

**Report of *Macraspis pseudochrysis* Landin, 1956
(Coleoptera: Scarabaeidae: Rutelinae) on açai palms (*Euterpe oleracea* Mart.)
in floodplains in the state of Amapá, Brazil**

Cristiane Ramos de Jesus-Barros^{1,4}, Lidiane Silva Freitas² & Paschoal Coelho Grossi³

¹Embrapa Amapá, Rod. Juscelino Kubitschek, Km 5, 2600,
CEP 68903-419, Macapá, AP, Brasil. www.cpaap.embrapa.br

²Universidade do Estado do Amapá – UEAP, Av. Presidente Vargas, 650,
CEP 68906-970, Macapá, AP, Brasil. www.ueap.ap.gov.br

³Departamento de Zoologia, Universidade Federal do Paraná – UFPR, CP 19007,
CEP 81531-980, Curitiba, PR, Brasil. <http://zoo.bio.ufpr.br/>

⁴Corresponding author: Cristiane Ramos de Jesus-Barros, e-mail: cristiane.jesus@embrapa.br

JESUS-BARROS, C.R., FREITAS, L.S. & GROSSI, P.C. **Report of *Macraspis pseudochrysis* Landin, 1956 (Coleoptera: Scarabaeidae: Rutelinae) on açai palms (*Euterpe oleracea* Mart.) in floodplains in the state of Amapá, Brazil.** *Biota Neotrop.* 13(1): <http://www.biotaneotropica.org.br/v13n1/en/abstract?short-communication+bn03513012013>

Abstract: The açai palm (*Euterpe oleracea*) is an East Amazon palm found most frequently in the Amazon River estuary. Riverside dwellers in different regions of the state of Amapá have recently been observing a species of coleopteran attacking the inflorescences of açai palms. With a view to identifying a species of coleopteran attacking inflorescences of *E. oleracea* in the Brazilian state of Amapá, insects were collected in the regions of Abacate da Pedreira (two individuals) and Ariri (six) in the city of Macapá. Five individuals were also collected in Mazagão. The insects were collected from açai palm inflorescences using entomological nets, then preserved and submitted for identification. They were identified as *Macraspis pseudochrysis* Landin, 1956 (Coleoptera: Scarabaeidae: Rutelinae). This is the first occurrence of *M. pseudochrysis* in *E. oleracea* in the Neotropics.

Keywords: açai palm, *Arecaceae*, *Macraspis*, Amapá, Amazon.

JESUS-BARROS, C.R., FREITAS, L.S. & GROSSI, P.C. **Registro de *Macraspis pseudochrysis* Landin, 1956 (Coleoptera: Scarabaeidae: Rutelinae) em açazeiro (*Euterpe oleracea* Mart.) de várzea no estado do Amapá, Brasil.** *Biota Neotrop.* 13(1): <http://www.biotaneotropica.org.br/v13n1/pt/abstract?short-communication+bn03513012013>

Resumo: O açazeiro [*Euterpe oleracea*] é uma palmeira da Amazônia Oriental encontrada com mais frequência no estuário do Rio Amazonas. Recentemente, ribeirinhos em diferentes regiões do estado do Amapá observaram uma espécie de coleóptero que ataca as inflorescências de açazeiros. Com o objetivo de identificar exemplares de Coleoptera em inflorescências de *E. oleracea* no estado do Amapá, Brasil, foram coletados 13 indivíduos nas localidades de Abacate da Pedreira (dois exemplares), Ariri (seis)(ambas em Macapá) e no município de Mazagão (cinco), entre outubro de 2010 e fevereiro de 2011. Os coleópteros foram coletados diretamente nas inflorescências de açazeiros com auxílio de rede entomológica, conservados e enviados para identificação. Todos os indivíduos pertencem à espécie *Macraspis pseudochrysis* Landin, 1956 (Coleoptera: Scarabaeidae: Rutelinae). Este é o primeiro registro de ocorrência de *M. pseudochrysis* em *E. oleracea* na região neotropical.

Palavras-chave: açazeiro, *Arecaceae*, *Macraspis*, Amapá, Amazônia.

The açai palm (*Euterpe oleracea* Mart. [Arecaceae]) is an East Amazon palm found most frequently in the Amazon River estuary (Shanley et al. 2010). It is normally most abundant in floodplain ecosystems along rivers, igarapé vegetation, lowlands, and wetlands in general (Queiroz & Mochiutti 2001, Santos & Jardim 2006). *Euterpe oleracea* grows in clumps of up to 25 trees with heights ranging from three to 20 m. and with trunk diameters of seven to 18 cm. Its inflorescence is infrafoliar and enveloped by two bracts. When the bracts open, they expose a flower bunch comprised of one rachis and a variable number of rachillae, in which thousands of male and female flowers are inserted. Its fruits are globular drupes with diameters ranging from one to two centimeters. Purplish or green floral vestiges remain adhered to the mature fruits (Costa et al. 2001, Oliveira et al. 2002).

