

1 A NEW RECORD OF NORTHERN GHOST BAT (*Diclidurus albus*,
2 WIED-NEUWIED 1820) IN ECUADOR.

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8 Short title: NEW RECORD OF *Diclidurus albus* IN ECUADOR.

9 ABSTRACT. Only 9 records have been reported of *Diclidurus albus* in Ecuador. Little is
10 known about this species due to its high altitude flight which avoids mist nets. Here, we report
11 a new record of this species in a semi-deciduous forest in coastal Ecuador.

12 RESUMEN. Nuevo registro del murciélago blanco común (*Diclidurus albus*, Wied-Neuwied
13 1820) en Ecuador. Sólo se han reportado 9 registros de *Diclidurus albus* en Ecuador. Es una
14 especie de la que se sabe poco, debido a que vuela a gran altura evitando las redes de neblina.
15 En esta nota reportamos un nuevo registro de la especie en un bosque semi-caducifolio de la
16 costa de Ecuador.

17 KEY WORDS. *Diclidurus*, Ecuador, Ghost bat, Manabí, Semi-deciduous forest.

18 PALABRAS CLAVE. Bosque semi-caducifolio, *Diclidurus*, Ecuador, Manabí, murciélago
19 blanco.

20 Ecuador is one of the most biodiverse countries in the world (Mittermeier et al., 1997).
21 With regard to mammals Ecuador ranks ninth in the world, presenting a total of 424 native
22 species (Tirira, 2011; 2015). Of these, 171 species are bats, grouped in 8 families and 64
23 genera (Tirira, 2015). In the genus *Diclidurus*, the so-called ghost bats, only 2 species have
24 been reported in Ecuador: *D. albus* and *D. scutatus*. The latter species has been reported only
25 once in the country (Albuja, 1999).

26 There are only nine reported records of *Diclidurus albus* in Ecuador (Albuja, 1982;
27 Hodd and Gardner, 2007; Moscoso and Tirira, 2009), two of which likely refer to the same
28 individual (Moscoso and Tirira, 2009). The low number of records, as well as the scarcity of
29 ecological information, is likely due to the species' habit of flying at high altitudes thus
30 avoiding mist nets (Ceballos and Medellín, 1988; Linares, 1998). For this reason, most
31 records of this species are photographic.

32 The present specimen (Fig. 1) was found in Lalo Loor Dry Forest Reserve, in Jama
33 County, Manabí Province, Ecuador (UTM 9990944 S; 0594500 E; WGS84 zone 17) (Fig. 2).
34 Between May 2013 and November 2015 this solitary animal was roosting in the biological
35 station's dormitory building. The reserve, which encompasses 173 ha of semi-deciduous
36 coastal forest from 50 to 250 m of elevation, presents a unique combination of dry forest
37 (Tumbesian) and wet forest (Chocó) ecological elements, owing to its geographical location
38 in the center of the moisture gradient between these two habitats. The mean annual
39 temperature and annual precipitation at the reserve are 24.4 °C and 600 mm, respectively.

40 *Diclidurus albus* is a solitary species that roosts in small groups only during the
41 breeding season (Ceballos and Medellín, 1988; Lim et al., 2008), when a male and several
42 females can be found together at a roosting site (Hernández et al., 1985). The breeding season
43 occurs between January and June with the copulation occurring in January and February
44 (Hernández et al., 1985).

45 The species is known to roost in vegetation, such as palms and cacao plants (Ceballos
46 and Medellín, 1988; Eisenberg and Redford, 1999) from 2-25m of height. However, this bat
47 and several others also have been reported to occupy buildings (Moscoso and Tirira, 2009).
48 Although it has been established that this species inhabits mostly riparian and tropical
49 rainforest (Ceballos and Medellín, 1988; Lim et al., 2008) it has also been found in evergreen
50 and deciduous forests (Eisenberg and Redford, 1999) as well as tropical dry forest (Moscoso
51 and Tirira, 2009). This paper presents evidence of *D. albus* inhabiting semi-deciduous costal
52 forest.

53 *Diclorurus albus* is a species listed as Least Concern by the UICN due to its wide range
54 (Lim et al., 2008); however, some authors suggest the possible existence of more than one
55 species through its range (D.G. Tirira, pers. communication). The present paper contributes to

56 the scarce knowledge of the range of this species in Ecuador, where further studies are
57 warranted to explore its uncertain taxonomic, distributional, and ecological status.

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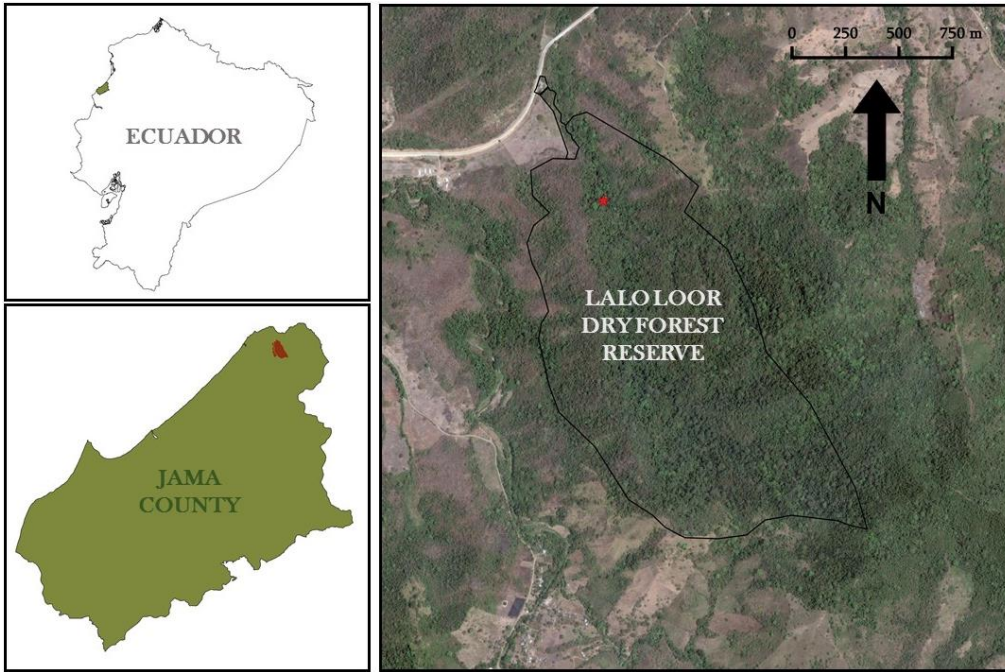
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89 Figures



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91 Figure 1: *Diclidurus albus* photographed in Lalo Loor Dry Forest Reserve on 9 May 2014.



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93 Figure 2: Location of Jama county in Ecuador (top left), Lalo Loor Dry Forest Reserve in the
94 county (bottom left), and the new record into the reserve (red star in the main image).