Boonea bisuturalis 正體中文

System: Marine

Kingdom	Phylum	Class	Order	Family
Animalia	Mollusca	Gastropoda	Heterostropha	Pyrmidellidae

Common name two-groove odostome (English)

Synonym *Odostimia bisuturalis* , (Say, 1822)
Turritella bisuturalis , (Say, 1822)

Similar species

Summary *Boonea bisuturalis* is native to the St. Lawrence River and the northwest Atlantic coast. It primarily feeds on other molluscs and grasses. It is an extoparisitic species and feeds on internal parts of its prey. It can be found under rocks at the line of low tide. *B. bisuturalis* has been introduced further south to the Gulf of Mexico and San Francisco. This species has been introduced to Califonia through contaminated oyster stock.

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Species Description
Boonea bisuturalis has a small shell that is ovate and conical. The shell is whitish with a single revolving line between the suture. The surface is smooth with five or six whorls and a distinct line revolves just before the suture. The whorl at the bottom is larger than the other whorls; it makes up about half the shell's length. *B. bisuturalis* has a bluish-white pillar lip that is smooth and rounded. Within the shell there is a lip that is turned outwards, which produces an umbililcal chink. The length is 5.08mm and the width is 2.54mm (Gould, 1870).

Notes
Boonea bisuturalis is an ectoparasitic snail (Ray, 2005), which means that it lives outside its hosts body and feeds on its internal fluids and tissue.

Habitat Description
Boonea bisuturalis is most commonly found \"below the line of low tide, adhered to rocks\" (García-Cubas *et al*. 1992). It has also been found on decayed wood and under stones on the shore in Massachusetts (Gould, 1870). Marsh (1976) found *B. bisuturalis* in unvegetated muddy sand.

Reproduction
The season when *Boonea bisuturalis* spawns is during early June to mid-September (Robertson, 1978). *B. bisuturalis* is a hermaphroditic species, but self-fertilisation is hindered due to morphological, physiological, or behaviour problems (Nautilus, undated). To transfer sperm cells from the spermatophore, two *B. bisuturalis* must be present. They connect to each other with \"one holding on with its foot to the basal part of the apertural side of the shell of the other.\" The spermatophores are stuck together in the mantle cavity where transfer occurs (Robertson, 1978).

Nutrition
The diet of *Boonea bisuturalis* consistes of plankton and detrital food items and also oysters, clams, and mussels (Cohen and Carlton, 1995). *B. bisuturalis* feeds on the odostomoid species *Fargoa bartschi*. It also feeds on gastropod and bivalve species. The species upon which *B. bisuturalis* primarily feeds is the snail, *Littorena littorea*. Another host of *B. bisuturalis* is the oyster, *Crassostrea virginica* (Robertson and Mau-Lastovicka, 1979).

General Impacts
Boonea bisturalis is an ectoparasite on the Atlantic oyster *Crassostrea virginica* and other bivalves and gastropods. It was found in association with the native hornsnail *Cerithidae californica* and the Atlantic mudsnail *Ilyanassa obsoleta* (see *Nassarius obsoletus*) (Cohen & Carlton 1995).

Pathway
Boonea bisuturalis has been introduced to Califonia through contaminated oyster stock.

Principal source: Robertson, R. 1978. Spermatophores fo Six Eastern North American Pyramidellid Gastropods and their Systematic Significance (With the New Genus *Boonea*). *Bio. Bull*. 155: 360-382.;

Compiler: National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG)

Review:

Pubblication date: 2007-05-14

ALIEN RANGE

[1] CANADA
[2] UNITED STATES

[1] MEXICO

BIBLIOGRAPHY
12 references found for **Boonea bisuturalis**

Managment information
Centre for Environment, Fisheries & Aquaculture Science (CEFAS)., 2008. Decision support tools-Identifying potentially invasive non-native marine and freshwater species: fish, invertebrates, amphibians.
Summary: The electronic tool kits made available on the Cefas page for free download are Crown Copyright (2007-2008). As such, these are freeware and may be freely distributed provided this notice is retained. No warranty, expressed or implied, is made and users should satisfy themselves as to the applicability of the results in any given circumstance. Toolkits available include 1) FISK- Freshwater Fish Invasiveness Scoring Kit (English and Spanish language version); 2) MFISK- Marine Fish Invasiveness Scoring Kit; 3) MI-ISK- Marine invertebrate Invasiveness Scoring Kit; 4) FI-ISK- Freshwater Invertebrate Invasiveness Scoring Kit and AmphISK- Amphibian Invasiveness Scoring Kit. These tool kits were developed by Cefas, with new VisualBasic and computational programming by Lorenzo Vilizzi, David Cooper, Andy South and Gordon H. Copp, based on VisualBasic code in the original Weed Risk Assessment (WRA) tool kit of P.C. Pheloung, P.A. Williams & S.R. Halloy (1999).
The decision support tools are available from:
http://cefas.defra.gov.uk/our-science/ecosystems-and-biodiversity/non-native-species/decision-support-tools.aspx [Accessed 13 October 2011]
The guidance document is available from http://www.cefas.co.uk/media/118009/fisk_guide_v2.pdf [Accessed 13 January 2009].

