CV

Moriaki Yasuhara, PhD

Paleoecologist/ Macroecologist

Associate Professor

School of Biological Sciences and
Swire Institute of Marine Science
The University of Hong Kong
Kadoorie Biological Sciences Building
Pokfulam Road
Hong Kong

E-mail address:moriakiyasuhara@gmail.com
yasuhara@hku.hk

PRIMARY RESEARCH INTERESTS:

Climatic and anthropogenic impacts on marine ecosystems; Deep-sea ecology and paleoecology; Conservation paleoecology; Abrupt surface climate and deep-water changes; Paleoceanography and paleoclimatology; Paleontology of Ostracoda.

ACADEMIC QUALIFICATION:

Mar. 2003 PhD. Geosciences, Osaka City University (Adviser: Shusaku Yoshikawa)
Mar. 2001 MS. Geosciences, Osaka City University (Adviser: Shusaku Yoshikawa)
Mar. 1999 BS. Geosciences, Osaka City University (Adviser: Shusaku Yoshikawa)

ACADEMIC APPOINTMENTS:

Jan 2017-Present Associate Professor of School of Biological Sciences and Swire Institute of Marine Science, The University of Hong Kong
Sep–Nov 2022 Visiting Professor of Natural History Museum of Denmark, Copenhagen University
July–Aug 2022 Visiting Professor of Muséum National d'Histoire Naturelle, Paris
Jan 2011-Jan 2017 Assistant Professor of School of Biological Sciences, Department of Earth Sciences, and Swire Institute of Marine Science, The University of Hong Kong
Sep 2013 Temminck Fellow, Naturalis Biodiversity Center, Netherlands
Oct 2010-Dec 2010 Postdoctoral Fellow of Center for Advanced Marine Core Research, Kochi University (Adviser: Minoru Ikehara)
Oct 2008-Sep 2010 Smithsonian Marine Science Network Postdoctoral Fellow (Adviser: Gene Hunt; co-advisers: Denise Breitburg, Martin Buzas)
Oct. 2007-Oct. 2008 Smithsonian Postdoctoral Fellow (Adviser: Gene Hunt; co-adviser: Brian Huber)

Oct. 2005-Oct. 2007 JSPS (the Japan Society for the Promotion of Science) Postdoctoral Fellow for Research Abroad, at US Geological Survey (Adviser: Thomas M. Cronin)
Apr. 2005-Sep. 2005 Research Student of Osaka City University (Adviser: Shusaku Yoshikawa)
Apr. 2003-Mar. 2005 Research Fellow of the Japan Society for the Promotion of Science, at Osaka City University (Adviser: Shusaku Yoshikawa)

PROFESSIONAL QUALIFICATION/MEMBERSHIP:

The Paleontological Society
American Geophysical Union
Deep-Sea Biology Society
Palaeontological Society of Japan
Ecological Society of Japan
International Research Group on Ostracoda
Society of Friends of International Research Group on Ostracoda

HONOURS AND AWARDS

EXTERNAL:

5. **RGC Research Fellow Scheme (RFS)** 2022/23

4. **W.S. Cooper Award**, 2022, Ecological Society of America

3. **The 20th Biwako Prize for Ecology** (2019), an international award from the Ecological Society of Japan.

2. **The Academic Award**, 2017, The Paleontological Society of Japan

1. **Temminck Fellow**, 2013, Naturalis Biodiversity Center, Netherlands.

INTERNAL:

2. **Outstanding Young Researcher Award** 2014-2015, the University of Hong Kong.

1. **Research Output Prize** 2013, The University of Hong Kong.

RESEARCH AND SCHOLARSHIP

1. PUBLICATIONS:

Note: In my field the order of authorship usually reflects level of contribution (i.e., first author means highest level of contribution). The last authorship is occasionally used to show an important contribution, depending on person, country, etc.

(* correspondence or equal contribution; # postgraduate student author; § postdoc author; † undergraduate student author; Yasuhara Lab members shown by bold)

THE 10 MOST SIGNIFICANT PUBLICATIONS SINCE THE LAST PROMOTION AT HKU (Jan 2017):

1. **Yasuhara, M.***, Wei, C.-L.*, Kucera, M., Costello, M.J., Tittensor, D.P., Kiessling, W., Bonebrake, T.C., Tabor, C.R., Feng, R., Baselga, A., Kretschmer, K., Kusumoto, B., Kubota, Y., 2020. Past and future decline of tropical pelagic biodiversity. **Proceedings of the National Academy of Sciences of the United States of America**: 117, 12891-12896.

2. **Yasuhara, M.***, Deutsch, C. A.*, 2023. Tropical biodiversity linked to polar climate. **Nature**: 614 (7949), 626–628.

3. **Yasuhara, M.***, Deutsch, C. A.*, 2022. Paleobiology provides glimpses of future ocean: Fossil records from tropical oceans predict biodiversity loss in a warmer world. **Science**: 375 (6576), 25–26.

4. Breitburg, D., Levin, L. A., Oschlies, A., Grégoire, M., Chavez, F. P., Conley, D. J., Garçon, V., Gilbert, D., Gutiérrez, D., Isensee, K., Jacinto, G. S., Limburg, K. E., Montes, I., Naqvi, S. W. A., Pitcher, G. C., Rabalais, N. N., Roman, M. R., Rose, K. A., Seibel, B. A., Telszewski, M., **Yasuhara, M.**, Zhang, J., 2018. Declining oxygen in the global ocean and coastal waters. **Science**: 359, eaam7240, doi:10.1126/science.aam7240

5. Levin, L. A.*, Alfaro-Lucas, J. M., Colaço, A., Cordes, E. E., Craik, N., Danovaro, R., Hoving, H. -J., Ingels, J., Mestre, N. C., Seabrook, S., Thurber, A. R., Vivian, C., **Yasuhara, M.** 2023. Deep-sea impacts of climate interventions: Ocean manipulation to mitigate climate change may harm deep-sea ecosystems. **Science**: 379, 978–981.

6. Danovaro, R.*, Fanelli, E.*, Aguzzi, J.*, Billett, D.*, Carugati, L.*, Corinaldesi, C.*, Dell'Anno, A.*, Gjerde, K.*, Jamieson, A.J.*, Kark, S.*, McClain, C.*, Levin, L.*, Levin, N.*, Ramirez-Llodra, E.*, Ruhl, H.*, Smith, C.R.*, Snelgrove, P.V.R.*, Thomsen, L.*, Van Dover, C.L.*, **Yasuhara, M.***, 2020. Ecological variables for developing a global deep-ocean monitoring and conservation strategy. **Nature Ecology & Evolution**: 4, 181–192.

7. Cybulski, J. D., Husa, S. M., Duprey, N. N., **Mamo, B. L.§**, Tsang, T. P. N., **Yasuhara, M.**, Xie, J. Y., Qiu, J. -W., Yokoyama, Y., Baker, D. M., 2020. Coral reef diversity losses in China's Greater Bay Area were driven by regional stressors. **Science Advances**: 6, eabb1046, https://doi.org/10.1126/sciadv.abb1046

8. Herbert-Read, J.E., Thornton, A., Amon, D.J., Birchenough, S.N.R., Côté, I.M., Dias, M.P., Godley, B.J., Keith, S.A., McKinley, E., Peck, L.S., Calado, R., Defeo, O., Degraer, S., Johnston, E.L., Kaartokallio, H., Macreadie, P.I., Metaxas, A., Muthumbi, A.W.N., Obura, D.O., Paterson, D.M., Piola, A.R., Richardson, A.J., Schloss, I.R., Snelgrove, P.V.R., Stewart, B.D., Thompson, P.M., Watson, G.J., Worthington, T.A., **Yasuhara, M.**, Sutherland, W.J., 2022. A global horizon scan of issues impacting marine and coastal

biodiversity conservation. **Nature Ecology & Evolution**: 6, 1262–1270. https://doi.org/10.1038/s41559-022-01812-0

9. **Yasuhara, M.***, **Huang, H.-H.M.§***, Reuter, M.*, **Tian, S.Y.#***, Cybulski, J.D.*, O'Dea, A.*, **Mamo, B.L.§***, **Cotton, L.J.§***, Di Martino, E.*, Feng, R., Tabor, C.R., Reygondeau, G., Zhao, Q., Warne, M.T., **Aye, K.K.T.#**, **Zhang, J.#**, Chao, A., Wei, C.L., Condamine, F.L., Kocsis, A.T., Kiessling, W., Costello, M.J., Tittensor, D.P., Chaudhary, C., Rillo, M.C., Doi, H., Dong, Y.W., Cronin, T.M., Saupe, E.E., Lotze, H.K., Johnson, K.G., Renema, W., Pandolfi, J.M., Harzhauser, M., Jackson, J.B.C., **Hong, Y.§***, 2022. Hotspots of Cenozoic tropical marine biodiversity. **Oceanography and Marine Biology: An Annual Review**: 60, 243–300. https://doi.org/10.1201/9781003288602-5

10. **Yasuhara, M.***, Tittensor, D. P., Hillebrand, H. and Worm, B., 2017. Combining marine macroecology and palaeoecology in understanding biodiversity: microfossils as a model. **Biological Reviews**: 92, 199–215.

AN ADDITIONAL 10 MOST SIGNIFICANT PUBLICATIONS PRIOR TO THE LAST PROMOTION AT HKU (Jan 2017):

1. **Yasuhara, M.***, Hunt, G., Cronin, T.M. and Okahashi, H., 2009. Temporal latitudinal-gradient dynamics and tropical instability of deep-sea species diversity. **Proceedings of the National Academy of Sciences of the United States of America**, 106: 21717–21720.

2. **Yasuhara, M.***, Hunt, G., Dowsett, H. J., Robinson, M. M., Stoll, D. K., 2012. Latitudinal species diversity gradient of marine zooplankton for the last three million years. **Ecology Letters**, 15: 1174–1179.

3. **Yasuhara, M.***, Cronin, T. M., deMenocal, P., Okahashi, H., Linsley, B. K., 2008. Abrupt climate change and collapse of deep-sea ecosystems. **Proceedings of the National Academy of Sciences of the United States of America** 105, 1556–1560.

4. **Yasuhara, M.*, Okahashi, H.***, Cronin, T.M., Rasmussen, T.L. and Hunt, G., 2014. Response of deep-sea biodiversity to abrupt deglacial and Holocene climate changes in the North Atlantic Ocean. **Global Ecology and Biogeography**, 23: 957–967

5. **Yasuhara, M.***, Doi, H.*, Wei, C. L.*, Danovaro, R. and Myhre, S. E., 2016. Biodiversity–ecosystem functioning relationships in long-term time series and palaeoecological records: deep sea as a test bed. **Philosophical Transactions of the Royal Society B**: doi:10.1098/rstb.2015.0282.

6. **Yasuhara, M.*** and Danovaro, R., 2016. Temperature impacts on deep-sea biodiversity. **Biological Reviews**, 91: 275–287.

7. **Yasuhara, M.***, Cronin, T. M., 2008. Climatic influences on deep-sea ostracode (Crustacea) diversity for the last three million years. **Ecology** 89, S53–S65.

8. Duprey, N. N., **Yasuhara, M.** and Baker, D. M., 2016. Reefs of tomorrow: eutrophication reduces coral biodiversity in an urbanized seascape. **Global Change Biology**: 22, 3550–3565.

9. **Yasuhara, M.***, **Okahashi, H.**, Cronin, T. M., 2009. Taxonomy of Quaternary deep-sea ostracods from the western North Atlantic Ocean. **Palaeontology** 52, 879–931.

10. **Yasuhara, M.***, Yamazaki, H., Tsujimoto, A., Hirose, K., 2007. The effect of long-term spatiotemporal variations in urbanization-induced eutrophication on a benthic ecosystem, Osaka Bay, Japan. **Limnology and Oceanography** 52, 1633–1644.

THE 4 MOST SIGNIFICANT PUBLICATIONS IN THE LAST 6 YEARS:

1. **Yasuhara, M.***, Wei, C.-L.*, Kucera, M., Costello, M.J., Tittensor, D.P., Kiessling, W., Bonebrake, T.C., Tabor, C.R., Feng, R., Baselga, A., Kretschmer, K., Kusumoto, B., Kubota, Y., 2020. Past and future decline of tropical pelagic biodiversity. **Proceedings of the National Academy of Sciences of the United States of America**: 117, 12891-12896.
Note on the significance: Pioneering discovery that anthropogenic warming already affects tropical marine biodiversity negatively and will be more so in the future. Yasuhara gave keynote plenary lecture including this in the World Conference on Marine Biodiversity, a prestigious international conference in the field.

2. **Yasuhara, M.***, **Huang, H.-H.M.§***, Reuter, M.*, **Tian, S.Y.#***, Cybulski, J.D.*, O'Dea, A.*, **Mamo, B.L.§***, **Cotton, L.J.§***, Di Martino, E.*, Feng, R., Tabor, C.R., Reygondeau, G., Zhao, Q., Warne, M.T., **Aye, K.K.T.#**, **Zhang, J.#**, Chao, A., Wei, C.L., Condamine, F.L., Kocsis, A.T., Kiessling, W., Costello, M.J., Tittensor, D.P., Chaudhary, C., Rillo, M.C., Doi, H., Dong, Y.W., Cronin, T.M., Saupe, E.E., Lotze, H.K., Johnson, K.G., Renema, W., Pandolfi, J.M., Harzhauser, M., Jackson, J.B.C., **Hong, Y.§***, 2022. Hotspots of Cenozoic tropical marine biodiversity. Oceanography and Marine Biology: An Annual Review: 60, 243–300. https://doi.org/10.1201/9781003288602-5
Note on the significance: Providing the first global synthetic view on the dynamics of tropical biodiversioty for the last 66 million years.

3. **Yasuhara, M.***, Deutsch, C. A.*, 2023. Tropical biodiversity linked to polar climate. **Nature**: 614 (7949), 626–628.
Note on the significance: Providing a new perspective on the mechanism and development of the fundamental global diversity pattern, latitudinal diversity gradient. The latitudinal diversity gradients were already known by 19th century natural historians such as von Humboldt and Wallace, but the mechanism behind this pattern remained poorly understood. This perspective paper gives a breakthrough.

4. **Yasuhara, M.***, Deutsch, C. A.*, 2022. Paleobiology provides glimpses of future ocean: Fossil records from tropical oceans predict biodiversity loss in a warmer world. **Science**: 375 (6576), 25–26.

Note on the significance: Providing a synthesis on how warming and deoxygenation will change global biodiversity and body size, and also a perspective of "Time Machine Biology", using fossil record to understand past ecosystems and biodiversity, an underutilized but promising research direction.

SCHOLARLY BOOKS, MONOGRAPHS AND CHAPTERS:

10. Vanreusel, A.*, Arbizu, P.M., **Yasuhara, M.** 2023. Marine meiofauna diversity and biogeography—paradigms and challenges. In: Giere, O., Schratzberger, M. (eds), New Horizons in Meiobenthos Research: 121–151. Springer, Cham. https://doi.org/10.1007/978-3-031-21622-0_5

9. **Mamo, B. L. §***, Cybulski, J. D.*, **Hong, Y. §***, Harnik, P. G., Chao, A., Tsujimoto, A., Wei, C. -L.*, Baker, D. M.*, **Yasuhara, M.***, 2023, Modern biogeography of benthic foraminifera in an urbanized tropical marine ecosystem: Geological Society, London, Special Publications, v. 529, SP529-2022-175, doi:10.1144/SP529-2022-175.

