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## **Astrocaryum carnosum and A. chonta (Palmae), New Host for the Weevil Dynamis borassi (Curculionidae: Rhynchophorinae)**

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Many species of rhynchophorine weevils use palms as the host for larval development. This is the case with *Dynamis borassi* (Fabr. 1801). Larvae bore into the palms and after several instars develop into adults in about two months (Giblin-Davis *et al.*, 1996). These larvae are considered to be pests of coconut trees, *Cocos nucifera* L., on which they live in the inflorescence and the stem (Wattanapongsiri, 1966; Gerber *et al.*, 1990). They cause the death of *Syagrus schizophylla* (Martius) Glassman and *S. vagans* (Bondar) Hawkes (Bondar, 1940; Landeiro, 1941). *Dynamis borassi* is attracted also by the fruit of *Astrocaryum standleyanum* Bailey (Giblin-Davis *et al.*, 1997).

The present note describes the occurrence of *Dynamis borassi* on two Amazonian palm species, *Astrocaryum carnosum* Kahn et Millan and *A. chonta* Martius, and provides new information on the biology of the weevil. Previous works have shown the high diversity of the insect fauna which lives on *Astrocaryum* species (Couturier and Kahn, 1989, 1992). Many of these palms form dense stands in most forest ecosystems of Amazonia (Kahn and Granville, 1992). They can be considered as an important source of potential pests for cultivated palms.

The genus *Dynamis* (Curculionidae: Rhynchophorinae) includes three species, all from the Neotropics: *D. borassi*, *D. nitidulus* (Guerin, 1844) and *D. peropacus* Champion, 1910 (Wibmer and O'Brien, 1986).

Individuals of *D. borassi* were observed and collected on two species of the palm genus *Astrocaryum* in Peruvian Amazonia; the larvae are

found in the inflorescences and eat the rachillae before the opening of the peduncular bract :

1) On *A. carnosum* in the Upper Huallaga River Valley, San Martín, 20 km from Uchiza (8°17'S, 76°26'W), near the oil palm plantation Palmas del Espino S.A., adult specimens of *D. borassi* were obtained from pupalcells collected in damaged inflorescences on November 21, 1996. Moreover some adults of *Billaea* (= *Paratheresia*) *rhynchophorae* (Blanchard, 1937), Diptera, Tachinidae, emerged from one of these pupalcells. This parasite of the larvae was found previously on two other species of Rhynchophorinae: *Rhinostomus barbistrostris* (F.) (Emden, 1949) and *Rhynchophorus palmarum* (L.) (Bennet & Maharaj, 1969). *B. rhynchophorae* is reported herein as a parasite of larvae of the genus *Dynamis*.

2) On *Astrocaryum chonta*, in the Lower Ucayali River Valley (4°55'S, 73°40'W) near Jenaro Herrera village, only adults of *D. borassi* were collected on October 29, 1986 and August 29, 1987; empty pupalcells and damage of the larvae in an inflorescence were visible on the palm.

This note confirms Couturier and Kahn's observation (1992) on these palm species.

The specimens of *Dynamis borassi* are deposited in the following collections: Dr. C.W. O'Brien, Tallahassee Fl.; Muséum national d'Histoire naturelle, Paris; Museo de Entomología de la Universidad Nacional Agraria La Molina, Lima.

The specimen of *Billaea rhynchophorae* are deposited in the Smithsonian Institution, Washington and in the Muséum national d'Histoire naturelle, Paris.

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### PALM LITERATURE (Continued from p. 226)

past" make the plants seem more like companions than something to stick in the ground in hopes it will grow.

He also provides helpful advice in attaining the tropical look in subtropical climates and includes a zone map for both the United States and Europe. Further help is provided by lists based on categories such as aquatics, bamboo, bromeliads, drought tolerance, erosion control, fast-growing, ferns, fragrance, palms, salt tolerance, shade tolerance, "cactus" look, and palms, of course. The color photos, many taken by the author himself, put the finishing touches on this outstanding piece of work.

I first encountered Robert Lee Riffle through the internet when he became a regular visitor on my "Tropical Attitudes Gardening Message

Board." Most of the questions involve palm trees, but numerous other plants are discussed there as well. As the months went by, I was continually impressed with his ability to answer the assortment of questions with such good information.

When the new IPS website was launched in April, he became a regular visitor on that bulletin board too. His answers are always filled with good advice, humor, and an obvious desire to share his wealth of knowledge on plants that he knows and loves so well. I had often wondered how he knew the answers to so many varied questions, so when I held the book in my hands for the first time and saw that it is an encyclopedia, I said "Aha! That's how he's able to answer all those questions!" It deserves a prominent display in any palm tree lover's book collection.

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