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**Table 1. Recaptured
 Alder Flycatchers**

Band	Band Date	Location	Lat/Long	Recap Date	Location	Lat/Long
1830-95361	28 May 1993	Cedar Point Biol. Station, Keith Co., NE.	41° 12' N 101° 40' W	7 Aug 1993	College, AK	64° 30' N 147° 30' W
2390-83477	5 Jun 2001	Cottonwood Ranch, Phelps Co., NE	40° 40' N 99° 29' W	2 Aug 2001	Tok, AK	63° 21' N 143° 12' W

Using Knitting Needles to Hold Bands Open

I have been using knitting needles to hold bands open since first learning to band, approximately 25 years ago. I find it saves time, especially during the busy days of fall migration. We use Porzana pliers, that do not have a band opener, so having the bands pre-opened makes banding quick and efficient.

I spend time before the start of each banding season placing bands on needles. I add to them as needed during the course of the year, usually placing the bands on needles while relaxing in the evening. I always have the next string of bands on needles ready to go in case we finish a string of 100 during banding operations.

Aluminum needles are better to use than plastic or wood. It takes two long, straight knitting needles for each 100 set of bands from sizes 0A-1D. For band sizes 2 and 3 you will need two long and one short knitting needle. I don't place larger bands on needles as we use them infrequently. I also don't pre-open hummingbird bands.

Fifty bands will fit on one knitting needle for band sizes 0A-1D. I work backwards, starting with band number 00 through 51. I start the second needle with band number 50 and end with 1, so each needle is ready to go. For the smaller band sizes 0A through 1, I use my thumbs to push the band on the needle. With the band opening facing you and your thumbs on each side of the band, it doesn't take much pressure to push the band on the needle. Your hands will get dirty and you will probably end up with an indentation on your thumbnails, but a couple of swipes with an emery board over your nails should help. For larger bands, I use my old MacDonald pliers that have band openers. I open each band and place it on the needle. If the band is too loose, I use the pliers to tighten it. Tape is placed over the ends of each needle that displays needle size and then is marked with a sharpie pen denoting band size. Point protectors can be placed at the ends of needles when not in use so the bands will not fall off if they are loose for any reason.

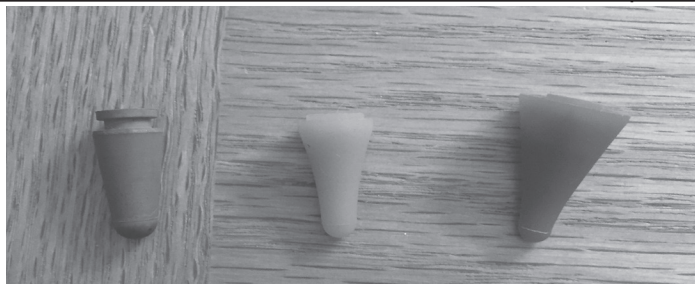


Fig. 1 Point protectors for ends of needles.

I use a block of wood with holes to hold the knitting needles during processing. The holes are drilled in at an angle with different size drill bits and are marked according to band size.

Fig. 2 Block of wood showing band sizes.

