

Scyphophorus acupunctatus

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Insecta	Coleoptera	Curculionidae

Common name sisal borer (English), sisal weevil (English), Agave weevil (English), black weevil (English), Agave snout weevil (English), Agave snout-nosed weevil (English), Agave snout-nosed beetle (English), Agave billbug (English), Acapiche del nardo (English)

Synonym *Scyphophorus anthracinus* , Gyllenhal
Scyphophorus interstitialis , Gyllenhal
Scyphophorus robustior , Horn
Rhyncophorus asperulus , Dietz

Similar species

Summary *Scyphophorus acupunctatus* is becoming a major pest of native Agavaceae and Dracaenaceae species worldwide. Native to Mexico, it has decimated populations of Agave crops there, in particular species used in the tequila and henequen industries. The importation of ornamental Agave plants worldwide has facilitated *S. acupunctatus* to establish in many parts of the world, particularly in Central America and the Caribbean, in Africa, Asia and South America. On its host species, it causes rot and sometimes mortality due to its larvae boring holes which then facilitates micro-organisms entering the host. Due to the species being found generally inside the host species, typical insecticides have proven ineffective. However research on the species' pheromones has shown that these could be a potential management tool, attracting individual adults away from hosts to collection sites.



[view this species on IUCN Red List](#)

Species Description

The adult weevil body length is between 10-19mm, body colour is black, without dorsal scales. The genus *Scyphophorus* has two species: *S. acupunctatus* - Sisal weevil and *S. yucca* - Yucca weevil.

Please follow this link to the PaDIL (Pests and Diseases Image Library) species content page to view [diagnostic images of *S. acupunctatus*](#) as well as a list of characteristics that separate the two species. (Walker, 2008a).

Lifecycle Stages

The life cycle takes about 50 – 90 days (Netherlands Plant Protection Service, 2009)

Habitat Description

Scyphophorus acupunctatus is a specialist insect attacking plants belonging to the Agavaceae and Dracaenaceae (Ruiz-Montiel *et al*, 2008). It attacks sisal (*Agave sisalana*) and other plants such as ornamentals (*Beaucarnea*, *Dasylijirion* and *Yucca*, Tuberose, *Polianthes tuberosa*) (Walker 2008c). Larvae and adults of this species are found in roots, lower leaves, and inside the heads, especially on plants already in the process of putrefaction.

Reproduction

Mating and oviposition take place predominantly on the bottom of the leaves or inside the agave head (Lock, 1962 as seen in Ruiz-Montiel *et al*, 2008)

General Impacts

Scyphophorus acupunctatus is becoming a major pest of native Agavaceae and Dracaenaceae species worldwide. Native to Mexico, it has decimated populations of Agave crops there, in particular species used in the tequila and henequen industries (Hernandez *et al*, 2006; Bolanos *et al*, 2007). The importation of ornamental Agave plants worldwide has facilitated *S. acupunctatus* to establish in many parts of the world, particularly in Central America and the Caribbean, in Africa, Asia and South America. On its host species, it causes rot and sometimes mortality due to its larvae boring holes which then facilitates micro-organisms entering the host that decompose the plant tissues (Hernandez *et al*, 2007). *S. acupunctatus* has also been shown to be a vector of *Erwinia carotovora* which decomposes the host, causing putrefaction (Solis-Aguillar *et al*, 2001).

Management Info

Preventative measures: The Division of Fish and Wildlife on the island of St. Croix, US Virgin Islands, has undertaken public awareness information programmes to educate the public on native wildlife and what they can do to help protect them (Platenburg & Valiulis, 2009). The Department of Agriculture and Fisheries, on Curaçao, part of the Netherlands Antilles, has developed a presentation that discusses past introductions of alien species and their effects on native biodiversity as well as alert species that can pose new threats to the islands; *Scyphophorus acupunctatus* has been identified as a potential invasive. This presentation is given to Customs, Aerocargo, Department of Agriculture personnel, importers of plants, nature groups and the public in general in order to raise awareness (van Buurt, 2009).

