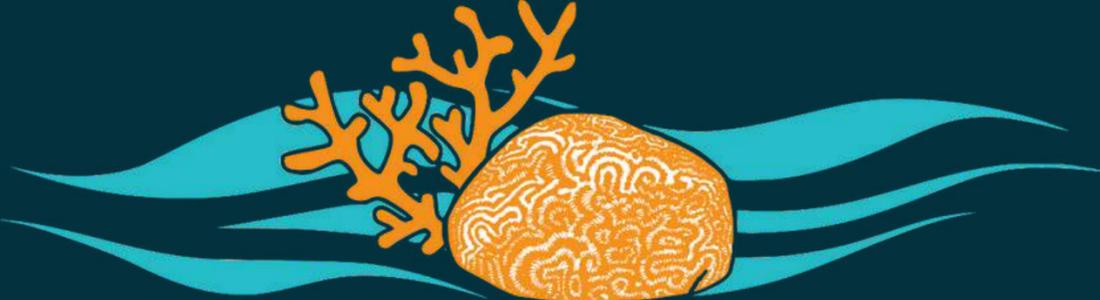


PLANT a Million Corals



“

**People ask me what will it
cost us to restore the
reefs? I'll have to ask you
what will it cost if we don't?**

DR. DAVID E. VAUGHAN
FOUNDER

50%

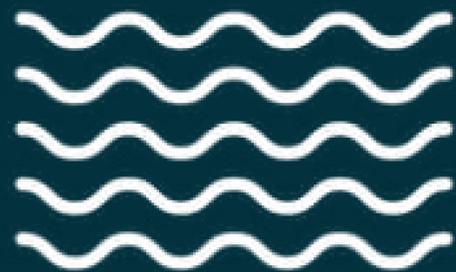
CORALS ALREADY LOST
GLOBALLY

Benefits of Coral Reefs

WHY THEY ARE IMPORTANT



Ocean
Biodiversity



Coastal
Protection



Air Quality



\$3.4 Billion in
revenue



500 Million
people
worldwide
depend on Coral
Reefs

Statistics: NOAA



Our Vision

To turn the tide of our oceans by saving our coral reefs

Mission Statement

- By the implementation of new coral and reef restoration technologies, we can stabilize and reverse the losses of reefs globally.
- By providing research, development, demonstration, training, education, and outreach projects in coral restoration technologies that can be implemented at a community level, we will have a global impact.
- By providing a platform for supporters to carry out the mission, we can make a real and measurable difference.
- Through these programs we can turn the tide of coral reefs at a speed and scale to save our oceans in our lifetime.

Who we are



DAVID E. VAUGHAN, PhD.

Dr. David E. Vaughan is an aquaculture researcher who has designed, built and operated many marine aquaculture projects, programs and businesses. He initiated the Harbor Branch Oceanographic Institution's Aquaculture Division in 1991 and built the Aquaculture Development Park, and ACTED, the Aquaculture Center for Training, Education and Demonstration. Dr. Vaughan built and developed the Center for Marine Ornamental Research (CMOR), which is now incorporated as Oceans, Reefs and Aquariums Inc (ORA), which he was president of until 2001 . Dr. Vaughan was Executive Director and Senior Scientist at the Mote's Elizabeth Moore International Center for Coral Reef Research & Restoration Center in the Florida Keys and Program Manager for the Coral Reef Restoration Program. He is now the President and Founder of Dr. David E. Vaughan Consulting LLC and the Plant a Million Corals Foundation (501(c)3).



What we do:

- Coral restoration program design, construction, and implementation
 - Partnering with organizations to scale up existing operations
 - Coral Restoration Units - Mobile lab - customized after site visits for each program with accompanying training and continued assistance
 - Community education and involvement to ensure the sustainability of each program
- Hands on training workshops with to share technology and techniques
- Research and development of new coral restoration technologies to ensure the continued growth of coral restoration tools and practices
- Plant a Million Corals at Summerland Farms - A coral restoration facility in the Florida Keys. Capabilities of up to 10,000 corals per year by end of 2022, up to 100,000 corals by year end 2023.



A stylized teal brain graphic with a quote inside. The brain is rendered in a textured, almost woodcut style, with various gyri and sulci visible. It is centered on a dark teal background. At the top of the brain, there are two large, white, stylized quotation marks. The quote itself is written in white, bold, sans-serif font, centered within the brain's outline. Below the quote, the name and title of the speaker are written in a smaller, teal, sans-serif font.

“

**People think that we've
ruined this planet with
technology, but,
with technology, we can
bring it back.**

DR. DAVID E. VAUGHAN
FOUNDER

The "Eureka Mistake"

While coral restoration was already in place for branching corals, like Elkhorn and Staghorn corals, the slow growth of the reef-building corals like brain coral or star coral seemed to make the original fragmentation a technology that would not be fast enough to make a difference in coral restoration. It was during this realization that Dr. Vaughan made his "eureka mistake".

When moving coral samples from the top level of the aquarium to the bottom, one of the corals had grown attached to the wall and broke apart when it was removed, not only ripping a hole in the coral, but leaving three small polyps at the bottom of the tank. His immediate thought was that those corals would not make it, and moved the broken piece to another tank, to be almost forgotten. Almost.

