

# International Activities of the A.V. Zhirmunsky National Scientific Center of Marine Biology

Far Eastern Branch of the Russian Academy of Sciences  
(the NSCMB FEB RAS)  
and of the Primorsky Aquarium – Branch of the NSCMB FEB RAS



**PRIMORSKY  
AQUARIUM**  
SCIENTIFIC & EDUCATIONAL  
CENTRE

[www.imb.dvo.ru](http://www.imb.dvo.ru)

[www.primocean.ru](http://www.primocean.ru)

# MAJOR FOREIGN PARTNERS – INSTITUTIONS

(based on joint publications)

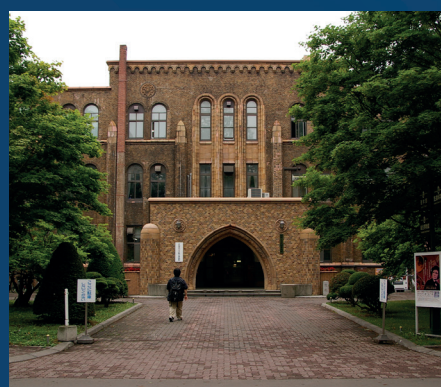
1. Woods Hole Oceanographic Institution (WHOI), **USA**
2. Virginia Commonwealth University, **USA**
3. Hokkaido University, **Japan**
4. Ghent University, **Belgium**
5. Karolinska Institutet, **Sweden**
6. James Cook University, **Australia**
7. University of the Ryukyus, **Japan**
8. University of Mauritius, **Republic of Mauritius**
9. Kitasato University, **Japan**
10. National Marine Biodiversity Institute of Korea (MABIK), **Republic of Korea**
11. Woosuk University, **Republic of Korea**
12. National Institute of Water and Atmospheric Research, **New Zealand**
13. Natural History Museum, **United Kingdom**
14. Institute of Oceanology, Polish Academy of Sciences, **Poland**
15. Geozentrum, University of Vienna, **Australia**
16. University of Vienna, **Australia**
17. Universidade de São Paulo, **Brazil**
18. Universidade de Santiago de Compostela, **Spain**
19. University of Alaska Museum, **USA**
20. King Abdulaziz University, **Kingdom of Saudi Arabia**
21. Korea Institute of Ocean Science and Technology (KIOST), **Republic of Korea**
22. University of Alaska Fairbanks, **USA**
23. Goethe University Frankfurt, **Germany**
24. Senckenberg Research Institute and Natural History Museum, Frankfurt am Main, **Germany**
25. Senckenberg am Meer, German Centre for Marine Biodiversity Research (DZMB), Universität Hamburg, **Germany**
26. Fisheries Science Center, the Hokkaido University, **Japan**
27. National Museum of Nature and Science, **Japan**
28. Università degli Studi di Milano, Milano, **Italy**
29. Glasgow Caledonian University, **United Kingdom**
30. Institute of Oceanography, Vietnam Academy of Science and Technology, **Vietnam**
31. University of Puerto Rico, **Puerto Rico**
32. University of Comillas, **Spain**
33. Jeju National University, **Republic of Korea**
34. Muséum National d'Histoire Naturelle, **France**
35. Santa Barbara Museum of Natural History, **USA**
36. Institute of Oceanology, Chinese Academy of Sciences, **People's Republic of China**
37. Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, **People's Republic of China**
38. Joetsu University of Education, **Japan**
39. Jozsef Attila University, **Hungary**
40. National Museum of Natural History, Smithsonian Institution, **USA**
41. Bar Ilan University, **Israel**
42. Kagoshima University, **Japan**
43. Biologische Anstalt Helgoland, **Germany**
44. Tel-Aviv University, **Israel**
45. Department of Botany, University of Wyoming, **USA**
46. University of the Ryukyus, **Japan**
47. Tropical Marine Biological Research Station in Hainan, Chinese Academy of Sciences, **People's Republic of China**
48. Research Institute for Subtropics, **Japan**
49. Universität Rostock, **Germany**
50. University of California, Santa Barbara, **USA**
51. Nha Trang Institute of Technology Research and Application, Vietnam Academy of Science and Technology, **Vietnam**
52. Alfred-Wegener Institute for Polar and Marine Research, **Germany**
53. Oregon State University, **USA**
54. Amakusa Marine Biological Laboratory, Kyushu University, **Japan**
55. Institute of Marine Environment and Resources, Vietnam Academy of Science and Technology, **Vietnam**
56. Soonchunhyang University, **Republic of Korea**
57. Lotte World Aquarium, Republic of Korea
58. Monterey Bay Aquarium, **USA**
59. Indian Institute of Science Education and Research Kolkata, **India**
60. CSIR-National Institute of Oceanography, **India**
61. Institute of Natural Products Chemistry, Vietnam Academy of Science and Technology, **Vietnam**
62. Institute of Phylogenomics and Evolution, Kyungpook National University, **Republic of Korea**



