

SCIENTIFIC NOTE

First Record of *Sinoxylon conigerum* Gerstäcker (Coleoptera: Bostrichidae) in Brazil

OTÁVIO PERES FILHO¹, ÉDSON P. TEIXEIRA², MÁRCIO L.M. BEZERRA¹, ALBERTO DORVAL¹ AND EVONEO BERTI FILHO³

¹Faculdade de Engenharia Florestal, Univ. Federal de Mato Grosso, 78060-900, Cuiabá, MT

²Instituto Agronômico de Campinas, C. postal 28, 13001-970, Campinas, SP

³Escola Superior de Agricultura Luiz de Queiroz, Univ. de São Paulo, C. postal 9, 13418-900, Piracicaba, SP

Neotropical Entomology 35(5):712-713 (2006)

Primeiro Registro de *Sinoxylon conigerum* Gerstäcker (Coleoptera: Bostrichidae) no Brasil

RESUMO - A ocorrência de *Sinoxylon conigerum* Gerstäcker é registrada pela primeira vez no Brasil em madeira de teca (*Tectona grandis* L.f.), mangueira (*Mangifera indica* L.) e gonçaleiro (*Astronium fraxinifolium* Schott), em Cuiabá e Várzea Grande, MT.

PALAVRAS-CHAVE: Insecta, teca, coleobroca

ABSTRACT - This is the first register of *Sinoxylon conigerum* attacking timber of teak (*Tectona grandis* L.f.), mango tree (*Mangifera indica* L.) and (*Astronium fraxinifolium* Schott) in the municipalities of Cuiabá and Várzea Grande, State of Mato Grosso, Brazil.

KEY WORDS: Insecta, teak, auger beetle

The teak, *Tectona grandis* L.f., native from the Asian continent, and one of the most valuable timbers in the world wide trade, is presently the main forest crop in the State of Mato Grosso. Its introduction in this State as commercial plantation dates back to almost three decades and several native and introduced pests have been detected since then.

At the end of 2001, adults of *Sinoxylon conigerum* Gerstäcker were observed attacking logs and cut wood of teak, *T. grandis*, in the municipality of Várzea Grande, State of Mato Grosso. The insect was identified by Dr. Edson P. Teixeira from the Instituto Agronomico de Campinas and, according to Fisher (1950), this is an African species being Moçambique the type locality. The Brazilian Ministry de Agriculture was notified and authorized the publication of a scientific note.

A survey was carried out with twenty ethanol baited traps, model of Marques-Carrano (Nakano & Leite 2000), in the municipalities of Cuiabá and Várzea Grande, from September 2002 to February 2004. The rainy season (September to March) was the period of highest occurrence of the insect. The family Bostrichidae is composed by xylophagous species attacking trunk and twigs of live trees and wood of dead or falling ones (Carvalho 1971).

Bostrichid species are important pests in silviculture and agriculture, and species of *Sinoxylon* are particularly important as pests of trees, wood and bamboos (Fisher 1950, Teixeira *et al.* 2002). *S. conigerum* is a xylophagous and polyphagous species recorded attacking rubber wood (*Hevea*

brasiliensis Müll.Arg.), pigeon pea (*Cajanus cajan* (L.) Millsp.), *Samanea saman* (Jacq.) Merr., mango tree (*Mangifera indica* L.), cassava stem (*Manihot esculenta* Crantz), *Piptadenia flava* (Spreng. ex DC.) Benth., cut branches of *Hura crepitans* L., cut twigs of *Myroxylon balsamum* (L.) Harms., fallen trunk of flamboyant [*Delonix regia* (Bojer) Raf.], cotton dry roots (*Gossypium hirsutum* L.) branches of guava (*Psidium guajava* L.), *Swietenia mahogani* DC., and teak (*T. grandis*) (Binda & Joly, 1991, Balasubramanya *et al.* 1990, Tomimura, 1993). Beeson & Bhatia, apud Fischer (1950), registered *S. conigerum* attacking *Adina cordifolia* Benth. & Hook.f., *Albizia amra* (Roxb.) Boiv., *Holoptelea integrifolia* (Roxb.) Planch., *M. indica*, *Shorea robusta* Gaertn., *Terminalia bialata* (Roxb.) Steud., *Terminalia myriocarpa* Van Heurck & Mull. Arg., *Grewia tiliacefolia* Vahl, and damaging lead cables.

Fisher (1950) examined material intercepted in New York, in *Derris* sp. roots from the Philippines, barbasco stems from Venezuela, ebony logs from Africa and wooden packing cases from India reported that *S. conigerum* was not established in America, and commented that this insect is common in India and widespread in the tropics. *S. conigerum* is a nocturnal species, attracted to light, and is registered attacking the wood of *Acacia* and roots of cassava from Madagascar (Lesne 1906). *S. conigerum* is reported occurring in Thailand, China, Malaysia, Florida, India, Eastern Africa, Venezuela, Madagascar, Ceylon, Java, Philippines, Hawaiian Islands and was intercepted in

Canada, Italy, New Zealand (not established) and probably should be considered a cosmopolitan species (Fisher 1950, Reichardt 1964, Balasubramanya *et al.* 1990, Binda & Joly 1991, Poggi *et al.* 1994, Chen 1995, Ho & Hashim 1997, Canadian Food Inspection Agency 1998, Thomas 1999, Ormsby 2001).