Chemical: Due to individuals being found within host plants and not externally, typical insecticides have proven ineffective. However current research has shown that isolated pheromones (Ruiz-Montiel *et al*, 2008) combined with effective collection tools like a Victor Trap could prove to be a potential control agent (Valdez *et al*, 2005).

Principal source:

Compiler: IUCN SSC Invasive Species Specialist Group (ISSG) with support from the Overseas Territories Environmental Programme (OTEP) project XOT603, a joint project with the Cayman Islands Government - Department of Environment



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Scyphophorus acupunctatus*

Review:

Publication date: 2010-06-02

ALIEN RANGE

[1] BELIZE	[1] BRAZIL
[1] CAYMAN ISLANDS	[1] COLOMBIA
[1] COSTA RICA	[1] CUBA
[1] DOMINICAN REPUBLIC	[1] EL SALVADOR
[1] FRANCE	[1] GUATEMALA
[1] HAITI	[1] HONDURAS
[4] INDONESIA	[1] ITALY
[1] JAMAICA	[1] KENYA
[6] MEXICO	[1] NETHERLANDS
[1] NETHERLANDS ANTILLES	[1] NICARAGUA
[1] SAUDI ARABIA	[1] SOUTH AFRICA
[1] TANZANIA, UNITED REPUBLIC OF	[12] UNITED STATES
[1] VENEZUELA	[2] VIRGIN ISLANDS, BRITISH
[1] VIRGIN ISLANDS, U.S.	

BIBLIOGRAPHY

26 references found for *Scyphophorus acupunctatus*

Management information

[Cooperative Extension Service \(CES\), University of the Virgin Islands, 2010. Agriculture - Integrated Pest Management](http://www.uvi.edu/sites/uvi/Pages/CES-Agriculture-Integrated_Pest_Management.aspx?s=RE)

Summary: Available from: http://www.uvi.edu/sites/uvi/Pages/CES-Agriculture-Integrated_Pest_Management.aspx?s=RE [Accessed 9 April 2010]

[IUCN/SSC Invasive Species Specialist Group \(ISSG\), 2010. A Compilation of Information Sources for Conservation Managers.](#)

Summary: This compilation of information sources can be sorted on keywords for example: Baits & Lures, Non Target Species, Eradication, Monitoring, Risk Assessment, Weeds, Herbicides etc. This compilation is at present in Excel format, this will be web-enabled as a searchable database shortly. This version of the database has been developed by the IUCN SSC ISSG as part of an Overseas Territories Environmental Programme funded project XOT603 in partnership with the Cayman Islands Government - Department of Environment. The compilation is a work under progress, the ISSG will manage, maintain and enhance the database with current and newly published information, reports, journal articles etc. [Lavin, Mario Camino; Castrejon Gomez, Victor R.; Figueroa Brito, Rodolfo; Aldana Llanos, Lucila; Valdes Estrada, Ma. Elena, 2002. Scyphophorus acupunctatus \(Coleoptera: Curculionidae\) attacking Polianthes tuberosa \(Liliales: Agavaceae\) in Morelos, Mexico. Florida Entomologist. 85\(2\). June, 2002. 392-393.](#)

Summary: Available from: <http://www.fcla.edu/FlaEnt/fe85p392.pdf> [Accessed 9 April 2010]

Netherlands Plant Protection Service 2009. Wageningen, November 2009 Short PRA *Scyphophorus acupunctatus*, Sisal weevil

[Platenberg, Renata and Jennifer Valiulis, 2009. Do One Thing For Wildlife, Newsletter. Department of Planning and Natural Resources Division of Fish and Wildlife US Virgin Islands](#)

Summary: Available from: <http://fw.dpnr.gov.vi/wild/Docs/Newsletters/Do%20One%20Thing%20in%20February.pdf> [Accessed 9 April 2010]

Pott, J. N., 1976. A Yucca borer *Scyphosphorus acupunctatus* in Florida. Proceedings of the Florida State Horticultural Society. 88 1975. (1976) 414-416.

