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## Hatched With Hair or Born With Feathers

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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).

Nothing is ever neatly divided into two categories. We can not begin to describe the many variations on the theme that evolution has come up with. Some sharks bear live young, seemingly like a mammal. Fertilization in sharks is internal like birds and mammals. A leathery shell forms around the egg. In some sharks, the shelled egg is laid and development continues like in birds, *sans* incubation. In other sharks, the shelled egg is retained, develops, and hatches inside the female. A young shark emerges from the female, giving the impression of live birth as in mammals. The difference is that there is no placental attachment. We call this phenomenon **ovoviviparous**.

The point is that birds have feathers, not fur or hairs. And baby birds hatch and are not born. I make these points and correct my students, always remembering a quote by Confucius, "The beginning of wisdom is to call things by their right name."

Walter H. Sakai  
Thousand Oaks, CA



## *Eastern Regional News*

***Eastern Bird Banding Association***

***Founded 1923***

### **EBBA's Annual Meeting Summary for 2019**

Mist nets are an integral tool for capturing birds from almost every taxon including hummingbirds, passerines, raptors, shorebirds, and waterfowl. Whether delicate or robust, nets strung across the landscape afford researchers the opportunity to conduct investigations that can only be done in the hand. Working with mist nets is not the only net work that we do.

The 96<sup>th</sup> meeting of the Eastern Bird Banding Association was held in Rochester, NY, on 12 thru 14 April, with the theme of NetWork. Scientific sessions focused on the power of research networks to draw conclusions far surpassing the scope of a single bander working in isolation, the use of telemetry networks to understand bird movement, and the ability of individual banding stations to develop research, educational, and social collaborations.

The meeting opened Thursday evening with an Owl Banding demonstration at Braddock Bay Bird Observatory (BBBO), which was repeated on Friday and Saturday evenings. Forty Nine Northern Saw-whet Owls and one Barred Owl delighted attendees, several of whom banded their first owl.

Friday morning saw the Council meeting at the Braddock Bay Park, which also served as host for an open house at the Hawkwatch Platform. Just across the bay, BBBO held an open house and workshop for passerine banding, and Braddock Bay Raptor Research held an open house at its raptor banding station where attendees were thrilled to see a Northern Harrier trapped and banded.

On Friday afternoon, attendees convened at the Greece Canal Park for a series of informative workshops including *10 Gadgets You Never Knew*