# INTERNATIONAL SCIENTIFIC RELATIONS



40 official agreements and MoUs signed with international partners from 10 countries (People's Republic of China, the Republic of Korea, Socialist Republic of Vietnam, Japan, the USA, Federal Republic of Germany, Kingdom of Belgium, New Zealand, the Philippines and Republic of India)



# THREE JOINT LABORATORIES AND ONE CENTER

## **Russian – Vietnamese Joint Laboratory of Marine Biology.**

The Laboratory was founded in 2009 with the aim to develop collaboration between the Far Eastern Branch of the Russian Academy of Sciences and the Vietnam Academy of Science and Technology (VAST) through partnership between the A.V.Zhirmunsky National Scientific Center of Marine Biology, Far Eastern Branch of the Russian Academy of Sciences (Vladivostok, Russia) and the Institute of Oceanography VAST (Nha Trang, Vietnam).

Nine expeditions were conducted to study biodiversity and benthic and pelagic communities in the waters off central Vietnam between 2009 and 2018. The Head of the Laboratory: Dr. Tatyana Dautova, Leading Research Scientist at the Laboratory of Deep-Sea Research.

## **Russian-Vietnamese Open Laboratory of Biochemistry.**

The Laboratory was jointly established by the NSCMB FEB RAS, the Institute of Natural Products Chemistry (INPC) VAST and the Nha Trang Institute of Technology Research and Application (NITRA) VAST in March 2010.

The main goal of the Laboratory is basic and applied scientific studies on the biochemistry of marine natural compounds and physiology of marine micro- and macroorganisms. The Laboratory is located in the NITRA VAST (Nha Trang City). The Coordinator from the NSCMB FEB RAS: Dr. Ekaterina Ermolenko, Senior Research Scientist at the Laboratory of Comparative Biochemistry.

## **Russian–Korean Marine Joint Laboratory of Biodiversity.**

In December 2021, the NSCMB FEB RAS, and the National Marine Biodiversity Institute of Korea (MABIK) renewed their cooperation under the existing Memorandum of Understanding. The first MoU was signed in 2016.

Formal collaboration between the organizations began in 2016-2017, when the decision was made to document their relationship and create a joint laboratory called Marine Joint Laboratory of Biodiversity. As part of the activities of the Russian-Korean Marine Joint Laboratory of Biodiversity, the first field work was carried out in the coastal waters of Peter the Great Bay on June 23-30, 2019.

Despite the limitations during the COVID-19 pandemic, the two parties managed to identify promising areas of cooperation in an online format and negotiate on an agreement under the existing Memorandum of Understanding, which involves sharing experiences in developing best practices as well as organizing joint scientific events, conferences, colloquiums, symposia, joint projects and research. The coordinator from the NSCMB FEB RAS: Dr. Konstantin Lutaenko, Head of the International Cooperation Department, Leading Research Scientist at the Laboratory of Systematics and Morphology.

## **Russian-Indian Centre for Excellence in Blue Economy (CoE-BE).**

The Centre for Excellence in Blue Economy was founded in 2021 by the NSCMB FEB RAS and the Indian Institute of Science Education and Research Kolkata (IISER Kolkata).

