

# THE CAPTIVE MARINE AQUARIUM

*A Colorful Photographic Resource for the Aquarist*

*Wayne Shang*



*Cover: Author's reef aquarium.*

# Contents

Foreword, by Dr. Timothy A. Hovanec - <i>The Power of One Person</i> .....	6
Preface, by Daniel Knop .....	8
Acknowledgment .....	9
Introduction .....	10
Marine Fish Aquarium .....	13
List of the Fish .....	15
Water Chemistry .....	17
Filtration .....	19
Health/Disease .....	21
Feeding/Diet .....	23
Reef Aquarium .....	41
Filtration .....	43
Lighting .....	45
Protein Skimmer/Foam Fractioner .....	46
Water Circulation .....	47
Water Chemistry .....	49



Water Temperature .....	50
pH .....	51
Alkalinity .....	52
Calcium .....	53
Magnesium .....	57
Strontium .....	58
Water Change .....	59
Tridacna Clams .....	75
Spawning Behaviors in Captive System .....	103
Reef-Building Stony Corals .....	113
Growth Sequence .....	155
Reef Fishes .....	167
Marine Fish Breeding .....	195
Coral Propagation .....	199
Photographic Details .....	221
About the Author .....	224

# Foreword

## The Power of One Person

This book represents what one person, one determined person — no, what one dedicated person can do. When it comes to incredibly beautiful aquaria full of big healthy fish and fantastic corals of all shapes and sizes, one might naturally think of public aquaria which are thousands or tens of thousands of gallons in size, located in huge buildings and staffed by several professional full-time aquarists backed by a water quality laboratory. Here in these pages is the proof that those features are not required to achieve the pinnacle of success with marine aquaria.

When I first saw Wayne Shang's tanks, I couldn't believe them. The fish-only tank had the largest specimens of marine tropical fish I had ever seen in a home aquarium. Their fitness and size were better and larger, respectively, than any I had ever seen, even in a public aquarium. Plus, these were not the fish considered to be easy by the many experts in the hobby; they were difficult and impossible ones. Here they were in sizes that one can't comprehend, but you see them with your own eyes. I thought it could not be possible to surpass this accomplishment; but then, he showed me his reef tank.

Again, this tank would have been impossible to fathom, had it not been in front of my own eyes. The density, size, and variety of corals; the numbers, types, and colors of fish rivaled anything I had seen diving in places like Fiji, Bonaire, the Philippines, and Grand Cayman. The reef tank truly represented the closest I had ever seen of someone, anyone, replicating a slice of Mother Nature.

As you look through these pages, remember these are home aquaria. Their size, their location, their filtration and lighting set-ups are not complicated systems designed by some NASA-like engineering firm and professional architect. No, the components are available to anyone. The tanks and the areas around the tanks were clean and would be acceptable to any

“significant other.” None of the tangled cords, salt creep, smells, and assorted clutter normally associated with aquaria was present. These are pristine, beautiful showpieces that demonstrate what an “amateur” can do. Amateur in only that one is not monetarily compensated for the effort. However, there is nothing amateur about the tanks, the set-ups, the organisms, the filtration, and the results of Wayne’s efforts.

Nonetheless, there is a secret ingredient. The secret ingredient that provides Wayne Shang success in my opinion? Dedication. It is obvious he is not satisfied with average, not satisfied with unsupported answers and claims, not satisfied with normal. Yes, many things are unknown about what it takes to achieve true success in this hobby. However, as this book so clearly demonstrates, one person with the will, the inquisitiveness, and the dedication to a goal can achieve the aspiration that so many strive to attain: marine aquaria that replicate and honor nature.

Enjoy this book and what it represents. In these days of “crowd following” and passive acceptance of inferior products, it is refreshing to know there are still concrete, visible examples of what one person can accomplish when he dedicates himself to a task. No committees, no big groups, no panel of experts — just a single person with a goal who builds and maintains the best closed marine aquaria possible, and provides the fish and corals the opportunity to grow and prosper as never before in captivity. It can be done. Here is the proof.

It was with pleasure that I accepted Wayne’s invitation to write this foreword. Please take time to study these photos and appreciate the work, time, and dedication that is behind the results you see in these pages: they show the power of one person.

*Dr. Timothy A. Hovanec*