

SHORT COMMUNICATION

First record of *Phoebis argante chincha* Lamas (Lepidoptera, Pieridae) in Chile

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ABSTRACT. First record of *Phoebis argante chincha* Lamas (Lepidoptera, Pieridae) in Chile. The presence of *Phoebis argante chincha* Lamas, 1976 (Lepidoptera, Pieridae) is reported for the first time in Chile, from the Azapa valley, Arica.

KEYWORDS. Distribution; *Inga feuillei*; *Phoebis sennae*; taxonomy.

RESUMO. Primeiro registro de *Phoebis argante chincha* Lamas (Lepidoptera, Pieridae) no Chile. A presença de *Phoebis argante chincha* Lamas, 1976 (Lepidoptera, Pieridae) é mencionada pela primeira vez para o Chile, no vale de Azapa, Arica.

PALAVRAS-CHAVE. Distribuição; *Inga feuillei*; *Phoebis sennae*; taxonomia.

Species of the butterfly genus *Phoebis* Hübner, [1819] are distributed from southern Canada to Chile and Argentina, and throughout the Antilles (D'Almeida 1940). *Phoebis argante* (Fabricius, 1775) has been reported from many localities of continental America and Antilles (e.g. D'Almeida 1940; Monroe *et al.* 1967; Brown & Mielke 1968; Lamas 1976b; Salinas-Gutiérrez *et al.* 2004; Maes 2007). Seven valid subspecies are recognized along its extensive geographical range (Lamas 2004), one of them being *P. argante chincha* Lamas, 1976, occurring along western Ecuador and Peru. The presence of this subspecies in northern Chile is reported herein for the first time.

Adults of *P. argante chincha* were initially observed during February 2009 in the Azapa valley, Arica province, Chile, flying in the vicinity of "pacay" trees (*Inga feuillei* D.C., Fabaceae). Subsequently, many larvae were found eating the leaves of the trees. Some larvae were collected, taken to the laboratory, and enclosed in glass rearing vials, where leaves were changed daily until pupation. Pupae were observed periodically in order to obtain adults for taxonomic identification (Figs. 1–4).

Until now, the southern distributional limit of *P. argante chincha* was known to be the department of Tacna, Peru, adjacent to the province of Arica, Chile, and its single known larval hostplant was reported to be *Inga feuillei* (Hughes 1958; Lamas 1976a, b). Several *Phoebis* species are well-known migrants (Williams 1930), including *P. argante* (Oliveira *et al.* 1998). *Inga feuillei* is not a native plant of northern Chile, being introduced in the country due to the importance of its fruits as human food (Brennan & Mudge 1998). Thus, the

presence of *P. argante chincha* in northern Chile should be regarded as a very recent colonisation event. Apparently, the ca. 50 km-wide area of hyper-arid coastal desert separating the valleys of Tacna and Azapa was an effective barrier in the past, preventing the southward dispersal of *P. argante chincha*, or else the lack of a suitable larval hostplant did not allow establishment of the butterfly in the latter area.

Two other examples of butterflies with immature stages associated with exotic plants in Chile, which are now represented by resident breeding populations in the northern part of the country, are the hesperiids *Calpodus ethlius* (Stoll, 1782) (Vargas *et al.* 2006) and *Quinta cannae* (Herrich-Schäffer, 1869) (Etcheverry 1970).

Additional field observations will be necessary to determine if *P. argante chincha* is a new permanent resident butterfly in northern Chile, or if its presence is temporary, possibly associated with periodic southern migrations/range expansions.

The only species of *Phoebis* previously reported in Chile is *P. sennae amphitrite* (Feisthamel, 1839) (Peña & Ugarte 1996). Thus, *P. argante chincha* is the second representative of this genus occurring in this country. Both species may be easily separated by their different wing maculation. Moreover, the distribution area of *P. sennae amphitrite* in Chile is restricted to the central zone (Peña & Ugarte 1996), not reaching the Arica province.

