

Fish 'N' Chips

A Monthly Marine Newsletter
April 2002 Issue

Index

[From Liz](#)

[Critter Corner](#)

[What's Up @ Reefs](#)

[UK](#)

[Caught In The Net](#)

[Marine News](#)

[Chips...er...Tips](#)

[Upcoming Events](#)

[Prove It!, a Bibliography](#)

[Newsletter Disclaimer](#)

From Liz

By Elizabeth M. Lukan 4/28/02

Visit This Month's Subscriber's Tank Showcase: Carlyle D. Isner's 180 Gallon Reef Tank is this month's Showcase and can be seen at <http://www.marinefiends.com/showcases.html> (*updated 8/24/04*).

[Back to Top](#)

Critter Corner

Breeding Clarkii Clownfish - Part 1

By Hennie Landman

By Elizabeth M. Lukan 4/28/02

Clownfish are probably the easiest marine fish to breed and successfully rear to adulthood.



The same principles should apply to most Clowns and Damselfish who do not scatter their eggs. If you succeed in rearing other species of this Family, I would be most interested in learning from your experience.

Sexing the fish:

Actually, that's the easiest part - just take any two fish, and give them enough time. Clownfish are all born as males, believe it or not. Then, the largest (and most dominant) of any group undergoes a sex change, and becomes the female. The second largest fish usually becomes the breeding male, and all the other fish remain "sexless" drones. Should the breeding female die or be removed, the breeding male will change to a female, and the next fish in the pecking order will become the breeding male.

So, given enough time any two fish could become a pair, if they're agreeable. It does help to start off with young fish, though. Also, do try to buy your fish from different sources, if possible, to minimize inbreeding.

Breeding tank:

Clowns will spawn in a community tank if they feel secure, and if the water parameters, temperature etc. is to their liking. Try not to have the tank densely stocked, though. If you could keep the breeding pair in a tank of their own it would be even better. They don't need a very large tank, ~200 liters (55 US gal.) is quite sufficient. My tank's water temperature was between 79°F - 82°F (26°C - 28°C), and the nitrates was undetectable. Lighting is not critical, but day and night cycles should be regular.

Spawning:

Some live rock, or other hard, rocky substance with a vertical face is needed for the spawning site. My fish spawned on a rock which was very close to their anemone. All subsequent spawnings were on the very same rock. I would recommend that you leave their chosen rock

undisturbed after their initial spawning.

When the fish are ready to spawn (within a few days), they will start to clean their chosen rock by vigorously biting it. They also become very aggressive, and will attack other inhabitants. The actual spawning takes place in the afternoon, or early evening, and can last for an hour, or even more. The female swims very slowly over the cleaned area, depositing the eggs. The male then follows close behind, and fertilizes the eggs.

Once the spawning is complete (within 1-2 hours), the male assumes responsibility for attending them, while the female acts as protector of the eggs and "supervises" her male. He will continuously fan the eggs with his fins, and even bite at them - not to eat them, but to remove detritus, or perhaps a dead or rotten egg. The eggs should be left in their care, and not removed, unless they are known to be egg-eaters from prior experience.



The Clownfish cleaning a possible spawning site on the glass.



The Clownfish guarding their eggs.

To Be Continued.

Editor's Comments & Photo Credits:

The above article and photos are the property of Hennie Landman and have been republished with his permission. My editing was limited to checking spelling and grammar and putting Hennie's article into the Fish 'N' Chips format.

Please visit Hennie's site for this article, a huge collection of beautiful photos and much more. Hennie's "Indoor Reef" can be found at <http://www.reefmaniacs.com/hl/> (*updated 10/06/05*).

[Back to Top](#)

What's Up @ Reefs UK - <http://www.reefsuk.org> -

By Elizabeth M. Lukan 4/28/02

4/2/02:

- Midland Reefs, based in Staffordshire, has now joined the Coral Farm Partnership Program. Midland Reefs produce many propagated corals from their coral farm including Soft Corals, Stoloniferans, Zoanths and Corallimorpharians.

