Marine Aquarium Society of the Carolinas

MASC Newsletter IV - Q3 2005

Second Annual MASC Meeting Another Success

BY KEITH STILES

Highlights:

MASC Newsletter Team

Story Writer/Editor—Keith Stiles

Assistant Editor/Formatter—Scott Thomas

MASC held its second annual meeting on Saturday, July 30th, at the N.C. State Veterinary School. There were approximately 75 registrants attending this meeting who participated in roundtable discussions, frag trading, fragging demonstrations, and old-fashioned purchasing. One vendor, Reefscience, was in attendance offering both dry goods and an assortment of beautiful corals.

The meeting opened with a roundtable discussion about proper setup and maintenance of reef aquariums. The discussion was wide-ranging with attendees debating the efficacy of using ultraviolet sterilizers on reef tanks as a means of disease control, the relative importance of feeding or not feeding corals, the difference in calcium reactors and kalk reactors, and the usefulness of an auto-topoff system to maintain stable salinity in a reef tank. Attendees were also treated to a brief discussion by Ken Stockman describing his upcoming new Stockman drainage system, the next generation of his already successful and quiet drainage design for reef tanks. Wade Lehmann also announced a collecting trip to the coast for the weekend of August 27th.

A Roundtable Discussion About Proper Setup and Maintenance of Reef Aquariums.

At the end of the roundtable discussion, a brief meeting was held to elect board members for the upcoming year. The new officers are: Dan Dombrowski (President), Skip Severt (Vice President), Chris Barnes (Webmaster), and Keith Stiles (Newsletter Editor). Wade Lehmann will continue his efforts as founder/chief executive officer for another year.

Daniel Gomez and Chad Edwards demonstrated how to make your own food for use in feeding your reef tank inhabitants. Blending shrimp, whitefish, scallops, and mysis shrimp, they produced samples of food that were shared with individuals interested in testing fresh seafood as a food source for their reef tank.

Daniel Gomez and Chad Edwards Got Hand Deep While Preparing Food for Reef Tanks.

The afternoon started with the ever-popular frag trading as attendees wheeled and dealed for that much coveted coral frag. The frag trading was followed by a slide show of images from the Great Barrier Reef taken by Wade Lehmann on his recent trip to Australia. The annual meeting was rounded out by a demonstration of proper methods for fragmenting SPS, LPS, and soft corals as well as how to properly attach them. Registered attendees departed the meeting with frags created during the demonstration.

Second Annual MASC Meeting Another Success—cont.

The meeting concluded with the raffle drawing. Attendees purchased tickets during the day raising $250 for MASC operating funds. Prizes included a skimmer, a chiller, reef books, and numerous gift certificates (please see the list of vendors who donated at the end of the newsletter). Congratulations to all for making our second annual meeting a success!

Attendees Engaged in Frag Trades During the Day at the Second Annual MASC Meeting.

Approximately 75 Registrants Attended the Second Annual MASC Meeting Held at the NC State Vet School on July 30th.

Vendor Donations included a Chiller, a Euro-Reef Protein Skimmer, Compact Fluorescent Lighting, Books, and Much More.

Center for Coastal Monitoring and Assessment (CCMA) Releases Status Report

BY KEITH STILES

As reef aquarium keepers, all of us should be interested in the status of the natural reefs located around the world. The Center for Coastal Monitoring and Assessment (CCMA) has released the second in a series of status reports on the national coral reef ecosystem. The purpose of these reports is to develop "a comprehensive national coral reef ecosystem monitoring program" (website). According to the CCMA's Biogeography Team, coral reef ecosystems for the purposes of this report are "defined broadly as coral reefs and other functionally-related shallow water habitats, are found in eleven U.S. jurisdictions (the U.S. Virgin Islands, Puerto Rico, Navassa Island, Florida, the Flower Garden Banks and other banks of the NW Gulf of Mexico, Hawaii, the Northwestern Hawaiian Islands, American Samoa, the Pacific Remote Island Areas, the Commonwealth of the Northern Marianas, and Guam) and the three nations comprising the Pacific Freely Associated States (the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau)" (website).