In Brazil, *S. conigerum* was detected in Cuiabá ($15^{\circ}35'46''$ S and $56^{\circ}05'48''$ W) and Várzea Grande ($15^{\circ}38'48''$ S and $56^{\circ}07'57''$ W). In 2002, the second author of this paper identified two specimens of *S. conigerum* labeled "Bostrichidae – wood material – Brazil – September 2002", sent by the Swedish University of Agricultural Sciences, Dept. of Entomology. These insects were detected in wood pallets imported from Brazil. The use of wood pallets in the international trading activities allows an intense transit of insects, as the material containing *S. conigerum* intercepted in the Brazilian port of Vitória, State of Espírito Santo, in January and February of 2004, in wood pallets imported from India. These specimens are deposited in the Collection of "Instituto Agronômico de Campinas (IAC)" under numbers 7666 and 7667.

This is the third species of the genus recorded in Brazil; Teixeira *et al.* (2002) recorded *Sinoxylon anale* Lesne in Americana, State of São Paulo, and *S. senegalense* (Karsch) in Natal, State of Rio Grande do Norte. Specimens of *S. conigerum* are deposited in the Collections of Cuiabá, State of Mato Grosso, the Instituto Agronômico de Campinas (IAC) under the number 7539, and the Faculdade de Agronomia da UNESP - Campus de Ilha Solteira, in Ilha Solteira, State of São Paulo.

References

- Balasubramanya, R.H, A.J. Shaikh, K.M. Paralikar & V. Sundaram. 1990. Spoilage of cotton stalks during storage and suggestions for its prevention. *J. Indian Soc. Cotton Improv.* 15: 34-39.
- Binda, F. & L.J. Joly. 1991. Los Bostrichidae (Coleoptera) de Venezuela. *Bol. Entomol. Venez.* 6: 83-133.
- Brasil. Ministério de Agricultura e Abastecimento. 1999. Instrução normativa SDA n. 38/1999 de 14 de outubro de 1999. Diário Oficial da União, 5 de novembro de 1999. Estabelece a lista de pragas quarentenárias A1, A2 e não quarentenárias regulamentadas, a ser observada pelo sistema de defesa fitossanitária do Brasil. (Diário Oficial da União, 5 de novembro de 1999).
- Canadian Food Inspection Agency. 1998. Summary of plant quarantine pest and disease situations in Canada, 33p.
- Carvalho, J.P. 1971. Introdução à entomologia florestal de Angola. Nova Lisboa, Secção de Publicações do Centro de Documentação Agrária do Instituto de Investigação Agronómica de Angola, 314p.
- Chen, Z.L. 1995. A new record of *Sinoxylon conigerum* from China (Coleoptera: Bostrichidae). *Acta Entomol. Sinica* 38: 1.
- Comitê de Sanidade Vegetal do Cone Sul – COSAVE. 2001. Listas de pragas quarentenárias [on line]. Buenos Aires, 2001 [cited in 25/VII/2001], <<http://www.cosave.org.py/listapragasquarentenarias.htm>>.
- Fisher, W.S. 1950. A revision of the North American species of beetles belonging to the family Bostrichidae. *Misc. Publ. U.S. Dep. Agr. N.* 698, 157p.
- Ho, Y.F. & S. Hashim. 1997. Wood-boring beetles of rubberwood sawn timber. *J. Trop. For. Prod.* 3: 15-19.
- Lesne, P. 1906. Révision des coléoptères de la famille des bostrychides. 5^{ème} Mém. Ann. Soc. Entomol. France 75: 444-561.
- Nakano, O. & C.A. Leite. 2000. Armadilhas para insetos: Pragas agrícolas e domésticas. Piracicaba, FEALQ, 76p.
- Ormsby, M.D. 2001. Hazards associated with different forest pest pathways and their economic impacts-other forest products. In Exotic Pests Workshop: Risks of exotic forest pests and their impact on trade, 2001, USA. Workshop. Available in: <http://www.apsnet.org/online/ExoticPest/Papers/romsby.htm>. Accessed in: 21 October 2004.
- Poggi, R., G. Brussino & F. Scarpelli. 1994. Intercettazione in Piemonte di *Sinoxylon conigerum* Gerstacker (Coleoptera: Bostrichidae). *Atti Congr. Naz. Ital. Entomol.* 17: 217-219.
- Reichardt, H. 1964. Bostrichidae (Coleoptera) 6. Notas sobre a distribuição geográfica de espécies americanas. *Rev. Bras. Entomol.* 11: 37-45.
- Teixeira, E.P., J.P.S. Novo & E. Berti Filho. 2002. First record of *Sinoxylon anale* Lesne and *Sinoxylon senegalensis* (Karsch) (Coleoptera: Bostrichidae) in Brazil. *Neotrop. Entomol.* 31: 651-652.
- Thomas, M.C. 1999. The exotic invasion of Florida: A report on arthropod immigration into the sunshine state - list of exotic arthropod species established in Florida. [on line]. Florida (USA): 2000 [cited in 8/VIII/2000], Florida State Collection of Arthropods <<http://doacs.state.fl.us/~pi/enpp/ento/exoticsinflorida.htm>>.
- Tomimura, Y. 1993. Chemical characteristics of rubberwood damaged by *Sinoxylon conigerum* Gerstäcker. *Bull. For. & For. Prod. Res. Inst.* 365: 33-43.

Received 20/V/05. Accepted 22/VIII/05.

