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Regenerative Marine Aquaculture



www.thebiotagroup.com



Meet Tom Bowling

Biota Group founder and CEO

- Double Major in Aquaculture and Marine Science (JCU)
- 20 years in Aquaculture and Facility Design and Construction
- Founder and CEO of Biota Inc. <u>www.thebiotagroup.com</u>
- Awarded 'Aquarist of the Year" MASNA 2019
- Started on career path with a vision to replace the wild caught aquarium trade with sustainably cultured marine animals (fish clams and corals)



What does Biota do?



Ornamental Fish

We produce aquarium fish as a sustainable alternative to wild fish.

Facilities in:

- 1. Palau
- 2. Hawaii
- 3. North Carolina
- 4. Fort Lauderdale



We produce new species for the food trade. We focus on species that do not require traditional and unsustainable high protein diets, such as the Bumphead parrotfish, Rabbitfish and others.



Restocking Wild Populations

Our program has released about 60,000 'species of significance' such as the Bumphead Parrotfish and Lined Rabbitfish which helps in algae reduction and is a local food fish favorite.



Ornamental Aquaculture

- The first Marine Aquarium company to produce and sell exclusively aquacultured fish from farm to buyer.
- We have collectively bred more than 100 new species of Marine Fish.
- We have led a change of industry standards as hobbyists discover that cultured species are far superior for aquariums.





Proud Partner of the United Nations HIGH LEVEL PANEL for A SUSTAINABLE OCEAN ECONOMY

HOME

OUR STORY

WHAT WE DO ONLINE STORE WHOLESALE BIOTA NETWORK NEWS CONTACT

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Every second breath we take comes from the ocean

100% Cultured in aquariums for aquariums

All Biota marine life is sustainably cultured in captivity. By purchasing aquacultured marine species, you are ensuring long-term jobs in remote locations and directly contributing to reducing collection from the wild.

Find Your Closest Biota Pet Store >>

VISIT OUR ONLINE STORE



We produce high numbers of highly sought-after fish

Our facilities focus on species that are common in the trade but harder to keep as a wild animal. This gives our fish a higher value as they are raised in aquariums and will:

1. feed easier,

2. they are more peaceful,

3. they live longer

4. they carry less pathogens

5. go through less stress moving into a home aquarium.



Palau

- Mixed species Aquaculture
- 90% shipped to Florida facility
- 10% to EU and Asia when possible
- 12 staff
- Energy consumption in the range of 10,000 KwH/Month



Hawai'i

- Focus on less species but higher numbers
- Sole provider of the yellow tang surgeon fish
- Production on shipping to florida facility
- 4 staff for Biota
- 6 staff for HPU
- Approximately 5,000 KwH/Month





- Holding Facility
- Marketing and sales
- Receiving and Distribution
- for Wholesale and online
- 6 staff





