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Zoanthids under actinic lighting.

Photograph by Leonard Ho

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Magazine (ISSN 1931-6895) is published monthly online by Pomacanthus Publications, Inc. A central goal of this publication is to promote exchange between the scientific community and amateur aquarists, for the benefit of both disciplines and the environment. To achieve our combined goals of greater understanding of the natural world and honing our husbandry skills we will rely heavily on science and scientists. Advanced Aquarist's Online Magazine will always emphasize protection and understanding of the natural environment.

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# TABLE OF CONTENTS

Volume VII, Book II

2008 Edition

# JULY

# 

By Sanjay Joshi

The study presented some very interesting data on the life of metal halide lamps. It reinforced the view that the spectral qualities change over time resulting in the change of the CCT of the lamps to lower values.

#### FEATURE ARTICLE

#### By Dana Riddle

Witnessing a coral spawning, especially in the daytime, is an unusual and memorable event. We have much to learn about coral reproduction.

## 

By Adam Blundell M.S.

The Finch Shutoff Relay is a great electrical invention. This item will undoubtedly prevent many overflows (it has saved me already).

# RODUCT REVIEW KILL-A-WATT ELECTRICITY METER AND SUGGESTIONS TO REDUCE POWER CONSUMPTION

By Dana Riddle

This power-shaving game can get rather addictive once we're motivated by seeing our power utility bill drop month-by-month.

# AUGUST

# FEATURE ARTICLE CORAL REPRODUCTION, PART TWO: ASEXUAL REPRODUCTIVE MODES OF CAPTIVE CORALS AND ANEMONES

By Dana Riddle

As we shall see, almost every detail of the captive breeding system must be deliberately engineered to consistently and reliably obtain the desired results.

# FEATURE ARTICLE SPECTRAL ANALYSIS OF 150 WATT DE LAMPS: GIESMANN, ICECAP, IWASAKI AND

By Sanjay Joshi

Sanjay continues his analysis of the 150 Watt DE Lamps.

### FEATURE ARTICLE

TOTAL ORGANIC CARBON (TOC) AND THE REEF AQUARIUM: AN INITIAL SURVEY, PART I

By Ken S. Feldman, Kelly M. Maers

Department of Chemistry, The Pennsylvania State University, University Park, PA 16802. Ken and Kelly report on their work on Total Organic Carbon and how it relates to the reef aquarium.

LATERAL LINES BLUNDELL BUTTONS, PART I: THE PAST
By Adam Blundell M.S.
The overall goal was to show the potential for captive aquaculture.

## 

### By Jake Adams

The Maxi Jet line has finally been revamped to include more powerful models known as the Maxi Jet Utility (MJU) pumps.

# **S**EPTEMBER

### FEATURE ARTICLE

CORAL REPRODUCTION, PART THREE: STONY CORAL SEXUALITY, REPRODUCTION MODES, PUBERTY SIZE, SEX RATIOS AND LIFE SPANS

#### By Dana Riddle

Information on the reproductive habits of over 300 stony coral species (in almost 100 genera) is presented. It is the most complete single-source reference currently available.

# TOTAL ORGANIC CARBON (TOC) AND THE REEF AQUARIUM: AN INITIAL SURVEY, PART II

By Ken S. Feldman, Kelly M. Maers

Department of Chemistry, The Pennsylvania State University, University Park, PA 16802. Ken and Kelly continue to report on their work on Total Organic Carbon and how it relates to the reef aquarium.

### FEATURE ARTICLE

### 

By Jay Hemdal

When experimenting with these small scale closed systems, it is vitally important to be backed up by your already solidly operating typical marine aquariums, so that you are better prepared to ultimately succeed with these experimental closed mini ecosystems.

LATERAL LINES	
<b>BLUNDELL BUTTONS PART II: THE PRESENT</b>	Г 111

By Adam Blundell M.S.

And for anyone still wondering - the original colony is still alive and doing well now a nearly a decade later in the original tank.

# **O**CTOBER

# 

By Dana Riddle

This month, well examine what little we know of the sexual reproductive habits of soft corals, zoanthids, a few anemone species and others.

# BREEDER'S NET EFFECTS OF COPPER EXPOSURE ON MARINE ORNAMENTAL FISH REPRODUCTION AND SURVIVAL

By Chatham K. Callan Ph.D, Charles W. Laidley Ph.D.

The results of these combined experiments indicated that elevated copper levels can cause accute mortality in flame angelfish and significantly reduce the reproductive performance of orchid dottyback broodstock. Therefore, the use of copper as a therapy for external parasites in these species is cautioned.

## 

By Adam Blundell M.S.

Adam reviews using probiotics in shrimp culture.

# SPECTRAL ANALYSIS OF 400 WATT MOGUL METAL HALIDE LAMPS: USHIO 14000K, ICECAP 400W SERIES, ELIOS 10000K

By Sanjay Joshi, Ph.D.

This article presents the last of the 400W mogul lamps tested.

# NOVEMBER

### BREEDER'S NET

EASY	Berghia	NUDIBRANCH	PROPAGATION 15	5
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By Justin Credabel

Applied Sustainable Aquaculture Inc., The Science and Technology Magnet High School of Southeastern Connecticut. Justin discusses his methods for propagating this interesting nudibrach.

#### LATERAL LINES

MUDSKIPPERS PART I- INTRIGUING LITTLE BUGGERS	158
---	-----

By Adam Blundell M.S.

For hobbyists looking for something truly inspiring and educational, I recommend looking into mudskipper care.

### PRODUCT REVIEW

# PRODUCTS OF THE 20TH MARINE AQUARIUM CONFERENCE OF NORTH AMERICA IN ATLANTA, GEORGIA

By Jake Adams

American innovation and advancements in nearly every kind of product one can imagine, this year's MACNA offered attendees a wealth of new marine and reef aquarium products to gawk at and enjoy.

## PRODUCT REVIEW

### By Terry Siegel

If I sound enthusiastic about this product it is because I am. Over the years I've seen all kinds of equipment come and go, but in my judgment, Vortech pumps are here to stay.

# DECEMBER

### FEATURE ARTICLE

By Dana Riddle Recent research has suggested a 'best lamp' - but some caveats exist!

# AQUARIUM CHEMISTRY THE CARBONATE SYSTEM IN THE AQUARIUM, AND THE OCEAN, PART I: THE COM-PONENTS OF THE CARBONATE SYSTEM

By Chris Jury

By understanding the carbonate system and using that knowledge to our advantage it is possible to encourage rapid calcification and growth in many of the calcifying organisms we maintain in captivity.

### EQUIPMENT REVIEW

	. 181
--	-------

### By Mark E. Evans

This article is an intervention of sorts, at least when it comes to simplifying one key aspect of the marine aquarium hobby - salinity (or specific gravity) testing.

## 

By Jay Hemdal

Jay reviews different information resources for marine aquarist.