
Bander's Forum

THE CASE FOR A SIZE 00 BAND

Few would disagree that our North American bird banding program should have a selection of band sizes suitable for use on all North American bird species. However, this is not the case.

Bird banders in Ontario have become concerned in recent years that the size 0 band, the smallest size generally available, is too large for a number of species specified as taking the size 0 band by the Bird Banding Manual (BBM) (Canadian Wildlife Service, 1984, North American bird banding, Vol. 1, Can. Wildl. Serv., Ottawa). In 1985, banders at Long Point Bird Observatory (LPBO) in Port Rowan, Ontario, stopped banding Blue-gray Gnatcatchers (*Poliptila caerulea*) when it became apparent that size 0 bands could literally fall off their legs. In 1986, LPBO also stopped banding Golden-crowned Kinglets (*Regulus satrapa*) when a number of individuals were retrapped and the bands had slid down over their feet. I have personally tested this phenomenon by applying a band to a Golden-crowned Kinglet and simply pulling it off. Whereas a band may fall off the smallest individual, causing no harm to the bird, the band can catch on and close over the foot of a larger individual, rendering its foot unusable. Clearly this is an unacceptable risk to take with any bird in the name of research.

The only alternative available to North American bird banders, short of not banding kinglets and gnatcatchers, is to use the size X band, with an internal diameter (ID) of 1.78 mm. True enough, the BBM does recommend this size as an alternative to the size 0 for all North American gnatcatchers, but because these bands must be cut to size, smoothed and shaped, they are not practical for banding large numbers of birds and require considerable expertise to apply properly.

A more realistic alternative would be to manufacture a smaller conventional bird band. An example of such a band is the British size AA. LPBO, while conducting band design experiments, has been able to compare the size 0 and the size AA bands. The size AA has an ID = 2.00 mm, whereas the ID for the size 0 = 2.11 mm. This difference may seem trivial, but the fit of the size AA is considerably better than the size 0 for Blue-gray Gnatcatcher, Golden-crowned Kinglet, Ruby-crowned Kinglet (*R. calendula*), many of the smaller wood warblers, e.g. Nashville Warbler (*Vermivora ruficapilla*) and American Redstart (*Setophaga ruticilla*), and the smaller flycatchers, e.g. Least Flycatcher (*Empidonax minimus*) and Eastern Wood-Pewee (*Contopus virens*).

This dramatically better fit can be explained by the fact that, in practice, the ID of the size 0 is not the 2.11 mm published in the BBM, but actually 2.19 mm. The desired ID of 2.11 mm could probably be achieved if a lighter gauge metal was used for the size 0. Currently, gauge 24 aluminum, 0.51 mm thick, is used to make the size 0. However, in Britain, metal of this gauge is not used until the equivalent of our size 2. Of course, this also means that the size 0 is considerably heavier than the size AA. The size 0 weighs an average 0.062 g (n=10), whereas the size AA weighs an average 0.038 g (n=10). Band weight is not an unreasonable factor to consider when dealing with 5 g birds. On such a bird, a size 0 is 1.24% of its body weight; the size AA, 0.76%. This is roughly analogous to the difference between a 165 lb. (75 kg) person carrying one versus two pounds on his ankle at all times. For flying creatures, the difference is probably highly significant.

In February 1987, the Ontario Bird Banding Association (OBBA) expressed these concerns to the U.S. Bird Banding Laboratory (BBL). The response was encouraging. The BBL acknowledged that they themselves had thought a smaller band would be desirable, although they were unaware that the size 0 could actually jeopardize the livelihood of birds such as the Golden-crowned Kinglet. A letter was to be sent to the band manufacturer to see if gauge 26 aluminum would be more appropriate for a 2.11 mm ID. Furthermore, there was a possibility that developing a size 00 would interest the manufacturer since there was also a potential market for a smaller band in South America. There was no manufacturer of smaller bands in South America and dozens of species for which they would be suited.

Two years later, in February 1989, no action had been taken on the issue and the OBBA contacted the BBL for an update. Officials at the BBL admitted that nothing had been accomplished and, frankly, that they did not wish to pursue the project any time in the near future. They regretted that, although a size 00 would be useful, it was not considered high priority, and the time, resources, and personnel necessary to develop it were not available. In lieu of manufacturing a size 00, the BBL said they would, at OBBA's recommendation, publish a caution to banders of kinglets and gnatcatchers about the use of size 0 bands in their next Memorandum To All Banders.

Unfortunately, this has not been done. Therefore, at this time, the OBBA recommends that banders of small species, such as Golden-crowned Kinglet, the smallest of

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female Ruby-crowned Kinglets, and gnatcatchers, exercise caution when using the size 0 band. In some cases, it may be prudent not to band a bird rather than risk endangering it. A few readers may feel that deliberately overlapping the band offers at least a short-term solution until a proper band can be designed. The BBM does not endorse this practice, and I would suggest that successfully overlapping a size 0 band on a bird the size of a kinglet is at best a chancy operation for even the most experienced of banders.

The OBBA believes that the North American bird banding program continues to prove itself a useful tool for research on the biology, movements, populations, and conservation of our birds. One step toward maximizing the ongoing potential of the program for the study of non-game species will be to design bands that do not put small passerines at risk. Advancements of this type may increase the likelihood of significant recoveries and recaptures by minimizing deleterious effects on banded birds. The end result would be twofold: enhancement of our research objectives and better realization of our ethical responsibility for the birds we handle.

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Atlantic Flyway Review: A Thing of the Past?

After a five-year analysis of weather, relative location, and net hours, we can only assume that weather, mainly cold fronts and nesting success are the determining factors on the numbers of birds banded. As for nesting success, it would seem that our continually growing people population is certainly cutting down on the necessary habitat in the Northeast.

Even though I do not live within the bounds of Region I, I am seeing a strong shift in our bird populations in an area that until two years ago was basically undeveloped. There has been quite a building explosion in the five-mile radius around us. All bird life seems to be altering their norm: Pileated Woodpeckers are drilling nesting holes less than

five feet from an active parking lot.; Turkey Vultures looking for food less than 20 feet from a residence. There are surprising changes in the small bird populations, also. I do not run nets because of my employment situation but do trap as time allows. This spring I have trapped and banded a Carolina Wren and a Pine Warbler with several of their kin feeding at the feeders.

During my ten years as editor of *NABB* (1975-1984), I was aware of a steady decrease in station reports throughout EBBA territory. As Region I coordinator since that time, I have found a startling drop in reporting stations from what was once the strongest reporting area in EBBA. This year we lost three more reports: one not reporting at all, one due to an abundance of neighborhood cats; and one due to not running the station. In recent correspondence from Appledore Island's reporter David Holmes, I understand this excellent reporting station is closing because of the permit not being renewed.

It would appear that the Atlantic Flyway Review is going to become a thing of the past. What a shame, for this was the child of "Operation Recovery" started by Chan Robbins many years ago.

Is monitoring our bird populations no longer an essential part of sincere research; a part of keeping track of what is really happening to our world? My question to banders and to the BBL: Is it not now perhaps more important to keep a thumb on all that we can to really comprehend what may be coming by the year 2000?

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