8. Mori, A. S., Sasaki, T., Kagami, M., Miki, T., **Yasuhara, M.**, 2022. Feedbacks between biodiversity and climate change. In: Loreau, M., Hector, A., Isbell, F. (eds), The Ecological and Societal Consequences of Biodiversity Loss: 283–304. ISTE Ltd and John Wiley & Sons, Inc., London and Hoboken. https://doi.org/10.1002/9781119902911.ch13

7. Bigg, G. R., Azzaro, M., Evans, K., Griffiths, H., **Yasuhara, M.**, 2021. Chapter 7K High-latitude ice. The Second World Ocean Assessment: 421–436. United Nations, New York.

6. Woodroffe, C. D., Qiao, B., Christofoletti, R., Hunt, D. E., Muniz, P., **Yasuhara, M.**, 2021. Chapter 7F Estuaries and deltas. The Second World Ocean Assessment: 339–352. United Nations, New York.

5. Levin, L. A., Auster, P., Clark, M. R., Hall-Spencer, J. M., Hopcroft, R., Ingels, J., Metaxas, A., Narayanaswamy, B. E., Tuhumwire, J. T., **Yasuhara, M.**, 2021. Chapter 7J Continental slopes and submarine canyons. The Second World Ocean Assessment: 395–420. United Nations, New York.

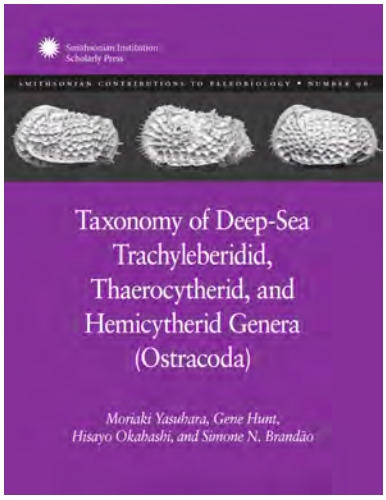
4. Ingels, J., Amon, D., Bernardino, A. F., Bhadury, P., Bik, H., Clark, M. R., Dahlgren, T., Jones, D. O. B., McClain, C., Nunnally, C., Snelgrove, P., Tuhumwire, J. T., **Yasuhara, M.**, 2021. Chapter 7M Abyssal plains. The Second World Ocean Assessment: 453–476. United Nations, New York.

3. Brandão, S.N., Baumann, E., **Jöst, A.B.#**, Karanovic, I., Tanaka, H., **Yasuhara, M.**, Yoo, H., Saeedi, H., Brandt, A., 2020. Biodiversity and biogeography of Ostracoda (Crustacea) from the deep NW Pacific. In: Saeedi, H., Brandt, A. (eds), Biogeographic Atlas of the Deep NW Pacific Fauna: 285–338. Pensoft, Sofia.

2. Costello, M. J., Basher, Z., McLeod, L., Asaad, I., Claus, S., Vandepitte, L., **Yasuhara, M.**, Gislason, H., Edwards, M., Appeltans, W., Enevoldsen, H., Edgar, G. J., Miloslavich, P., De Monte, S., Sousa Pinto, I., Obura, D. and Bates, A. E., 2017. Methods for the study

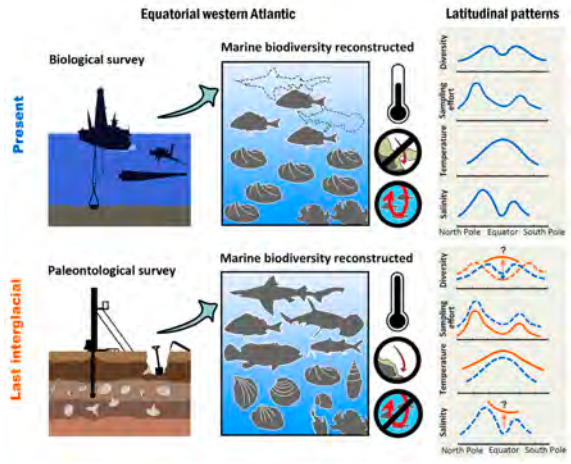
of marine biodiversity. In: Walters, M., Scholes, R. J. (eds), The GEO Handbook on Biodiversity Observation Networks: 129-163. Springer International Publishing.

1. **Yasuhara, M.***, Hunt, G., **Okahashi, H.** and Brandão, S.N., 2015. Taxonomy of Deep-sea Trachyleberidid, Thaerocytherid, and Hemicytherid Genera (Ostracoda). Smithsonian Contributions to Paleobiology, 96: 216 pp.



JOURNAL PUBLICATIONS:
All papers, except papers 1–3, 5, 9, 10, 20, and 21 (they are in local journals), are published in international journals.

129. Yasuhara, M., Deutsch, C.A. and Zhang, J. 2024 Tropical paleobiology discovers biodiversity in a warmer past. **Proceedings of the National Academy of Sciences of the United States of America**, 121(15): e2404036121. doi:10.1073/pnas.2404036121



128. Jöst, A. B., Huang, H.-H., Hong, Y., Wei, C.-L., Bauch, H. A., Thibodeau, B., Cronin, T. M., Okahashi, H., & Yasuhara, M. 2024 Testing the deep-sea glacial disturbance hypothesis as a cause of low, present-day Norwegian Sea diversity and resulting steep latitudinal diversity gradient, using fossil records. **Global Ecology and Biogeography**, 00, e13844. https://doi.org/10.1111/geb.13844

127. Zhang, J., Yasuhara, M., Wei, C.-L., Tian, S.Y., Aye, K.K.T., Gemery, L., Cronin, T.M., Frenzel, P. and Horne, D.J. 2024 Sight and blindness: The relationship between ostracod eyes, water depth, and light availability in the Arctic Ocean. **Limnology and Oceanography.** https://doi.org/10.1002/lno.12584

126. Costello, M.J.*, Corkrey, R., Bates, A.E., Burrows, M.T., Chaudhary, C., Edgar, G.E., Stuart-Smith, R.D., **Yasuhara, M.**, Wei, C.-L. 2023 The universal evolutionary and ecological significance of 20 oC. **Frontiers of Biogeography**: 15, e61673. https://doi.org/10.21425/F5FBG61673

125. Cybulski, J.D.*, Duprey, N.N., Thibodeau, B., **Yasuhara, M.**, Geeraert, N., Leonard, N., Vonhof, H.B., Martínez-García, A., Baker, D.M.* 2023 Coral carbonate-bound isotopes reveal monsoonal influence on nitrogen sources in Southeastern China's Greater Bay Area from the mid-Holocene until the Anthropocene. **Marine Pollution Bulletin**: 197, 115757. https://doi.org/10.1016/j.marpolbul.2023.115757.

124. Smith, J.*, Rillo, M. C.*, Kocsis, Á. T.*, Dornelas, M., Fastovich, D., Huang, H. -H. M., Jonkers, L., Kiessling, W., Li, Q., Liow, L. H., Margulis-Ohnuma, M., Meyers, S., Na, L., Penny, A. M., Pippenger, K., Renaudie, J., Saupe, E. E., Steinbauer, M. J., Sugawara, M., Tomašovỳch, A., Williams, J. W., **Yasuhara, M.**, Finnegan, S., and Hull, P. M. 2023 BioDeepTime: A database of biodiversity time series for modern and fossil assemblages. **Global Ecology and Biogeography**: 32, 1680–1689. https://doi.org/10.1111/geb.13735.

123. Wang, H. §*, Cao, M., **Yasuhara, M.*** 2023 First record of Pliocene ostracods from the Linxia Formation in Gansu Province, northwestern China (Loess Plateau region) and their palaeoenvironmental implications. **Historical Biology**. 10.1080/08912963.2023.2258918.

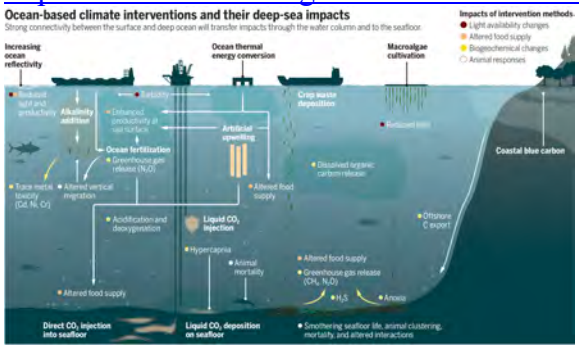
122. Pereira, L. M.*, Ortuño Crespo, G., Amon, D. J., Badhe, R., Bandeira, S., Bengtsson, F., Boettcher, M., Carmine, G., Cheung, W. W. L., Chibwe, B., Dunn, D., Gasalla, M. A., Halouani, G., Johnson, D. E., Jouffray, J. -B., Juri, S., Keys, P. W., Lübker, H. M., Merrie, A. S., Obaidullah, F., Palacios-Abrantes, J., Shannon, L. J., Sumaila, U. R., Superchi, E., Terry, N., Wabnitz, C. C. C., **Yasuhara, M.**, Zhou, W. 2023. The living infinite: Envisioning futures for transformed human-nature relationships on the high seas. **Marine Policy**: 153, 105644. https://doi.org/10.1016/j.marpol.2023.105644

121. **Chu, R. W. C.†***, **Yasuhara, M.***, Myrvang Riise, K.*, Asahi, H.*, **Cotton, L. J.***, **Hong, Y.§***, Rasmussen, T. L.* 2023. Late Quaternary paleoceanography of Vestnesa Ridge, Fram Strait: Ostracode species as a potential indicator of cold seep activity: **Geology**: 51 (8), 758–762. https://doi.org/10.1130/G51237.1

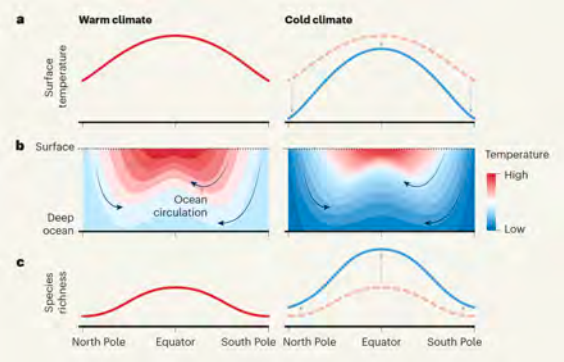
120. Li, Y. -X., Zhang, Y., Ip, J. C. -H., Liu, J., Chen, C., Little, C. T. S., Yokoyama, Y., **Yasuhara, M.**, Qiu, J. -W.* 2023. Phylogenetic context of a deep-sea clam (Bivalvia: Vesicomyidae) revealed by DNA from 1500-year-old shells. **Zoological Research**: 44(2), 353–356. https://doi.org/10.24272/j.issn.2095-8137.2022.404

119. Dai, M.*, Zhao, Y.*, Chai, F., Chen, M., Chen, N., Chen, Y., Cheng, D., Gan, J., Guan, D., **Hong, Y.§**, **Huang, J.#**, Lee, Y., Leung, K. M. Y., Lim, P. E., Lin, S., Lin, X., Liu, X., Liu, Z., Luo, Y. -W., Meng, F., Sangmanee, C., Shen, Y., Uthaipan, K., Wan Talaat, W. I. A., Wan, X. S., Wang, C., Wang, D., Wang, G., Wang, S., Wang, Y., Wang, Y., Wang, Z., Wang, Z., Xu, Y., Yang, J. -Y. T., Yang, Y., **Yasuhara, M.**, Yu, D., Yu, J., Yu, L., Zhang, Z., Zhang, Z. 2023. Persistent eutrophication and hypoxia in the coastal ocean. **Cambridge Prisms: Coastal Futures**: 1, e19, 1–28. https://doi.org/10.1017/cft.2023.7

118. Levin, L. A.*, Alfaro-Lucas, J. M., Colaço, A., Cordes, E. E., Craik, N., Danovaro, R., Hoving, H. -J., Ingels, J., Mestre, N. C., Seabrook, S., Thurber, A. R., Vivian, C., **Yasuhara, M.** 2023. Deep-sea impacts of climate interventions: Ocean manipulation to mitigate climate change may harm deep-sea ecosystems. **Science**: 379, 978–981. https://www.science.org/doi/abs/10.1126/science.ade7521



117. **Yasuhara, M.***, Deutsch, C. A.*, 2023. Tropical biodiversity linked to polar climate. **Nature**: 614 (7949), 626–628.



116. Zhang, P., **Huang, H.-H.M.§**, **Hong, Y.§**, **Tian, S.Y.#**, Liu, J., Lee, Y.I., Chen, J., Liang, J., **Wang, H.§***, **Yasuhara, M.*** 2022. Southward migration of Arctic Ocean species during the Last Glacial Period: **Geophysical Research Letters**: 49, e2022GL100818. https://doi.org/10.1029/2022GL100818

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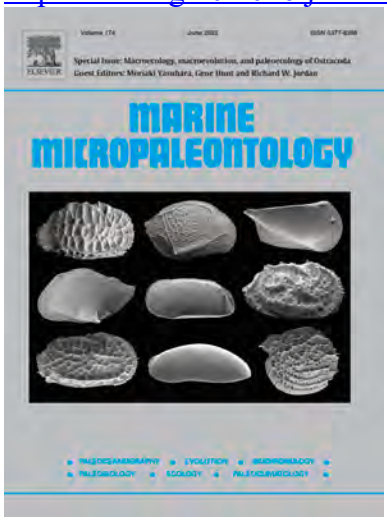

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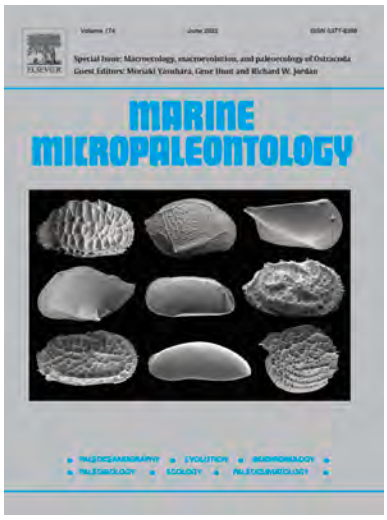

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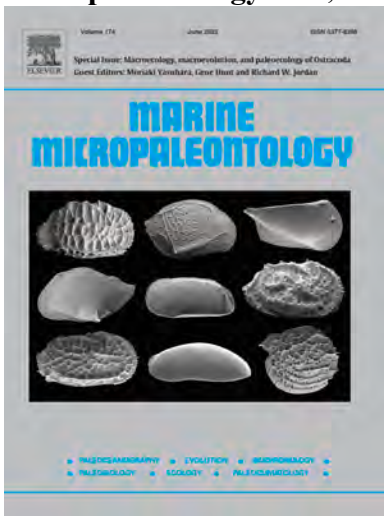

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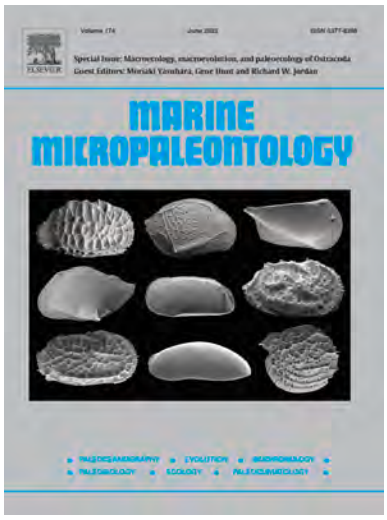

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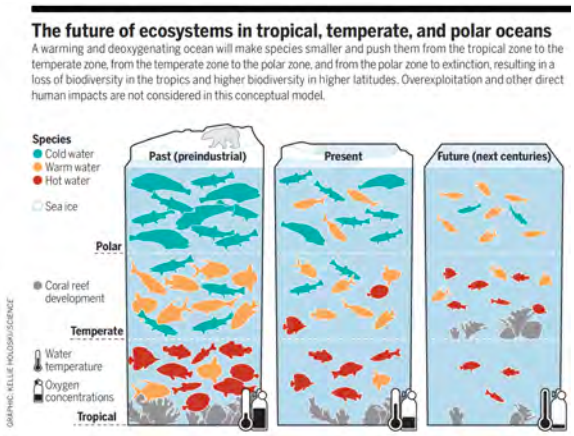