Euterpe oleracea is extensively used by local riverside-dwelling communities, which use all parts of the plant (Ribeiro et al. 2007). In the floodplains of Amapá, collecting the fruits and cutting out the palm hearts of açai are traditional activities with highly positive impacts on the local economy (Queiroz & Mochiutti 2001). Açai fruits are the main product used by the Amazon population to prepare the beverage known as “açai” – which is very popular in the regional market, especially due to its high nutritional value and the marked popular preference for its unique flavor (Ribeiro et al. 2007, Menezes et al. 2008). Brazilian producers have been showing an interest in commercial-scale cultivation of the açai palm, and consequently in the factors that compromise its rational production (Oliveira et al. 2002). These factors include the presence of insects associated with the açai palm.

In the state of Amapá, northern Brazil, there have been reports of *Aspidiotus destructor* Signoret 1869 (Hemiptera: Diaspididae), *Brassolis* sp. (Lepidoptera: Nymphalidae), *Castnia* sp. (Lepidoptera: Castniidae), *Cerataphis brasiliensis* (Hempel,

1901) (Hemiptera: Hormaphididae), *Dynamis borassi* (Fabricius, 1801), *Metamasius hemipterus* (Linnaeus, 1758) (Coleoptera: Curculionidae), *Pachymerus nucleorum* (Fabricius, 1792) (Coleoptera: Bruchidae), and *Rhinostomus barbirostris* (Fabricius, 1775) (Coleoptera: Curculionidae) associated with vegetative phase *E. oleraceae* (Jordão & Silva 2006).

Riverside dwellers in different regions of the state of Amapá have recently been observing one species species of coleopteran attacking the inflorescences of açai palms. In light of this, technical visits were made to the indicated locations, aiming to ascertain the presence and identify the species of this coleopteran. On October 21, 2010, two individuals were collected in the region of Abacate da Pedreira (00° 12' 18.1" N, 50° 51' 23.6" W) of the state capital city, Macapá. On November 21, 2010, six individuals were collected in the community known as Ariri (00° 02' 20" N, 51° 03' 59" W), also in Macapá. On February 1st, 2011, five individuals were collected from the municipality of Mazagão (00° 07' 20" S, 51° 18' 15" W). Moreover, to investigate the possible occurrence of *M. pseudochrysis* on açai palms located in dry-land environments, technical visits were conducted in February 2011 in the municipalities of Serra do Navio (00° 53' 44" N, 52° 00' 08" W), Pedra Branca do Amapari (00° 46' 41" N, 51° 56' 37" W) and Porto Grande (00° 42' 48" N, 51° 24' 48" W). All insects were collected directly from açai palm inflorescences, using an entomological net. A considerable number of fallen flowers was observed on the ground below the infested plants. This was not observed under plants that were not infested by the insects. The insects were preserved in 70% alcohol and sent to the Zoology Department at the Universidade Federal do Paraná (UFPR), where they are deposited.

The insects were identified as specimens of *Macraspis pseudochrysis* Landin, 1956 (Coleoptera: Scarabaeidae: Rutelinae) (Figure 1). This species is widely distributed in northern South America, and is usually

