

# THE SCIENCE OF REEF RESTORATION:

## Testing New Reefbud<sup>©</sup> Technology

- Coral reefs occupy less than a quarter of one percent of the marine environment, but they support 25 percent of known marine life. (World Resources Institute (WRI) report, National Geographic)
- Today, reefs worldwide are declining due to changes in their environment. Losing one kilometer of coral reef would cost an estimated \$137,000 to \$1,200,000 over 25 years due to losses in fisheries, tourism and shoreline protection. (WRI)

Mote Marine Laboratory seeks to implement a novel research project to examine the impacts of various artificial reef materials in promoting restoration of reef habitats. Mote scientists plan to compare new Reefbuds<sup>©</sup> technology to natural limestone and other commonly used artificial reef materials in the waters of Sarasota and Lee counties, Fla. Research will focus on key indicators of healthy reef habitats, such as fish and invertebrate abundance, diversity, life-cycle stages, colonization rates and persistence over time.



### About Reefbuds<sup>©</sup>

Reefbuds<sup>©</sup> are award-winning, reef-restoration technology co-developed by Benjamin Tayag and Austrian geoscientist Harald Kremnitz. Each Reefbud<sup>©</sup> is made of environmentally friendly organic and inorganic materials engineered to foster coral growth and other marine life on dead or depleted reefs within months. (Reefbuds<sup>©</sup> are patent pending.) Reefbuds<sup>©</sup>, first deployed in the Philippines, have drawn the attention of top U.S. scientists seeking to restore reefs.

Reefbuds<sup>©</sup> are designed to absorb seawater and mimic the pH (acidity level) of their immediate environment. Each Reefbud<sup>©</sup> contains environmentally friendly materials selected for:

- Porosity to absorb seawater and tiny life forms
- Calcification- a process involved in building reefs
- Stability as a long-term home for marine life
- Speedy growth of marine animals

### Science-based examination of Reefbuds<sup>©</sup> value for artificial reefs

Even promising new technology should be objectively and scientifically examined to understand whether it is able to enhance the growth of a natural marine reef community in Southwest Florida. Mote Marine Laboratory is planning on conducting the research required to make such a determination.



### How you can help.

You can make a tax-deductible donation to Mote's Artificial Reef Research project by visiting [www.mote.org/donate](http://www.mote.org/donate), selecting "Research at Mote" and typing "Reefbud Artificial Reef Research" in the comment box. You may also contact:

TOM WATERS  
Chief Advancement Officer at Mote  
(941) 388-4441, Ext. 352  
[waters@mote.org](mailto:waters@mote.org)  
1600 Ken Thompson Pkwy, Sarasota, FL 34236



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