The first report, entitled The State of Coral Reef Ecosystems of the United States and Pacific Freely Associated States, was released in 2002 and "provided a broad introduction to and a preliminary look at the status of coral reef ecosystems and was based primarily on qualitative information from the contributing authors" (website). The 535-page second report is structured similarly to the first report and focuses on "characterizing the condition of shallow water coral reef ecosystems in the United States and Pacific Freely Associated States" (website). Check out these reports at: http://ccma.nos.noaa.gov/ecosystems/coralreef/coral_report_2005/.

Profiling Our New Board Members

By Keith Stiles

Three new officers joined the MASC Board of Directors at the Annual Meeting in July. Brief biographies of each are included below:

Dan Dombrowski, President

Our new president is currently a fourth year veterinary student at the N.C. State University College of Veterinary Medicine with a focus in zoo medicine. He has a bachelor of science and a master of science degree in biology with a focus in Herpetology (reptiles/amphibians) and Entomology (insects) from Virginia Commonwealth University in Richmond, Virginia. His master's thesis was on host plant selection of butterflies. Dan has been a Phamacology Laboratory Tech for eight years, a Museum Curator of Living Collections for three years, and is currently the Coordinator of Living Collections at the Museum of Natural Sciences in Raleigh.

He has been interested in keeping aquariums most of his life. His parents owned a few pet stores while he was growing up. Dan says he has "seen the industry and hobby from the worst to the best over the past 25 years." He also said he has had "many versions of marine tanks set up in my home – off and on over the years." He was never interested in obtaining or keeping corals until he learned about "the idea of 'fragging' and the captive propagation of corals." In May, 2004, he decided to try setting up and keeping his first home reef aquarium. Learning how easy it was to propagate corals in captivity through fragging, he was inspired to try out this fascinating hobby. Dan says that "MASC and NCFrag have been a great influence."

Dan's 55 Gallon Reef Tank (Stand and Hood Built by Skip Severt)

Dan's love of the natural world comes through best in his own words. He says that "Philosophically, I believe that keeping and caring for living systems is a great way for people to learn about, and find new respect for the environment around them. I think that in general, when people keep pets and aquariums (or even plants), they gain a new awareness for the life on earth. I do not encourage rampant collection and destruction of wild populations. However, I do think that in moderation and with increasing care and awareness of the fragility of our world, keeping (and properly caring for) animals in captivity is an invaluable educational tool. In some cases, it is the only way that people may experience a piece of nature. Of course, with the pet trade and coral reef hobby, as with all human endeavors, some people are not responsible and abuse the system."

Dan's 40 Gallon Breeder Reef Tank

Dan hopes that as president of the club, he can "learn more about the reef aquarium hobby and its positive and negative impact on our natural world to be able to better educate the general public." He says he also hopes to "help increase awareness and foster respect for reef organisms in the trade and in the wild." Dan adroitly indicates that he wants "to encourage trends in captive propagation of corals and reef creatures to supply the trade and decrease collection pressures." He also has an interest in helping advance invertebrate medicine as an aspect of the veterinary profession.

Dan has four small reef aquariums that have all been set up for about one year. He has a 55 and a 40 gallon that both have sumps and "Nautilus te" protein skimmers. They have sand beds with about two pounds of live rock per gallon and internal

Profiling Our New Board Members—Cont.

Dan Dombrowski, President (cont.)

One of Dan's 33 Gallon Long Reef Aquariums

powerheads for water circulation. He has four VHO bulbs (2-actinics and 2-10,000K) over the 55 gallon tank and a 400W metal halide (10,000K) over the 40 gallon tank. The tanks are not drilled and both have overflow boxes. His other two tanks are 33 gallons that do not have sumps. They both have hang-on prism skimmers with surface skimmer attachments and internal powerheads. They both have the four bulb Coralife power compacts (each 65 watts) with two actinics and two 10,000K. All of his tanks have a mixture of SPS, LPS, and a few softies. He has a few fish in each tank including: clownfish, tangs, blennies, gobies, wrasses, and damselfishes. Most of his corals are from frags, other NCFrag members, or have been purchased from Chad at Reefscience.com! A few corals and most of his equipment have been purchased from Carolina Pet in Garner and Aquatica as well as light bulbs from Chad. Most of his fish are from Aquatica and Carolina Pet.