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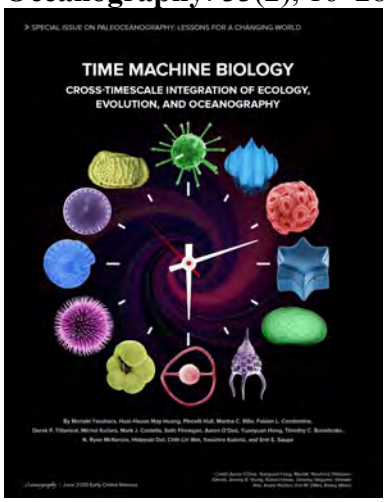

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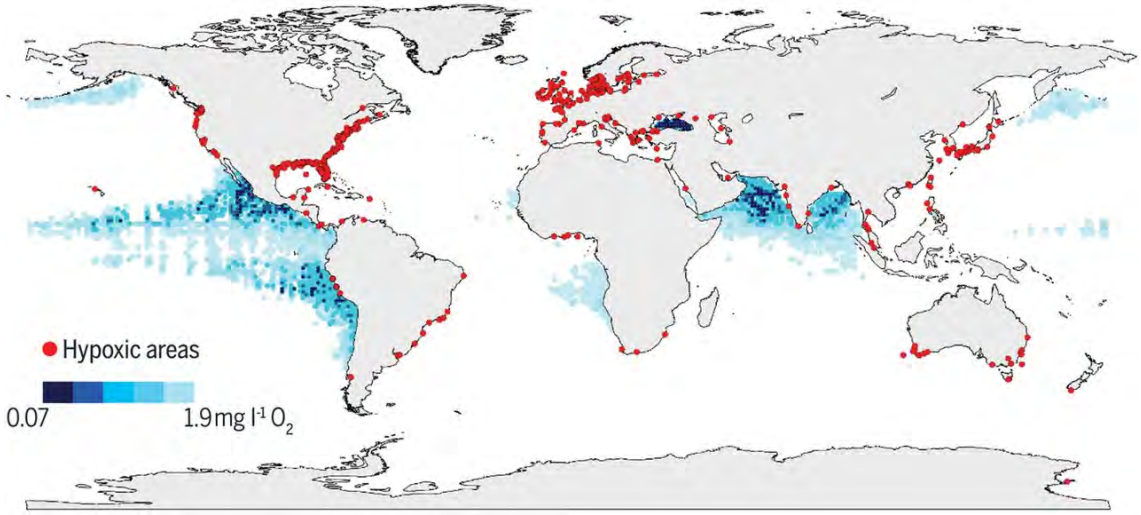

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7. **Yasuhara, M.***, Irizuki, T., Yoshikawa, S., Nanayama, F., Mitamura, M., 2004. Holocene ostracode paleobiogeography in Osaka Bay, southwestern Japan. **Marine Micropaleontology** 53, 11–36.

6. **Yasuhara, M.***, Yamazaki, H., Irizuki, T., Yoshikawa, S., 2003. Temporal changes of ostracode assemblages and anthropogenic pollution during the last 100 years, in sediment cores from Hiroshima Bay, Japan. **The Holocene** 13, 527–536.

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3. Miura, K., Nanayama, F., Uchiumi, M., Sugiyama, Y., **Yasuhara, M.**, Yokoyama, Y., Kitada, N., Takemura, K., 2002. Holocene activity of the Uemachi fault in the Osaka Plain evaluated by high-resolution analysis of the Shin-Yodo-gawa array boring cores. **Annual Report on Active Fault and Paleoearthquake Researches** 2, 109–123

2. Otsuka, K., Nanayama, F., Miura, K., Ikeda, M., Kanayama, S., Kobayashi, S., Tokuma, S., Anma, K., Yokoyama, Y., **Yasuhara, M.**, Sugiyama, Y., Tsukuda, E., 2002. Holocene faulting history of the Shimonada-oki-minami fault at the western tip of the MTL's Iyo segment. **Annual Report on Active Fault and Paleoearthquake Researches** 2, 125–140.

1. **Yasuhara, M.***, Irizuki, T., 2001. Recent Ostracoda from northeastern part of Osaka Bay, southwestern Japan. **Journal of Geosciences, Osaka City University** 44, 57–95.

PATENTS AND OTHER RESEARCH OUTPUTS:

THESIS:

1. Yasuhara, M. 2003. Environmental changes of Seto Inland Sea, southwestern Japan, based on fossil ostracode assemblages for the last 12,000 years: sea-level changes, formation of Seto Inland Sea and anthropogenic pollution. PhD Thesis. Geosciences. Osaka City University.

2. EDITORSHIP AND EDITORIAL BOARD MEMBERSHIP:

JOURNALS:
Global Ecology and Biogeography, associate editor (2022-)

Global and Planetary Change, editorial board member (2014-)

Marine Micropaleontology, editorial board member (2019-)

Journal of Paleontology, associate editor (2020-)

Journal of Micropalaeontology, editor (2021-)

Palaeoworld, associate editor (2019-)

Marine Biodiversity, associate editor (2018-)

Paleontological Research, associate editor (2012-)

Plankton and Benthos Research, editor (2015-)

Open Quaternary, editorial board member (2018-)

REVIEW EXPERIENCE: Nature, Science, PNAS, Nature Communications, Nature Ecology & Evolution, Science Advance, TREE, Current Biology, Ecology Letters, Geology, Royal Society Proceedings B, Royal Society Transactions B, American Naturalists, Biology Letters, Global Ecology & Biogeography, Global Change Biology, Ecography, Journal of Animal Ecology, Molecular Ecology, QSR, Quaternary Research, Systematics and Biodiversity, Deep-Sea Research II, Gondwana Research, Quaternary International, Geobios, Biogeosciences, Estuaries and Coasts, Marine Pollution Bulletin, Palaios, Hydrobiologia, Estuarine, Coastal and Shelf Science, Journal of Biogeography, Zoological Journal of the Linnean Society, Journal of Paleontology, Limnology & Oceanography, Micropaleontology, Zootaxa, Journal of Micropalaeontology, Palaeo 3, Journal of Quaternary Science, Global and Planetary Change, Marine Micropaleontology, MEPS, NSF, NERC, BiodivERsA, etc.

3. KEYNOTE/PLENARY/OTHER INVITED LECTURES IN INTERNATIONAL/REGIONAL CONFERENCES AND EVENTS:
(Plenary and keynote are highlighted by bold.)

37. Yasuhara, M., 2023. Time machine biology: Paleobiology, biodiversity, and climate change. 2nd Asian Palaeontological Congress. University of Tokyo, Tokyo, Japan. **(Plenary keynote)**

36. Yasuhara, M., 2023 Time Machine Biology: Climatic Impacts on Marine Ecosystems and Biodiversity. Deep Seabed Mining Under Scientific Uncertainties: Biodiversity Risks Versus Economic Needs. 6th World Conference on Marine Biodiversity. Penang, Malaysia. (Invited talk and roundtable discussion)

35. Yasuhara, M. 2023. Paleobiology, biodiversity and climate change. Dialogue – Marine Functions and Services. Marine Economy Summit Series - Frontier Research. The Hong Kong University of Science and Technology, Hong Kong SAR, China

34. Yasuhara, M. 2022. Time Machine Biology: Paleobiology provides glimpses of future ocean. Talk@EEH, online.

33. Yasuhara, M. 2022. Micropaleontology as Time Machine Biology. TMS (The Micropalaeontological Society) Annual Conference, Bremen University/MARUM, Germany. ***(Plenary keynote)***

32. Yasuhara, M. 2022. Ostracoda as (paleo)ecological proxy. Ostracods in Research Workshop. IPC6 International Palaeontological Congress, Khon Kaen, Thailand.

31. Yasuhara, M. 2022. Introduction to ostracode micropaleontology. Ostracods in Research Workshop. IPC6 International Palaeontological Congress, Khon Kaen, Thailand.

30. Yasuhara, M. 2022. Time Machine Biology: Paleobiology provides glimpses of future ocean. IPC6 International Palaeontological Congress, Khon Kaen, Thailand. ***(keynote)***

29. Yasuhara, M. 2022. Time Machine Biology: Paleobiology provides glimpses of future ocean. Workshop "Back to the future – an afternoon with exciting marine micropaleontology, novel techniques, and future directions", Lund University/hybrid, Lund, Sweden.

28. Yasuhara, M. 2022. Marine Biodiversity in the Anthropocene. The 129th Annual Meeting of the Geological Society of Japan, Waseda University/hybrid, Tokyo, Japan.

27. Yasuhara, M. 2022. Time Machine Biology: past, present, and future climatic impacts on marine ecosystems and biodiversity. SYSU&HKU Palaeontology theme workshop, online. ***(Plenary keynote)***

26. Yasuhara, M. 2022. Time Machine Biology to better understand biodiversity, ecology and conservation of marine ecosystems. The Second International Conference on Biodiversity, Ecology and Conservation of Marine Ecosystems (BECoME 2022), City University of Hong Kong, Hong Kong. ***(keynote)***

25. Yasuhara, M. 2021. Time Machine Biology: past, present, and future climatic impacts on marine ecosystems and biodiversity. 16th Deep-Sea Biology Symposium (DSBS), Brest/online. ***(Plenary keynote)***

24 Yasuhara, M. 2021. Time machine biology: cross-time-scale integration of ecology, evolution, and paleoceanography. 28th Estuary Research Meeting, EsRec Estuary Research Center, Shimane University/online, Japan. ***(Plenary keynote)***

23. Yasuhara, M. 2021. Time Machine Biology: past, present, and future climatic impacts on marine ecosystems and biodiversity. 1st Annual Ecology & Biodiversity Research Symposium, The University of Hong Kong, Hong Kong SAR, China. ***(Plenary keynote)***

22.Yasuhara, M. 2020. Time machine biology: cross-time-scale integration of ecology, evolution, and paleoceanography. 5th World Conference on Marine Biodiversity (WCMB), online. ***(Plenary keynote)***

21. Yasuhara, M. 2020. Time machine biology: fossils and biogeography. International Humboldt Day Event, online (https://www.humboldtday.org/event/time-machine-biology-fossils-and-biogeography/?wcs_timestamp=1600185640).

20. Yasuhara, M. 2020. Biodiversity–ecosystem functioning relationships in long-term time series and palaeoecological records: deep sea as a test bed. Ecological Society of America Annual Meeting, online.

19. Yasuhara, M. 2020. Marine Ecosystem history: an ostracod perspective. Paleontological Society of Japan Meeting, Tokyo, Japan. ***(Plenary, award lecture*** *for the Academic Award, 2017, The Paleontological Society of Japan)*

18. Yasuhara, M. 2019. Human-induced marine ecological degradation: historical ecology and the Anthropocene. International symposium on coastal ecosystem change in Asia: hypoxia, eutrophication, and nutrient conditions, Center for Marine Environmental Studies, Ehime University, Japan. ***(Plenary)***

17. Yasuhara, M. 2019. Deep-sea drilling perspective on paleobiology: "co-evolution" of paleoceanography, paleoecology and macroevolution. 13th International Conference on Paleoceanography (ICP) at University of New South Wales, Sydney, Australia. ***(Plenary)***

16. Yasuhara, M. 2019. Human-induced marine ecological degradation: historical ecology and the Anthropocene. The 20th INQUA (International Union for Quaternary Research) Congress at Dublin, Ireland. ***(Keynote)***

15. Yasuhara, M. 2019. Deep-sea biodiversity: an ostracod perspective. The 9th European Ostracodologists' Meeting at University of Gdansk, Poland. ***(Plenary keynote)***

14. Yasuhara, M. 2018. Biodiversity patterns in fossil records: Quaternary Asian marine paleoecology. International Symposium: Biodiversity estimation in space and time at University of the Ryukyus, Okinawa, Japan.

13. Yasuhara. M. 2018. Human-induced marine ecological degradation: micropaleontology and the Anthropocene. Japan Geoscience Union Meeting 2018, Makuhari Messe, Chiba, Japan.

12. Yasuhara. M. 2017. Temporal dynamics of marine latitudinal diversity gradients. Ecological Society of Japan Annual Meeting, Waseda, Japan

11. Yasuhara. M. 2017. Combining marine macroecology and paleoecology in understanding biodiversity. International Symposium: Frontiers in Biodiversity Conservation Science, Okinawa, Japan

10. Yasuhara, M. 2015. Temperature impacts on deep-sea biodiversity. Paleontological Society of Japan Meeting, Tsukuba, Japan.

9. Yasuhara, M. 2015. Marine ecosystem history research, my research history, and academic job hunting abroad. Ecological Society of Japan Annual Meeting, Kagoshima, Japan.

8. Yasuhara, M. 2014. Deep-Sea Biodiversity Response to Abrupt Deglacial and Holocene Climate Changes. American Geophysical Union Fall Meeting, San Francisco, USA.

7. Yasuhara, M. 2014. Marine meiofaunal macroecology and paleoecology: microfossil Ostracoda and Foraminifera as models. World Conference on Marine Biodiversity, Qingdao China.

6. Yasuhara, M. 2014. Deep-sea biodiversity dynamics and faunal evolution throughout the Cenozoic. World Conference on Marine Biodiversity, Qingdao China.

5. Yasuhara, M. 2014. Deep-sea biodiversity response to abrupt climate changes for the last 20,000 years. North American Paleontological Convention, Florida, USA.

4. Yasuhara, M. 2014. Climatic and anthropogenic impacts on marine ecosystems: a paleoecological and micropaleontological perspective. 1st Meeting of Asian Ostracodologists, Seoul, Korea. ***(Plenary)***

3. Yasuhara, M., 2011. Marine ecosystem response to environmental changes, Invited lecture for International Research Hub Project for Climate Change and Coral Reef/Island Dynamics, University of Ryukyus, Okinawa, Japan. ***(Plenary)***

2. Yasuhara, M., 2010. Deep-sea ecosystem response to climate changes. Micropaleontology Reference Center Meeting 2010 in the Shimane University, Japan. ***(Plenary)***

1. Tsujimoto, A., Yasuhara, M., Yamazaki, H., Hirose, K., 2009. The Effect of Anthropogenic Eutrophication on a Shallow Marine Benthic Ecosystem: Microfossil Records over the Last 200 Years in Osaka Bay, Japan. 3rd National Conference on Ecosystem Restoration, Los Angeles, CA.

4. PEER-REVIEWED CONFERENCE PRESENTATIONS (1ST AUTHOR ORAL PRESENTATIONS AFTER YASUHARA'S HKU ARRIVAL ONLY):

29. Yasuhara, M., 2023. Paleo- and macro-ecology in tropical Asia: Symposium introduction. The 3rd AsiaEvo Conference. National University of Singapore, Singapore.

28. Yasuhara, M., 2023. Past and future tropical marine biodiversity hotspots. Geological Society of America Annual Meeting, Pittsburgh, USA.

27. Yasuhara, M., 2023. Potential impacts of climate interventions on deep-sea biodiversity. 6th World Conference on Marine Biodiversity. Penang, Malaysia.

26. Yasuhara, M., 2023. Hotspots of Cenozoic tropical marine biodiversity. 5th International Symposium, Effects of Climate Change on the World's Ocean, Bergen, Norway.

