

THE OCEANOGRAPHER

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**BILLFISH
PROMOTING
SUSTAINABLE
ECO-TOURISM**

**SEA LEVEL RISE IN
21ST CENTURY**

**SUSTAINING
AQUACULTURE IN
MALAYSIA:
BATTLING PATHOGENS
FOR A HEALTHIER
FUTURE**

CONTENT

| | |
|----|---|
| 03 | Editorial Message |
| 04 | Foreword |
| 05 | Professor Column Understanding Sea Level Rise in the 21st Century |
| 08 | Fishy Business Breeding for Conservation of Freshwater Species |
| 12 | Gallery of Knowledge Sustaining Aquaculture in Malaysia |
| 19 | Exploring Pahang's Marine Ecosystems: Insights from the OceanXplorer Mission |
| 23 | Marine Things Billfish Conservation Initiative in Rompin |
| 29 | Microplastics in Billfish: A Hidden Threat in Pahang Waters |
| 31 | Our Activities International Coastal Clean Up 2024 |
| 32 | Our Activities Let's Sea Camp 2024 |

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EDITORIAL MESSAGE

Dear all,

Climate change is rapidly affecting our oceans, and the consequences are severe for both marine organisms and us. Rising ocean temperatures are causing coral bleaching, where reefs lose their vibrant colors and cease to function as ecosystem. Fish populations are shifting to cooler waters, disrupting ecosystems and impacting fishing communities.

In our current issue, we focus on impact of climate change on marine organisms and aquatic health. Plus, we shared what we have tried to spread awareness to our community.

Together, we can make a difference. Let's keep spreading awareness and share knowledge, reduce greenhouse gas emissions, support renewable energy, and protect coastal ecosystems.



Fitri Yusof, PhD

FOREWORD

I am pleased to welcome all readers to The Oceanographer, a platform to share our continuous effort on the research and innovations done at our Institute.

Climate change impacts many marine sectors. Aquaculture, as a rapidly growing industry, holds immense potential for providing food security, supporting economic growth, and addressing the increasing demand for high-quality protein. However, as global temperatures rise, ecosystems change, and weather patterns become more erratic, aquaculture faces a pivotal moment.

In this publication, we explore the intersections of climate change and sustainable aquaculture, highlighting both the challenges and opportunities that lie ahead. Introducing conservation efforts through sustainable ecotourism for billfish, breeding of endangered species, addressing fish disease, and threat due to microplastic are among topics covered in this issue. In addition, an exploration into Pahang's marine ecosystem and the potential of sea level rise in the South China Sea are presented. Our hope is that this work inspires action, fosters collaboration, and provides guidance for a healthier planet that we all share.

The choices we make today will determine the resilience of our aquatic resources and the stability of our food systems for generations to come. We must do it and we can do it!

Warm wishes
Normawaty Mohammad Noor
Head,
Institute of Oceanography and
Maritime Studies (INOCEM), IIUM



A close-up photograph of a small, vibrant red fish with a prominent white stripe running along its body. The fish is perched on a porous, yellowish-brown stony coral structure. The background is a soft, out-of-focus brown, suggesting an underwater environment. The lighting is warm, highlighting the textures of the coral and the fish's scales.

I READ, I RESEARCH, I BECOME.

We are glad to receive any articles related to aquatic and marine for publication in our upcoming newsletter. Please submit your contribution to the address below :-

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A Tropical striped triplefin (*Helcogramma striata*)
resting on stony coral (*Porites lutea*) captured by Dr
Faiz Hanapiah in Tioman Island.