

Nota Científica
(*Short Communication*)

**FIRST RECORD OF THE CRESTED GUAN
(*PENELOPE PURPURASCENS*)
IN THE STATE OF GUANAJUATO, MEXICO**

Bolaños Martínez R., V. Sánchez-Cordero, M. A. Gurrola Hidalgo, J. A. Iglesias Hernández, G. E. Magaña-Cota & F. J. Botello López. 2010. Primer registro de la cojolita (*Penelope purpurascens*) en el estado de Guanajuato, México. *Acta Zoologica Mexicana* (n.s.), 26(1): 237-241.

RESUMEN. Aquí se informa sobre el registro de la cojolita en la Reserva de Biosfera Sierra Gorda de Guanajuato, el cual es el registro más central para esa latitud y el primero para el estado. Esta especie fue registrada fotográficamente en un bosque de encino. La presencia de esta especie enfatiza la necesidad de continuar realizando inventarios biológicos en esta Reserva de la Biosfera.

The Crested Guan (*Penelope purpurascens* Wagler 1830) is a large (1620 – 2430 g) and conspicuous bird, occurring from Mexico to Colombia and Venezuela (del Hoyo 1994). It has diurnal habits and it feeds mostly on fruit and berries, reason why it is considered an important seed disperser (Delacour & Amadon 1973). In Mexico, the Crested Guan ranges along the tropical regions, including the lowlands along the Gulf of Mexico, the Pacific coast, and the Yucatan Peninsula (Fig. 1, Ridgely *et al.* 2007). Usually it has been recorded in tropical rain forest and tropical deciduous forest below 1000 masl, although it can be found occasionally up to 3000 masl (del Hoyo 1994). In Mexico it has been recorded from coast to the highlands; for example, in Guerrero there is a record below 200 masl (eBird 2008), in Nayarit there is a record above 1000 masl (Espinosa 2000) and in Jalisco it has been recorded near 3000 masl (eBird 2005). The Crested Guan was hunted for subsistence in Mexico (Toledo 2008), but now is protected, and it has been included in the Mexican endangered species list (SEMARNAT 2002).

The study site is located at El Platanal, Municipality of Xichu, at the northeastern boundary of the Sierra Gorda of Guanajuato Biosphere Reserve (SGGBR), in the state of Guanajuato. This reserve has an extent of 236,882 ha, and it was decreed in February 2007 (Diario Oficial de la Federación 2007). It is located adjacent to the states of Queretaro (Sierra Gorda Biosphere Reserve) and San Luis Potosi (Fig.1).

The Platanal, has an altitudinal range between 700 and 2000 masl (field data; this work), and it presents a semi arid climate, temperate, with summer rainfall (BS₁hw), and a semi arid climate, warm, with summer rainy (BS₁h'(h)w(w)). The vegetation is dominated by tropical deciduous forest at the lower riverbed adjacent to the Santa

María as well as in surrounding ravines and canyons, changing towards the upper parts for submontane scrub and oak-pine forest (Carranza 2005), which could represent a suitable habitat for the Crested Guan, for its arboreal preferences (Pacheco 1994; González-García 2001).

On November 1st 2007, we established a plot of 7 x 7 km² with 49 quadrants of 1 km² (21°27'30" N, 99°53'30" W to 21°24'00"N, 99°49'30" W), for a general biodiversity survey. Seven camera-traps were placed in seven of the quadrants for 50 consecutive days. On January 2008, six additional cameras were placed in six additional quadrants, totaling 13 camera-traps (Analog Stealth Cam 35 mm with color film), totaling 2016 trap-nights.

We recorded a single picture of the Crested Guan on May 18 2008, at 1960 masl, in oak forest (21°24'53.5" N, 99°51'17.7" W, Colección de Fotocolectas Biológicas, Catalogue number: IBUNAM-CFB-4001; see Botello *et al.* 2007; Figs. 1 and 2).

