

# *The Sea Star Quarterly*



*The Sea Star Quarterly  
is a presentation of*

wasatch  
marine  
aquarium  
society



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### Welcome to the Sea Star Quarterly

The Sea Star Quarterly is a new take on an old idea. The original Sea Star Newsletter was published as a monthly between 2000 – 2008 (though not continuously). Like the original, the Sea Star Quarterly will feature insightful articles on the latest, cutting - edge developments in the Marine and Reef Aquarium hobby. We've included some of the "fun" stuff, too – things like the "WMAS Find – A – Word" puzzle and "Did You Know" Quiz / Brain Teasers. In future issues, there will also be some new features, like profiles of new WMAS Members and our LFS (Local Fish Stores) that we hope you will enjoy.

The Sea Star Quarterly will continue to highlight upcoming WMAS Events to help you stay up – to – date with all the goings on in the Club. And we'll end each edition with "The Last Word", where we will examine one noteworthy hobby – related news item and add our take on the issue.

So, Welcome Aboard – we hope you enjoy the ride!



## Robots On The Reef by Arthur Klinkenberg

New Scottish made robots may soon be used to help repair and rebuild reefs around the world. Researchers at Herriot-Watt University in Edinburgh, Scotland are developing swarms of what they are calling corabots using swarm intelligence to help repair and rebuild coral reefs after they have been damaged. The robots will have built-in video and image-processing tools.

Swarm intelligence is a concept taken from nature's swarming insects. An example would be a swarm of bees work as a collective to build or rebuild the hive. Where each bee might have a small job but as a collective they can build complex structures.



The robots will have built-in video and image-processing tools

Currently any repairs or rebuilding of damaged reefs is done by volunteer divers but their efforts have had limited success. These robots will be able to reach depths over 200 meters where some of the deep sea corals grow and the volunteer divers are unable to reach.

The swarm of autonomous underwater robots will operate according to a simple set of 'micro-rules' to seek out coral fragments and re-cement them to the reef.



## **Robots On The Reef** (cont)

The coralbot is a collaborative project led by Dr Lea-Anne Henry from the School of Life Sciences in partnership with Professor David Corne from the School of Mathematical and Computer Science and Dr Neil Robertson and Professor David Lane from the School of Engineering and Physical Sciences. The project provides an innovative solution to restore the function of reefs, both shallow and deep across the globe.

"We are developing new intelligent object recognition routines, exploiting the data from hundreds of coral reef images, to enable each swarm member to recognize coral fragments and distinguish them from other materials and objects in the environment in real-time," Dr Lea-Anne Henry said.

Dr Henry adds, "Swarms of robots could be instantaneously deployed after a hurricane or in a deep area known to be impacted by trawling, and rebuild the reef in days to weeks, instead of years to centuries."

According to the BBC report Dr Henry and her team are trying to raise the £2m (\$3.18M) needed to hold the first demonstration. They believe if they were able to get all the money the bots could embark on their first mission.

- Arthur



# WMAS Find – A – Word

Try and locate all the hidden Reefkeeping terms listed under the Search Key below. Remember, the hidden words can be found on the horizontal, vertical, diagonal... even backwards!

## Sea Star Fall 2012 Word Search

a	r	w	a	r	r	d	t	m	h	s	h	n	o	a	m	e
k	i	e	u	r	o	e	b	h	t	e	t	m	s	m	t	h
s	k	a	e	d	o	s	h	n	e	t	e	e	r	m	r	p
e	o	a	s	k	e	a	p	t	w	r	t	c	t	p	t	g
w	r	c	a	a	e	l	p	t	c	a	a	o	i	o	r	i
c	a	c	s	q	m	t	t	a	r	o	p	i	t	n	o	m
s	n	t	t	h	a	w	o	b	t	m	r	s	a	m	o	f
a	a	a	e	a	o	a	e	a	a	t	e	a	o	l	k	u
r	n	e	f	r	k	t	m	q	a	f	l	a	l	t	p	w
k	g	c	m	t	r	e	f	u	g	i	u	m	a	t	c	u
p	e	s	f	e	e	r	h	a	t	u	a	c	a	s	e	o
a	l	g	v	u	b	o	r	p	m	t	c	o	o	d	a	r
f	f	n	w	n	m	f	e	o	c	e	a	s	a	s	a	a
n	i	t	m	e	u	a	c	d	a	r	a	p	u	s	e	n
c	s	s	e	n	c	t	e	l	c	e	n	s	p	k	r	r
t	h	w	h	g	u	r	m	g	r	a	u	p	n	r	w	t
h	b	u	f	e	c	c	s	i	o	s	o	t	h	r	t	a

### Search Key

fish  
 refugium  
 tank  
 utahreefs  
 seastar  
 coral  
 montipora  
 fragfest  
 wmas  
 invertebrates  
 cucumber  
 saltwater  
 octospawn  
 aquapod  
 koranangelfish  
 caulerpa  
 led  
 water  
 totm  
 potm



## Did You Know?

The WMAS SeaStar Quarterly is looking for volunteers who are interested in writing articles for future editions. You don't need to be a professional writer; all you need to do is pick a topic that interests you (anything reef- related) and start writing!



To submit an article, photo or idea, or for further information, just contact any Member of the WMAS Presidency Council.



## Upcoming Events – Fall 2012

- **October** - TBA
- **November** - Dr. Bruce Carlson of the Georgia Aquarium will be our Guest Speaker at the Rose Garden House, 7PM.



His presentation is entitled  
“From the Hawaii Aquarium to the Georgia Aquarium - Creating the Largest Aquariums In The World”

- **December** - The Annual WMAS Holiday Pot – Luck Dinner and Food Drive. This meeting will be scheduled on a Tuesday, instead of the usual first Thursday of the month.



## End of an Era

The October 2012 issue of *Aquarium Fish International* (AFI) will be its last. After a 24 – year run that started In 1988, the magazine will be ceasing publication. You may recall that the sister publication, *Freshwater And Marine Aquarium* (FAMA) folded just 2 years earlier.

Now, I'd be the first to tell you that a lot of the articles and information in a magazine like AFI are geared more towards the beginning hobbyist than to old-school Reefkeeping veterans like me. But there were a lot of other reasons to like AFI - I loved to browse through all the ad pages, looking for the newest gadgets and equipment. And, of course, each & every month, they featured articles from some of the top names in this hobby; people like Scott Michael, Charles Delbeek, Sonjay Joshi, and Adam Blundell. (That's right, our own Adam B. has had several articles published in AFI - how many SW Clubs out there can say that?)



In the end, AFI was doomed by a combination of a down economy and the Internet – both of which robbed the print publication of advertising revenues. We still have *Tropical Fish Hobbyist* and the lovely but pricey *Coral* mags to peruse, but the best days for tangible, printed Marine and Reefkeeping periodicals are probably behind us now. And while the Internet can be a great place to get your information, nothing beats the feeling of kicking back in your La-Z-Boy with a fresh out of the mailbox magazine.

AFI's Editor, Clay Jackson, says that a 24 – year run is pretty good in this business. Personally, I would have enjoyed another 24 years of walking to the old mailbox and pulling out the next issue of *Aquarium Fish International*. But it seems that I've pulled out my last. And that's a shame.

- Bob