25. Yasuhara, M., 2022. Shallow marine ecosystem collapse and recovery during the Paleocene-Eocene Thermal Maximum. The 53rd International Colloquium on Ocean Dynamics, Liege, Belgium

24. Yasuhara, M., 2022. Time Machine Biology: Paleobiology provides glimpses of future ocean. 19th International Symposium on Ostracoda, Lyon, France

23. Yasuhara M., 2019. Deep-sea biodiversity in space and time: What high resolution microfossil records tell. The 11th North American Paleontological Convention.

22. Yasuhara M., 2019. Deep-sea biodiversity in space and time: What tiny crustacean fossils tell. The Crustacean Society Mid-Year Meeting.

21. Yasuhara M., 2019. Deep-sea biotic response to oxygen variability and Pleistocene global changes: paleoecological and macroevolutionary dynamics in a marginal sea. The 9th Biennial Conference of the International Biogeography Society.

20. Yasuhara M., 2018. Biodiversity–ecosystem functioning relationships in long-term time series and palaeoecological records: deep sea as a test bed. 15th Deep-Sea Biology Symposium

19. Yasuhara M., 2018. Quaternary Asian marine ostracod paleoecology. 3rd Asian Ostracod Meeting.

18. Yasuhara M., 2018. Combining macroecology and palaeoecology in understanding biodiversity: microfossils as a model. 5th International Palaeontological Congress.

17. Yasuhara M., 2018. The 2018 Annual Meeting, The Palaeontological Society of Japan

16. Yasuhara M., 2018. Asia Oceanic Geosciences Society (AOGS) 15thAnnual Meeting

15. Yasuhara M., 2017. Cenozoic dynamics of shallow-marine biodiversity in the Western Pacific. 18thInternational Symposium on Ostracoda.

14. Yasuhara M., 2017. Cenozoic dynamics of shallow-marine biodiversity in the Western Pacific. 8th Biennial Conference of the International Biogeography Society.

13. Yasuhara M., 2016. Cenozoic dynamics of shallow-marine biodiversity in the Western Pacific. Geological Society of America Annual Meeting.

12. Yasuhara M., Danovaro R., 2015. Temperature impacts on deep-sea biodiversity. 14th Deep-Sea Biology Symposium.

11. Yasuhara M., Danovaro R., 2015. Temperature impacts on deep-sea biodiversity. American Geophysical Union Fall Meeting.

10. Yasuhara M., Danovaro R., 2015. Temperature impacts on deep-sea biodiversity. 8th European Ostracodologists' Meeting.

9. Yasuhara M., Danovaro R., 2015. Temperature impacts on deep-Sea biodiversity. International Conference on Biodiversity, Ecology and Conservation of Marine Ecosystems 2015 (BECoME 2015).

8. Yasuhara M., Tittensor D.P., Hillebrand H., Worm B., 2015. Combining marine macroecology and paleoecology in biodiversity analyses: microfossils as a model. Geological Society of America Annual Meeting.

7. Yasuhara, M. 2014. Deep-sea biodiversity dynamics and faunal evolution throughout the Cenozoic. World Conference on Marine Biodiversity.

6. Yasuhara, M. 2014. Marine meiofaunal macroecology and paleoecology: microfossil Ostracoda and Foraminifera as models. World Conference on Marine Biodiversity.

5. Yasuhara, M. 2014. Deep-sea biodiversity response to abrupt climate changes for the last 20,000 years. North American Paleontological Convention.

4. Yasuhara M., Hunt G., Tsujimoto A., Kota K., 2013. Human-induced marine ecological degradation: micropaleontological perspectives. 17th International Symposium on Ostracoda.

3. Yasuhara M., Hunt G., van Dijken G., Arrigo K.R., Cronin T.M., Wollenburg J.E., 2012. Patterns and controlling factors of species diversity in the Arctic Ocean. Deep-Sea Biology Symposium.

2. Yasuhara M., Breitburg D., Hunt G., Tsujimoto A., Katsuki K., 2012. Human-induced marine ecological degradation: microfossil perspectives. 2012 ASLO Aquatic Sciences Meeting.

1. Yasuhara, M. 2011. Deep-sea ecosystem responses to climate changes. Annual Meeting of Paleontological Society of Japan.

5. EXTERNAL PEER-REVIEWED COMPETITIVE RESEARCH GRANTS:

General Research Fund (GRF) (HKU 17306023, January 2024–December 2026). Title: Testing spatial extent, magnitude, and history of the Lessepsian invasion–the massive introduction of marine species via the Suez Canal from the Red Sea to the Mediterranean Sea–using Recent and fossil ostracods. Principal Investigator: Moriaki Yasuhara, HK$ 1,151,372

RGC Research Fellow Scheme (RFS) 2022/23 (January 2023–December 2027). Title: Time Machine Biology and the development of AI-based automatic identifications in Hong Kong: Paleobiology to better understand biodiversity of marine ecosystems. Principal Investigator: Moriaki Yasuhara, HK$ 5,155,380. (Ongoing)

Germany/Hong Kong Joint Research Scheme (January 2022–December 2023). Title: Automatic identification for conservation paleoecology and paleoclimatology: Preliminary study. Principal Investigator: Moriaki Yasuhara, HK$ 90,000. (Ongoing)

General Research Fund (GRF) (January 2022–December 2024). Title: Latitudinal biodiversity gradients in a greenhouse world: were Eocene tropics too hot to support high biodiversity? A test using shallow-marine ostracods. Principal Investigator: Moriaki Yasuhara, HK$ 666,015. (Ongoing)

General Research Fund (GRF) (January 2021–December 2023). Title: Formation of the Isthmus of Panama and the history of Caribbean Sea biodiversity: a test using ostracod. Principal Investigator: Moriaki Yasuhara, HK$ 441,074. (Ongoing)

Collaborative Research Fund (CRF) (June 2019–May 2022). Title: SIRMS 2.0: Establishing Asia's premier stable isotope ratio mass spectrometry laboratory in Hong Kong. Principal Investigator: Moriaki Yasuhara, HK$ 7,608,014. (Ongoing)

General Research Fund (GRF) (January 2019–December 2021). Title: Hopping or Whack-A-Mole? Cenozoic dynamics of marine biodiversity hotspots. Principal Investigator: Moriaki Yasuhara, HK$ 505,298. (Ongoing)

General Research Fund (GRF) (January 2017–December 2019). Title: Arctic paleoceanography: ostracode proxy for brine formation and methane seepage. Principal Investigator: Moriaki Yasuhara, HK$ 540,824. (Successfully executed)

General Research Fund (GRF) (January 2016–December 2018). Title: Northwestern Pacific biodiversity hotspot: investigating biodiversity and biogeographic patterns and their controlling factors. Principal Investigator: Moriaki Yasuhara, HK$ 601,972. (Successfully executed)

General Research Fund (GRF) (January 2015–December 2017). Title: Environment, ecosystems, and evolution in the deep ocean: A coupled approach using foraminifera and

ostracodes. Principal Investigator: Moriaki Yasuhara, HK$ 614,810. (Successfully executed)

Early Career Scheme (January 2014–December 2017). Title: Tropical western Pacific marine paleo-biodiversity: a micropaleontological approach. Principal Investigator: Moriaki Yasuhara, HK$ 1291,260. (Successfully executed)

Germany/Hong Kong Joint Research Scheme (January 2012–December 2013). Title: The IceAGE (Icelandic Marine Animals: Genetics and Ecology) project. Principal Investigator: Moriaki Yasuhara, HK$ 48,400. (Successfully executed)

6. OTHER EXTERNAL RESEARCH FUNDING:

SKLMP Seed Collaborative Research Fund (SKLMP/SCRF/0055, 30 April 2023–29 April 2025). Title: Metabolic responses of Hong Kong Ostracods to temperature, hypoxia, exposure to heavy metals and PFAS: to better establish ostracods as biological and palaeoecological indicators. Principal Investigator: Moriaki Yasuhara, HK$ 500,000

Marine Ecology Enhancement Fund (MEEF) (July 2022–June 2023). Title: Shells for understanding Lantau subtidal ecosystem history: Part 2. Hong Kong wide comparison. Principal Investigator: Moriaki Yasuhara, HK$ 633,400. (Ongoing)

SKLMP Seed Collaborative Research Fund (January 2022–December 2023). Title: Developing deep-learning based automatic identification and measurement in ecology and environmental sciences. Principal Investigator: Moriaki Yasuhara, HK$ 300,000. (Ongoing)

Marine Conservation Enhancement Fund (MCEF) (September 2021–August 2024). Title: When was Acropora-coral-habitable environmental quality lost from the Hong Kong's southern waters? Historical ecology approach. Principal Investigator: Moriaki Yasuhara, HK$ 1,371,874. (Ongoing)

Marine Ecology Enhancement Fund (MEEF) (July 2021–June 2022). Title: Shells for understanding Lantau subtidal ecosystem history: a conservation baseline. Principal Investigator: Moriaki Yasuhara, HK$ 448,320

Small Equipment Grant (April 2021–March 2024). Title: High resolution microscopic imaging with Keyence digital microscope VHX-7000. Principal Investigator: Moriaki Yasuhara, HK$ 771,890. (Successfully executed)

Environment and Conservation Fund (May 2014–April 2017), Title: Revealing historical profile of marine ecological degradation in Hong Kong using paleoecological approaches. Principal Investigator: Moriaki Yasuhara, HK$500,000. (Successfully executed)

Smithsonian MSN Postdoctoral Fellowship Research Allowance (October 2008–October 2010). Title: Marine benthic ecosystem history: Biotic response to abrupt climate and

anthropogenic environmental changes in decadal, centennial, and millennial time scales. Principal Investigator: Moriaki Yasuhara, US$ 16,000. (Successfully executed)

Smithsonian Postdoctoral Fellowship Research Allowance (October 2007–October 2008). Title: Abrupt climate changes and deep-sea ostracode communities over the last 30,000 years: latitudinal and glacial/interglacial comparisons. Principal Investigator: Moriaki Yasuhara, US$ 4000. (Successfully executed)

A Grant-in-Aid for Scientific Research from the Ministry of Education, Culture, Sports, Science, and Technology of Japan (05950) (April 2003–March 2005). Title: Historical changes in impacts of marine pollution on ostracod fauna since industrialization during the Meiji Period. Principal Investigator: Moriaki Yasuhara, 1100,000 Yen. (Successfully executed)

7. Evidence of Excellent Applied Research:
NA

8. OTHER EVIDENCE OF INTERNATIONAL/REGIONAL STANDING AND LEADERSHIP:

Two species of ostracode (*Polycope yasuharai, Poseidonamicus yasuharai*) and one species of bryozoan (*Turbicellepora yasuharai*) are named after Moriaki Yasuhara

International Research Group on Ostracoda (IRGO) chair (2017-2022)

Deep Ocean Stewardship Initiative, Climate Change Co-lead (2020-)

The Deep-Sea Biology Society (Board Member 2014-2018; Vice President 2018–2020)

State Key Laboratory of Marine Pollution (SKLMP), City University of Hong Kong, Member (2020-)

Member of Advertising and Outreach Committee of the International Biogeography Society (2018)

bioDISCOVERY Scientific Committee member (2014-) (http://www.diversitas-international.org/activities/research/biodiscovery/governance)

GO2NE (Global Ocean Oxygen Network) IOC-UNESCO member (2015–)

Podocopida (Ostracoda) editor, World Register of Marine Species (WoRMS) (2013-2017)

Member of scientific committee of 16th International Symposium on Ostracoda (2009, Brazil)

Member of scientific committee of 17th International Symposium on Ostracoda (2013, Italy)

Member of scientific committee of 18th International Symposium on Ostracoda (2017, USA)

Member of scientific committee of 1st Asian Ostracod Meeting (2014, Korea)

Member of scientific committee of 2nd Asian Ostracod Meeting (2016, China)

Member of scientific committee of 3rd Asian Ostracod Meeting (2018, Japan)

Member of scientific committee of 4th Asian Ostracod Meeting (2022, Thailand)

Member of organizing committee of the Crustacean Society Mid-Year Meeting (2019, Hong Kong)

Scientific committee member of 5th World Conference on Marine Biodiversity (2020, New Zealand)

Member of PAGES Q-MARE – Disentangling climate and pre-industrial human impacts on marine ecosystems (2021-)

Member of Annual Meeting Panel, Conservation Paleobiology Network (2021-)

Society of Friends of International Research Group on Ostracoda, Advisory board member (2013-2017), vice chair (2018-2020)

Member of the Organizing Committee for the Second International Conference on Biodiversity, Ecology and Conservation of Marine Ecosystems (BECoME 2022, Hong Kong)

Local Organizing Committee Member of 17th DSBS Symposium (2024, Hong Kong)

Member of the Organizing Committee for the 10th International Conference on Marine Pollution and Ecotoxicology (ICMPE-10 2024, Hong Kong)

INVITED TALKS AND SEMINARS:

64. Yasuhara, M. (with Snelgrove, P., Rabone, M.), 2023. Biodiversity in the deep ocean. DOSI 10th Anniversary Webinar Series, online.

63. Yasuhara, M. 2023. Time Machine Biology: paleobiology, biodiversity, and climate change. An invited seminar, Alfred-Wegener-Institut, Bremerhaven, Germany.

62. Yasuhara, M. 2023. Time Machine Biology: paleobiology, biodiversity, and climate change. An invited seminar, MARUM, University of Bremen, Breman, Germany.

61. Yasuhara, M. 2023. Time Machine Biology: paleobiology, biodiversity, and climate change. Ecology & Biodiversity seminar, School of Biological Sciences, The University of Hong Kong, Hong Kong SAR, China.

60. Yasuhara, M. 2023. Time Machine Biology: Paleobiology provides glimpses of future ocean. An invited seminar, National Taiwan University, Taiwan.

59. Yasuhara, M. 2023. Time Machine Biology: paleobiology, biodiversity, and climate change. An invited seminar, National Chung Cheng University, Chiayi, Taiwan.

58. Yasuhara, M. 2023. Asian ostracod paleobiology. An invited seminar, National Chung Cheng University, Chiayi, Taiwan.

57. Yasuhara, M. 2023. Ostracod micropaleontology. An invited seminar, National Chung Cheng University, Chiayi, Taiwan.

56. Yasuhara, M. 2023. Time Machine Biology: paleobiology, biodiversity, and climate change. An invited seminar, the Natural History Museum at the University of Oslo, Norway

55. Yasuhara, M. 2023. Time Machine Biology: Paleobiology provides glimpses of future ocean. An invited seminar, Shimane University, Shimane, Japan.

54. Yasuhara, M. 2023. Hotspots of Cenozoic tropical marine biodiversity. Shimane University, Shimane, Japan. 160th Estuaries Open Seminar, EsReC Estuary Research Center, Shimane University, Japan.

53. Yasuhara, M. 2022. Time Machine Biology: Paleobiology provides glimpses of future ocean. An invited seminar, Stockholm University, Stockholm, Sweden.

52. Yasuhara, M. 2022. Time Machine Biology: Paleobiology provides glimpses of future ocean. An invited seminar, The University of Southern Denmark, Odense, Denmark.

51. Yasuhara, M. 2022. Time Machine Biology to Better Understand Biodiversity, Ecology and Conservation of Marine Ecosystems. The CMEC External Seminar Series, University of Copenhagen, Denmark.

50. Yasuhara, M. 2022. Time Machine Biology: Paleobiology provides glimpses of future ocean. Research Seminar, Natural History Museum of Denmark, University of Copenhagen, Denmark.

49. Yasuhara, M. 2022. Time Machine Biology: Paleobiology provides glimpses of future ocean. Invited seminar, CR2P, Muséum National d'Histoire Naturelle, Paris/online, France.

48. Yasuhara, M. 2021. Time Machine Biology: past, present, and future climatic impacts on marine ecosystems and biodiversity. Paleobiology seminar in the Smithsonian Institution, Washington DC/online, USA.

