

***Telenomus* (Hymenoptera: Scelionidae), Egg
Parasitoid Of *Caligo Brasiliensis* (C. Felder, 1862)
(Lepidoptera: Nymphalidae) In Southern Brazil**

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SCIENTIFIC NOTE

***TELENOMUS* (HYMENOPTERA: SCELIONIDAE),
EGG PARASITOID OF *CALIGO BRASILIENSIS*
(C. FELDER, 1862) (LEPIDOPTERA: NYMPHALIDAE)
IN SOUTHERN BRAZIL¹**

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Caligo brasiliensis (C. Felder, 1862) (Lepidoptera: Nymphalidae: Morphinae: Brassolini) (Casagrande, 2004), is a common butterfly in southern Brazil. The larvae feed on leaves of *Musa argentea* L., *Musa sapientum* L., *Musa parasidiaca* L. (Musaceae), *Hedychium coronarium* Koen. (Zingiberaceae) and *Euterpe edulis* Mart. (Palmae) according to Silva (1907), Silva et al. (1968) and D'Abrera (1987).

Caligo spp. larvae, sometimes, are even abundant enough to be considered as a pest on banana plantations (Hogue, 1993) but rarely reaching economic importance (Fancelli et al., 1998). Nevertheless, Malo and Willis (1961) suggested that *Caligo eurilochus* (Cramer, 1775), a very close species of *C. brasiliensis*, in the absence of effective natural biological control, could easily become a serious banana pest.

Information about egg parasitoids of *Caligo* spp. is scanty. In banana plantations particularly, the attack of the trichogrammatid species related to *Xenufens ruskini* Girault, 1915 is recorded for *C. eurilochus* in Ecuador (Malo and Willis, 1961); *Xenufens ruskini* for *Caligo memnon* (C. Felder et R. Felder, 1867). In Honduras and Colombia the attack of the encyrtid *Ooencyrtus caligo* Noyes is the record for *Caligo illioneus* (Cramer, 1775) eggs (Noyes, 1985) and *Ooencyrtus* sp. in eggs collected in Costa Rica (Harrison, 1963). There is no record about *Caligo brasiliensis* egg parasitoids in literature.

Johnson (1984) established eleven host-specific groups of *Telenomus* Haliday: *T. tabanivorus* from Diptera, *T. californicus*, *T. arzamae*, and *T. dalmanni* species group complex from Lepidoptera, *T. floridanus*, *T. crassiclava*, *T. podisi*, *T. phymatae*, *T. laricis*, *T. nigricoxalis* from Hemiptera, and *T. longicornis* with host unknown. From Brazil, several species of *Telenomus californicus* species group (Johnson, 1984) were recorded as endoparasitoids of lepidopteran eggs (Loiacono and Margaría, 2002).

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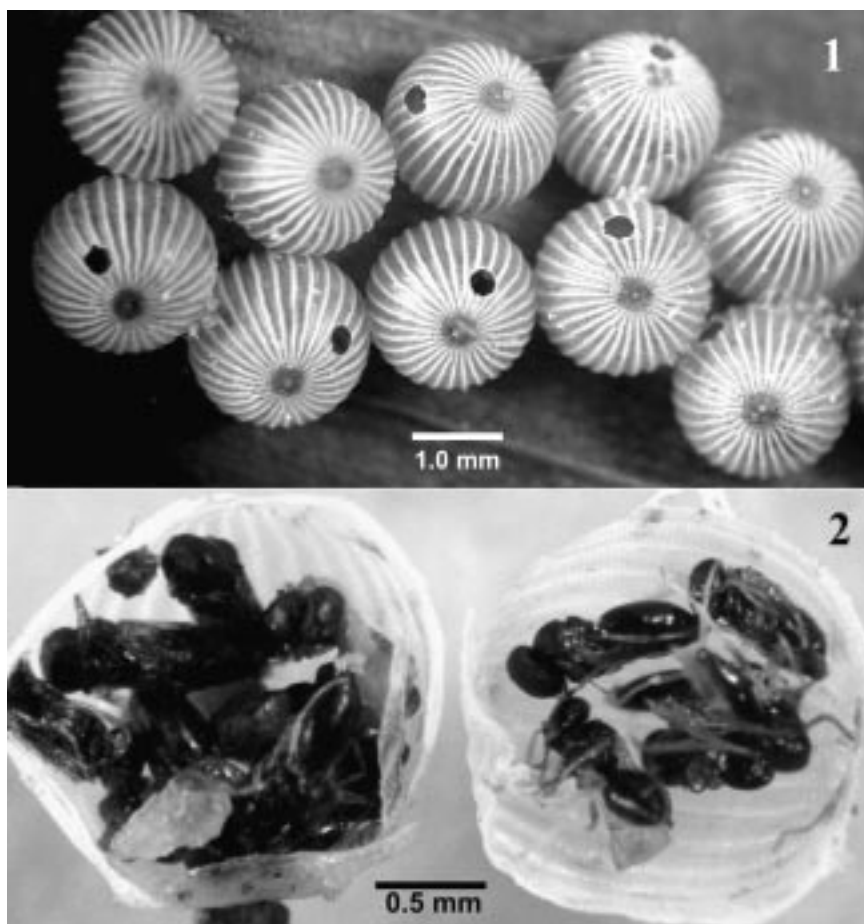
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The vast majority of species of *Telenomus* are solitary egg parasitoids, i.e., one parasite develops per host egg. However, a few gregarious species attack large-sized host eggs of different insect orders, e.g., *T. monilicornis* Ashmead, 1894, *T. dendrolimi* Matsumura, 1925 and *T. fariai* Costa Lima, 1928. In these cases usually five to ten wasps complete development within an egg (Johnson, 1984).

METHODS

Caligo brasiliensis egg clusters (Figure 1) were collected on leaves of *Musa argentea* by the second author in Cabo Frio (22° 51' S - 42° 03' W), State of Rio de Janeiro in August and September 2005 and maintained in laboratory conditions.



Figures 1-2. 1. *Caligo brasiliensis* egg cluster after the emergence of adults wasps. 2. The wasps in a sectioned *Caligo brasiliensis* egg before their emergence.

The lepidopteran species was identified based on D'Abrera (1987) and is deposited at "Coleção Entomológica do Museu Nacional da Universidade Federal do Rio de Janeiro (MNRJ)."

The Scelionidae species that emerged from *Caligo brasiliensis* was identified following Johnson (1984) and the voucher specimens are deposited at Coleção Entomológica do Museu Nacional da Universidade Federal do Rio de Janeiro (MNRJ, Brazil) and División Entomología of the Museo de La Plata (MLP, Argentina).

RESULTS AND DISCUSSION

Two clusters of host eggs were attacked by *Telenomus*: 235 adults emerged from an eleven-egg butterfly cluster (1.VIII.2005) and 190 specimens from a ten-egg cluster (5.IX.2005) (Figure 1, see previous page), showing gregarious behavior with more than twenty parasitoid adults emerging per egg (Figure 2, see previous page).

The specimens reared belong to the *Telenomus californicus* species group as defined by Johnson (1984), and are closed to *Telenomus solitus* Johnson, 1983, differing principally on the basis of genitalia structure. *Telenomus solitus* has been reared from an unidentified noctuid egg and also it was cultured in laboratory from *Trichoplusia ni* (Hübner) (Lepidoptera: Noctuidae) in Guatemala (Johnson, 1983). This record confirms the Lepidoptera host-specific of *T. californicus* species group. This is the first record of *Caligo brasiliensis* egg parasitoid species.

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