Skip Severt, Vice President

Our new vice president is currently a student at N. C. State University. He holds a Bachelor of Science degree in Poultry Science from NCSU and is presently a senior at the N. C. State College of Veterinary Medicine with a focus in Equine Medicine/Surgery. He will enter Equine Private Practice somewhere in North Carolina in May, 2006.

Skip says he was always interested in reef-keeping but never was really able to get involved in the hobby until he bought a house and had the freedom and facilities to maintain a tank. He currently has a 110 gallon AGA tank with 120 pounds of live rock, two 400W 10,000K XM metal halide bulbs, two 4-foot 110W VHO Actinics, a 40 gallon sump/refugium, an ASM skimmer, and approximately 1200 gph flow (return pump and closed loop).

Skip Severt's 110 Gallon Reef Tank

Profiling Our New Board Members—Cont.

Chris Barnes, Webmaster

Our new webmaster definitely has the educational and work background to match his new position. Chris earned a computer science degree from N. C. State University where he was also known as Mr. Wuf. Yes, that's right folks, Chris was the N.C. State Mascot during his tenure at the university. He first became involved in reef-keeping in December of 2003. Chris currently has a 120 gallon reef tank that has been set up for approximately one and a half years now (watch for a tank profile in an upcoming newsletter). He works as an Internet Systems Administrator for the Federal Court Systems, teaches as a web instructor with Wilson Technical Community College and is the owner of a web design company.

Our New Webmaster's 120 gallon Reef Tank.

Reefscience Returned to the Annual MASC Meeting with a Nice Selection of Corals for Sale.

Participants at the Annual MASC Meeting Spending Time Trading Coral Frags.

CORAL Magazine: A Magazine Reef Aquarium Owners Will Love

By Keith Stiles

CORAL magazine is a relatively new arrival in the world of aquarium magazines for United States reef aquarium enthusiasts. To date, six issues have been published in the United States and each one is a work of art. CORAL magazine has been around for a while as a German publication. In 1999, Daniel Knop "was concerned by the lack of reader-friendly, reliable information about the marine aquarium hobby available in the literature at the time." So, he decided to create a magazine that would serve a wider range of marine enthusiasts. Working with a German publisher, he created Koralle. In 2004, American reef aquarium experts decided to create an English language version of the magazine. The magazine is aimed at all levels of enthusiasts. Perusing an issue of the magazine, readers will find a bi-monthly article focused at beginning marine aquarium keepers. Readers will also find many DIY projects with detailed descriptions of how to recreate what is described in the article. Each issue also contains a featured aquarium with specifications provided for the aquarium along with beautiful pictures of it. Every issue of CORAL magazine contains myriad breathtaking photographs of corals, fish and live habitats. The photography alone makes this magazine worth the money paid for an annual subscription.

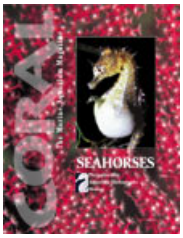
Title: CORAL: The Marine Aquarium Magazine.

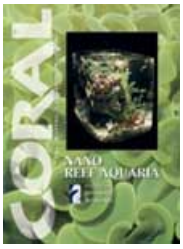
Publisher: EcoSystem Publications.

First Issue: February/March 2004.

Type: Magazine.

Subscription: $37.50 (1-Year, 6 Issues)





But, the magazine's true forte is the choice of a focus species or a focus aspect of reef-keeping describing it in quite a bit of detail including requirements for care and general scientific classification for organisms or a detailed examination of the aspect of reef-keeping chosen. The ten issues published to date have featured the following organisms or activities (in order of publication): seahorses, nano-aquaria, giant clams, lionfishes, nudibranchs, pygmy angelfishes, octopuses, leather corals, surgeonfishes, and sea urchins. This magazine is not the typical magazine you read and then toss out in the trash. Rather, it is filled with useful information that can be returned to again and again as a reader becomes more experienced as a reef aquarium hobbyist. If there is a drawback to this magazine, it would be that some readers will find it highly technical. The articles discussing marine organisms describe the scientific classification of various types of each species. In many respects, CORAL reads like a scientific journal for serious reef aquarium owners. Frankly, I do not see this as a major drawback but a welcome change. More detailed information is never a bad thing for a reef aquarium hobbyist to have! If you're looking for a magazine to subscribe to, I definitely suggest you take a look at CORAL magazine.