47. Yasuhara, M. 2021. Time Machine Biology: looking into the past through fossil records. Outreach seminar at Tokyo Sea Life Park/online, Japan.

46. Yasuhara, M. 2020. Time machine biology: Cross-timescale integration of ecology, evolution, and oceanography. SEGG Research Seminar, University of Portsmouth, UK/online.

45. Yasuhara, M. 2019. Ostracods as a polyvalent tool for paleoenvironmental and paleoecosystem reconstructions: Data availability and open questions. The workshop "Demographic change and the spread of rice agriculture in southeastern Asia during the Late Holocene (Conveners: Zhuo Zheng, Barry Rolett, and Jed O. Kaplan)" at Sun Yat-sen University, Guangzhou, China.

44. Yasuhara, M. 2019. Quaternary Asian marine paleoecology and paleoenvironments. An invited seminar at Sun Yat-sen University, Guangzhou, China.

43. Yasuhara, M. 2019. Quaternary Asian marine paleoecology and paleoenvironments. An invited seminar at Sun Yat-sen University, Zhuhai, China.

42. Yasuhara, M. 2019. Deep-sea drilling perspective on paleobiology: "co-evolution" of paleoceanography, paleoecology and macroevolution. An invited seminar at China University of Geosciences, Beijing, China.

41. Yasuhara, M. 2019. Deep-sea drilling perspective on paleobiology: "co-evolution" of paleoceanography, paleoecology and macroevolution. An invited seminar at Nanjing Institute of Geology and Palaeontology Chinese Academy of Sciences, China.

40. Yasuhara, M. 2019. Asian marine Ecosystem history. The 20th Biwako Prize for Ecology, Kyoto, Japan. (Plenary, award lecture)

39. Yasuhara, M. 2019. Biodiversity patterns in fossil records: Quaternary Asian marine paleoecology. bioDISCOVERY & bioGENESIS SCC meeting, Cornell Univerwsity, Ney York, USA.

38. Yasuhara, M. 2018. Deep-sea biotic response to oxygen variability and Pleistocene global changes: paleoecological and macroevolutionary dynamics in a marginal sea. IODP Expedition 346: Mini-Workshop at Woods Hole Oceanographic Institution, Woods Hole, USA.

37. Yasuhara. M. 2018. Quaternary Asian marine paleoecology. Mainland-Hong Kong Joint Workshop on Challenges in Sustainable Coastal Observation and Experiments in a Rapidly Changing Environment at Xiamen University Xiang'an Campus, Xiamen, China.

36. Yasuhara. M. 2017. Combining marine macroecology and paleoecology in understanding biodiversity. An invited seminar in Academia Sinica, Taiwan.

35. Yasuhara. M. 2017.Ostracod distribution around Iceland. IceAGE (Icelandic Marine Animals: Genetics and Ecology) workshop, Spała, Poland.

34. Yasuhara, M. 2016. Combining marine macroecology and paleoecology in understanding biodiversity. An invited seminar in The University of Hong Kong, Hong Kong SAR, China

33. Yasuhara, M. 2016. Combining marine macroecology and paleoecology in understanding biodiversity. An invited seminar in Yale University, New Haven, USA

32. Yasuhara, M. 2016. Combining marine macroecology and paleoecology in understanding biodiversity. Paleobiology seminar in Smithsonian Institution, Washington DC, USA

31. Yasuhara, M. 2016. Combining marine macroecology and paleoecology in understanding biodiversity. An invited seminar in US Geological Survey, Reston, USA

30. Yasuhara, M. 2016. Combining marine macroecology and paleoecology in understanding biodiversity. An invited seminar in Dalhousie University, Halifax, Canada

29. Yasuhara, M. 2016. Combining marine macroecology and paleoecology in understanding biodiversity. An invited seminar in Woods Hole Oceanographic Institution, Woods Hole, USA

28. Yasuhara, M. 2016. Combining marine macroecology and paleoecology in understanding biodiversity. An invited seminar in University Wisconsin-Madison, Wisconsin, USA

27. Yasuhara, M. 2016. Climatic and anthropogenic impacts on marine ecosystems: a paleoecological perspective. Workshop: Historical Ecology and Conservation Paleobiology in University of Vienna, Austria.

26. Yasuhara, M. 2016. Introduction to ostracode micropaleontology. Workshop: Historical Ecology and Conservation Paleobiology in University of Vienna, Austria.

25. Yasuhara, M. 2015. Introduction to ostracode micropaleontology and ostracode under the microscope. Workshop: Greenhouse gases in the ocean and climate change (Geo-8144 and Geo-8145) in The Arctic University of Norway, Tromsø, Norway.

24. Yasuhara, M. 2015. Climatic and anthropogenic impacts on marine ecosystems: a paleoecological perspective. Workshop: Greenhouse gases in the ocean and climate change (Geo-8144 and Geo-8145) in The Arctic University of Norway, Tromsø, Norway.

23. Yasuhara, M. 2015. Climatic and anthropogenic impacts on marine ecosystems: a paleoecological and micropaleontological perspectives. An invited seminar in Hiroshima University, Hiroshima, Japan.

22. Yasuhara, M. 2015. Climatic and anthropogenic impacts on marine ecosystems: a paleoecological perspective. An invited seminar in National Taiwan Ocean University, Keelung, Taiwan.

21. Yasuhara, M. 2015. Climatic and anthropogenic impacts on marine ecosystems: a paleoecological perspective. An invited seminar in National Taiwan University, Taipei, Taiwan.

20. Yasuhara, M. 2014. Marine macroecology and paleoecology in biodiversity research. bioDISCOVERY Scientific Committee Meeting, Paris, France.

19. Yasuhara, M. 2014. Climatic and anthropogenic impacts on marine ecosystems: a paleoecological and micropaleontological perspective. An invited Seminar in the Tokyo University of Marine Science and Technology.

18. Yasuhara, M. 2013. Climatic impact on deep-sea biodiversity: paleoecological approach. An invited seminar in Naturalis Biodiversity Center, Leiden, Netherlands.

17. Yasuhara, M. 2013. Marine ecosystem response to environmental changes. An invited seminar in the Ehime University, Ehime, Japan.

16. Yasuhara, M. 2013. Human-induced marine ecological degradation: microfossil perspectives. Joint International Seminar (The University of Hong Kong and University

of Ryukyus): Past and present changes in marine ecosystems and biodiversity in the Asia-Pacific region. University of Ryukyus, Okinawa, Japan.

15. Yasuhara, M., 2012. Climatic impact on deep-sea biodiversity: paleoecological approach. IceAGE workshop 4: genetic results, German Centre of Marine Biodiversity Research (DZMB), Wilhelmshaven, Germany.

14. Yasuhara, M., 2012. Climatic impact on deep-sea biodiversity: paleoecological approach, CLIDEEP workshop at Friday Harbor Labs, University of Washington, USA.

13. Yasuhara, M., 2012. Human-induced marine ecological degradation: microfossil perspectives, An invited seminar in the Korea Institute of Geoscience and Mineral Resources (KIGAM), South Korea.

12. Yasuhara, M., 2011. Ostracod micropaleontology, Invited lecture for undergraduate students, Department of Physics and Earth Sciences, University of Ryukyus, Japan.

11. Yasuhara, M., 2011. Marine ecosystem history: A micropaleontological perspective. Marine and Freshwater Biology Module Special Guest Seminar, School of Biological Sciences, University of Hong Kong.

10. Yasuhara, M., 2010. Marine ecosystem history: A micropaleontological perspective. Seminar in Atmosphere and Ocean Research Institute, The University of Tokyo, Japan.

9. Yasuhara, M., 2010. Marine ecosystem history: A micropaleontological perspective. 1st Workshop on “Research Center for Global Environmental Change by Earth Drilling Sciences”, Kochi University, Japan.

8. Yasuhara, M., 2010. Deep-sea ecosystem response to climate changes. Center for Advanced Marine Core Research, Kochi University, Special Seminar, Kochi, Japan.

7. Yasuhara, M., 2010. Marine ecosystem history: A micropaleontological perspective. Seminar in the University of Hong Kong.

6. Yasuhara, M., 2010. Deep-sea ecosystem response to climate changes. Smithsonian Institution, National Museum of Natural History, Paleobiology Seminar, Washington DC, USA.

5. Yasuhara, M., 2010. Marine ecosystem response to environmental changes. Seminar in Department of Earth and Planetary Science, University of Tokyo.

4. Yasuhara, M., 2010. Southern Ocean ecosystem history: micropaleontological perspective. Workshop on “Southern Ocean benthic biodiversity and biogeography: What are the key spatial patterns in macro-and megabenthos and what drives them?”, German Centre of Marine Biodiversity Research (DZMB), Wilhelmshaven, Germany.

3. Yasuhara, M., 2008. Marine ecosystem history: What fossil records tell us. Smithsonian Environmental Research Center.

2. Yasuhara, M., 2008. Marine ecosystem history research. Center for Marine Environmental Studies, Ehime University, Japan.

1. Yasuhara, M., 2007. Late Quaternary environmental changes and marine ecosystem response: Emphasizing anthropogenic pollution and abrupt climate changes. Faculty of Fisheries, Nagasaki University, Japan.

SYMPOSIUM/SESSION ORGANIZER AND CHAIR:

21. Yasuhara, M., Kubota, Y., Chaudhary, C. 2023. Paleo- and macro- ecology in tropical Asia. The 3rd AsiaEvo Conference. National University of Singapore, Singapore. (Symposium organizer)

20. Yasuhara, M., 2023. Open Session. 2nd Asian Palaeontological Congress. University of Tokyo, Tokyo, Japan. (Session chair)

19. Yasuhara, M. 2023. Biogeography & Distribution. 6th World Conference on Marine Biodiversity. Penang, Malaysia. (Session Chair)

18. Levin, L., Hilmi, N., Morato, T., Yasuhara, M. 2023. Deep-Sea responses to, and solutions for, Climate Change. 5th International Symposium, Effects of Climate Change on the World's Ocean, Bergen, Norway. (Convenor)

17. Yasuhara, M. 2022. IPC6 International Palaeontological Congress, Khon Kaen, Thailand. (session organizer, workshop organizer; Tropical Paleobiology session, Asian Ostracod Meeting session; "Ostracods in research (biology and paleontology) and application on sedimentary deposit" Workshop)

16. Yasuhara, M. 2022. 19th International Symposium on Ostracoda, the University Claude Bernard Lyon 1/hybrid, Lyon, France. (workshop organizer, session chair)

15. Yasuhara, M. 2022. GO2NE Webinar Series on Ocean Deoxygenation, online. (moderator)

14. Da Silva, A.-C., Fagel, N., Guiterez, D., Yasuhara, M. 2022. How the past can inform the future? The 53rd International Colloquium on Ocean Dynamics, The University of Liége/hybrid, Belgium. (Session organizer)

13. Yasuhara, M. 2022. The Second International Conference on Biodiversity, Ecology and Conservation of Marine Ecosystems (BECoME), City University of Hong Kong/hybrid, Hong Kong. (session chair)

12. Da Silva, A.-C., Fagel, N., Guiterez, D., Yasuhara, M. 2022. How the past can inform the future? The 53rd International Colloquium on Ocean Dynamics. 3rd GO2NE Oxygen

Conference, Liege, Belgium.

11. Yasuhara, M., Levin, L. 2021. DOSI Climate Change Session. 16th Deep-Sea Biology Symposium (DSBS), Brest/online.

10. Yasuhara, M. 2020. Early Career Panel Discussion (Moderator: Trevyn Toone). 5th World Conference on Marine Biodiversity (WCMB), online. (Discussion panellist)

9. Yasuhara, M. 2020. Panel discussion: The Influence of Taphonomy and Diagenesis (Chair: Tracy Aze). The Micropalaeontological Society Microfossil Geochemistry Workshop, online. (Discussion panellist)

8. Kubota, Y., Yasuhara, M., 2019. Paleobiology as the Synthetic Ecological, Evolutionary and Diversity Science (P-SEEDS) workshop, University of the Rykyus, Okinawa, Japan. (Workshop organizer)

7. Yasuhara, M., O'Dea, A., Sibert, E., Williams, J., 2019. Symposium. Tiny fossils, big questions, big data. 11th North American Paleontological Convention at the University of California, Riverside, USA. (Symposium organizer)

6. Yasuhara, M., Brix, S., Wei, C. L., 2019. Symposium. Deep-sea Biodiversity: A Crustacean Perspective. The Crustacean Society Mid-Year Meeting at the Chinese University of Hong Kong, Hong Kong SAR. (Symposium organizer)

5. Yasuhara, M., Stefanoudis, P., 2018. Session Biodiversity and Ecosystem Functioning. 15th Deep-Sea Biology Symposium at Monterey Conference Center, Monterey, USA. (Session chair)

4. Naqvi, S. W. A., Jacinto, G., Yasuhara, M., Zhang, J., 2018. Sesson BG09-OS: Ocean Deoxygenation in the Asia-pacific Region. Asia Oceanic Geosciences Society (AOGS) 15th Annual Meeting, Hawaii, USA. (Session organizer)

3. Yasuhara, M., 2016. Panel discussion: Workshop on the Development of an Integrated Ocean Research Network (Future Earth "Ocean – KAN"), Kiel, Germany. (Discussion panellist)

2 Glover, A., Yasuhara M., Bik, H. Rex, M., 2014. Sesson 8: Evolution in the Deep Sea: Origins, Adaptation and Diversity. 3rd World Conference on Marine Biodiversity (WCMB-2014), Qingdao, China. (Session organizer)

1. Yasuhara, M., Tsugeki, N., 2012. SS21: Long-Term Ecosystem and Biodiversity Dynamics: Time-Series and Paleoecological Studies. ASLO Aquatic Sciences Meeting, Shiga, Japan. (Session organizer)

TEACHING AND LEARNING

PRIMARY TEACHING:

ENVS3016/4955/3022 Environmental Science in Practice/Environmental Science Field Course

BIOL2610/3301 Marine Biology

BIOL0604/1309 Evolutionary Diversity

OTHER TEACHING:
ENVS3020 Global change ecology

CCGL9017 Food Technology Trade and Culture

ENVS2004 Environment and Society

ENVS1002 Environmental Life Science,

ENVS2016 Environmental Data Analysis

ENVS3313 Environmental oceanography

ENVS2001 Methods in environmental science

BIOL3988 Biological Sciences Internship

BIOL4991 Ecology & biodiversity project

BIOL3991 Directed studies in ecology & biodiversity

HKU MOOC Dinosaur Ecosystem

I am a key teacher of Environmental Science major.

Environmental Marine Biology: Intensive course, Earth and Environmental Sciences, Faculty of Agriculture, Ehime University, Japan (26–27 September 2013).

Greenhouse gases in the ocean and climate change (Geo-8144 and Geo-8145): Workshop, the Arctic University of Norway, Tromsø, Norway (21–25 September 2015). (Postgraduate teaching workshop)

Historical Ecology and Conservation Paleobiology Workshop, University of Vienna, Austria (18-29 April 2016). (Postgraduate teaching workshop)

Ostracods in research (biology and paleontology) and application on sedimentary deposit, IPC6 International Palaeontological Congress, Khon Kaen, Thailand (9 November 2022). (Postgraduate teaching workshop)

Yasuhara, M. 2020. Early Career Panel Discussion (Moderator: Trevyn Toone). 5th World Conference on Marine Biodiversity (WCMB), online. (Discussion panellist)

Yasuhara, M. 2019. Lunch-time mentor session for early career scientists. The 9th Biennial Conference of the International Biogeography Society, Málaga, Spain. (Mentor)

Advisory board member of the NSF-funded project: FossilSketch: Developing a Digital Sketching Application That Delivers Personalized Feedback to Improve Student Learning and Engagement in Micropaleontology. NSF EHR DUE: IUSE 1937827 (2020-)

Micropaleontology Workshop, National Chung Cheng University, Chiayi, Taiwan (November 16 2023). (Teaching workshop)

CURRICULUM DEVELOPMENT AND TEACHING INNOVATIONS:
Xingyue Zhang joined Yasuhara Lab as a HKU's Summer Research Programme student (2023).

