australasian nudibranch NEWS

Volume 2

Feature Creature

Hoplodoris estrelyado Gosliner & Behrens, 1998

"Estrelyado" is the tagalog name for "sunny side up" and is derived from the Spanish word "estrella" for star. The mantle of this species appears to be covered in sunny side up fried eggs.

Originally known from Vietnam, Western Australia, Indonesia, the Philippines Islands and the Marshall Islands it has known been photographed by Tas Weinreich from the Great Barrier Reef in Eastern Australia. I found a slide of this animal in my own collection also from the GBR.

References:

Gosliner & Behrens, 1998. Two new Discodorid Nudibranchs from the Western Pacific with a redescription of Doris Luteola Kelaart, 1858. Proceedings of the California Academy of Sciences 50:11, pp 179-293

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In This Issue

Editor's Notes...

Thanks to everyone for continuing to send sightings and other information. The crew from Pro Dive Milton (Brisbane) in Queensland have been especially helpful. Please keep it up.

Miquel and Josep have contributed another Mediterranean species this month, see page 8 and Ernest C.J. Seamark from South Africa sent images of a Glaucus feeding, see Page 6.

This issue is a little late as we have just returned from a business trip to central Queensland on which we managed a thirty km hike in Canarvon Gorge and a whale watching trip. This morning I went to dog gaol (boarding kennels) to retrieve our cattle dog, Marli and in passing asked the owner about marine aquariums. As it turned out he has a wealth of knowledge on the topic. He gave me a couple of good tips, always use a wooden frame or stand and make sure the tank lid seals tightly. It seems salt water can "climb" up the glass and escape and if your tank has a metal frame and is on a metal stand, electrolysis occurs and rapidly corrodes the metal.

He also mentioned to make sure to use 4-5 inches of shell grit over the filters on the bottom and add some grit from the low tide mark. Allow 6 weeks for the tank to mature, the added shore grit will establish healthy bacteria levels.

Miquel Pontes sent this request; "We are investigating the following nudibranchs: *Dondice (Godiva) banyulensis, Tylodina perversa* and *Thuridilla hopei.* We need to know the etymology of their names, but found little or no information regarding this issue". If you know the answer, please e-mail us at mpontes@marenostrum.org. All the answers will be welcome.

Miquel also asked an interesting question readers may be able to answer "Has "El Niño" '98 affected the Great Barrier Reef as it has affected the Indian Ocean" ?

British Marine Life Study Society

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URL: http://ourworld.compuserve.com/homepages/BMLSS/

This site contains useful information and is a valuable reference for those interested in all aspects of British marine life.

The society produces the journal GLAUCUS, the first publication exploring the marine life of the seas surrounding the British Isles available to the general public as well as the bi-monthly SHOREWATCH newsletter and TORPEDO the Electronic News Bulletin.

BMLSS aims to stimulate interest in marine natural history, related subjects and bridge the gap between popular books and scientific literature. It also liaises and co-operates with conservation and fishery organisations and other wildlife groups.


Fig.1


Fig.2


Fig.3


Fig.4

Glaucus atlanticus

Forster, 1777

I thought you may be interested in these pics. This is the basic sequence of events – .

It was collected on the shore of Treasure Beach, and remained in a tank for a week before being photographed (Fig.1). A blue bottle (*Physalia physalis*) was placed with the 3cm *G. Atlanticus*. It seemed to sense the presence of the Blue bottle, and moved so that it drifted towards the blue bottle using it's cerata and tail (Fig.2). The blue bottle was about 4cm, *G. atlanticus* swallowed it whole and only when it had consumed the whole animal did the bubble pop (Fig.3). Then *G. Atlanticus* moved its tail left then right (Fig.4) and the tail passed through the mouth on all occasions. Is this not the behaviour where by this species "grooms" the nematocycts of the blue bottle over its body.