Two weeks later, he decided to check on the broken coral and found that it had already regrown the damaged tissue! Growth that had taken 2 years had occurred in a fraction of that time. This gave him such hope that he rushed to check the other tank with the polyps to find that they had not only survived, but had multiplied and grown to the size of a dime. After this discovery, Dr. Vaughan has continued his research to find that they can continue to cut smaller and smaller pieces of coral, down to one polyp. These small pieces of coral, when placed in proximity to each other, will grow together and fuse back as one piece.

Using this method of micro-fragmentation, he can grow a coral in 9 months that would normally have taken 15-25 years. We can regrow our reefs at a rate that can make a difference!

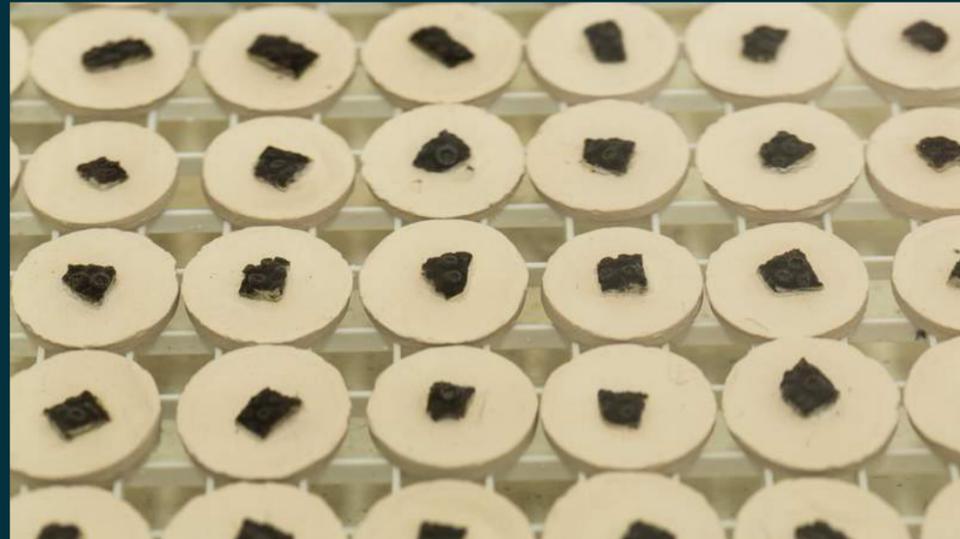


What is Micro-fragmentation?

The technique is, essentially, cutting corals into as small a piece as possible. When broken into these small fragments, this stimulates rapid healing and growth, from 25-40 times faster than on the reef. With this rapid growth, the corals have been seen to reach sexual maturity in as little as 5 years, which would usually take 25-50 years.



Fast growth leads to large healthy corals



Micro-fragmentation



6-12 months growth



Coral fusion



Replanting

Coral Restoration Workshops

Participants learn all techniques necessary to conduct cutting-edge coral fragmentation in a working land-based coral nursery.

Technologies covered include: nursery design and construction, sexual reproduction techniques for genetic diversification, field nursery and out planting operations, and program design.

"My expectations were blown out of the water with the detailed, hands-on experience, learning step by step the methods and tools we will implement in our daily activities at the land based nursery."

MARISSA MYER,
THE CORAL NURSERY OF PUERTO RICO



PLANT
aMillionCorals



Plant a Million Corals at Summerland Farms



CORAL PRODUCTION AND EDUCATION FACILITY

up to **10,000 corals**
production capability end
of year 2022

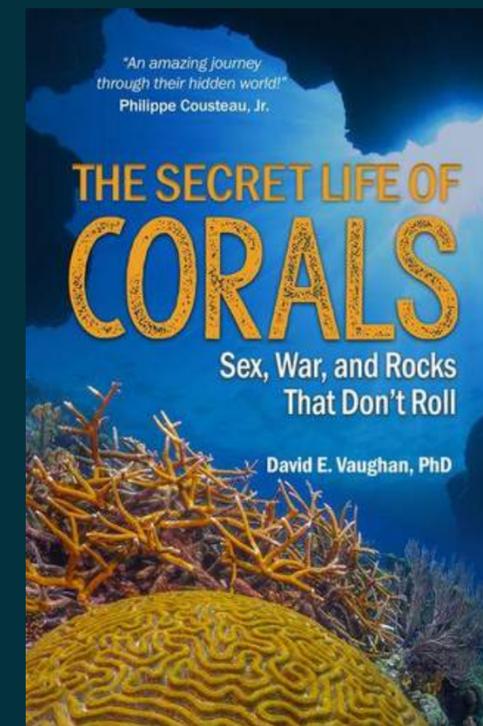
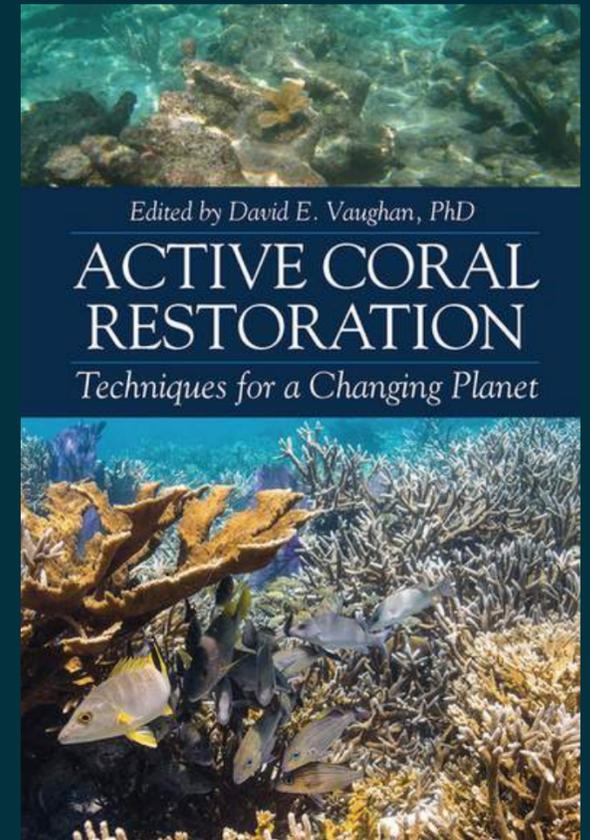