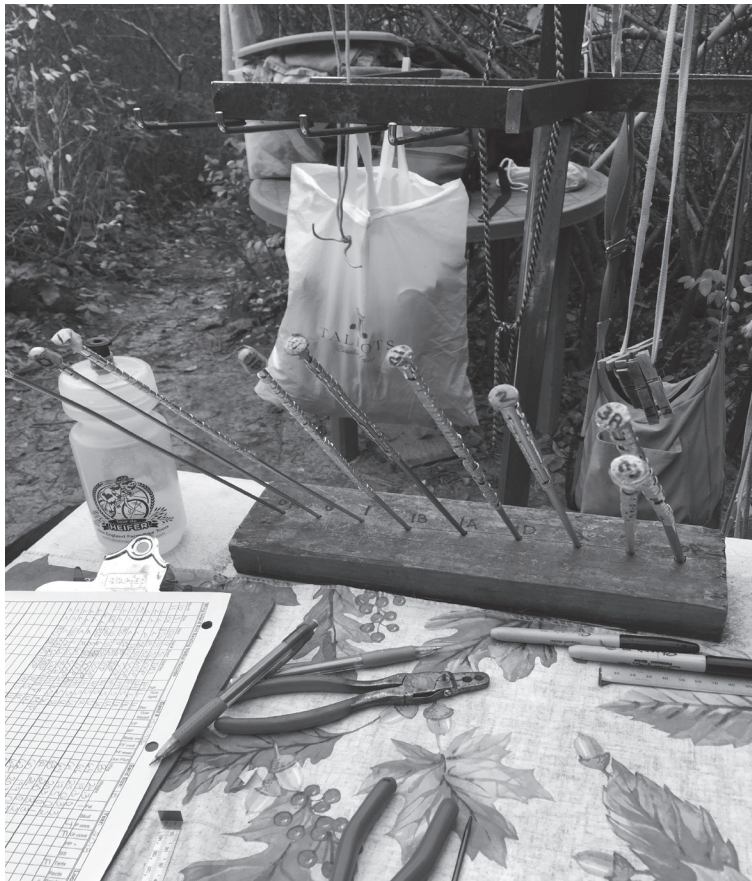


Fig. 3 Block of wood showing numbered needles.

The following table shows what size knitting needle is needed for each band size.

Band Needle Table

BAND SIZE	NEEDLE SIZE
0A	US 2
0	US 3
1	US 3
1B	US 4
1A	US 6
1D	US 7
2	US 9
3	US 10
3A	US 10.5

ACKNOWLEDGMENTS

Thank you to all the volunteers who helped place bands on knitting needles as it can be a tedious task! I also thank Mark Blazis, the Master Bander who trained me, for showing me the knitting needle technique.

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**Hatched With Hair
 or Born With Feathers**

One of my two pet peeves I have with my banders is when they refer to the feathers as fur. Interestingly enough, the wing feathers are still referred to as feathers, while the body feathers are referred to as fur or hair. The second is when they say “birds are born.” Birds are not born; they hatch. I have seen novice lay visitors, to seasoned birders, to Master Banders, make these mistakes.

So let us start with fur or hair vs feathers. Fur or hair is one of the unique characteristics that separate mammals from birds (and reptiles), along with a few other characters such as mammary glands (production of milk), a neocortex (part of the cerebral cortex), three middle ear bones (malleus, incus, stapes), plus a few lesser mentioned characteristics. Both birds and mammals are endothermic, producing body heat

internally. Both have a four chambered heart with the difference being in the aortic arch, and birds have a single ear bone. The unique characteristic of birds is feathers, while remembering flight is not unique to birds.

We then perpetuate this by talking about the ornate “hairdos” of some birds, e.g. Crowned Crane. Now some birds have hair-like feathers, called filoplumes, e.g. Crested Partridge. Kiwi feathers look like fur because the feathers lack the barbs that hold its shape. Hatchling birds look like they have fur from a distance, because the down feathers have no central rachis and few barbs. The Sand Grouse has hair-like extensions to their belly feathers to help trap water that it brings to its chicks. Then there are the hair-like rictal bristles found flycatchers. The bristles are feathers without vanes. So it seems that we use “hair” as a descriptive adjective for .. hairlike feathers.

Born vs hatch is a more complicated discussion. In general, for most mammals, the embryo is attached to the placental, develops inside the mother, and comes out (**born**, a process called **birth**) more or less a functioning organism. Such species are often referred to a being **viviparous** (to bear live young). This varies from **precocial** young such as chickens and deer to **altricial** young such as robins and humans. Precocial birds can see, run around, and feed themselves soon after hatching and possess a heavy coat of natal down feathers to keep warm. Altricial birds can not see, run around, or feed themselves, and naked; these birds require extensive parental care. Just consider humans who still need parental care after becoming an adult at 18 years.

Birds lay eggs. To most people, the egg is what we have for breakfast but is not quite the same as a human egg, which is usually called an ovum. The equivalent in birds is technically the yolk. This develops over the course of a few weeks and eventually the offspring **hatches** (breaking the eggshell and emerging from it). The analogy I used in my classes is that the shell is like a miniature pond, with enough space and resources for one chick. Such species are often referred to as being **oviparous** (egg laying).