Subscription Information is available at:

http://www.coralmagazine.com/subscriptionInfo.htm

Look For the Return of the Tank of the Quarter in Next Quarter's Newsletter.

We are always looking for potential tanks (of all sizes) to feature as a Tank of the Quarter. The Tank of the Quarter is a way for us to feature a member's tank and show others what is working in each of your tanks. Please contact the Newsletter Editor at jkstiles@charter.net if you would like to have your tank featured!!

Spotlight Species

Banggai Cardinalfish—A Species In Trouble?

By Scott Thomas

Background

The Banggai Cardinalfish, or Kaudern's Cardinalfish (*Pterapogon kauderni*), is one of the most easily recognizable fish species because of its unique fin structure, and its unusual black and silver coloration. One of the more interesting aspects of this fish is that the male cares for the fry by carrying them around in his mouth until they are large enough to venture out on their own. Over the last few years, there has been talk of a radical decline in the wild population due to environmental damage, over-collection, or both.

The long, split dorsal fins are uncommon enough, but the combination of this and the beautiful black and silver striped coloration are a one-of-a-kind phenomenon. This species grows to a length of 2-3 inches in the wild as well as in the aquarium.

In Trouble?

Whether or not the species is actually in trouble has been a matter of much debate over the last several years. This species is only found in a very small area off the coast of Indonesia. That fact alone raises the alarm with conservationists. As such, several scientists have taken up research into this unique fish. In the June 2003 issue of the journal, Conservation Biology, Niclas Kolm and Anders Berglund described a dramatic decrease in wild populations of the Banggai even when "gentle" methods of fishing such as hand netting were used (see reference).

Tank Parameters:

pH—8.1-8.4

Temp—72-78

S.G.—1.020-1.025

Feeding—Carnivorous

Generally peaceful, but can become aggressive toward others of the same species during mating. Males are mouth-brooders, and will not eat when fry are present.

The populations in several areas were recorded and listed as either heavily fished, or lightly fished. The authors showed that the heavily fished areas had populations that were half the level of the lightly fished areas. Whether or not this is an indicator of a problem has been heavily debated. What many conservationists point out is that this species is only found in a very small part of the world and that they cannot maintain a suitable number for genetic diversity at the current rate of depletion. Because more and more hobbyists and commercial breeders are now successfully propagating this species and there is less pressure on local fishermen to bring the same number of Banggais, this opinion is becoming increasingly uncommon.

Lighting?

Though these fish are nocturnal, they are also active during the day making frequent trips out from the rockwork to forage for food. Experienced Banggai-keepers have found that they do prefer intense daytime light which would be a more natural environment.

Feeding

Banggai Cardinals tend to be very shy fish. Their feeding behavior is no different. They tend to be very active when hunting for food, but because other fish are usually more aggressive when the dinner bell rings they usually eat after fish such as tangs, pseudochromis, wrasses, etc. They are also easy to startle, so just the act of watching your fish feed may keep your Banggais hiding in the rocks until all the food has been eaten by your other, more aggressive specimens.

Wild-caught Banggais have been known to be difficult to transition to "dead" foods in the aquarium, but once acclimated, will eat a wide variety of foods including bloodworms, brine shrimp, mysis shrimp, even larger foods like silversides, chunks of squid and krill. This raises a word of caution for hobbyists who decide to keep Banggais in their tank if it contains small fish such as smaller gobies. The shape of the Banggai's head and jaw

Spotlight Species—cont.

structure allows them to open their mouths wider than you might think, and they can swallow many of these smaller fish in one rather amazing gulp.

Research has shown that feeding these fish enriched live foods, as opposed to non-enriched, seems to supercharge their health and well-being and will even stimulate them to spawn regularly, even more often than they do in the wild.