Ernest C.J. Seamark South Africa

Description

Glaucus atlanticus lives in close association with Physalia, (blue bottles) Velella, (by-the-wind sailors) Porpita which float around (upside down) on the surface of the worlds temperate and tropical oceans. On days the onshore winds blow they wash onto beaches, causing pain and suffering for swimmers who they come in contact with.

Glaucus atlanticus and it's relative *Glaucilla marginata* spend their life floating upside down in the water, partially buoyed by a gas bubble in their stomachs. These two species of nudibranchs feed almost exclusively on Physalia, and appear to select the most venomous of Physalia's stinging nematocysts. These nematocysts are stored in special sacs (cnidosacs) at the tip of their cerata.

Their foot and undersides of the cerata, is blue or blue and white Their true dorsal surface, which faces down in the water, is silvery grey. This creates a perfect counter camouflage pattern, protected from above and below by blending in with the sky and the water. The cerata of *Glaucus atlanticus* (Fig. 5) are arranged in a single row in each arch while *Glaucilla marginata* (Fig. 6) they are in multiple rows.

A short single strand string of eggs encased in a thin mucus tube is produced and floats in the water until the larvae hatch.

Bill Rudman has further information on the behaviour of this species from contributors to the Australian Museum's Sea Slug Forum. See (http://www.austmus.gov.au/seaslugs/glauatla.htm).

Reference

Rudman, W.B., 1999. The Sea Slug Forum.
Thompson,T.E.. & Bennett, I., 1969. Physalia nematocysts: Utilised by mollusks for defence. Science, 166: 1532-1533.
Thompson, T.E.. & Bennett,I., 1970. Observations on Australian Glaucidae (Mollusca:Opisthobranchia) Zoological Journal of the Linnean Society, 49: 187-197.

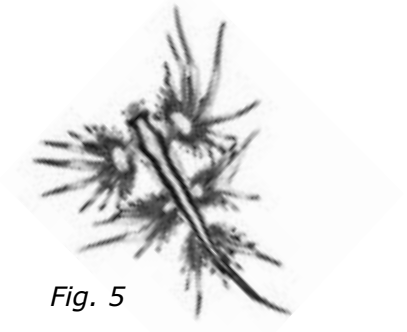
Fig. 5

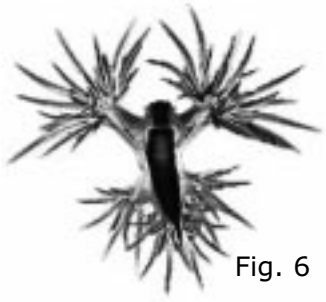
Fig. 6

Feedback

...did a dive at the Outer Gneerings on my way home from Heron Island and got some more nudis for you to add to your species list. There is so much out there it is unbelievable. This dive was at "hanging gardens". I collected a *Chromodoris leopardus* and a *Hypselodoris* that I have no idea of its species name. I will let you know as soon as I have found out. *C. leopardus* was at 19.5m and the Hypselodoris sp. at 18.5m.

Nerida Wilson Brisbane Australia

Many thanks for the copy of ANN 2(1) that arrived today - informative and readable as ever. To answer the question about the spelling of mollusc/mollusk in your Editorial. Both names are correct; it just depends where you come from. The US Congress approved a list of acceptable "American" spellings a hundred years ago - "color" is the best example. That committee also decided to spell mollusc with a "k", so that spelling is still acceptable in American writing. It has not (and probably never will) displaced the older spelling, mollusc, though which is the only correct spelling in non-US countries.

Richard Willan Darwin Australia

I was over on Moreton Island last week and found three little blue nudibranchs that were pretty obviously feeding on a Velella. I only knew about Glaucus doing this, but these look more like a picture of Aeolodiella in the Debelius book. These are a conventional looking nudibranch without lateral arms at all. Sorry no picture, but they were well camouflaged in blue...