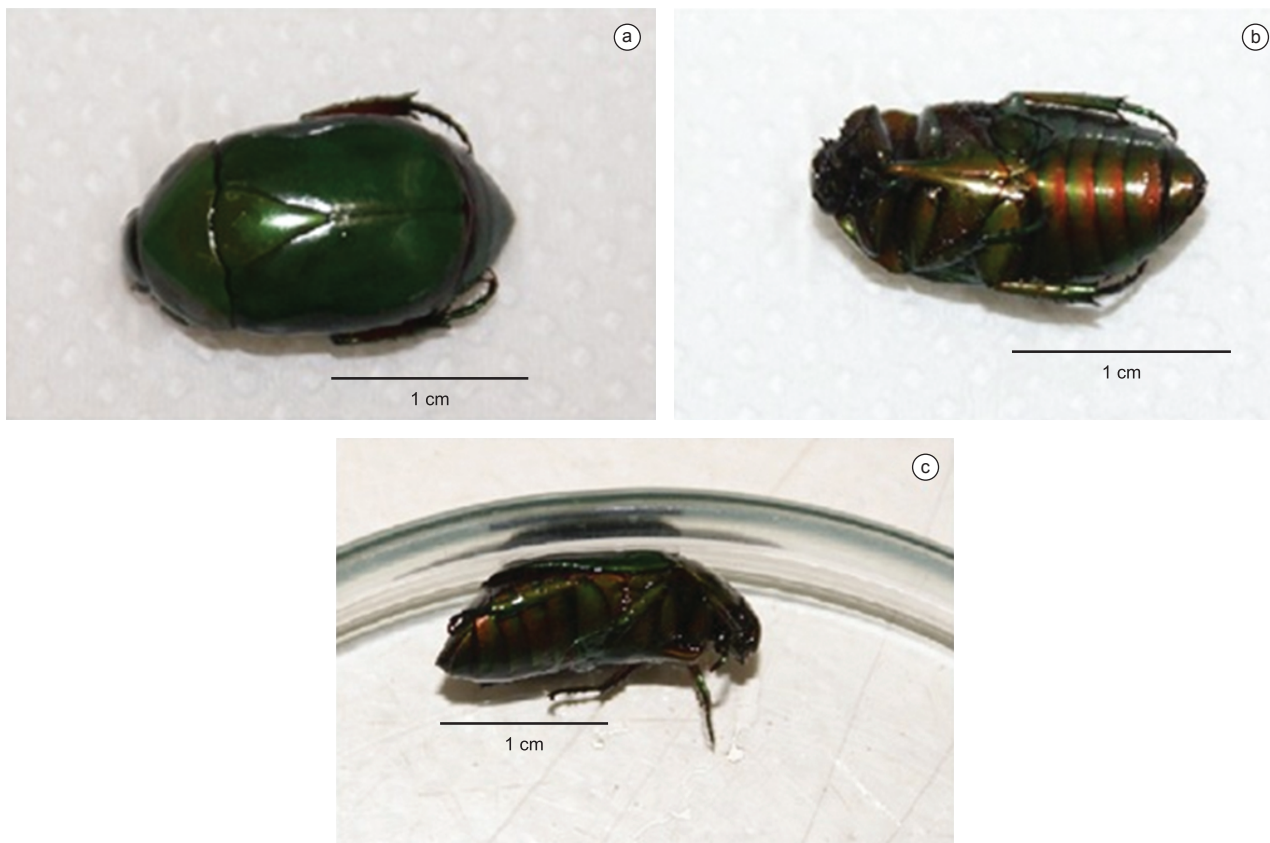


Figure 1. Dorsal view (a), ventral (b) and lateral (c) of *Macraspis pseudochrysis* collected on açai palms (*Euterpe oleracea*) in floodplains in the state of Amapá, Brazil.

associated with the Amazon biome. It can also be found in northeast Brazil (Soula 1998). In his revisions of the genus *Macraspis* MacLeay, Soula (1998, 2003) contemplates two subspecies: the nominotypical and *M. pseudochrysis concoloripes* (Blanchard 1850). Of the latter, only a small number of exemplars have been collected to date, and the only apparent difference of this subspecies is that it presents a more greenish color variation on the ventral part of its body.

The adults of the species are easily recognizable by their slimmer body shape in comparison to other species of the same genus, which contains approximately 60 Neotropical species (Soula 2003). In addition to its body shape, other distinguishing features of the species are its pronotum and elytra, which are green with a slight brownish tinge; the two longitudinal lines on each elytron; its legs and ventral body, which are reddish-brown with metallic green reflexes; and its pointed pygidium, particularly in males. This combination of characteristics makes it easy to identify the species.

The *Macraspis* species are diurnal. Adults usually feed on flowers, consuming their petals and pollen. They are generalist insects found on a wide variety of plants, including both monocotyledons and dicotyledons. *Macraspis* flight is very aerodynamic, rapid, and zig-zagging, and these insects can be observed flying near the plants on which they feed (Soula 2003). The larvae of *M. pseudochrysis* are xylophagous. They can be found inside the trunks of decomposing trees in mangrove environments, associated in some cases with pupae and immature adults (Morón & Paucar-Cabrera 2003). Up to the present time, all reported sightings of *M. pseudochrysis* have taken place in floodplain or riverside areas. These environments favor the development of immature stages of the species. Although flowering açai palms in dry-land were found during these visits in Serra do Navio, Pedra Branca do Amapari and Porto Grande, no individuals of *M. pseudochrysis* were detected.

This is the first report of *M. pseudochrysis* occurring on açai palms and Arecaceae in the Neotropics. Though it is not yet possible to affirm that *M. pseudochrysis* is feeding on the pollen of the açai flowers, the simple presence of the insect on the inflorescences has been contributing to the loss of some flowers, impeding them from developing into fruits. It is therefore necessary that the population dynamics of this insect on açai palms be studied to clarify some aspects about the influence of the species on *E. oleraceae*.

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