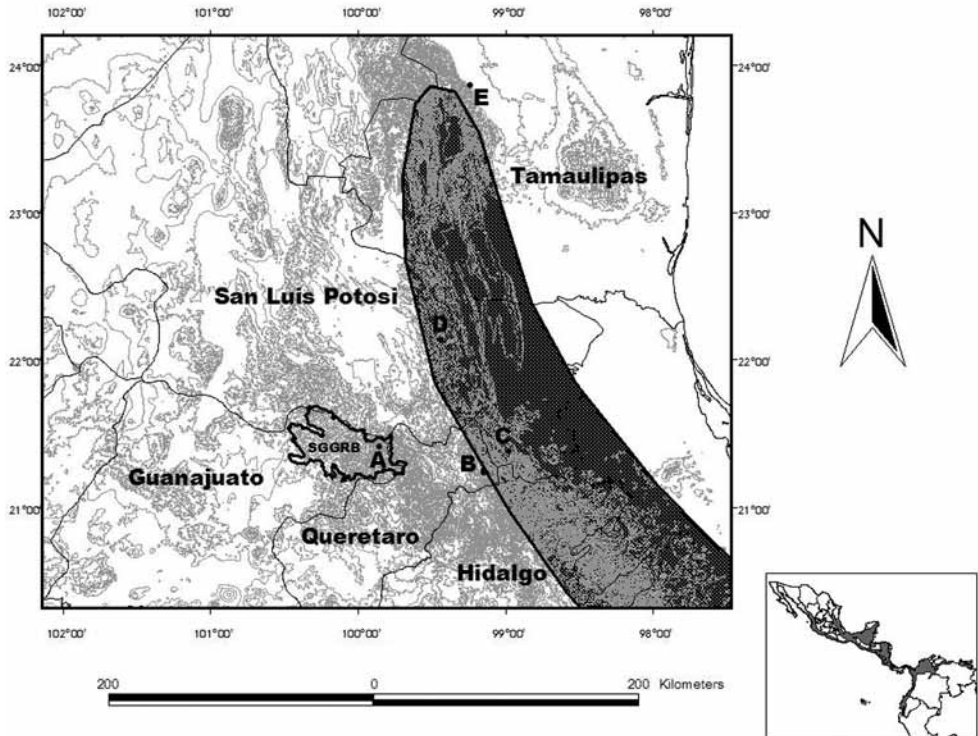


Figure 1. The known distribution of *Penelope purpurascens* in central Mexico (dark gray; Ridgely *et al.* 2007) and the recent records: El Platanal (A; this work); La Joya del Cedro, (B; *Eitmiiear* 2000; González 2008); San Rafael, Xilitla, (C; Juárez 2008); San Nicolás de los Montes, Tamasopo, (D; Vargas 2006); Cañon del Tigre (E; Brush 2009).

Additionally, on 10 June 2008, we observed a group of three guans a few meters from the monitoring station, which confirms, on different dates, the presence of more than one individual of this species in the area. These records constitute the first evidence of the presence of Crested Guan in the state of Guanajuato, expanding its known distribution, and constituting the most inland record at this latitude (Ridgely *et al.* 2007). The nearest record of Crested Guan in the region (80.62 km away) was made in the locality La Joya del Cedro (21°15'05" N, 99°09'01" W), in the Queretaro State (Eitnien *et al.* 2000; Fig 1), and the most recent record in that locality was made on February 2008 (González 2008; Fig 1).

Near Guanajuato, in the state of San Luis Potosí, the Crested Guan was observed in the locality of San Nicolás de los Montes in the municipality Tamasopo (Vargas 2006; Fig 1) and the community of San Rafael in the municipality of Xilitla (Juárez 2008; Fig 1). Another recent observation near Guanajuato was recorded in Cañón del Tigre, Tamaulipas (Brush 2009; Fig 1).



Figure 2. Picture of the Crested Guan *Penelope purpurascens* taken with a camera-trap in an oak forest at the Sierra Gorda of Guanajuato Biosphere Reserve.

The Crested Guan has been documented to be an effective seed disperser, with 50% of the seeds dispersed moved > 40 m from the parental plant (Howe 1993). For these reasons, the presence of the Crested Guan is important to the ecological integrity of the SGGBR. The Crested Guan, like all cracids, is negatively affected by hunting and habitat transformation (Strahl & Grajal 1991; Urquiza-Haas *et al.* 2009). Thus, this new record confirms the urgency to do extensive biological surveys looking for the actual distribution and size population of the Crested Guan in the region, and emphasizes the importance of maintaining this reserve under adequate conservation and management practices (Strahl & Grajal 1991).

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