

## *Trididemnum solidum*

**System:** Marine

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Ascidiacea	Enterogona	Didemnidae

**Common name** Mattenseescheide (English), ascidie blanche encroûtante (English), sinascidia entapizante (English), overgrowing mat tunicate (English)

**Synonym** *Didemnum solidum*

### Similar species

**Summary** The colonial ascidia *Trididemnum solidum* is present throughout the West Indies to Florida, the Bahamas to Venezuela. *T. solidum* grow as mat like sheets that can grow over coral, sponges and macroalgae. It is widespread in the Netherland Antilles. A nine fold increase over a 15 year period was recorded along the 84 km of fringing reef in Curacao. Here it forms large mats actively outcompeting, overgrowing and killing live coral. *T. solidum* is a bacterial suspension feeder and bacterial increases in the environment have been implicated in its rapid increase in the Caribbean. The increased eutrophication has been linked to human activity and urban development.



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

### Reproduction

*Trididemnum solidum* are viviparous and start reproducing when they reach a size of 11-15 cm. In Curacao and Panama *T. solidum* is capable of breeding throughout the year, and maybe only limited by adverse conditions. The larvae have a short free-swimming period and settle very quickly showing a preference for natural coral rock over smooth clean surfaces. The larvae after settlement remain inactive for 3-4 weeks before growing out into small colonies. Colonies grow into 4-5 mm thick whitish to purple coloured mats that may grow over 1 m (Van Duyl *et al* 1981).

### Management Info

An attempt was made on Bonaire to remove *Trididemnum solidum* colonies. Colonies were removed from depths of 4 to 25 m. When the sites were examined 6 weeks later, *T. solidum* recruits with a mean diameter of 25 cm, were found on 20% of the sites. Monitoring is continuing (Mcgrath and Peachey 2008).

### 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

### Review:

**Publication date:** 2010-06-08

### BIBLIOGRAPHY

15 references found for *Trididemnum solidum*

Global Invasive Species Database (GISD) 2024. Species profile *Trididemnum solidum*. Available from: <https://www.iucngisd.org/gisd/species.php?sc=1654> [Accessed 25 April 2024]

## Management information

[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.

[Mcgrath, Emily & Rita Peachey, 2008. The Colonial Tunicate \*Trididemnum solidum\* in The Bonaire National Marine Park: Colony Removal As A Potential Management Strategy](#)

**Summary:** Available from: [http://www.nova.edu/ncri/11icrs/abstract\\_files/icrs2008-000953.pdf](http://www.nova.edu/ncri/11icrs/abstract_files/icrs2008-000953.pdf) [Accessed 26 July 2010]

## General information

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Bak, R. P. M.; Lambrechts, D. Y. M.; Joenje, M.; Nieuwland, G.; Van Veghel, M. L. J., 1996. Long-term changes on coral reefs in booming populations of a competitive colonial ascidian. Marine Ecology Progress Series. 133(1-3). 1996. 303-306.

Bak, R. P. M., Sybesma, J., van Duyl, F. C., 1981. The Ecology of the Tropical Compound Ascidian *Trididemnum solidum*. II. Abundance, Growth and Survival. Marine Ecology Progress Series 6:43-52

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**Summary:** Available from: <http://www.scielo.sa.cr/pdf/rbt/v54s3/3392.pdf> [Accessed 24 August 2010]

[Données d'Observations pour la Reconnaissance et l'Identification de la faune et de la flore Subaquatiques \(DORIS\), 2009. \*Trididemnum solidum\* Van Name, 1902](#)

**Summary:** Available from: [http://doris.ffessm.fr/fiche2.asp?fiche\\_numero=1810](http://doris.ffessm.fr/fiche2.asp?fiche_numero=1810) [Accessed 24 August 2010]

Duyl, F. C., van, Bak, R. P. M., Sybesma, J., 1981. The Ecology of the Tropical Compound Ascidian *Trididemnum solidum*. I. Reproductive Strategy and Larval Behaviour. Marine Ecology Progress Series 6:35-42

Hirose, Eiichi; Mamiko Hirose; Brett A. Neilan, 2006. Localization of Symbiotic Cyanobacteria in the Colonial Ascidian *Trididemnum miniatum* (Didemnidae, Ascidiacea) Zoological Science May 2006 : Vol. 23, Issue 5, pg(s) 435-442

Lambert, Gretchen, 2002. Nonindigenous Ascidiaceans in Tropical Waters. Pacific Science, Volume 56, Number 3, July 2002, pp. 291-298 (Article)

Lambert, Gretchen, 2007. Invasive sea squirts: A growing global problem. Journal of Experimental Marine Biology & Ecology. 342(1, Sp. Iss. SI). MAR 26 2007. 3-4.

[Patterson, M.R. & N.J. Relles, 2008. Autonomous Underwater Vehicles resurvey Bonaire: a new tool for coral reef management. Proceedings of the 11th International Coral Reef Symposium, Ft. Lauderdale, Florida, 7-11 July 2008 Session number 16](#)

**Summary:** Available from: <http://www.nova.edu/ncri/11icrs/proceedings/files/m16-10.pdf> [Accessed 24 August 2010]

[SeaLifeBase, 2010. \*Trididemnum solidum\*](#)

**Summary:** Available from: <http://www.sealifebase.org/summary/SpeciesSummary.php?id=54256> [Accessed 26 July 2010]

Sybesma, J., van Duyl, F. C., Bak, R. P. M., 1981. The Ecology of the Tropical Compound Ascidian *Trididemnum solidum*. III. Symbiotic Association with Unicellular Algae. Marine Ecology Progress Series 6:53-59

[World Register of Marine Species \(WoRMS\), 2010. \*Trididemnum solidum\* \(Van Name, 1902\).](#)

**Summary:** Available from: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=251537> [Accessed 26 July 2010]