

Sceliodes cordalis (Lepidoptera: Crambidae)

This short description has been prepared in the framework of the EPPO Study on Pest Risks Associated with the Import of Tomato Fruit. The whole study can be retrieved from the EPPO website.

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Africa	Asia	Oceania	North America	South-Central America and Caribbean
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***Sceliodes cordalis* (*Margaritia cordalis*) (Lepidoptera: Crambidae) (poroporo fruit borer)**

Why	Identified in the EPPO tomato study. <i>S. cordalis</i> is an important pest of eggplant and other Solanaceae in Australia and New Zealand.
Where	EPPO region: absent Oceania: Oceania: Australia (throughout – Herbison-Evans & Crossley, 2013, Queensland Government, 2012; Martin, 2010)), Present throughout Australia, also in remote inland localities (Common, 1990); New Zealand (Martin, 2010)
Climatic similarity	High. 9 common climates considering the countries listed above (probably 8 as one is present in a very limited area of New Zealand).
On which plants	Eggplant, tomato, capsicum and pepino (<i>S. muricatum</i>), and solanaceous weeds (<i>Datura, quena</i>) (Queensland Govt, 2012); Cape gooseberry (<i>Physalis edulis</i>) (Herbison-Evans and Crossley, 2013); Two main native host plants: <i>Solanum aviculare</i> (poroporo) and <i>S. laciniatum</i> (Martin, 2010), as well as <i>Capsicum annuum, S. tuberosum, S. linnaeanum, S. muricatum</i> (Martin, 2010 - tomato not mentioned).
Damage	Eggs are laid mostly on the calyx (sometimes on leaves). Larvae are mostly in fruit, but may burrow in stem (Martin, 2010; Queensland Govt, 2012). Larvae tunnel into stem and fruit (Herbison-Evans and Crossley, 2013). It is not clear where pupae are located: Herbison-Evans & Crossley (2013) indicate that pupation occurs in the tunnels where mature larvae are located; Martin (2010) that mature larvae leave the plant to pupate, and pupates in crevices or protected places, covered with debris; Queensland Government (2012) that pupae are outside the fruit. Infestation is apparent only when mature larvae leave the fruit. High levels of fruit infestation can occur in the field and more than one larva may infest a fruit (Queensland Government, 2012). Several publications indicate that <i>S. cordalis</i> is a serious pest of eggplant in Australia, and occasionally of tomato, capsicum and pepino, and a pest of pepino in New Zealand (e.g. Queensland Govt, 2012; Kay, 2010 & 2012; Kay and Brown, 2009). Kay and Brown (2009) report 10-58% of eggplant fruit damaged in the absence of treatment. <i>S. cordalis</i> is regulated for tomatoes from Australia destined to the USA (AQIS, 2003).
Dissemination	Adults fly. Infestation becomes apparent only when mature larvae exit the fruit, and infested fruit may be marketed (Queensland Government, 2012).
Pathway	Plants for planting, fruits and vegetables of host plants, soil?, packaging, from countries where <i>S. cordalis</i> occurs.
Possible risks	Eggplant, tomato, capsicum and potato are major crops in the EPPO region. The climatic similarity according to the EPPO Study between the area where it occurs and the EPPO region is high. It may also establish in glasshouses. It is not clear if control methods are available.
Categorization	Regulated on tomatoes from Australia to USA (AQIS, 2003). No other record found in lists of quarantine pests.
Sources	AQIS. 2003. Industry Advice Notice no. 2003/13: Shade-House Tomato Exports To USA. http://www.daff.gov.au/biosecurity/export/plants-plant-products/ian/03/13 (Accessed January 2014) Common IFB. 1990. Moths of Australia. Brill, 535 pages. http://books.google.com.au/books?id=magzbmvdRvQC&vq=sceliodes&dq=moths+australia+ian+common&hl=da&source=gbs_navlinks_s (Accessed January 2014) Herbison-Evans D, Crossley S. 2013. Crambidae, Spilomelinae, <i>Sceliodes cordalis</i> . Caterpillars: especially Australian ones. Butterfly House. http://lepidoptera.butterflyhouse.com.au/spil/cordal.html (Accessed January 2014) Kay IR, Brown JD. 2009. Evaluating the efficacy of insecticides to control <i>Sceliodes cordalis</i> (Doubleday) (Lepidoptera: Crambidae) in eggplant. Australian Journal of Entomology, Volume 48, Issue 2, pages 177–181, May 2009

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http://nzacfactsheets.landcareresearch.co.nz/factsheet/OrganismProfile/Poroporo_fruit_borer_-_Sceliodes_cordalis.html (Accessed January 2014)
- Queensland Government. 2012. *Sceliodes cordalis*. <http://www.daff.qld.gov.au/plants/fruit-and-vegetables/a-z-list-of-horticultural-insect-pests/eggfruit-caterpillar> (Accessed January 2014)
- Not found: Kay IR. 2012. Notes on the biology of *Sceliodes cordalis* (Doubleday) (Lepidoptera: Crambidae). *Australian Entomologist*, 39 (2). pp. 89-95. ISSN 1320-6133 (only abstract available)