Ruiz-Montiel, Cesar; Garcia-Coapio, Guadalupe; Rojas, Julio C.; Malo, Edi A.; Cruz-Lopez, Leopoldo; del Real, Ignacio; Gonzalez-Hernandez, Hecotr, 2008. Aggregation pheromone of the agave weevil, *Scyphophorus acupunctatus*. Entomologia Experimentalis et Applicata. 127(3). JUN 2008. 207-217.



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Scyphophorus acupunctatus*

[Servin, Rosalia; Tejas, Armando; Arce-Montoya, Mario; Robert, Manuel L., 2006. *Scyphophorus acupunctatus* Gyllenha \(Coleoptera : Curculionidae\) as potential insect pest of *Yucca valida* Brandegees in Baja California Sur, Mexico. *Folia Entomologica Mexicana*. 45\(1\). APR 2006. 1-7.](#)

Summary: Available from: <http://redalyc.uaemex.mx/pdf/424/42445101.pdf> [Accessed 9 April 2010]

[Solis-Aguilar, J.F., Gonzalez-Hernandez, H., Leyva-Vazquez, J.L., Equihua-Martinez, A., Flores-Mendoza, F.J., Martinez-Garza, A. 2001. *Scyphophorus acupunctatus* Gyllenhal, An Agave Tequilero Pest In Jalisco, Mexico. *Agrociencia* 35:663-670](#)

Summary: Available from: <http://www.inbio.ac.cr/papers/Dryophthoridae/art-9.pdf> [Accessed 9 April 2010]

[Valdes, Ma. Elena E.; Aldana, Lucila L. L.; Figueroa, Rodolfo B.; Gutierrez, Mirna O.; Hernandez, Maria C. R.; Chavelas, Tomasa M., 2005. Trapping of *Scyphophorus acupunctatus* \(Coleoptera : Curculionidae\) with two natural baits in a field of *Polianthes tuberosa* \(Liliales : Agavaceae\) in the state of Morelos, Mexico. *Florida Entomologist*. 88\(3\). SEP 2005. 338-340.](#)

Summary: Available from: <http://www.fcla.edu/FlaEnt/fe88p338.pdf> [Accessed 9 April 2010]

[Valdes-Rodriguez, Silvia; Ramirez-Choza, Jose Luis; Reyes-Lopez, Jorge; Blanco-Labra, Alejandro, 2004. Response to the insect \(*Scyphophorus acupunctatus* Gyllenhal \(Coleoptera: Curculionidae\)\) by the manufacture of henequen attractant compounds. *Acta Zoologica Mexicana Nueva Serie*. 20\(3\). December 2004. 157-166.](#)

[van Buurt, Gerard, 2006. Conservation of amphibians and reptiles in Aruba, Curaçao and Bonaire. *Applied Herpetology* 3: 307-321](#)

Summary: Available from: <http://www.mina.vomil.an/Pubs/Buurt-ConservationAmphiRepsABCislands-APHE2006.pdf> [Accessed 21 April 2010]

[Walker, K. 2008a. Diagnostic Images: Sisal weevil \(*Scyphophorus acupunctatus*\) Pest and Diseases Image Library. Updated on 10/13/2008 4:51:31 PM. Available online: <http://www.padil.gov.au>](#)

Summary: Available from: <http://www.padil.gov.au/viewPestDiagnosticImages.aspx?id=1034> [Accessed 9 April 2010]

[Woodruff, R.E., Pierce, W.H. 1973. *Scyphophorus acupunctatus*, A Weevil Pest of *Yucca* and *Agave* in Florida \(Coleoptera: Curculionidae\). *Entomology Circular No.135* Florida Dept. Agr. & Consumer Services Division of Plant Industry.](#)

Summary: Available from: <http://www.doacs.state.fl.us/pi/enpp/ento/entcirc/ent135.pdf> [Accessed 9 April 2010]

General information

[Bolanos, Teodulfo Aquino, Miguel Angel Iparraguirre Cruz, and Jaime Ruiz Vega, 2007. *Scyphophorus acupunctatus* \(=interstitialis\) Gyllenhal \(Coleoptera: Curculionidae\). Pest of agave mezcalero: Losses and damage in Oaxaca, Mexico. *Revista UDO Agrícola* 7 \(1\): 175-180. 2007](#)

