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# Nudibranchs

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## Nudibranchs

By Emily Krieger

ver. 2 - Tue, May 20, 2008 at 11:40:50 AM

Nudibranchs are shell-less marine mollusks. Some 6,000 species live in disparate habitats all over the world, from shallow reefs to two miles beneath the sea surface. Most carry their exposed gills on their backs, a feature reflected in the order's name, Nudibranchia, Latin for "naked gill." Nudis, as they're often called, tend to be brightly colored, with patterns that call to mind rainbow-hued marzipan or psychedelic black-light posters. In the animal kingdom this kind of coloration is a signal to potential predators (though not to other nudis, which can discern only light and dark) that a meal may be distasteful—or even deadly. Nudis are famously resourceful, stealing defenses from their prey and refashioning them for their own use. Hydroids and coral, for example, are equipped with nematocysts—tiny stinging cells that nudis pilfer and then incorporate into their own self-defense system. They neutralize the adult cells, while the immature cells migrate to the tips of the nudis' dorsal structures (called cerata), where they will sting any sea creature curious enough to take a bite. Nudis can also eat toxic sponges and other sea animals without suffering harmful consequences; they chemically alter the toxins, turning them into secretions they can use against predators. Despite their large arsenal, however, these naked slugs, roughly the size of your index finger, can make a quick snack for sea stars, turtles, people, and even other nudis.

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## Nudibranchs Are What They Eat

By Emily Krieger

ver. 1 - Tue, May 13, 2008 at 11:33:36 AM

You can tell what many nudibranchs eat by looking at them—they range from brightly colored to colorless to match their prey. The species *Phyllodesmium iriomotense*, for example, has a translucent body, revealing branching internal organs that mimic the willowy soft coral it preys on. Some nudis resemble clumps of greenish-brown plants, thanks to tiny single-celled algae living inside their bodies. These photosynthesizing zooxanthellae, obtained from the coral that nudis feed on, are stockpiled in the nudis' cerata (dorsal structures) and sustained by regular amounts of sunlight. This creates a built-in greenhouse, with the plants' sugar byproducts giving nudis energy.

## Bibliography

Behrens, David W. *Nudibranch Behavior*. New World Publications, 2005.

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## Nudibranch Mating

By Emily Krieger

ver. 1 - Tue, May 13, 2008 at 11:42:52 AM

All nudibranchs are hermaphrodites, organisms that contain both male and female reproductive organs. A nudibranch can't impregnate itself, but during mating, partners fertilize each other so that both become pregnant and lay eggs—sometimes millions of them. Some larvae are born with a molluscan shell for protection but quickly shed it. Nudis' lives are brief; at most, they live a single year.

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Behrens, David W. *Nudibranch Behavior*. New World Publications, 2005.

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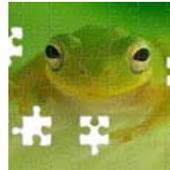
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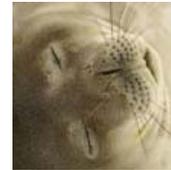
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