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AN INEXPENSIVE SOURCE OF COLORED LEG BANDS

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Abstract.—Hobby beads, widely available through toy and hobby stores, make excellent colored leg bands for avian field studies. The bands are inexpensive, easy to apply, colorfast and durable. The major limitation of this source of bands is that only two sizes are available.

UNA FUENTE DE BAJO COSTO PARA ANILLAR AVES

Sinopsis.—Los abalorios, que son tan fáciles de conseguir en tiendas como las de juguetes, son una fuente excelente para anillar aves en las patas. Estas cuentas, son de bajo costo, fáciles de colorear y colocar, y de gran durabilidad. La limitación mayor de esta fuente, es que tan solo se consiguen en dos tamaños.

Applying plastic colored bands to the tarsi of birds so that individuals can be distinguished is a standard technique in both field and aviary studies (Spencer 1978). Commercially available color bands are expensive, require lead time for ordering and shipping and, depending on the quality of manufacturing, can fade, wear or be removed by birds. For these reasons, many researchers cut their own bands from sheets of darvic (a durable, color-fast plastic), but this approach is time consuming and darvic is expensive and difficult to obtain (Spencer 1978).

In a study of a breeding population of House Finches (*Carpodacus mexicanus*) in southeastern Michigan (Hill 1990, 1991), I used hobby beads as colored leg bands. Hobby beads, which are fused together with heat to create decorative patterns, are widely available through hobby and toy stores in the U.S. and Canada. Several companies manufacture hobby beads, but the bands that I describe in this paper are made by Perler Beads® (a division of Novacon Corp., Santa Rosa, California). Hobby beads come in a variety of colors including red, orange, yellow, green, light green, blue, light blue, purple, pink, black, white, gray and brown plus a variety of fluorescent, translucent and glittery styles. They are easily split open with a safety razor and then slipped over a bird's leg with a standard applicator for split-ring (butt-end) bands.

I banded House Finches with wrap-around bands ordered through the National Band and Tag Company (Newport, KY; hereafter NBT) for 1 yr and hobby beads for three subsequent years. As of 1991, wrap-around bands cost approximately $0.07/band (US); hobby beads cost approximately $0.002/band; and split-ring bands from A. C. Hughes (Hampton Hill, Middlesex, UK), not used in my field studies with House Finches but discussed below, cost approximately $0.14/band. The hobby beads were thicker-walled, making them wider and consequently easier to see in the field than properly fitted wrap-around bands (verified by field assistants), and they were faster and easier to apply. Hobby beads

were removed by birds less frequently than wrap-around bands [0.3% of bands (n = 330) lost per year for hobby beads vs 3.1% bands (n = 228) lost per year for wrap-around bands ($\chi^2 = 7.31$, $P < 0.007$)], and their colors were more resistant to wear.

To test this last claim, I attached a string with yellow, red and blue wrap-around bands from NBT, red, orange, yellow, green, light green, blue, purple, pink, black and brown hobby beads, and a red split-ring band from Hughes to a south-facing wall of a roof aviary on the University of Michigan campus, Ann Arbor. After approximately 1 yr the red band from Hughes had faded to dull pink and the yellow band from NBT had faded to pale yellow, but only the pink hobby bead showed any sign of fading. Over the next 2 yr the red Hughes band, the yellow NBT band, and the pink hobby bead faded to tan, but none of the other bands or beads showed any significant sign of fading. Field observations confirmed this experiment. Red and yellow bands from Hughes (observed in a separate field study; Hill 1988a,b) and yellow bands from NBT faded to pale pink or yellow after 1 yr, but all of the hobby bead colors resisted fading except pink, which faded to tan after about 2 yr on wild House Finches.

Hobby beads spring shut when applied to the leg of a bird. For field studies, I sealed the seam of bands with super glue, but sealing may have been unnecessary. In March 1989, as part of an aviary dominance study I banded 12 male House Finches each with three hobby beads that were applied without glue. Seven months later all of the males still wore three bands each. In addition, in 1989 I banded a wild female House Finch with three hobby beads applied without glue. When recaptured 10 mo later, this female still wore all three bands. If glue is used, I recommend the super glue gel now marketed by several companies over conventional super glue, as the former is much easier to apply.

A major limitation of hobby beads is that they come in only two sizes. Standard hobby beads, as were used in my field study, have an inside diameter of 2.5 mm and are suitable for species that require size 1 or 1B USFWS bands. A larger bead size, "baby beads," is also available. These larger beads have an inside diameter of 5.8 mm and are suitable for birds that require size 3A or 4 USFWS bands. "Baby beads" are much less widely available than standard beads and, unlike standard beads, I have found them sold only in sets of mixed colors. "Baby beads" cost approximately $0.01/band.

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EC CASH THREAT TO EUROPE'S MOST SPECTACULAR BIRD —UK GOVERNMENT MUST ACT

EC funded projects to irrigate vast areas of farmland in the Spanish steppes are threatening Europe's most spectacular bird, the globally threatened Great Bustard, with extinction.

The British Government's Presidency of the EC, starting on 1 July, means UK Ministers must take a lead in ensuring the EC schemes do not cause the Great Bustard to disappear forever. The steppes are also important for two other globally threatened birds, Little Bustard and Lesser Kestrel, and many that are seriously declining.

Many farmers in the steppes strongly oppose the irrigation schemes, which require them to invest substantial amounts of money, but seldom result in sufficient increases in crop yield to be economically viable.

The irrigation projects are also against EC law. Under the EC Wild Birds Directive, the most important areas for birds listed on Annex 1 of the Directive must be protected. The annex includes at least 15 species that regularly occur on the Spanish steppes, including all three species mentioned above. Irrigation is also unsustainable, as the water tables to be tapped will not withstand exploitation.

The International Council for Bird Preservation (ICBP), working with the Spanish Ornithological Society (SEO) and with technical help from the Royal Society for the Protection of Birds (RSPB), is launching a Spanish Steppes Appeal calling for the irrigation schemes to be cancelled, and Environmentally Sensitive Areas (ESAs) to be established in the most important steppe regions. ESAs would provide subsidies for farming in the traditional non-intensive way, and would allow the birds to flourish. Local farming communities fully support the ESA proposals.

Dr. Graham Tucker of ICBP said, "We are horrified that British taxpayers' money is being used to destroy one of the continent's most important, and most rapidly declining, wildlife habitats. The British Government must take advantage of the UK Presidency of the EC to highlight this issue, and press for immediate action."

Film of Great Bustard is available "down the line" (free of rights costs).
Contact Anglia TV West Newsdesk, (0603) 615151.
The Great Bustard's amazing call is available on CD or cassette (free of rights costs).
Contact Duncan Macdonald at Wildsounds, (0932) 350444.
For further information and pictures, contact Georgina Green (0223) 277318.