The Chilean specimens examined in this study will be deposited in the Museo Nacional de Historia Natural de Santiago (MNNC), Santiago, Chile.

Material examined. CHILE, Arica. 2 males, 1 female: Azapa, Arica, Chile, March 2009, reared from larva on *Inga feuillei*,

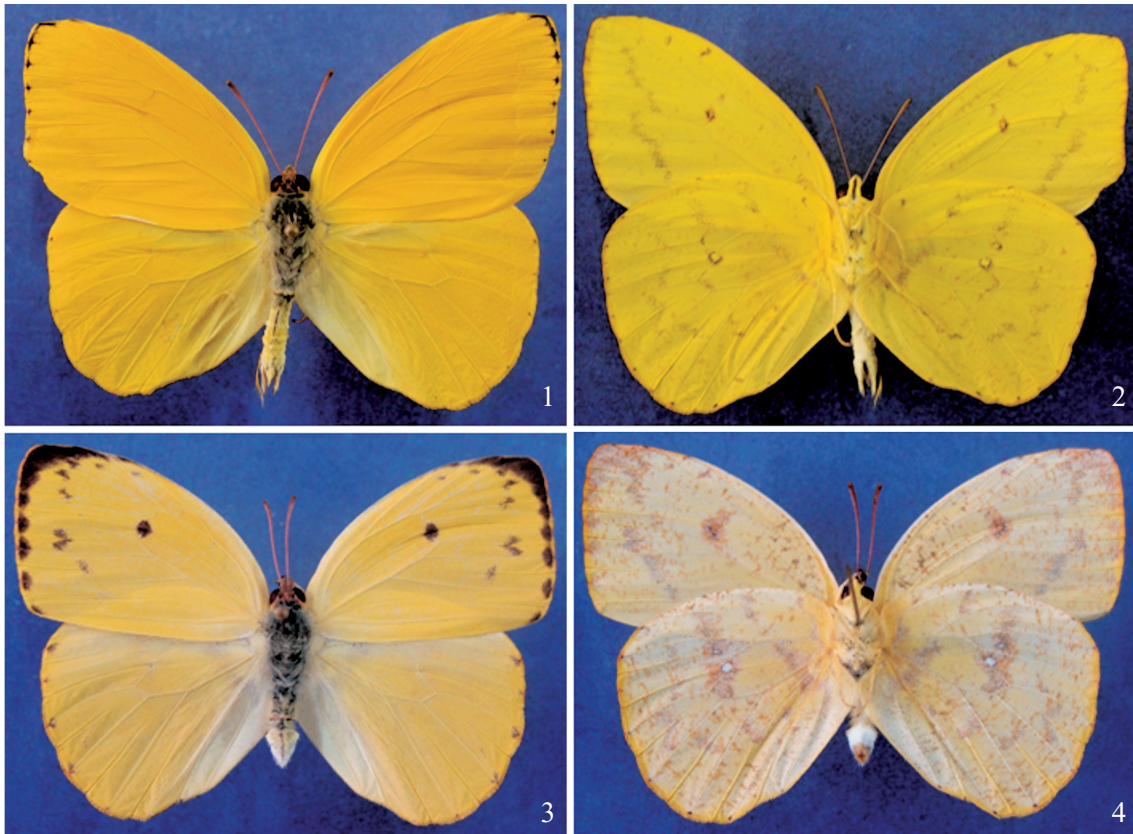


Fig. 1–4. Adults of *Phoebis argante chincha* reared from larvae collected on *Inga feuillei* in the Azapa valley, northern Chile. 1–2, Male, dorsal and ventral surfaces, respectively; 3–4, Female, dorsal and ventral surfaces, respectively.

February 2009, H.A. Vargas coll.; 1 female: Azapa, Arica, Chile, May 2009, reared from larva on *Inga feuillei*, April 2009, H. A. Vargas coll. (MNNC).

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