Gallant Ho Experiential Learning Fund (January 2024–August 2024). Title: Developing a research-oriented interdisciplinary field course in Thailand for Environmental Science (major) students. Principal Investigator: Moriaki Yasuhara, HK$ 56,000

Teaching Innovation Fund of the Faculty of Science (February 2022–June 2023). Title: Stereomicroscope for Ecology & Biodiversity education. Principal Investigator: Moriaki Yasuhara, HK$ 35,000

Gallant Ho Experiential Learning Fund (January 2019–August 2019). Title: Developing the research-oriented field study course in the Environmental Science Major. Principal Investigator: Moriaki Yasuhara, HK$ 48,000

Teaching Innovation Fund of the Faculty of Science (February 2019–June 2020). Title: Developing the research-oriented field study course for students major in Environmental Science. Principal Investigator: Moriaki Yasuhara, HK$ 56,200

Teaching Innovation Fund of the Faculty of Science (February 2018–June 2019). Title: Additional stereo microscopes for biological education. Principal Investigator: Moriaki Yasuhara, HK$ 120,000

Yasuhara co-developed an international exchange "TANKENTAI EAST" program between HKU and Tokyo University of Marine Science and Technology (TUMSAT) (2014-2018). TUMSAT students stayed in Hong Kong and HKU students visited Japan for marine science educational and cultural experiences.

RESEARCH POSTGRADUATE STUDENTS (YASUHARA IS PRIMARY SUPERVISOR OF ALL OF THEM.):
13 students (11 PhD, 2 Mphil)
Lalita Weerachai, Research theme (thesis title not fixed yet): Lessepsian migration (PhD, Dec 2023–) (Ongoing, 0% completion)

Jialu Huang, Research theme (thesis title not fixed yet): Hong Kong paleoecology (PhD, Sep 2022–) (Ongoing, 20% completion)

Jiamian Hu, Research theme (thesis title not fixed yet): AI deep-learning and automatic identification (PhD, Sep 2022–) (Ongoing, 20% completion)

Yichi Zhang, Research theme (thesis title not fixed yet): Ordovician ostracod and biodiversity (PhD, Sep 2022–) (Ongoing, 20% completion)

Jingwen Zhang, Research theme (thesis title not fixed yet): Eocene ostracod and latitudinal diversity gradient (PhD, Sep 2021–) (Ongoing, 80% completion)

Kyawt “Kk” Aye, Research theme (thesis title not fixed yet): Formation of the Isthmus of Panama and the history of Caribbean Sea biodiversity: a test using ostracod (PhD, Oct 2020–) (Ongoing, 60% completion)

Skye Yunshu Tian, Research theme (thesis title not fixed yet): Hopping or Whack-A-Mole? Cenozoic dynamics of marine biodiversity hotspots (PhD, Sep 2018–Dec 2022) (Finished successfully)

Yuanyuan Hong, Thesis title: Hong Kong shallow marine benthic ecosystem history : conservation paleoecology approach based on microfossil ostracods (PhD, Sep 2011–Mar 2017) (Finished successfully)

Ruby W. T. Chiu, Thesis title: Assessing shallow marine biodiversity patterns and climate change using micropaleontological records (PhD, Sep 2012–Dec 2017) (Finished successfully)

Anna Jöst, Thesis title: Recent and quaternary deep-sea ostracoda from the sub-polar North Atlantic : paleoecological and paleoceanographical applications (PhD, Dec 2012–Feb 2018) (Finished successfully)

Richard C.W. Cheung, Thesis title: Environment-marine ecosystem association in East Asia : biogeographical and paleoecological approaches using microfossil ostracodes and foraminifera (PhD, Sep 2013–Mar 2018) (Finished successfully)

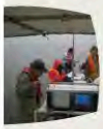
Huai-Hsuan May Huang, Thesis title: Deep-sea ostracoda faunal dynamics across evolution of the cenozoic climate (PhD, Sep 2014–May 2019) (Finished successfully)

Caren Shin, Thesis title: Cenozoic ostracode biodiversity in the Indo-Pacific (MPhil, Sep 2014–Mar 2017) (Finished successfully)

POSTDOCTORAL RESEARCHERS:
Natalia Albarran-Melzer (Sep 2023–)
Pedro Julião Jimenez (Jun 2021–)
He Wang (Oct 2021–)
Yuanyuan Hong (Apr 2017–Apr 2023)
Huai-Hsuan May Huang (Sep 2020–Jul 2021)
Anna Jöst (Feb 2018–Oct 2019)
Briony Mamo (Oct 2015–Jun 2019)
Hokuto Iwatani (Feb 2013–Mar 2019)
Laura Cotton (Jun 2016–Dec 2016)

2. EVIDENCE FOR TEACHING:
ENVS3016/4955/3022 related documents:
Faculty Newsletter Article





FIELD COURSE IN JAPAN

ENVS3016

Environmental Science *in Practice*

for ENVS Undergraduate Students

Exchange on Environmental Issues with Shimane University

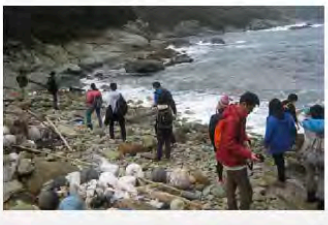
by Dr Moriaki Yasuhara, School of Biological Sciences

ENVS3016 Environmental Science in Practice is newly launched flagship course of Environmental Science Major. In the reading week of early March, 2012, I led a group of final year ENVS students to a residential field trip in Shimane and Hiroshima, Japan. The field trip, which is a main component for practical and field-based learning of environmental science, was really a great success.

On the second day of the trip, the academic staff of Shimane University and Fukushima University (Professor Ritsuo Nomura, Director of the Research Center for Coastal Lagoon Environments, Shimane University, Professor Toshiaki Irizuki, Dr Koji Seto and Dr Kotaro Hirose) gave us a series of lectures on regional environments and their historical changes of brackish lake Nakaumi.

On the following day, we conducted sediment coring by using two boats to reconstruct anthropogenic impact on the lake for the last few hundred years. Dr Seto primarily conducted the coring, grabbed sampling, and did water quality measurement, and our students were there to observe and record the data. After that, we brought the sediment core back to the laboratory of the institution. We were joined by a reporter at the coring, who subsequently wrote a feature at a local newspaper, highlighting the importance of environmental science education and the first cultural and educational exchange among HKU and Shimane University.





香港の大学生が見学
中海生物を調査

News clipping of a Japanese newspaper on the exchange of HKU and Shimane university

From the third day afternoon to the fourth day, students worked hard on various microfossil analyses of sediment samples at the laboratory, including foraminifera, ostracods, and diatoms. They then prepared giant group posters to elaborate the environmental history of Lake Nakaumi for the last few hundreds of years, depicting human-induced environmental degradation has been actualized rapidly since the mid 20th century, the period when Japan developed with rapid economic growth. Our Japanese partners also brought us to a day geological field trip to study the Miocene lake-sediment outcrops and vertebrate footprints, followed by some sightseeing of the historical Matsue castle afterwards. We had a great farewell party and chat with the Japanese staff and their postgraduate students. We all enjoyed the day a lot.

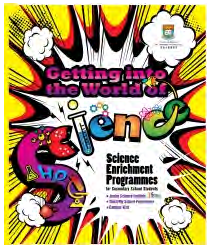
We then moved to Hiroshima Prefecture and visited the Asa Zoological Park, where Dr Taguchi gave us a terrific lecture and a tour on Japanese giant salamander conservation. This park is known as the best institution for Japanese giant salamander conservation and the only place with successful artificial breeding of such salamanders. We spent the night in the city center of Hiroshima. I believe this was a great opportunity to learn environmental issues in places other than Hong Kong, comparing the situation there with Hong Kong. I also hope this trip is a good start facilitating the exchange between The University of Hong Kong and Shimane University in the future.

I would like to thank our Japanese partners for their hospitality, all the supporting staff in School of Biological Sciences, especially Ms Laura Wong, for their great help to prepare this trip, and Yuanyuan Hong, my Teaching Assistant for her unfailing support in running the course.

Faculty News

News

Outreach & Knowledge Exchange
- Outreach
  - News
  - Events
  - Faculty Newsletter
  - Media Corner
  - Awards and Achievements
- Knowledge Exchange



VIEW | DOWNLOAD
Getting into the World of Science - Science Enrichment Programmes for Secondary School Students

Environmental Science in Practice: a Learning Experience that Broke the Border

April 2, 2013

Teachers and students worked together in Sesoko Beach ecological field work.

by Miss Ruby Chiu, MPhil Student of School of Biological Sciences

Just as old Chinese adage states, "it is better to travel ten thousand miles than read ten thousand books". To widen the horizons of Environmental Science students, Dr Moriaki Yasuhara of School of Biological Sciences organized a 6-day field trip with University of the Ryukyus in Okinawa for the undergraduate course ENVS3016 Environmental Science in Practice during the reading week on March 2013. This had not only equipped the students with essential technical skills for environmental science, but also provided them with the opportunity to have exchange with Japanese teachers and students.

Life as an Okinawa university student

"The best thing of this course is that I can experience the life of Japanese university student. We worked with Japanese students during the trip and solved the problems together. Now we have a strong feeling of brotherhood with them," said Yuen Wai-kuen Will, final year student of HKU Environmental Science Major.

The students were given several lectures by Japanese professors including Dr Kazuhiko Fujita (University of the Ryukyus), Dr Chuki Hongo (University of the Ryukus) and Dr Koji Seto (University of Shimane, the place that we conducted the field trip last year), enhancing their understanding of the environmental problems in Okinawa and the field works. They also worked with Japanese students from both Okinawa and Shimane to do ecological survey on how Kaichu Doro Leeway Construction has affected the marine ecosystem in Okinawa. By presenting the results of their environmental study of Okinawa as well as some Hong Kong's marine environmental issues, the students had a deeper understanding the importance of striking a balance between human constructions and conservation.

Feast for the eyes

Well-known for the high biodiversity of the coral reef in Okinawa, students could actually touch the sea cucumbers and sea stars under the crystal clear water of

News
- World Ocean Systems Undermined by Climate Change by 2100
- Scientists warn against the high risk of degradation of marine ecosystems and associated human hardships
- PhD Candidate Receives the Annual Award of the Malacological Society of London
- HKU Actuarial Science Ranked No. 1 in Asia and No.10 Worldwide in Renowned Journal
- Professor N P Shah Received the American Dairy Science Association Distinguished Service Award

More

Sesoko beach in Okinawa. “This was my first time to see the hard corals, and I have never seen such high abundance of sea cucumbers and sea urchins in the beach before. The water was so clean that I could observe the bottom of the sea from above”, final year student Cheung Ching-Wa Richard said. Amazed by the natural splendor and magnificence of picturesque scenery of the beach, students were all very excited when they were guided by for field survey at the Sesoko Island.

To enhance the students’ appreciation of marine creatures, the group visited the Okinawa Churaumi Aquarium, where they were given a backyard tour to understand the operation of a world-class aquarium. They then visited the Ocean Expo Parkwhere the aquarium is located. “This is my first time to see whale shark, and there are three whale sharks in the aquarium. That was just awesome!” said student Chan Hin Hei Haily .

Best memory before graduation

“The trip is just fantastic! This should be one of my best memories before graduation. Thanks Dr. Yasuhara and Dr. Fujita!” said Huang Xindi Cindy, a final year student.

This is the second year for Dr. Yasuhara to bring Environmental Science students for overseas field trips for the course ENVS3016 Environmental Science in Practice. It is hoped that there will be more collaboration and student exchange opportunities among University of the Ryukyus, Shimane University, and The University of Hong Kong in the future.

Field work on assessing the impacts of Kaichu Doro Leeway Construction.

Students working together for the presentation of their results.

Students visiting Ocean Expo Park.

Churaumi Aquarium backyard tour.

Dr Fujita was introducing different marine organisms of Sesoko Beach.

Friendship between HKU and Okinawa students.

Faculty's 80th anniversary booklet (Oak Anniversary, a commemorative volume)

Three students who joined ENVS3016/4955/3022 joined Yasuhara Lab after joining the course, and they all had PhD Yasuhara Lab successfully (one is now secondary school teacher; one doing postdoc in Czech Republic; one just started prestigious Smithsonian postdoc fellowship). Many other students who took this course pursued academic path, e.g., research assistant, Mphil, PhD in other HKU labs and the outside in Hong Kong and overseas.

Please see Summary Table for student evaluations.

Panel discussion for early career scientists at the World Conference on Marine Biodiversity 2020

Navigating paths through science as early career researchers: A WCMB panel discussion

BY GAVIN MORRISON · FEBRUARY 22, 2021

Navigating the winding, complicated, uncertain path through science can be stressful even for seasoned scientists, and often completely overwhelming for early career researchers. A useful method to provide a roadmap for this path is to learn from those who have walked it before you. With this in mind, we hosted a panel at the 5th World Conference on Marine Biodiversity with Maria Dornelas, Graham Edgar, Madeleine van Oppen, and Moriaki Yasuhara to discuss their paths through marine science and offer advice to early career researchers. Here, we share the stories, recommendations, and advice they conveyed to the audience during the panel.

Trevyn Toone, Elin Thomas, Georgia Sarafidou, and Ariadna Nocera

Members of the WCMB Early Career Committee

******

Prof Madeleine van Oppen

Dr Maria Dornelas

Dr Moriaki Yasuhara

Prof Graham Edgar

The adage that one's journey through life is never straight was exemplified by our panellists' routes from their doctorates to their current positions. Dr. Edgar was quick to volunteer that he has never had a permanent job, rather bouncing between fellowships and contract positions. This path was not without its downsides including a lack of job security; however, he enjoys the freedom it allows to shift between different interesting ideas. Dr. Dornelas's career has also followed a winding path including a series of postdocs, a child, and multiple moves before her position at the University of St. Andrews. Dr. Yasuhara moved to the U.S. from Japan as a postdoc before moving back to East Asia to take up his current position in Hong Kong. This multi-national journey was shared by Dr. van Oppen who moved between the Netherlands, England, and Australia for various opportunities before ultimately negotiating her current Australian position.

All four panellists agreed that the most successful students were not necessarily the ones with the highest grades, but rather the ones who were curious about the world around them.

Along these paths each of our panellists identified key turning points in their career as largely being acts of serendipity that led them to discover their talents and passions. For Dr. van Oppen this was learning RNA sequencing in her masters which would be vital to future research, while for Dr. Edgar it was a trip to the Galapagos as a postdoc that broadened his perspectives. For Dr. Dornelas her career turning point was largely defined by discovering what she enjoyed (field work and modelling) and what she did not (lab work) and then building her career along those lines. Dr. Yasuhara, on the other hand, uncovered his skill and passion for deep-sea biology later in his career as a postdoc, a discovery which he credits as shaping the rest of his career.