Tank Setup

Two words—low flow. Okay, maybe a few more words than just those two. Banggai cardinals like low flow and tend to have trouble getting by in an average, high-flow reef tank. What some hobbyists have done, with varying results, is have their corals and other inhabitants that need high flow in part of their tank with a great deal of flow and turbulence, while keeping another section of the tank "isolated" from it. The difficulty with accomplishing this task is making sure that the low flow area has enough flow to keep it from becoming stagnant. Personally, I would rather decrease the overall flow in the tank to a low but acceptable level, or to a moderate level, than to take the chance of creating a troublesome zone of stagnant water in my tank. If you have an area in your tank that has lower flow than The rest, these fish will most certainly find it, and that's where they will spend much of their time.

Aside from flow issues and lighting mentioned previously, Banggais will do well in a standard reef tank. If the hobbyist provides plenty of hiding places, these fish will feel less stress from larger or more aggressive fish. In the wild, Banggais often use the spines of long-spined sea urchins to dart into when they feel threatened (see pictures on the next page of artificial sea urchins used for juveniles). As most hobbyists don't have a tank large enough to support a population of these echinoderms, other hiding places should be provided so that they won't be swimming in and around your prized coral head causing their polyps to stay retracted.

Breeding

While few books discuss breeding Banggai Cardinalfish, there is a wealth of information available on the Internet. Many hobbyists find that if they have a stable system, provide ample hiding places, and supply nutritious foods to their inhabitants, their Banggais will spawn. What is usually noticed in a tank with multiple males is a sudden difference in the behavior between two males. When the female is ready to mate, the two males become aggressive toward each other, in many cases, resulting in the death of the weaker of the two. The outcome is that the more dominant, or remaining male, will mate with the female.

Once the eggs are fertilized, the male will take the eggs into his mouth, and keep them there until they hatch, grow large enough to venture out and find food, as well as a hiding place of their own. During this time, which takes a week or two, the male does not eat. Like most other fish, keeping the fry alive is difficult at best. The best advice that can be offered to the hobbyist wanting to raise these fry is to make sure there are plenty of places for these small fish to hid and to provide nutritious foods like "gut-loaded" freshly-hatched brine shrimp.

Conclusion

While the Banggai Cardinal is a very striking fish, any hobbyist who wishes to keep them needs to know a few things before they make the purchase. There is still a debate going on as to whether or not the species is in decline.

Spotlight Species—cont.

With all things being equal, if there were no captive breeding going on, this could be a serious issue. Because there are a growing number of breeders out there, this is becoming less and less of an issue.

Whether you purchase a wild-caught or captive-bred specimen is a matter of preference or availability. The source of your fish will determine how you feed, at least for as long as acclimation takes, which, as the old adage goes, "will take as long as it takes." Regardless of their origin, these fish make wonderful additions to your tank and will reward you with many hours of fascinating behavior.

Print Sources

Kolm, Niclas, and Anders Berglund. "Wild Populations of a Reef Fish Suffer from the 'Nondestructive' Aquarium Trade Fishery." Conservation Biology 17.3 (June 2003), 910.

Sources of Images

http://www.fishfools.com/ReefTank-SPS/Fish/BanggaiCardinal.htm

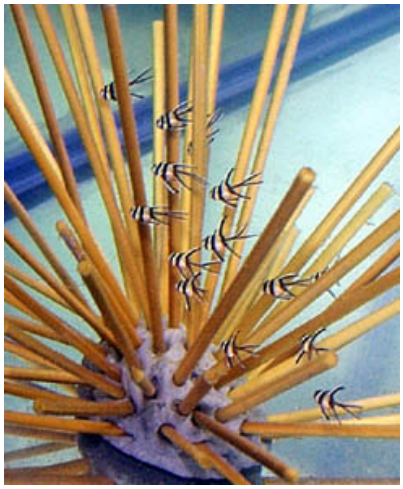
http://www.geocities.com/CapeCanaveral/Hanger/6279/RaiseBanggaiCardinal.html

http://www.aquariumadvice.com/photopost/showphoto.php?photo=2377&cat=526&page=1

Sources for Captive-Bred Banggai Cardinalfish

Oceans, Reefs and Aquariums (ORA) is currently increasing its broodstock in order to make more captive-bred specimens available. Check out their website at: http://www.orafarm.com.