To join the Reefs UK Mailing List, send an email to post@reefsuk.org.

To join Reefs UK Chat (Email Discussion Group), visit the Reefs UK Website for instructions.

Editor's Comments:

Information in this section covers the latest happenings at Mark T. Taber's Reefs UK Web Site. Mark has given me permission to publish any information from his mailing list that I feel would be of interest to Fish 'N' Chips subscribers. So, the above, although reworded by me, should be credited to Mark or to Derek Scales who works closely with Mark on the running of Reefs UK. The dates in bold coincide with Mark or Derek's mailings and are provided as a reference.

[Back to Top](#)

Caught In The Net

By Elizabeth M. Lukan 4/28/02

Marine Aquarium Council Update

- The MAC Certification system and label was launched Nov. 27, 2001, during the 2nd International Conference on Marine Ornamentals in Orlando, Florida, USA.
- Companies interested in becoming MAC Certified are being asked to sign a "Statement of Commitment." Companies that sign the statement will be listed on the MAC Web site.
- U.S. importers, wholesalers, and retailers have showed overwhelming support for MAC

Certification during recent outreach efforts:

- MAC Executive Director Paul Holthus presented at the Marine Aquarium Conference of North America (MACNA) in Baltimore, Md in August 2001
- also at MACNA, Jen (Charlie) Veron, author of *Corals of the World*, praised MAC efforts to ensure the marine ornamental trade is sustainable
- MAC support continued strong in September 2001 during meetings with major marine aquarium importers and wholesalers in the Los Angeles area
- MAC Industry Coordinator David Vosseler spearheaded the East and West Coasts efforts and targeted the Chicago area in October 2001 in conjunction with the Backer Trade Show and the Florida area in November 2001 in conjunction with the Marine Ornamentals Conference.
- In Indonesia, the Association of Coral and Fish Exporters (AKKII) has agreed to promote MAC Certification among AKKII members; encourage members to seek MAC Certified organisms; work to ensure that its buyers become MAC Certified; and more.
- Public aquarium support is making headway:
 - The American Zoo and Aquarium Association (AZA) is finalizing its draft acquisition policy which strongly supports MAC Certification
 - The Ocean Project (TOP), a collaboration of aquariums, zoos, museums, and other educational institutions, continues to feature MAC in its quarterly newsletters
 - SeaWeb is working with MAC to broker relationships with public aquariums interested in hosting national and regional media events promoting MAC Certification.
- Public aquariums are being asked to support MAC Certification by committing to buying only MAC Certified organisms when available, advertise that commitment to suppliers and the public, and advertise support for MAC in aquarium display areas, Web sites, newsletters, public forums, etc., and distribute MAC information on sustainable fisheries.
- A presentation for hobbyist clubs and aquarium societies on sustainable aquarium fisheries is being developed to increase consumer awareness of and confidence in MAC Certification. It will initially be delivered by MAC spokespersons and eventually be available on video.
- Mary Middlebrook, an importer/wholesaler in the Los Angeles area, hosted a chat session that promoted MAC on reefs.org (<http://www.reefs.org/>) on Sept. 23, 2001. The transcript is available at the reefs.org library.
- Hobbyist clubs, aquarium societies, and Internet sites interested in providing MAC information to their members can contact info@aquariumcouncil.org.
- The Philippines Feasibility Studies indicate that several reef-to-export chains can participate in the certification test cases at the end of October 2001. Most encouraging was the very high level of achievement of less than 1% dead on arrival from reef to

collector and in many cases 0% dead on arrival.

- MAC's partner in the Philippines feasibility work, International Marinelife Alliance, has trained several collector cooperatives in the independent certification process. Interaction and feedback from the sessions are enabling the training manuals for collectors to be finalized and published. Test case participants include Philippines reef-to-export chains and U.S. and European import-to-retail chains.

Remember to visit the MAC website at <http://www.aquariumcouncil.org/> for more information and to subscribe to the newsletter.

