DR NURUL SHAHIDA REDZUAN

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QUALIFICATIONS

- Doctor of Philosophy (Biological Sciences), University of Essex, UK
- Master of Science (Phycology), Universiti of Malaya
- Bachelor of Science (Ecology and Biodiversity), Universiti of Malaya

FIELD OF RESEARCH

- Phytoplankton taxonomy and ecology
- Microphytobenthos (benthic diatoms) ecology
- Microbial ecology
- Biofilms ecology

RESEARCH INTEREST

I am a marine and freshwater ecologist, who particularly interested in the contributions of both phytoplankton and microphytobenthic (MPB) organisms in maintaining the tidal flat and mangrove ecosystems as important ecosystem services. Located at the base of food chains, phytoplankton and MPB are also vital in making sure the intertidal flats can play their roles as an important ecosystem services to human. Therefore, the key objective of my research must be to characterize the occurrence of these microorganisms in the ecosystems as part of monitoring activity. Also, studies on the effect of weather-related abiotic factors, intertidal flat geomorphology and the rise of sea level on the diversity and the occurrence of the organisms can potentially provide informative outputs on how to conserve the organisms and also help to maintain the health of the intertidal flats.

MPB and phytoplankton have been proven to inter- connected via the sediment-water column exchanges under the influence of abiotic factors across tidal variation (my current research). Studies on the exchanges potentially provide information on sediment resuspension in the intertidal flat during immersion periods which consequently will benefit studies on sediment erosion on this ecosystem. Therefore, my other research interest is to investigate the contribution

of phytoplankton and MPB in increasing the erosion threshold of sediment, which perhaps could be done in situ or ex situ.

Just recently I have engaged in a new field called the forensic limnology. This is a really new research field in Malaysia. But I enthusiastically eager to carry out works in this field. Together with colleagues in UMT and the forensic team of Hospital Tengku Ampuan Afzan, I do cherish a hope that this forensic limnology will able to aid the forensic investigations in Malaysia.

RESEARCH PROJECTS

- Biomonitoring of benthic diatoms in a jetty-typed breakwater in Kuala Nerus, Terengganu area (Leader)
- Save mangrove save earth (community outreach project) (co-researcher)
- The Innovation of Knowledge Transfer in Marine Knowledge Assimilations to Coastal community (community outreach project) (co-researcher)

EXPERT LINKAGES

- University of Essex, United Kingdom
- Hospital Tengku Ampuan Afzan, Kuantan, Pahang, Malaysia
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PROFFESIONAL MEMBERSHIP

- Aquatic Sciences and Limnological Organization (ASLO)

GRANTS

Project	:	Biomonitoring of benthic diatoms in a jetty-typed breakwater in Kuala Nerus, Terengganu
Position	:	Leader
Grant Name	:	Talent and Publication Enhancement Research Grant (TAPE-RG)
Status	:	Active
Amount	:	RM20000
Project	:	Save mangrove save earth
Position	:	Co researcher
Grant Name	:	Knowledge Transfer and Assimilation Grant (KTAG)
Status	:	Active
Amount	:	RM5000

Project	:	Pengembangan Teknologi Pengkulturan Makanan Hidup Berkos Rendah Bagi Pengeluaran Larva Udang Marin dan Larva Ikan
Position	:	Co researcher
Grant Name	:	Dana Khas Jaringan Industri
Status	:	Active
Amount	:	RM20000

AWARDS

- Anugerah gangsa, Minggu Penyelidikan dan Inovasi 2020. Projek: The innovation of knowledge transfer in marine knowledge assimilations to coastal community via IR4.0. Co-researcher
- Anugerah perak, Minggu Penyelidikan dan Inovasi 2020. Tiny creatures diatoms: Partially submerged clandestine grave tracker. Co-researcher

PUBLICATIONS

Journal Article

1. Redzuan, NS & Underwood, GJC (2021) The Importance of weather and tides on the resuspension and deposition of microphytobenthos (MPB) on intertidal mudflats. Estuarine Coastal and Shelf Science 251 (2021), 107190. DOI: https://doi.org/10.1016/j.ecss.2021.107190.

2. Redzuan, NS & Underwood, GJC (2020) Movement of microphytobenthos and sediment between mudflats and salt marsh during spring tides. Frontiers in Marine Science 7, 496. DOI: https://doi.org/10.3389/fmars.2020.00496

3. Ariffin, EH, Zulfakar, MSZ, Redzuan, NS, Mathew, MJ, Akhir, MF, Baharim, NB, Awang, N and Mokhtar, N (2020) Evaluating the effects of beach nourishment onlittoral morpjodynamics at Kuala Nerus, Terengganu (Malaysia). Journal of Sustainibility Science and Management 15(5), 29-42.

4. Redzuan, NS & Milow, P (2019) The potential of microphytobenthos in sediment biostabilisation of aquatic ecosystems: an overview. Aquaculture, Aquarium, Conservation & Legislation 12(3), 748-755.

5. Redzuan, NS & Milow, P (2019). Skeletonema costatum of mangrove ecosystem: its dynamic across physico-chemical parameters variability. Aquaculture, Aquarium, Conservation & Legislation 12(1): 179-190.

Conference Publication

1. Nurul Shahida R., Aishah S. & Pozi M. 2010. Species composition of Order Chaetocerotales at Pulau Carey mangrove ecosystem. Proceedings of Conference on Natural Resources In The Tropics 3. University Malaysia Sarawak, Malaysia. 581-587.
2. Redzuan, N. & G. J. C. Underwood. Spatio-temporal Variation of Microphytobenthos on Fingringhoe Intertidal Flat. 13th Annual Graduate Forum School of Biological Sciences. University of Essex, 10th September 2014.
3. Redzuan, N. & G. J. C. Underwood. The Distribution of Microphytobenthos (MPB) at Fingringhoe Intertidal Flat. British Diatomists' Meeting 2013, Lake District. 25th – 27th October 2013.
4. Redzuan, N. & G. J. C. Underwood. The Spatio-temporal Distribution of Microphytobenthos (MPB) across Intertidal Flat. British Diatomists' Meeting, 26th- 28th .Wales. 26th – 28th October 2014.
5. Redzuan, N. & G. J. C. Underwood. Sediment-water Column Exchanges of Microphytobenthos on an Intertidal Flat: Influence of Tidal Range, Wind Speed and Wave across Neap-spring-neap Tidal Cycle. Aquatic Science & Limnological Meeting. Granada, Spain. 22nd-27th February 2015.
6. Redzuan, N. & G. J. C. Underwood. High Variability in Microphytobenthos (MPB) on an Intertidal Flat: Influence of it's Biofilm Physical State across Neap-spring-neap Tidal Cycle. European Phycological Congress. Novotel Hotel, London. 23rd – 28th August 2015.

COURSE TAUGHT

Field Ecology (BDV4801) (Undergraduate UMT)

Evolution and biodiversity (BIO3000) (Undergraduate UMT)

Biochemical (BIO3101) (Undergraduate UMT)

(invited) Organisms classification (BDV3000) (Undergraduate UMT)

Watershed and recreation forests management (BDV4703) (Undergraduate UMT)

Microorganisms diversity (BDV3402) (Undergraduate UMT)

Research methodology (BIO3801) (Undergraduate UMT)

Plant classification (BIO3001) ((Undergraduate UMT)

LINKS

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- WoS: A-5360-2019
- Researchgate: Nurul Shahida Redzuan
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- ORCID: https://orcid.org/0000-0003-2220-471X
- Google Scholar: Nurul Shahida Redzuan
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