Inland Aquatics also offers tank-raised specimens. They also offer the option of purchasing a pair. Check out their website at: http://www.inlandaquatics.com.



These images show one day old Banggai Cardinalfish fry (left) sheltering in an artificial sea urchin and month and week old Banggai Cardinalfish fry (right) in an artificial sea urchin. These images were used as illustrations as a part of an online reef chat given by Keith Clarke and sponsored by Reefs.org concerning the captive propagation of the Banggai Cardinalfish. You can see the entire text and additional links by going to:

http://www.reefs.org/library/talklog/k_clarke_102499.html

Vendor Donations Help Make the Second MASC Annual Meeting a Success

Vendors provided a large number of donations for MASC's second annual meeting. These donations included dry goods, gift certificates, books, and live corals. As a thank you to all of those vendors, their donations with our deepest thanks are listed below! We really appreciate their assistance and generosity!

$25 Gift Certificate & Coral Frags for Frag Demonstration

Acanthastrea Corals for Raffle

Model RS5-3 Protein Skimmer

Tsunami Auto Top-Off

Blue Line Moon Light

Coralife 24" Aqualight with 1-65W Actinic and 1-65W 10,000K Lamp Straight Pin Base, Fans Included

Coralife 9" Mini Aqualight with 1-9W 10,000K PL Lamp and 1-9W Actinic PL Lamp

Coralife T-Shirts (6)

$25 Gift Certificate

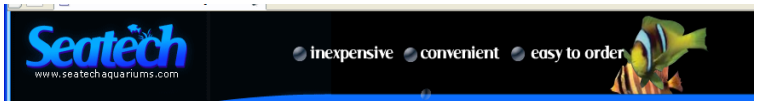
My Reef Creations

$50 Gift Certificate

Coralife 1/6 hp Chiller

Vendor Donations—Cont.

$25 Gift Certificate (4)



Ultimate Marine Aquariums: Saltwater Dream Systems and How They Are Created (Michael S. Paletta)
Basslets, Dottybacks and Hawkfishes: Plus Seven More Aquarium Fish Families with Expert Captive Care Advice for the Marine Aquarist, Reef Fishes Volume 2 (Scott W. Michael)
Angelfishes and Butterflyfishes: Reef Fishes Volume 3 (Scott W. Michael)
A PocketExpert Guide to Marine Invertebrates: 500+ Essential-to-Know Aquarium Species (Ronald L. Shimek)
Marine Fishes: 500+ Essential-to-Know Aquarium Species, The Pocketexpert Guide Series for Aquarists and Underwater Naturalists, 1 (Scott W. Michael)
Reef Life: Natural History & Behaviors of Marine Fishes & Invertebrates (Denise Nielsen Tackett & Larry Tackett)

RiptidesReef.com

$50 Gift Certificate

Fish Pros of Raleigh

25 Pound Bag of Oceanic Salt

As you can see, a long list of vendors were very generous for our annual meeting. I would like to offer a special thank you for all of our participating vendors for their patience in putting up with a very tenacious newsletter editor who was determined to bring plenty of nice items for our door prizes and raffles. Repay each of these vendors by rewarding them with your business. They have earned our support amply by their generosity and support of our annual meeting.

Vendor Web Addresses or Contact Information

ReefScience
http://www.reefscience.com/

Platinum Reefs
http://www.platinumreefs.com/

Euro-Reef
http://www.euro-reef.com/

Champion Lighting & Supply Company
http://www.championlighting.com/home.php

Coralife (Energy Savers Unlimited, Inc.)
http://www.esuweb.com/index.asp

Premium Aquatics
http://www.premiumaquatics.com/

My Reef Creations
http://www.myreefcreations.com/

Drs. Foster & Smith
http://www.drsfostersmith.com/Product/Shop.cfm?N=2004

LiveAquaria.com
http://www.liveaquaria.com/default.cfm?ref=3392&subref=AE

Seatech Aquariums
http://www.seatechaquariums.com/default.asp

RipTides Reef.com
http://www.riptidesreef.com/

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