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Nota Científica
(*Short Communication*)

**A RED-TAILED HAWK WITH AN ABNORMAL BILL, A
NOTEWORTHY RECORD IN BAJA CALIFORNIA SUR,
MEXICO**

Tinajero, R. & R. Rodríguez-Estrella. 2011. Halcón cola roja con pico anormal, un registro notable para Baja California Sur, México. *Acta Zoológica Mexicana* (n. s.), 27(3): 825-828.

RESUMEN. Reportamos el primer registro en México de un individuo de Halcón cola roja con un pico anormal observado en Baja California Sur. Este individuo joven se fotografió en marzo de 2008. Desconocemos si se trata de un individuo migratorio o residente debido a que existen individuos de ambas categorías en el área. Nuestro registro contribuye al conocimiento de anomalías en el pico de las aves, lo que puede deberse tanto a problemas genéticos como ambientales.

Bill abnormalities are developmental problems in birds that may be associated with genetic, somatic, and environmental problems. The developmental elongation may result from disease and injuries (Pomeroy 1962, Gochfeld 1975, Collen *et al.* 2010, Pourlis 2011) but beak deformities have also been associated with exposure to contaminants (Gilbertson *et al.* 1991, Craves 1994, Van Hemert 2007, Collen *et al.* 2010). Beak deformities in Alaska have been reported for 30 species, with most of the records for passerine species (Van Hemert 2007, Collen *et al.* 2010). Fewer beak abnormalities have been reported for raptors. In Bald Eagles (Gilberston *et al.* 1991, Bowerman *et al.* 1994, Collen *et al.* 2010), Peregrine Falcons (Collen *et al.* 2010), and American Kestrels (Fernie *et al.* 2003, Collen *et al.* 2010) bill abnormalities have been related to the effect of contaminants. Anecdotic records have also been reported for the Osprey and Red-tailed Hawk (Eltzroth 1996). In this note, we present one record of a deformed bill in a Red-tailed Hawk in Mexico. When we were making our monthly raptor surveys, a juvenile Red-tailed Hawk (*Buteo jamaicensis*) was observed on 30 March 2008 at 19.5-km north of Ciudad Constitución (25°12'21''N; 111°41'41''W) in the central part of the state of Baja California Sur, México. The bird was observed at a distance of 15 m by using 10 × 40 binoculars. The relative age of the Red-tailed

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Hawk was identified through size, head shape, color characteristics, and the pattern of spots in the breast and lower part of the body (Clark & Wheeler 2001). This Red-tailed Hawk had the upper mandible curved to the right of the lower mandible that was abnormally elongated (Fig. 1). The Red-tailed Hawk preys mainly on mammals (voles, mice, wood rats, rabbits, jack rabbits, ground squirrels) but can also prey on birds and eat carrion (Preston & Beane 1993). The capture and consumption of these kinds of prey require certain skills and abilities of the predator but also the proper working of anatomical features such as the bill. The handling of the food by birds with bill deformities may cause a functional limitation (Van Hemert & Hallen 2010). Bill deformities may also prevent the bird having a defense against ectoparasites (Clayton *et al.* 2005) that may produce a decrease in its health condition. Functional limitations and decreasing health condition can affect survival, which may be the reason that bill abnormalities are uncommon in wild birds, with a frequency estimate of less than 0.5% (Pomeroy 1962). Thus, we believe that this abnormality has not significantly affected the hunting and feeding abilities of this juvenile Red-tailed hawk



Figura 1. Juvenile Red-tailed Hawk with an abnormal bill.

because it has survived apparently healthy to the age we recorded. This contrasts with other birds where the abnormality of the bill may increase the mortality rate and lead to the death of the bird (see van Hemet 2007, Marti *et al.* 2008).

The distribution of Red-tailed Hawks ranges from northern Canada and central Alaska to the south of Panama (Preston & Beane 1993). Resident and wintering populations of the Red-tailed Hawk have been recorded in the Baja California peninsula (Rodríguez-Estrella *et al.* 1998). In our study area we have recorded the species during all monthly raptors surveys. Thus, we are not certain that our record corresponds to a resident or a migrant, vagrant bird.

The causes of the bill abnormality in this individual are unknown but our record increases the knowledge on the presence of development deformities in raptors. This is important for future monitoring because an increase in the incidence of abnormal bills in raptors could indicate environmental toxicological problems in resident areas.

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