General information
Bay of Fundy Species Information. Undated. *Boonea bisuturalis*.
Summary: This website offers information on the classification, biology, and ecology of the species. Links are also given to help in finding other useful information.
Available from: http://nautilus.mathstat.dal.ca/BayOfFundy/taxListInfo.jsp?taxListInfo=Boonea%20bisuturalis [Accessed January 17, 2007]

Cohen, A.N. J.T. Carlton. 1995. Nonindigenous Species in a United States Estuary: A Case Study of the Biological Invasions of the San Francisco Bay and Delta. U.S. Fish and Wildlife Service.
Summary: This article describes the different invasions that have occurred in San Francisco Bay. It is considered the most extensively invaded ecosystem in North America. The research was done done to determine what types of species were located there and their ecological impacts.
Available from: http://www.anstaskforce.gov/Documents/sfinvade.htm [Accessed January 17, 2007]
Collin, R. 1997. Hydrophobic Larval Shells: Another Character for Higher Level Systematics of Gastropods. *J. Moll. Studies*. 63: 425-430.
Summary: This article was a survey of 57 species to determine that hydrophobicity is common in gastropods.
Garc&#65533;a-Cubas, A., M. Reguero, R. Elizarrar&#65533;s. 1992. Moluscos of System Lagunar Chica-Grande, Veracruz, Mexico: Systematics and Ecology. Annals of the Institute of Sciences of the Sea and Limnology.
Summary: This was a study of the species composition in the area of Lagunar Chica-Grande in Veracruz, Mexico. It describes the different gastropods and bivalves found in the lagoon.
Gould, A. 1870. Report on the Invertabrata of Massachusetts. Right and Potter State Printers, Boston. 327-328.
Summary: This book describes in detail the description of invertabrates in Massachusetts. Also given is the distribtution of them in Massachusetts.
ITIS (Integrated Taxonomic Information System), 2007. Online Database *Boonea bisuturalis*.
Summary: An online database that provides taxonomic information, common names, synonyms and geographical jurisdiction of a species. In addition links are provided to retrieve biological records and collection information from the Global Biodiversity Information Facility (GBIF) Data Portal and bioscience articles from BioOne journals.
Available from : http://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=79885 {Accessed January 17, 2007]
Marsh, G.A. 1976. Ecology of the Gastropod Epifauna of Eelgrass in a Virginia Estuary. *Chesapeake Science*. 17(3): 182-187.
Summary: This was a study done about the species composition of the York River in Virginia. It was found that gastopods were the predominant faunal element.
Available from: http://estuariesandcoasts.org/cdrom/CPSC1976_17_3_182_187.pdf [Accessed January 17, 2007]
Nonindigenous Aquatic Species (NAS), 2005. United States Geological Survey (USGS). *Boonea bisuturalis*.
Summary: This website gives where the species has been recorded and if it is established.
Available from:
http://nas.er.usgs.gov/queries/collectioninfo.asp?NoCache=5%2F13%2F2007+4%3A39%3A47+AM&SpeciesID=1035&State=&County=&HUCNumber= [Accessed January 17, 2007]
Ray, G.L. 2005. Invasive Marine and Estaurine Animals of California. Aquatic Nuisance Species Program (ANSRP).
Summary: This article discusses introduced, nonindigenous species. It shows how introduced species can cause potential threats to ecosystems, fisheries, and its impact on humans.
Robertson, R. 1978. Spermatophores fo Six Eastern North American Pyramidellid Gastropods and their Systematic Significance (With the New Genus Boonea). *Bio. Bull*. 155: 360-382.
Summary: This article discusses how spermatophores of different Pyramidellid are diiferent in appearance and how they are used in the reproductive process.
Robertson, R. T. Mau-Lastovicka. 1979. The Ectoparasitism of *Boonea* and *Fargoa* (Gastropoda:Pyramidellidae). *Biol. Bull*. 157: 320-333.
Summary: The artilcle shows how certain pyramidellids do not feed on everything on which they are attached. Studied was to see if these gastropods are host specific. Also addressed was how *Boonea* and *Fargoa* share these hosts as resources.