier to form into sharp angles. However, when a bird comes to the corner of a square trap, what direction is it facing? It's facing *away* from the bait or food. This design flaw reduced my trapping success.

I decided to try a *round* trap, reasoning that since there were no corners to discourage the shrike, perhaps success could be improved. I made my first round trap of ½" x 1" wire, 8" high, 13" in diameter. The floor of the trap was made of ½" wire mesh (hardware cloth), and the top of 1" square wire mesh. I dismantled the entire 8" x 8" door assembly panel, including treadle, from a commercially purchased Potter trap, and incorporated that into the trap. The most difficult part of making this trap is forming the top and bottom from that square-meshed wire. Great care must be taken to sand off sharp edges left from the many wire cuts; I used thick nail polish painted on the cut wire ends to ensure safety to birds and bander. A long handle was added on top so I could place the trap from the car window. To protect the young mice used in this work, I made the mouse box (4"x 4" x 2" deep) from ¼" hardware cloth. (This design can be used as a feeder trap simply by removing the mouse box.) The entire assembly is spray-painted flat black.

The trap was a blazing success! If a shrike comes to the trap, chances of it being caught are >90%. The trap worked so well that I was able to capture and band over 400 shrikes in less than eight weeks.

Wrap handle with black electrical tape.



Small refinements have been added to further improve the design. Making the trap sides from 1" mesh prevents the captured shrike from scraping its forehead when it tries to escape (the head is poked completely through the wire). Prior to entering the trap, shrikes like to survey the situation; they often perch on top of the trap and door mechanism. To keep birds from prematurely triggering the drop mechanism, I added an arched wire perch over the door. Some shrikes choose to leap from outside the door straight onto the mouse box inside the cage, missing the treadle entirely. To encourage landing on the treadle, I created a "perch target" that mimics an item in the shrike's environment. I stripped the outer insulating sheath from a piece of wire (similar to the utility wires shrikes use as foraging perches), and secured the sheath to the distal edge of the treadle. This invites the shrike to a familiar perch.

The trap can also be fashioned from soft, wireless, 1" mesh plastic garden fencing available at many hardware and garden shops. (Fencing is sold in a roll of 25', 3' or 4' high, and can easily be cut with common scissors. Unfortunately, the success rate in the plastic trap is lower because the mesh is thicker and reduces bait visibility.) The plastic design needs reinforcing with wire hoops to maintain its shape, but can be knocked down flat for transport, then reassembled with twisties. It can be made to any size and height. Used for all parts of the trap (except the treadle mechanism), plastic eliminates the problem of sharp, cut wire edges. A trap of this material is lightweight, user friendly, and because it's soft, greatly reduces chances of bird injury.

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