Summary: Available from: <http://www.bioline.org.br/pdf?cg07018> [Accessed 9 April 2010]

[Colombo, M., 2000. First record of *Scyphophorus acupunctatus* \(Coleoptera Curculionidae\) in Italy. *Bollettino di Zoologia Agraria e di Bachicoltura*. 32\(2\). 2000. 165-170.](#)

[European and Mediterranean Plant Protection Organisation \(EPPO\), 2008. First record of *Scyphophorus acupunctatus* in France EPPO Reporting Service NO. 11 PARIS, 2008-11-01](#)

Summary: Available from: <http://archives.eppo.org/EPPOReporting/2008/Rse-0811.pdf> [Accessed 9 April 2010]

[Hernandez, Maria C.; Gutierrez, Mirna; Aldana, Lucila; Valdes, Ma. Elena, 2006. Fecundity of the sisal weevil, *Scyphophorus acupunctatus* \(Coleoptera : Curculionidae\), on *Polianthes tuberosa* \(Liliales : Agavaceae\). *Florida Entomologist*. 89\(4\). DEC 2006. 518-520.](#)

[Integrated Taxonomic Information System \(ITIS\), 2010. *Scyphophorus acupunctatus* Gyllenhal, 1838](#)

Summary: Available from: http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=188068 [Accessed 9 April 2010]

[Island Resources Foundation and Jost Van Dykes \(BVI\) Preservation Society, 2009. An Environmental Profile of the Island of Jost Van Dyke, British Virgin Islands, including Little Jost Van Dyke, Sandy Cay, Green Cay and Sandy Spit. *JVDPS, Jost Van Dyke, British Virgin Islands*: 124 pp.](#)

Summary: Available from: http://www.jvdgreen.org/files/JVDEnvironmentalProfile_DRAFT.pdf [Accessed 9 April 2010]

[Longo, S., 2007. Sexual dimorphism differences between adult populations of *Rynchophorus ferrugineus* and *Scyphophorus acupunctatus* \(Coleoptera Curculionidae\) from Sicily. *Bollettino di Zoologia Agraria e di Bachicoltura*. 39\(1\). APR 30 2007. 45-50.](#)

[Longo, S., 2008. Morphological and biological remarks on the Agave weevil *Scyphophorus acupunctatus* \(Coleoptera Curculionidae\) a serious pest of Agave in Sicily. *Bollettino di Zoologia Agraria e di Bachicoltura*. 40\(1\). APR 30 2008. 15-21.](#)

[Varnham, K 2006. Non-native species in UK Overseas Territories: a review JNCC Report No. 372](#)

Summary: Available from: http://www.caymanbiodiversity.com/wp-content/uploads/2007/10/jncc372_web.pdf [Accessed 9 April 2010]



GLOBAL INVASIVE SPECIES DATABASE

FULL ACCOUNT FOR: *Scyphophorus acupunctatus*

[Walker, K. 2008b. Distribution: Sisal weevil \(*Scyphophorus acupunctatus*\) Pest and Diseases Image Library. Updated on 10/13/2008 4:51:31 PM. Available online: <http://www.padil.gov.au>](#)

Summary: Available from: <http://www.padil.gov.au/viewPestDistribution.aspx?id=1034> [Accessed 9 April 2010]

[Walker, K. 2008c. Host Plants: Sisal weevil \(*Scyphophorus acupunctatus*\) Pest and Diseases Image Library. Updated on 10/13/2008 4:51:31 PM. Available online: <http://www.padil.gov.au>](#)

Summary: Available from: <http://www.padil.gov.au/viewPestHosts.aspx?id=1034> [Accessed 9 April 2010]

[Walker, K. 2008d. Other names: Sisal weevil \(*Scyphophorus acupunctatus*\) Pest and Diseases Image Library. Updated on 10/13/2008 4:51:31 PM. Available online: <http://www.padil.gov.au>](#)

Summary: Available from: <http://www.padil.gov.au/viewPestSynonyms.aspx?id=1034> [Accessed 9 April 2010]