Classroom for community and professional education opportunities

Publications

Articles

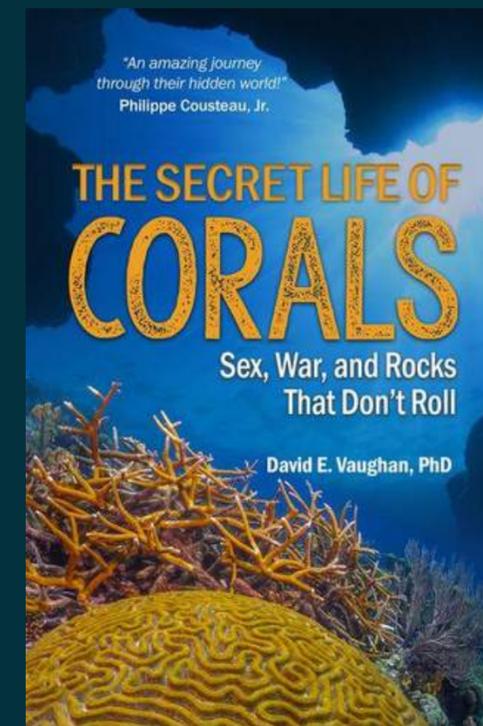
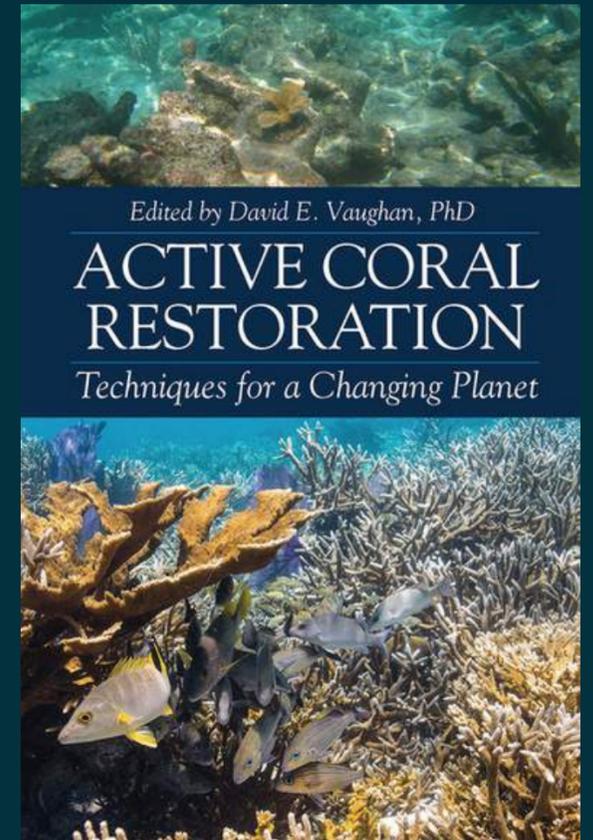
- New York Times, November 25, 2014- A Lifesaving Transplant for Coral Reefs
- Marine Technology Society Journal, September/October 2019, Volume 53, Number 5 pgs. 21-24- Building More Resilient Coral Reefs Through New Marine Technologies, Science, and Models.
- Forbes, June 16, 2021- Plant a Million Corals Project Hits 100,000 Mark in Mission to Produce Fast-Growing, Resilient corals
- Wired, April 5, 2022-A Million Little Pieces: The Race to Rebuild the World's Coral Reefs
- Vox, April 22, 2022- How to Resurrect a Coral Reef



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**With your help, we can
Plant a Million Corals,
and restore coral reefs within our
lifetime!**



CONNECT WITH US

Dee Dee Vaughan

Director, Communications and Development

+1 (772) 216-0391

plantamillioncorals@gmail.com

www.plantamillioncorals.org