Peter Davie Brisbane Australia

Ed: Fiona pinnata fits the bill. (Willan & Coleman, #144. 1984)

...we found two spanish dancers at T.G. Gedong, Flores island, Indonesia, the second find was white, the first was the more familiar dark red. One was found in 70 feet of water on a large rock next to a scorpion fish and the other at 50 feet on a wall. A good friend reports a find of 5 on a single rock at 160 feet. See Tom Haight's site http://oceanimages.com for images.

Leanne Wells Fort Worth Texas USA

Ed: Thanks Leanne for sharing your find. Hexabranchus sanguineus is a large (<25cm), nudibranch with a range of exquisite colour patterns, predominately red or white. This has lead to many different names for the same species. They are found in shallow water, inter tidal or washed up on beaches and probably feed on sponges. Considered uncommon, they occur throughout the Indo-West Pacific (Willan & Coleman, #1. 1984). Leanne sent an image, for some reason I couldn't reproduce it at a satisfactory quality.

...for nudibranch diversity I've got some other favourites (Fly Point and Halifax Park at Port Stephens, Ship Rock in Sydney, Tathra Wharf...)

Erik Schlogl Australia

After a gorgeous day diving in Brisbane, sun, no wind, no swell and 6 humpback whales I thought I'd tell you about the nudis I saw.

At Curtin Artifical (Moreton Bay, Brisbane, Qld) there were several large *Ceratosoma trilobatum* as per usual at this time of year. They were on algae on the wrecks. After Curtin we headed out to Flinders Reef for some more diving and I found my first *Chromodoris willani*, which I originally thought might be *C. lochi* but as my animal definitely had white specks all over its rhinophores and gills it had to be *C. willani*. Also at Flinders were *C. elisabethina* and *P. pustulosa.*

Sophia Philipp Pro Dive Milton, Australia

...just wanted to let you know that I found a couple of *Risbecia imperialis* trailing each other at Flinders Reef on Friday.

Christine McEwen
Brisbane Australia

Opisthobranchs of Kerama Is book is $32.95US, about 1/3 dearer than first quoted. The quality of the photos still makes it good value.

Dave Behrens USA

Ed: Would those in Australia who expressed an interest in buying this book let me know if you are still interested.

Mediterranean Nudibranchs

Cratena peregrina

by Miquel Pontes and Josep Mª Dacosta

This nudibranch is very common and easy to spot in shallow waters, as it lives on rocky bottoms, at illuminated or slightly shaded places. It is frequently found from July to September, although it is present the whole year round.

Formerly known as *Hervia costai* (Haefelfinger), the actual name *Cratena peregrina* was first described by Gmelin in 1791. This is an species considered to be endemic to the Mediterranean Sea.

Its body is white, and it is unmistakable because of the 7 to 10 groups of iridescent violet dorsal *cerata*, filled with brown or orange prolongations of the digestive gland known as *cnidosacs*.

There are two bright orange marks at the base of each rhinophore. The tips of the rhinophores are also orange, making them similar to the *cerata*.

The labial tentacles are often transparent, if not white, on its base, and they are long, as they almost double the size of the rhinophores.

The foot is long, and the tail measures one third of the animal's total length. The maximum length of the *Cratena peregrina* ranges, according to the authors, from 4 to 5 cm.

This nudibranch reproduces in the beginning of Summer, and it lays white convoluted egg strings on the same hydrarians it feeds on.

There are superb pictures of this aeolidacean at Erwin Köhler's Medslugs (http://www.medslugs.de/E/Mediterranean/Cratena_peregrina.htm)

Defence

For defensive purposes, the *cnidosacs* are used to store the stinging cells of the *Eudendrium* hydrarians this nudibranch feeds on.

The defensive strategy of the *Cratena peregrina* is to erect and direct the *cerata*, when disturbed, against the possible enemy. By doing so it confuses the predator because the nudibranch becomes almost indistinguishable, hidden under a mess of stinging *cerata*.

Even when the predator is not fooled and attacks, the *cerata* that cover the nudibranch detach easily from the body, and then the stinging nature of the *cnidocysts* avoid any further attacks. Lost *cerata* are easily replaceable by the injured animal.

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