[Back to Top](#)

Marine News

By Elizabeth M. Lukan 4/28/02

2/26/02 - Washington DC, USA: The National Marine Fisheries Service (NMFS) is considering developing regulations to protect whales, dolphins, porpoises, seals and sea lions from human harassment. NMFS managers want to gauge how to amend the Marine Mammal Protection Act (MMPA) regulations or provide other measures to prevent harassment and harm to marine mammals in the wild caused by human interactions or inappropriate viewing activities. The entire news release can be found at <http://ens-news.com/ens/feb2002/2002L-02-26-09.html> (*url dead 8/24/04*).

2/26/02 - Washington DC, USA: The National Marine Fisheries Service (NMFS) has awarded a \$10,000 grant to Ecological Research and Development Group, a Delaware based horseshoe crab conservation organization. The conservation group will use the funds to continue saving thousands of horseshoe crabs by providing a no cost way for mid-Atlantic conch and whelk fishermen to use fewer of the prehistoric anthropods as bait. The entire news release can be found at <http://ens-news.com/ens/feb2002/2002L-02-26-09.html> (*url dead 8/24/04*).

3/5/02 - Washington DC, USA: The conservation group Oceana has filed a formal, rule making petition with the National Marine Fisheries Service, requesting it uphold laws aimed at reducing destructive fishing and bycatch. The entire news release can be found at <http://ens-news.com/ens/mar2002/2002L-03-05-09.html> (*url dead 8/24/04*).

3/11/02 - Illinois, USA: Shells on the ocean floor appear to act as a buffer against chemical change over thousands of years. David Anderson of the National Oceanic and Atmospheric

Administration's Paleoclimatology Program, and David Archer of the University of Chicago, developed a new method to determine the carbonate ion concentration of seawater, using shells on the ocean floor deposited over thousands of years. By studying the concentration of carbonate ion, the scientists are able to understand the amount of alkaline versus acidity, or pH, of the ocean over time. The entire news release can be found at <http://ens-news.com/ens/mar2002/2002L-03-11-09.html> (*url dead 8/24/04*).

3/19/02 - Washington DC, USA: Bottom trawling, a method of fishing that drags big, heavy nets across the sea floor, is killing vast numbers of marine animals, warns a new report from the National Academy of Sciences. The panel responsible for the report recommends that the government close some areas to all trawlers, and limit trawler access to other regions. The entire news release can be found at <http://ens-news.com/ens/mar2002/2002L-03-19-06.html> (*url dead 8/24/04*).

3/19/02 - California, USA: Researchers are learning more about the natural antifreeze that allows fish to thrive in the icy waters around the North Pole and Antarctica. A team from the University of California at Davis is closing in on how specialized blood proteins help protect the cold water fish. The research could lead to safer storage for food or blood products, help scientists understand how bones and seashells are made, and learn how mineral deposits can cause kidney stones and heart disease. The entire news release can be found at <http://ens-news.com/ens/mar2002/2002L-03-19-09.html> (*url dead 8/24/04*).

3/20/02 - Bergen, Norway: The World Wide Fund for Nature (WWF) staged a demonstration outside the meeting of European environment ministers to draw attention to the waste of half a million metric tons of marine animals every year. A 3.5 meter (11 foot) high set of scales was setup. On one side of the scale were fish caught for human use and on the other side were three examples of animals accidentally caught in fishing nets: harbor porpoises, baby cod, and starfish. The entire news release can be found at <http://ens-news.com/ens/mar2002/2002L-03-20-03.html> (*url dead 8/24/04*).

3/21/02 - Florida, USA: In what is believed to be the first such attempt, captive raised sea fans, a form of soft coral, will be planted on a reef in the Florida Keys National Marine Sanctuary that was damaged when a ship ran aground in 1989. The two main goals of the project are to better learn how to conserve and restore coral reefs, and to learn how to culture soft coral for re-seeding projects and for the aquarium industry. The entire news release can be found at <http://ens-news.com/ens/mar2002/2002L-03-21-09.html> (*url dead 8/24/04*).