Outsourced Breeders

North Carolina- Todd Gardener at Cartharet Community College

California- Thomas Roewer- Private Breeder

Panama - Till Deuss – Bocas Mariculture

Kosrae(Micronesia) - Martin Selch



Clown Triggerfish + \$250.00



Lyretail Damselfish \$35.00

Marine Betta \$200.00



Goldflake Angelfish Each \$500.00



Rare White Spotted Dwarf Goby

\$45.00





Court Jester Goby MD



Aiptasia eating filefish MD \$35.00





Colin's Angelfish \$500.00

Nebula Angelfish \$2,000.00

Picasso Clownfish \$75.00





Coral Beauty Angelfish Each Sold out







\$35.00





Starry Goby \$60.00

Striped Blenny \$35.00

\$35.00

Golden Cuban Basslet White \$700.00

Pavo Damsel Each \$35.00

















Widest variety of cultured Marinelife





Lemonpeel Angelfish Each

Sold out

Sold out

Sold out

Blue Mandarin Fish SM

Golden Cuban Basslet Purple





Sold out

Radial Filefish SM Sold out

Venustus Angelfish Each

Sold out





Blotched Anthias Sold out





Pinnate Batfish Each Sold out

Maculosus Angelfish Each Sold out





Purple Tang

Sold out



Milletseed Butterflyfish Each Sold out









Sustainable and Resilient

Sold out

Sold out

Golden-lined Rabbitfish MED







Hawaiian Cleaner Wrasse Sold out





Commercial Coral Production



Yuma Mushroom One Polyp

\$35.00



Pink Kenya Tree LRG \$45.00

Sold out

Polyp

Sold out

Grade A Acan Lords Frag Frag

Lava Lamp Mushroom One Polyp Sold out









White Polyp Toadstool SM \$60.00

Ultra Green Toadstool Leather SM \$70.00

Polyp

\$35.00

Branching Green Star Polyp MED \$20.00

Spaghetti Nepthea \$40.00



Green Goblin Anacropora Frag Sold out





Rainbow Infusion Zoanthid Per



Green Papaya Coral LIMITED Sold out













Green Hairy Rug Mushroom One Polyp \$50.00

Pacific Dawn Mushroom One Mountain Dew Toadstool SM \$70.00

Mint Pavona Frag \$59.00







Maricultured Corals

Foodfish Aquaculture

- In research phase 2. Now awaiting new facility to produce food fish and fingerlings in commercial quantity
- We have developed a method to get newly fertilized eggs from fish such as the Bumphead Parrotfish (*Bolbometopon muricatum*).
- Biota has researched the viability of many species of fish that are suitable for sustainable and high value find fish production



www.thebiotagroup.com



Egg collection method

- Developed by spending hundreds of hours observing spawning behaviour of different fish species.
- Once the timing is worked out it is very reliable and we get the best eggs possible.
- Have successfully raised 7 different species- all high value and desirable for aquaculture

Bumphead Parrotfish



Red Snapper



Lutjanus bohar

Coral Aquaculture for Fish Food and Conservation





Fish Restocking and Outreach

Energy Requirements in Aquaculture

- Hatchery uses the majority with an estimate in Palau as 10, 000 Kwh per month = approx. \$2000/month
- Power and fuel is 5% of OC
- Total for all Biota operations estimated 30,000 Kwh/month in four facilities
- Mariculture (in ocean) is the best option for producing product – very low power requirements
- Solar, Wind and Tide would produce enough to facilitate a hatchery and power for accelerated coral growth



How Biota gives back to the ocean



Sustainable marine life

All Biota marine life is cultured in captivity so we can leave wild fish where they belong – in the ocean.



For every Biota fish you buy, we release at least two fish into the ocean, helping to restock wild populations. Food Security

Biota is working on sustainably culturing various unique species with high value for humans as a food source.

With our unique techniques we have proven results to be able to do so.



Vulnerable Communities

We can culture species for food supply and at the same time grow these in communities wh ose lives depend on the Oceans bringing them a source of sustainable long term income.

Anone -



"This is the most cost effective and conservation effective approach that I can think of."

– Dr John Howard Choat

Ornamentals future?

- Share the technology and training
- Use Biota business model to develop new facilities around the Pacific
- Develop a specialist team that can travel to these locations with a 'Hands on Approach' to get these businesses operational
- Commence training at the Palau facilities (Biota and Palau Community College Facilities)

Vision for Food Security in the Pacific

- Our acces to reliable spawning aggregations of 'species of significance' gives Biota Palau a unique position to be able to produce these animals in large numbers in Palau.
- We hope to eventually turn the fingerlings of these high value / medium value species into an export market, whereby we can ship the fish out at about 5-8 cm in size to facilities around the Pacific that can focus on Grow Out of these fish for domestic and export markets.
- Biota is in a good position to assist in development of this idea. We have the technology, staff and supply however we require a seperate facility to concentrate on foodfish larval production for commercial scale.



Every purchase you make puts two fish back in the ocean

You can help us give back to the ocean. For every Biota fish you buy, we release two fish into the wild. We are currently releasing valuable food fish into the waters of Palau, helping to restore depleted populations. We expect to release at least 60,000 captive-bred fish into the wild in 2020 alone. Support our mission and join the growing number of aquarium keepers who care about ocean conservation.