KNOWLEDGE EXCHANGE

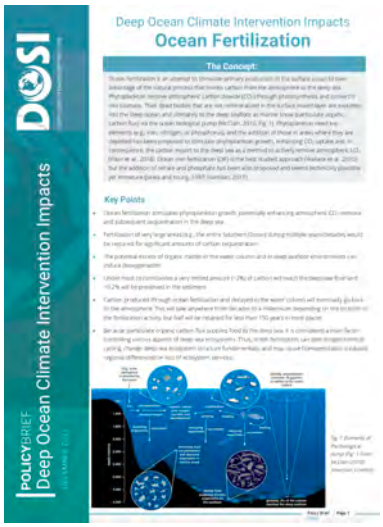
1. EVIDENCE OF IMPACT ON INDUSTRY, THE PROFESSIONS OUTSIDE THE ACADEMIC, OR SOCIETY AT LARGE, WHETHER LOCAL OR INTERNATIONAL, THROUGH CREATIVE APPLICATION AND TRANSFER OF HKU-CREATED KNOWLEDGE, IF APPLICABLE:

7. Lidström, S, Levin, L., Annaswamy, P., Baker, I., Bateh, F., Bowman, T., Claudet, J., Colaço, A., Escobar, E., Esquete, P., Gertz, B., Giddens, J., Gjerde, K.M., Guraieb, M., Hetherington, E., Hilmi, N., Hoving, H.-J., Jacquemont, J., Jones, D., Metaxas, A., Morato, T., Seabrook, S., Singh, P.A., Sinniger, F., Soto, E., Thiele, T., Vega, A., White, M., Xavier, J.R., **Yasuhara, M.** 2023 Incorporating deep-ocean biodiversity into climate change policy. Policy Brief. Deep-Ocean Stewardship Initiative. https://www.dosi-project.org/wp-content/uploads/deep-biodiversity-and-climate-change.pdf

6. **Yasuhara, M.**, 2023. RTHK 大自然 生態人 3 (Biodiversity in Hong Kong 3). TV Episode 鑑古知今.
https://www.rthk.hk/tv/dtt31/programme/hongkongecologists3/episode/852442

5. **Yasuhara, M.**, Alfaro-Lucas, J.M., Baker, M., Craik, N., Levin, L.A., Mestre, N.C., Vivian, C., 2022. “Ocean Alkalinity Enhancement.” Deep Ocean Stewardship Initiative Policy Brief. https://www.dosi-project.org/wp-content/uploads/Alkalinity-Enhancement-Policy-Brief.pdf

4. **Yasuhara, M.**, Alfaro-Lucas, J. M., Colaço, A., Craik, N., Levin, L. A., Vivian, C., 2021. “Impacts of Ocean Fertilization.” Deep Ocean Stewardship Initiative Policy Brief. https://www.dosi-project.org/wp-content/uploads/Ocean-Fertilization-Policy-Brief.pdf



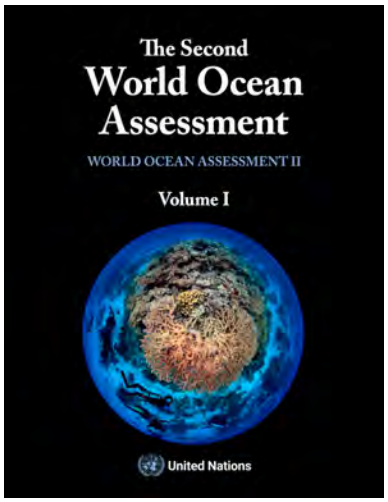
3. Levin, L.A., Wei, C.-L., Dunn, D.C., Amon, D., Ashford, O., Cheung, W., Colaço, A., Escobar, E., Guilloux, B., Harden-Davies, H., Drazen, J.C., Gjerde, K., Ismail, K., Jones, D., Johnson, D., Le, J., Lejzerowicz, F., Mitarai, S., Morato, T., Mulsow, S., Snelgrove, P., Sweetman, A.K., **Yasuhara, M.**, 2019. Climate Change Considerations are Fundamental to Sustainable Management of Deep-Seabed Mining (Policy brief). Deep Ocean Stewardship Initiative (DOSI).

2. Breitburg, D., Grégoire, M., Isensee, K., Chavez, F. P., Conley, D. J., Garçon, V., Gilbert, D., Gutiérrez, D., Jacinto, G. S., Levin, L. A., Limburg, K. E., Montes, I., Naqvi, S. W. A., Oschlies, A., Pitcher, G. C., Rabalais, N. N., Roman, M. R., Rose, K. A., Seibel, B. A., Telszewski, M., **Yasuhara, M.**, Zhang, J. [the IOC expert working group: Global Ocean Oxygen NEtwork (GO2NE)], 2018. The Ocean is losing its breath: declining oxygen in the world's ocean and coastal waters; summary for policy makers. The Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO)

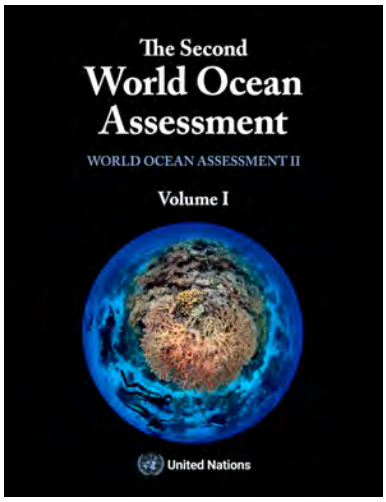
1. Boero, F., **Yasuhara, M.** 2016. Marine ecosystem degradation. Eds., Williamson, P., Smythe-Wright, D., Burkill, P., Future of the Ocean and its Seas: a non-governmental scientific perspective on seven marine research issues of G7 interest, 44–47. **Open Access**

2. EVIDENCE OF MEANINGFUL CONTRIBUTIONS TO KNOWLEDGE EXCHANGE (INCLUDING TECHNOLOGY TRANSFER WHERE APPLICABLE), LEADING TO BENEFITS TO INDUSTRY, THE PROFESSIONS OUTSIDE THE ACADEMIC, OR SOCIETY AT LARGE:

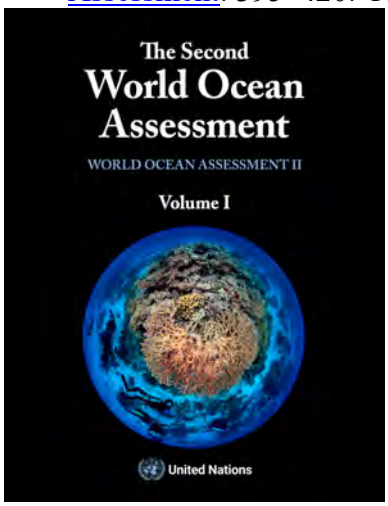
6. Bigg, G. R., Azzaro, M., Evans, K., Griffiths, H., **Yasuhara, M.**, 2021. Chapter 7K High-latitude ice. The Second World Ocean Assessment: 421–436. United Nations, New York.



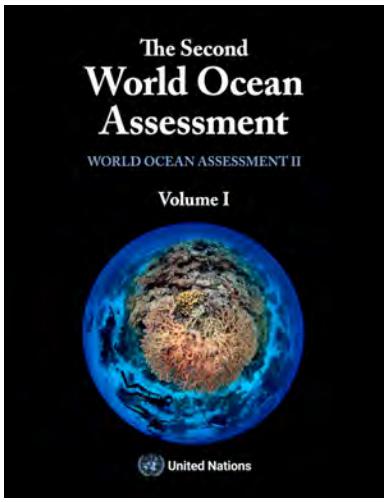
5. Woodroffe, C. D., Qiao, B., Christofoletti, R., Hunt, D. E., Muniz, P., **Yasuhara, M.**, 2021. Chapter 7F Estuaries and deltas. The Second World Ocean Assessment: 339–352. United Nations, New York.



4. Levin, L. A., Auster, P., Clark, M. R., Hall-Spencer, J. M., Hopcroft, R., Ingels, J., Metaxas, A., Narayanaswamy, B. E., Tuhumwire, J. T., **Yasuhara, M.**, 2021. Chapter 7J Continental slopes and submarine canyons. The Second World Ocean Assessment: 395–420. United Nations, New York.

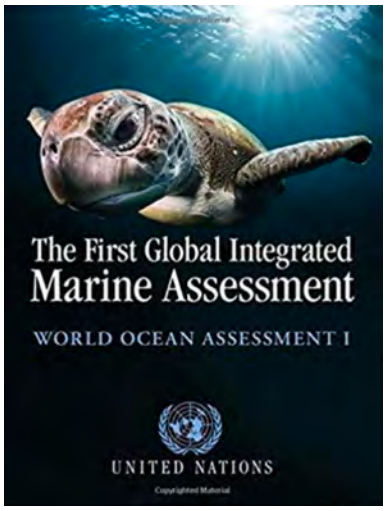


3. Ingels, J., Amon, D., Bernardino, A. F., Bhadury, P., Bik, H., Clark, M. R., Dahlgren, T., Jones, D. O. B., McClain, C., Nunnally, C., Snelgrove, P., Tuhumwire, J. T., **Yasuhara, M.**, 2021. Chapter 7M Abyssal plains. The Second World Ocean Assessment: 453–476. United Nations, New York.



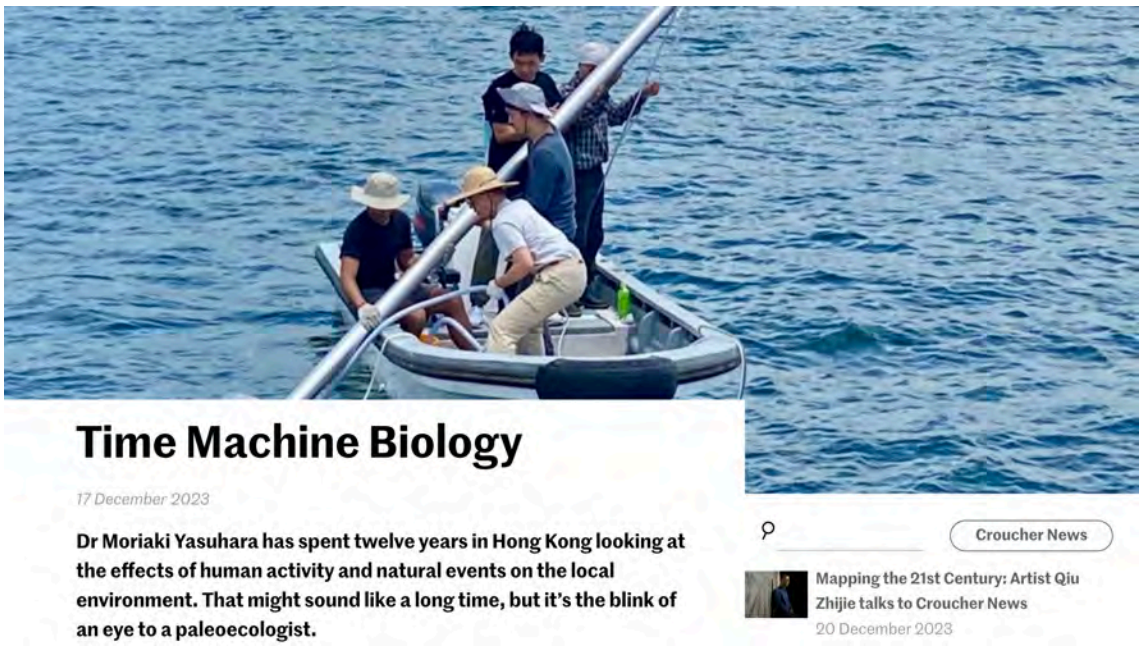
2. **Yasuhara, M.***, Rabalais, N.N., Conley, D.J., Gutiérrez, D., 2019. Palaeo-records of histories of deoxygenation and its ecosystem impact. In: Laffoley, D., Baxter, J. M. (eds), Ocean Deoxygenation: Everyone's Problem – Causes, Impacts, Consequences and Solutions: 213–224. IUCN, Gland.

1. Ingels, J.,Clark, M. R., Vecchione, M., Perez, J. A. A., Levin, L. A., Priede, I. G., Sutton, T., Rowden, A. A., Smith, C. R., **Yasuhara, M.**, Sweetman, A. K., Soltwedel, T., Santos, R., Narayanaswamy, B. E., Ruhl, H. A., Fujikura, K., Amaral Zettler, L., Jones, D. O. B., Gates, A. R., Snelgrove, P., Bernal, P., Van Gaever, S. 2016. Chapter 36F. Open Ocean Deep Sea. The First Global Integrated Marine Assessment, World Ocean Assessment I, United Nations, 37 pp.
Open Access


The First Global Integrated
Marine Assessment
WORLD OCEAN ASSESSMENT I
UNITED NATIONS

Recent media coverage (examples):

HKU Tweet on my research received 15700 view. Probably the top tweet among all tweets from @HKUniversity.



Croucher Foundation interview.
https://projects.croucher.org.hk/news/time-machine-biology

倘二氧化碳重回大氣層
我們將面臨巨大風險

綠色生活 | Page 106 2023・03・26

文・朱令筠

全球暖化危機迫在眉睫，除了從個人層面積極減碳，科學家亦各出其謀。地球工程學（Geoengineering）隨之出現，探討人為改變地球環境的可能，其中一個發展方向是以海洋為本的氣候干預措施（Ocean-Based Climate Interventions，OBCIs）。不過，一如其他地球工程學的構想，OBCIs的成效及對海洋生態的潛在損害備受爭議。

深海泥指海面200米以下的水域，漆黑中唯一食物來源是來自海洋上層的有機物。（Schmidt Ocean Institute, FK190106, Erik Cordes Chief Scientist提供）

倒入深海 對抗暖化

碳封存海底 埋下生態炸彈

海水變暖令部分海鮮產量減少，專家指在海洋進行氣候干預措施，會進一步破壞深海食物鏈，最終影響人類生活。（資料圖片）

1 溫度高可令生物缺氧

OBCIs的目標是減緩氣候變化，但實施的話或會犧牲珍貴的海洋生物？多名國際海洋專家本月初發表學術文章，分析各項OBCIs方案對深海生態的影響。文中提到之所以聚焦深海，是因為深海未被充分研究，同時是對地球健康尤其重要的水域。香港大學生物科學學院、太古海洋科學研究所副教授安原盛明是一名深海生物學家，有份撰寫這篇文章。他強調OBCIs至今大多流於理論層面或在研究當中，並未有大規模應用，但從科技上已經可行，所以值得密切關注。

二氧化碳是人類活動排出的主要溫室氣體之一，若能把部分二氧化碳故意海洋，便能減少其在大氣中的含量，對付全球暖化。這便是OBCIs其中一個類別——碳封存（carbon sequestration）的原理。具體方案之一是直接把二氧化碳透過管道注入海林，利用深海溫度極低、水壓極高的特性，將二氧化碳以液態封存，比起其氣泡形式更為穩定。「將二氧化碳加入海洋，乍聽之下已經很危險，不是嗎？」安原盛明指出二氧化碳濃度如果過高，有可能殺死深海生物。文中則提到在海林上的液態二氧化碳層就像形成一張膜，令生物難缺氧。另一個問題是這些二氧化碳要放在深海多久呢？「這是重要的一點。我們可以永久封存，但二氧化碳或有離開海林的一天，例如變成氣泡。若幾百年或一千年後，它最終會回到大氣層，我們將面臨巨大風險……但這會是下個世紀的人類所面對的問題。」

安原盛明

深海蘊含豐富資源，氣候干預方案或影響海洋生物的生存空間。圖片攝於哥斯達黎加大平洋沿岸的海山。（Schmidt Ocean Institute, FK190106, Erik Cordes Chief Scientist提供）