4/2/02 - Hawaii, USA: The subject of nine public meetings in April will be a proposed new national marine sanctuary in the Northwestern Hawaiian Islands which would be the largest area ever set aside for conservation purposes in the U.S. The entire news release can be found

at <http://ens-news.com/ens/mar2002/2002L-03-28-09.html#anchor6> (*url dead 8/24/04*).

4/10/02 - Tortola, British Virgin Islands: Explorer, environmentalist, educator, and film producer, Jean-Michel Cousteau tours British Virgin Islands National Parks and undertakes physical survey of marine life. The entire news release can be found at <http://www.ewire-news.com/wires/E6A97BC1-8AC2-416C-93FC8D7BEEC3AD21.htm> (*url dead 8/24/04*).

4/16/02 - California, USA: Scientists at the University of California at Santa Barbara say that marine animals show a rapid and prolonged positive response to protection inside marine reserves. The entire news release can be found at <http://ens-news.com/ens/apr2002/2002L-04-16-09.html#anchor2> (*url dead 8/24/04*).

4/26/02 - California, USA: Scientists from the University of California at Santa Barbara say the color of the ocean may yield clues about the relationship between marine ecosystems and the climate system. The entire news release can be found at <http://ens-news.com/ens/apr2002/2002L-04-26-09.html#anchor8> (*url dead 8/24/04*).

[Back to Top](#)

Chips...er...Tips

Ridding Your Tank of Cyanobacteria

By Jason and Tera Chavez 4/20/02

Edited By Elizabeth M. Lukan 4/28/02

It seems that algae problems can be a real difficulty for aquarists. About a year ago we developed a huge red algae problem. It started in a small area and then exploded! It covered practically everything and even killed a few of our corals. We beat the problem and these are our tips for ridding yourself of cyanobacteria. Now, if anything looks "fishy" we use this checklist to troubleshoot our tank.

- replace the bulbs in your lighting system
- clean everything - protein skimmer, sump, overflow box, tubes, pumps, spray bar, etc.
- make sure your pumps are working correctly
- do plenty of large water changes sucking out as much of the algae as you can and use a toothbrush if you need to in order to remove algae from glass, power heads, etc.
- add snails - LOTS and mithrax crabs
- make sure your pH is HIGH and your other levels are perfect - check salinity

- run carbon and replace any filter pads regularly
- add additional power heads to increase water flow in any "dead" areas
- feed your fish carefully and remove uneaten food

To Submit Your Tip: Send your tip via email to fishnchips@mail.com and I'll publish it in an upcoming issue of Fish 'N' Chips. I'll write it up for you or you can do it yourself if you are so inclined. Make sure you let me know if I can include your name and email address or if you'd rather go anonymous.

[Back to Top](#)

Upcoming Events

By Elizabeth M. Lukan 4/28/02

Event	Start Date/ Time	End Date/ Time	Location	Event Details, Notes, and For More Info
International Coral Reefs Conference of Paris (CIRCoP)	Feb. 2003 <i>New Dates</i>		Paris, France	<i>Info:</i> http://www.circop.com/ .
Mandarin Survey	Jan 2001	Open Ended		If you have ever kept a mandarin, please fill out this survey, even if it has died. Visit the #Reefs website at http://www.reefs.org/ .
Aquarist Profile Survey	Aug. 2000	Open Ended		<i>Info:</i> What is the profile of a marine aquarist? Visit the #Reefs website at http://www.reefs.org/ .

To Submit Your Event: Send your event and all the specifics (date, time, location, pricing, contact info, etc.) via email to fishnchips@mail.com and I'll publish it in all issues of Fish 'N'

Chips prior to the event.

[Back to Top](#)

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By Elizabeth M. Lukan 4/28/02

Article: Marine News

- Environment News Service, <http://ens-news.com/>

[Back to Top](#)

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Any and all comments, suggestions, etc., should be directed to fishnchips@mail.com.

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To view the current issue of Fish 'N' Chips, visit <http://www.marinefiends.com/current.html> (*updated 8/24/04*).

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[Back to Top](#)