

BANDING TECHNIQUE FOR SMALL NESTLING PASSERINES

R. GIVEN HARPER AND ANDREW J. NEILL

*Ecology Group
Department of Biological Sciences
Illinois State University
Normal, Illinois 61761 USA*

Abstract.—We describe a method for marking nestling passerines with colored bands made from small, readily-available plastic straws. The plastic bands were flexible and expanded as the legs grew, allowing identification of 95% of 781 nestling House Wrens (*Troglodytes aedon*) until they were large enough to be banded with aluminum U.S. Fish and Wildlife Service bands.

TÉCNICAS PARA ANILLAR PICHONES PEQUEÑOS DE PASSERIFORMES

Sínosis.—Se describe un método para marcar pichones pequeños de Passeriformes, utilizando anillas construidas con sorbedores plásticos. La flexibilidad de las anillas plásticas permitió que estas se estiraran a la par con el crecimiento de la pata de polluelos de *Troglodytes aedon*. Esto permitió la identificación del 95% de los polluelos ($n = 781$) previo a que su tamaño permitiera el uso de anillas de aluminio provistas por el Servicio de Pesca y Vida Silvestre.

Several methods have been proposed for marking nestling birds so that individuals can be recognized: pressure sensitive tape attached around tarsi (Johnson 1971), abdomens tattooed with India ink (Ricklefs 1973), clipped toenails (Murphy 1981, St. Louis et al. 1989), and sewing thread tied around tarsi (Oniki 1981). However, these methods are either time consuming or involve procedures that may affect the nestling (but see St. Louis et al. 1989); we judged them undesirable for use in our studies of nestling House Wrens (*Troglodytes aedon*). Here we describe a simple, efficient method that allows identification of individual nestlings until they are old enough to be banded with a U.S. Fish and Wildlife Service band.

We made bands from colored, plastic straws, which we cut along their long axes with a razor blade and into approximate 3 mm lengths. The "cocktail" stirrer straws, which are readily available in liquor stores and restaurant supply outlets, were 125 mm in length and approximately 3 mm in diameter. We used the same technique and tool in placing the band around the tarsometatarsus of each nestling as is used in color-banding adults. On the smallest nestlings (1.4 g) we placed bands around the tibiotarsus instead of the tarsometatarsus. We rolled the bands between our thumb and forefinger before placing them on nestlings, thereby increasing the overlap of the ends of bands and allowing for a better fit on the nestling's leg. Bands were flexible and expanded as legs grew.

We plastic-banded nestling wrens four days after the first nestling in the brood had hatched. We obtained only two band colors (blue, red) in 1988, and used a maximum of three bands per nestling. In 1989 we obtained twelve band colors (blue, brown, clear/blue stripe, green, mauve,

orange, tan, white, white/blue stripe, white/gold stripe, white/green stripe, white/red stripe) and used a maximum of two identically colored bands per nestling. Bands were easily removed by slipping them over the nestlings' feet five days later when they were banded with U.S. Fish and Wildlife Service aluminum bands. The band retention rate was 91.3% (451 of 494) in 1988 and 84.3% (733 of 870) in 1989. The lower retention rate in 1989 may have been caused by some straws that had slightly larger diameters and lower elasticity. We identified 95.1% of 346 plastic-banded nestlings in 1988, and 95.2% of 435 nestlings in 1989.

We recorded three possible band-related injuries in 1988. Two nestlings had a broken tarsometatarsus and one had a broken hallux. The former may have happened when the bands were placed on the legs, whereas the latter was caused when one band slipped and overlapped another, thus constricting the digits. A band constricted the tibiotarsus of one nestling in 1989.

ACKNOWLEDGMENTS

We thank Charles F. Thompson and Nancy E. Drilling for critically reading a draft of this manuscript. This technique was developed while conducting research supported by NSF grant BSR 8615296 to C. F. Thompson.

LITERATURE CITED

- JOHNSON, S. R. 1971. A colored leg tag for nestling and adult birds. *Bird-Banding* 42: 129-131.
- MURPHY, M. T. 1981. Growth and aging of nestling Eastern Kingbirds and Eastern Phoebes. *J. Field Ornithol.* 52:309-316.
- ONIKI, Y. 1981. Individual recognition of nestlings. *J. Field Ornithol.* 52:147-148.
- RICKLEFS, R. E. 1973. Tattooing nestlings for individual recognition. *Bird-Banding* 44:63.
- ST. LOUIS, V., J. C. BARLOW, AND J-P. R. A. SWEERTS. 1989. Toenail-clipping: a simple technique for marking individual nidicolous chicks. *J. Field Ornithol.* 60:211-215.

Received 22 Dec. 1988; accepted 9 Sep. 1989.