2 海洋施肥改變食物鏈

碳封存類別下另一受歡迎的構思是海洋施肥（ocean fertilization），關於較早被提出的方案。海洋中的浮游植物（phytoplankton）會不斷通行光合作用，有科學家想到只要增加它們的數量，就能抽走大氣中更多二氧化碳。藻會促進浮游生物生長，所以理論上只要把鐵加入水中，為海洋「施鐵肥」便可達至目的。浮游植物吸收二氧化碳之後，碳將暫時寄存在其體內。「它們最終死去，然後沉入深海。它們的身體基本上是由碳組成，所以我們可以在深海中封存更多的碳。」除了浮游植物，沿海的藍碳生態系統如濕地中的蔗類、海草和紅樹林等一直為地球吸取二氧化碳，所以目前已有項目嘗試擴大生態系統的範圍。有研究甚至提出把陸地的農作物殘料（crop waste）直接扔入海，採用與海洋施肥類似的原理，這些植物或能夠把碳封存在海底。

上述做法對於深海生物有什麼影響？關鍵在於改變了「食物量」。深海普遍定義為海面200米以下的區域，不難想像那裏是漆黑一片，並無陽光可穿透。安原盛明解釋，深海四面沒有植物能生長，生物只能依賴從海洋上層而來的有機物作食物來源。死去的藻植物、細菌等有機物聚集成「海洋雪」（marine snow），像雪花一樣沉降至深海。上文兩個碳封存的構想都會產生更多藻植物屍體、成為深海生物的食物。「這麼多食物聽起來不錯，但亦都很糟糕。有更多的食物，意味着牠們要消耗更多氧氣，以進行呼吸作用。」深海的氧氣含量下降，將令生物難以生存。同一時間，食物供應增加會吸引大量的食腐動物和食肉藻物，改變物種之間的互動，甚至對害人類商業捕撈的魚類。

3 擴藍碳生態系統爲上策

此外，安原盛明亦質疑海洋施肥能否有效把碳封存，因為死去的浮游生物沉降速度很慢，途中會不斷被微生物分解，抵達深海的殘餘物會比原本的體積大幅減少。「效果可能很有限，這是一件好事，亦是壞事。」海洋施肥對深海生物的擾害可能較預期小，但換言之碳封存的效率並不高。相較之下，他認為擴大藍碳生態系統是比較安全的做法，「在人類出現之前，地球本來就有更多紅樹林和沿海植被」。

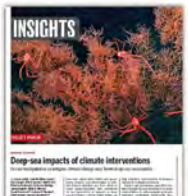
另一種OBCIs是降溫技術，出自地球工程當中熱力學的領域。相關構思包括直接或間接把大氣中的熱力輸入深海，又或者提高海面的反照率，將更多熱力反射回太空。其中一個研究方向是人工增加水面氣泡的數量和壽命，促進光反射。一家海洋專家認為，做法會影響海洋分層和熱量分佈，改變中層水的粒子通量、遷移過程等，從而波及海林。

90% 深海物種未被發現

深海生態離人類遙遠，最深的水域即使章潛水器都無法抵達。一旦深海生態受損，如何波及我們的生活？目前科學家只是發現了大約10%的深海物種，安原盛明說除下的90%可能蘊含研發藥物的關鍵物質，「失去生物多樣性意味失去這些機會」。另一方面，食物鏈是環環相扣，改變深海生態等同影響人類的食物來源。安原盛明舉例香港人熟悉的日本鰹會在深海中產卵，然後到河川生活，可見海洋生態本是一體。

在這些切身原因之外，安原盛明認為保護自然環境亦是人類的天職，「對我們來說物種的減少是非常可惜。我們需要盡可能保護地球，這是作為人類的重要使命之一」。

目前在國際水域頒佈廢物受《倫敦公約》及《倫敦議定書》規管，各項OBCIs或受到不同程度的限制。文章提出就OBCIs建立一個綜合規管架構，當中包括策略性及環境評估、海洋管理技術及空間規劃等工具。安原盛明認為在OBCIs正式推出前，人類應先確保措施非常有效，而且不僅僅是在未來10、20年。「一旦我們把一些東西加二氧化碳放進深海，那麼它必須在相當長的時間內保持穩定；吉恒，我們會放食生態系統的時間、金錢和一切。」深海潛水器一直協助科學家研究深海生態，安原盛明指未來亦可以加以利用，尤其把普分投進深海，評估OBCIs對水域的影響。不過除相究紙，他認為科研人員應對深海有更深入的認識，即使科技不斷進步，人類對於深海生態的認知仍遠低於其他生態系統。「我們很難想像使用OBCIs實際上會發生什麼事，所以至少在我們準備或拒絕它之前，應該更深入了解深海。」



文章第一作者Lisa Levin認為，OBCIs會對深海生態造成巨大挑戰，應用前必須有新的科學證據及規管。

4 《公海條約》有突破

聯合國各成員國今年3月4日議定歷史性的《公海條約》（The High Seas Treaty），列明2030年前把全球30%海域納入保護區，限制區內捕魚量和深海採擷等勘探活動。根據英國科學期刊《自然》的文章，《公海條約》生效後商業活動及大型項目（例如海洋相關的氣候干預措施）將需要作嚴格的環境影響評估。相關評估會由國家主導，第三方可以登記意見，但最終由該國決定是否批准其管轄區下的活動。雖然為一限制是不能在捕魚協議已涵蓋的地方建立保護區，亦不能要求已開展的海洋活動作環境影響評估。

今次的學術文章來自研究深海生態的國際組織 Deep-Ocean Stewardship Initiative（DOSI）的 Climate Working Group，安原盛明亦是其中一員。DOSI集合逾2100名跨學科的專家，希望利用獨立的科學研究，支持以生態系統為本的深海管理，並在發展策略時結合其他領域的專業知識。安原盛明期於當中的氣候變化小組，一直關注氣候變化如何損害深海生態。深海屬大氣遙遠，還深赤長期維持在極低水平，全球暖化的影響似乎微小。然而安原盛明解釋海洋存在環流系統，在較低溫水域上層的冷水會沉降到深海，並向南移。所以一旦全球暖化令上層冷水變暖，深海的溫度都會隨之上升。

北海道海鮮產量減

氣候變化所帶來的損害將愈趨顯著，人類已經不能置身事外。安原盛明今年初到訪盛產海鮮的北海道，很多餐廳反映全球暖化下魚群往北移，以致海鮮產量減少。魚恰若這些切身影響將會大大推動人類展開地球工程學，但任何人為干預措施無可避免會損害生態。「我認為很重要的是不要過度依賴工程學，而是嘗試減少二氧化碳排出，例如吃更環保、具可持續性的食物，反思一下我們的生活模式。此方法對我們更加安全，因為深海生態並不會受影響。」

Ming Pao

香港大學
The University of Hong Kong

Hong Kong Economic Journal | Circulation / Reach: 75,000 | 2020-06-17
Newspaper | C03 | 城市定格 | 訪談錄 | By 張綺霞
Word Count: 2,952words | Image No: 1/1 | Image Size: 1,771cm-sq(33.8cm x 52.4cm) | Ad-Value: HKD237,968
Keyword Matched: 港大,生物科學學院,香港大學

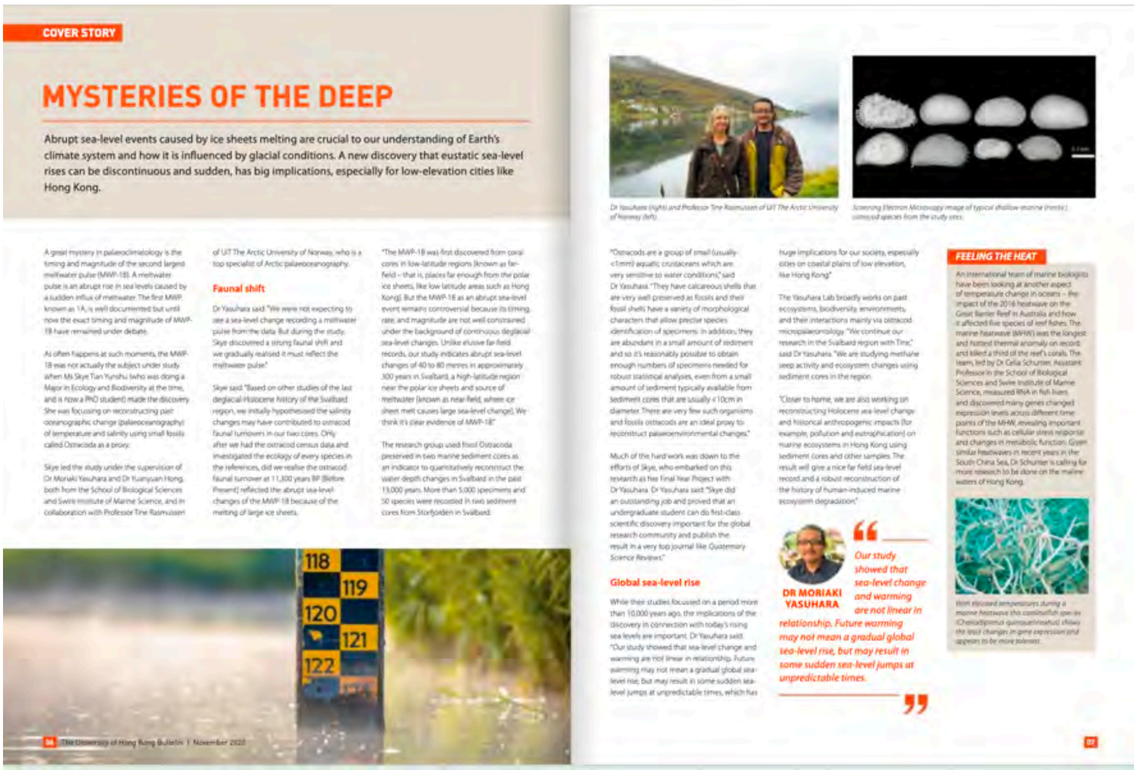
港大海洋微化石專家安原盛明：不要讓海洋生物陷入更大危機

港大海洋微化石專家安原盛明：
不要讓海洋生物陷入更大危機

訪談錄

Yasuhara regularly does press releases for his high impact out come (e.g., in 2020, press releases has been done for his one PNAS paper, two Science Advances papers, one Nature Ecology & Evolution paper, and one Quaternary Science Reviews paper).

HKU Bulletin and Faculty Newsletter (examples):



COVER STORY

MYSTERIES OF THE DEEP

Abrupt sea-level events caused by ice sheets melting are crucial to our understanding of Earth's climate system and how it is influenced by glacial conditions. A new discovery that eustatic sea-level rises can be discontinuous and sudden, has big implications, especially for low-elevation cities like Hong Kong.

Faunal shift

Global sea-level rise

FEELING THE HEAT

"Our study showed that sea-level change and warming are not linear in relationship. Future warming may not mean a gradual global sea-level rise, but may result in some sudden sea-level jumps at unpredictable times."

DR MORIAKI YASUHARA

Photo courtesy: AFCD

Identifying areas of top priority for deep-sea monitoring

By **Dr Moriaki YASUHARA**, *Associate Professor of School of Biological Sciences and The Swire Institute of Marine Science, and* ***Professor Roberto DANOVARO**, Stazione Zoologica Anton Dohrn Napoli, Italy*

Always ask those who excel. An international team comprising marine ecologists including Dr Moriaki YASUHARA, created an expert-led list of priorities by surveying the world's leading deep-sea scientists, shedding light on the key focus for future conservation and management strategies. This standardised monitoring framework can help highlight the priorities for monitoring, including large animals and habitat-forming species like deep-sea corals, and the impact of human activities on this vulnerable ecosystem.

太古海洋科學研究所及生物科學學院副教授安原盛明博士，與意大利拿波里 Stazione Zoologica Anton Dohrn 學院 Roberto DANOVARO 教授合作，向全球逾百名具影響力的深海生物學家以問卷方式調查，蒐集及分析他們對深海保育的意見，並制訂出一個對深海保育的優先次序列表。調查顯示應加強保育形成棲息地的物種，當中包括珊瑚；此外深海大、中型物種的生物多樣性監測工作亦十分重要。

Read more: https://bit.ly/352vTB0

A community of deep-sea animals. Photo courtesy: Lisa LEVIN

5

Yasuhara's research has been regularly featured in HKU Bulletin and Faculty Newsletter.

SERVICE

1. SERVICE TO INTERNATIONAL PROFESSIONAL ORGANIZATIONS:

International Research Group on Ostracoda (IRGO) chair (2017-)

Deep Ocean Stewardship Initiative, Climate Change Co-lead (2020-)

The Deep-Sea Biology Society (Board Member 2014-2018; Vice President 2018–2020)

Member of Advertising and Outreach Committee of the International Biogeography Society (2018-)

bioDISCOVERY Scientific Committee member (2014-)
(http://www.diversitas-international.org/activities/research/biodiscovery/governance)

GO2NE (Global Ocean Oxygen Network) IOC-UNESCO member (2015–)

Podocopida (Ostracoda) editor, World Register of Marine Species (WoRMS) (2013-2017)

Global Ecology and Biogeography, associate editor (2022-)

Global and Planetary Change, editorial board member (2014-)

Marine Micropaleontology, editorial board member (2019-)

Palaeoworld, associate editor (2019-)

Journal of Paleontology, associate editor (2020-)

Journal of Micropalaeontology, editor (2021-)

Marine Biodiversity, associate editor (2018-)

Paleontological Research, associate editor (2012-)

Plankton and Benthos Research, editor (2015-)

Open Quaternary, editorial board member (2018-)

Member of scientific committee of 16th International Symposium on Ostracoda (2009, Brazil)

Member of scientific committee of 17th International Symposium on Ostracoda (2013, Italy)

Member of scientific committee of 18th International Symposium on Ostracoda (2017, USA)

Member of scientific committee of 19th International Symposium on Ostracoda (2022, France)

Member of scientific committee of 1st Asian Ostracod Meeting (2014, Korea)

Member of scientific committee of 2nd Asian Ostracod Meeting (2016, China)

Member of scientific committee of 3rd Asian Ostracod Meeting (2018, Japan)

Member of scientific committee of 4th Asian Ostracod Meeting (2022, Thailand)

Society of Friends of International Research Group on Ostracoda, Advisory board member (2013-2017), vice chair (2018-)

Scientific committee member of 5th World Conference on Marine Biodiversity (2020, New Zealand)

Member of PAGES Q-MARE – Disentangling climate and pre-industrial human impacts on marine ecosystems (2021-)

Member of Annual Meeting Panel, Conservation Paleobiology Network (2021-)

Member of the Organizing Committee for the Second International Conference on Biodiversity, Ecology and Conservation of Marine Ecosystems (BECoME 2022, Hong Kong)

Local Organizing Committee Member of 17th DSBS Symposium (2024, Hong Kong)

Member of the Organizing Committee for the 10th International Conference on Marine Pollution and Ecotoxicology (ICMPE-10 2024, Hong Kong)

2. SERVICE TO LOCAL PROFESSIONAL ORGANIZATIONS:
State Key Laboratory of Marine Pollution (SKLMP), City University of Hong Kong, Member (2020-)

Member of organizing committee of the Crustacean Society Mid-Year Meeting (2019, Hong Kong)

3. SERVICE TO THE UNIVERSITY (INCLUDING MENTORING OF JUNIOR STAFF)
CURRENT
Board of the Faculty of Science

SBS Departmental Calibration Committee

Biological Sciences Major Coordinator

PRD reviewer

Chairman of PhD oral defenses (~10)

Internal examiner of Mphil/PhD theses (>15)

Course Selection Advisors of Environmental Science Major and Minor

Course Selection Advisors of Ecology & Biodiversity Major

Course Selection Advisors of Marine Biology minor

Teaching/mentoring in BIOL8022 Science Communication for RPG students on professional developments

PAST

Faculty Human Resource Committee (Faculty of Science) Member

Faculty Research Committee Member

BSc Admissions Committee Member

Undergraduate Teaching Committee Chair

Deputy coordinator of Ecology & Biodiversity Major

Member of SBS Executive Committee

10 January 2024