Letter

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Readability of Anodized Aluminum Bands versus Plastic Darvic Bands on Striated Caracaras in the Falkland Islands (Malvinas)

Micky Reeves
Falklands Conservation, Jubilee Villas, Stanley, Falkland Islands

Melissa M. Bobowski
Acopian Center for Conservation Learning, Hawk Mountain Sanctuary, 410 Summer Valley Road, Orwigsburg, PA 17961 U.S.A.

Marc J. Bechard
Department of Biology, Boise State University, Boise, ID 83725 U.S.A.

David R. Barber and Keith L. Bildstein
Acopian Center for Conservation Learning, Hawk Mountain Sanctuary, 410 Summer Valley Road, Orwigsburg, PA 17961 U.S.A.

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Bird banding has played a critical role in helping biologists understand the movement ecology and demographics of raptors for almost a hundred years (Thomson 1926, Bildstein 2006). Color-banding, too, has made significant contributions to the field (Varland et al. 2007). Longevity records for banded raptors demonstrate that traditional aluminum bands can remain readable, at least in-hand, for decades (Klimkiewicz and Futcher 1989). Little published information, however, exists on color-band wear and loss.

Many researchers (see Varland et al. 2007 for review) have used colored metal bands with alphanumeric codes successfully on raptors. In many cases, the bands have been engraved anodized aluminum bands manufactured by Acraft Sign and Nameplate Co., Ltd., of Edmonton, AB, Canada (Varland et al. 2007). In general, reports to the U.S. Bird Banding Lab by raptor researchers indicate that these bands have proved to be both durable and colorfast on most raptors. Exceptions include reports of considerable wear in anodized color bands fitted (1) on Galapagos Hawks (Buteo galapagoensis) on Santiago Island in the Galapagos, where abrasion by lava rocks rendered many bands unreadable within 4–5 yr (K. Levenstein pers. comm. in Varland et al. 2007), and (2) on Northern Crested Caracaras (Caracara cheriway) in central Florida (J. Morrison pers. comm.), where these bands were used in studies of breeding-site fidelity and species survival (Morrison 1999 and 2005). In addition, a report involving Common Ravens (Corvus corax) banded in and around Jackson Hole, WY (Bedrosian and Craighead 2007), indicated both rapid wear and color loss on anodized aluminum bands that compromised their readability in as few as 9 mo. In this instance, rapid band wear was attributed to the birds' spending a large part of their time walking on the ground across abrasive substrates including "glacial sand, talus rock, river beds and ice" (Bedrosian and Craighead 2007). Overall, reports suggest that band wear, including anodized aluminum bands, is more common among birds that feed in and around water, particularly if the water is brackish or marine, where the rapid corrosion of aluminum is more prevalent (c.f., Poulding 1954, Hatch and Nisbet 1983, Jehl 1990).

Here we report on our experiences using alphanumeric-coded anodized aluminum bands and plastic Darvic bands on Striated Caracaras (Phalcoboenus australis), the raptor with the most southerly distribution in the world (Ferguson-Lees and Christie 2001). Striated Caracaras are opportunistic scavenging and occasionally predatory raptors that spend most of the time on the ground in treeless coastal habitats in the Falkland Islands, and Tierra del Fuego (Strange 1996, Meiburg 2006, Catry et al. 2008, Rexer-Huber and Bildstein 2014). With an estimated global population in the low thousands, the Striated Caracara is considered globally Near Threatened (BirdLife International 2015).

One goal of our long-term studies has been to band at least 75% of the overall population of Striated Caracaras on four small islands in the Falklands to better understand the species' feeding and movement ecology and social behavior. Given that one banded Striated Caracara lived for 16 yr in the wild in the Falklands and that captive birds have lived for 28 yr (Strange 1996), we wanted our bands to be readable for at least 15–20 yr.

Eight Striated Caracaras were fitted with anodized aluminum bands in August 2010, eight were banded in December 2010, and an additional 98 were banded in July–August

1Email address: bildstein@hawkmtn.org