

## A NEST OF THE CAPE PYGMY-OWL (*GLAUCIDIUM GNOMA HOSKINSII*)

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**ABSTRACT:** No nest of the Cape Pygmy-Owl (*Glaucidium gnoma hoskinsii*) has been reported previously. Therefore, it is of value to put on record the observation of a nest in a cavity in a Mexican fan palm (*Washingtonia robusta*) at an elevation of 360 m near the east base of the Sierra de la Laguna in the cape region of Baja California Sur, Mexico. The nest had at least one young near fledging on 28 May 2023. Prey carried to the nestlings included small lizards.

The Cape Pygmy-Owl (*Glaucidium gnoma hoskinsii*), endemic to Baja California Sur, Mexico, was first described by Brewster (1888) on the basis of three specimens collected in the Sierra de la Laguna. This subspecies closely resembles *G. g. californicum* but is distinguished by its smaller size and grayer coloration (Brewster 1888). A distinctive feature of this subspecies is its vocalization, which consists of simple, evenly spaced, and prolonged notes (pers. obs.).

The Cape Pygmy-Owl has been documented inhabiting the highlands and slopes of the Sierra de la Laguna (Brewster 1902), primarily in pine-oak forests. Nevertheless, it has been reported as far north as Rancho Agua Grande (26.5125° N, 112.1311° W), Baja California Sur, an area characterized by xerophytic scrub vegetation (Nelson 1921). Its presence in central Baja California Sur has been confirmed multiple times, with sightings of two individuals at San Javier (22 March 2022, <https://ebird.org/checklist/S106242702>) and two at Comondú (21 June 2024, <https://ebird.org/checklist/S185961631>), as well as recurrent observations in 2014 and 2023 at El Bosque (24.8364° N, 110.7790° W).

Although Rodríguez-Estrella (1988) reported that the species is most abundant in the pine-oak forests of the Sierra de la Laguna, observations conducted over 10 months between 2018 and 2019 (Marrón unpubl. data) suggest that its abundance is greatest in tropical dry forests and oak woodlands. Additionally, records from areas south of La Paz indicate that the species is not strictly confined to forested habitats, as it can also thrive in xerophytic scrub, particularly in tree-dense canyons and hilly areas.

Regarding the reproduction of this endemic subspecies, little is known besides the fact that its vocal activity intensifies between May and June (pers. obs.). In the 135 years since this subspecies was first described, no nests have ever been reported. In this paper, we present the first documentation of nesting of the Cape Pygmy-Owl.

In 2023, Flores observed a nest at Rancho El Chinal (23.5497° N, 109.8213° W), located in the municipality of Los Cabos, within the Cape Tropical Scrub ecoregion (González-Abraham et al. 2010). This ecoregion is characterized by annual precipitation below 200 mm, resulting primarily from sporadic tropical storms. The landscape is dominated by sarcocaulescent scrub, consisting of semi-succulent plants such as the Little-leaf Elephant Tree (*Bursera microphylla*), Ashy Limber Bush (*Jatropha cinerea*), and Cape Wild Plum (*Cyrtocarpa edulis*). It also includes tree-like species such as the Rock Fig (*Ficus petiolaris*), Mexican Ebony (*Havardia mexicana*), and

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Baja California Jopoy (*Esenbeckia flava*), along with various cacti, including Etcho (*Pachycereus pecten-aboriginum*), Cardón (*P. pringlei*), and Baja California Cholla (*Cylindropuntia cholla*) (González-Abraham et al. 2010).

On 2 April 2023, Flores observed an adult Cape Pygmy-Owl perched in a Brandegee Oak (*Quercus brandegeei*), where it hunted and fed on a Black-tailed Tree Lizard (*Urosaurus nigricauda*). Later, on 13 May, at the same location, he observed a Cape Pygmy-Owl feeding on an Orange-throated Whiptail (*Aspidoscelis hyperythrus*), which it carried to a cavity 4 meters high in a Mexican Fan Palm (*Washingtonia robusta*). After approximately 1 minute, the owl emerged from the cavity and perched in a Mexican Ebony, where it emitted alarm calls.

On 28 May, Flores observed a Cape Pygmy-Owl chick peeking out from the cavity of the Mexican Fan Palm (Figure 1), while an adult emitted alarm calls from a nearby Brandegee Oak.

In the same area, in April 2020, Flores recorded a pair of Cape Pygmy-Owls engaging in courtship while feeding on an Orange-throated Whiptail. Additionally, in February 2022, he observed an individual perched in a Mexican Ebony. These records suggest that Cape Pygmy-Owls may use the same palm tree for nesting year after year, implying potential reproductive philopatry.

Courtship and pair formation in other subspecies of the Northern Pygmy-Owl (*G. gnoma*) have been documented between February and June (Deshler 2023), aligning with the courtship observed in April 2020. Similarly, the nesting and incubation period, which peaks between April and June (Deshler 2023), is consistent with the timing recorded for the subspecies *hoskinsii*.

Regarding nesting substrates, the Northern Pygmy-Owl is a secondary cavity nester, preferring softwood species (Deshler 2023). Therefore, a particularly suitable substrate to search for additional nests in the region could be Brandegee's Poplar (*Populus brandegeei*), found along the streams of Sierra de la Laguna (Rebman and Roberts 2012). In the range of *Glaucidium gnoma hoskinsii*, the Gilded Flicker (*Colaptes chrysoides*) and Gila Woodpecker (*Melanerpes uropygialis*) are likely to be the



FIGURE 1. Cape Pygmy-Owl (*Glaucidium gnoma hoskinsii*) chick peeking out from its nest in a Mexican Fan Palm (*Washingtonia robusta*).

Photo by Osiel Flores

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species responsible for excavating the cavities the owl uses. In Baja California Sur, both of these woodpeckers are widespread and common in all habitats with trees.

Only one chick was observed, though this does not necessarily mean it was the only one in the nest, as the species typically lays between 3 and 7 eggs, with a minimum of 2 and a maximum of 8 (Deshler 2023). In Oregon, Deshler (2021) reported an average reproductive success rate of 85%, although the study showed variability: in some years, all the chicks survived, while in others, only half or none reached the fledgling stage. This suggests that reproductive success rates can vary significantly with annual variation in conditions. In Baja California Sur, because of the arid climate (Coria 1997), it is likely that both clutch size and hatching and fledging success are lower, with a higher frequency of nesting failures.

These observations of the Cape Pygmy-Owl provide valuable insights into its reproductive biology, behavior, and habitat use. These findings not only enhance our understanding of the subspecies and its ecology but also emphasize the urgent need for continued research and monitoring to address existing knowledge gaps. Given that this subspecies is considered threatened (SEMARNAT 2010) and occupies a region of extreme environmental conditions (Coria 1997), it is crucial that any conservation and management strategies be grounded in robust scientific data. Protecting the Cape Pygmy-Owl's habitats and conserving its populations are vital to ensuring its long-term survival.

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