The main goals of the CoE-BE are joint academic programs in the area of Blue Economy; synergizing the implementation of Indian and Russian technologies in Blue Economy encompassing the broad subdisciplines of Marine Ecosystems and Biodiversity, Marine Biogeochemistry and Marine Natural Products, Coastal Aquaculture and Cage Culture Technologies, Marine Environmental Monitoring and Automation including Sensors, Climate Change and Sustainable Blue Economy; development of joint research and engineering projects, joint participation in competitions for Indian, Russian or international grants; exchange of academic materials, publications, bulletins, and other information; exchange of faculty, graduate students and postdoctoral scholars.



RUS



VNM



KOR



IND



# LIST OF MAJOR INTERNATIONAL EVENTS

organized by the NSCMB FEB RAS since 2000

Workshop, Global Change Studies in the Far East  
Vladivostok, Russia, 2000.

APN/START Global Change Research Awareness Raising Symposium in Northeast Asia  
Vladivostok, Russia, 2002.

Workshop, Climate Variability and Human Activities in Relation to Northeast Asian Land-Ocean Interactions and Their Implications for Coastal Zone Management  
Nanjing, People's Republic of China, 2004.

Three international meetings jointly organized by the Russian Far East Malacological Society (RFEMS) and the NSCMB FEB RAS  
Vladivostok, Russia, 2004, 2014, 2019.

Workshop, Marine Biodiversity and Bioresources of the North-Eastern Asia  
Jeju, Republic of Korea, 2008.

Five joint Russian-Chinese and Chinese-Russian conferences on marine biology and biodiversity studies  
Vladivostok, Russia and Qingdao, People's Republic of China, 2007, 2010, 2012, 2017, 2019.

International Conference, Marine Biodiversity of East Asian Seas: Status, Challenges and Sustainable Development  
Nha Trang, Vietnam, 2010.

Workshop, Coastal Marine Biodiversity and Bioresources of Vietnam and Adjacent Areas to the South China Sea  
Nha Trang, Vietnam, 2011.

Russian-German Workshop, Future Vision-II: Deep-Sea Investigations in the Northwestern Pacific  
Vladivostok, Russia, 2013.

International Conference, Cell Cultures of Marine and Freshwater Animals  
MBS Vostok, Russia, 2015.

International Conference, Unique Marine Ecosystems: Modern Technologies of Exploration and Conservation for Future Generations  
Vladivostok, Russia, 2016.

Workshop, Developing Life-Supporting Marine Ecosystems along the Asia-Pacific Coasts – a Synthesis of Physical and Biological Data for the Science-Based Management and Socio-Ecological Policy Making  
Nha Trang, 2016.

International Conference, Scientific and Technological Developments of Research and Monitoring of Marine Biological Resources  
Vladivostok, Russia, 2017.

First Bilateral NSCMB FEB RAS-MABIK (Russia-Korea) Meeting on Marine Biodiversity  
Vladivostok, Russia, 2018.

International Conference, Marine Biology in the 21st Century: Achievements and Development Outlook (in Commemoration of the 100th Anniversary of the Birth of Academician Alexey V. Zhirmunsky)  
Vladivostok, Russia, 2021.

Ten international MAPEEG (Modern Achievements in Population, Evolutionary, and Ecological Genetics) symposia  
Vladivostok, Russia.



# INTERNATIONAL EXPEDITIONS

Since 2010, five major expeditions have been conducted jointly with foreign partners

SoJaBio – Sea of Japan Biodiversity, 2010

KuramBio I – Kuril-Kamchatka Biodiversity, 2012

SokhoBio – Sea of Okhotsk Biodiversity, 2015

KuramBio II – Kuril-Kamchatka Biodiversity, 2016

Expedition to the coastal waters of Vietnam, 2021



The Census of the Diversity of Abyssal Marine Life (CeDAMar), a 10-year global program (2000-2010), has supported the idea that international cooperation is required to carry out state-of-the-art investigations of deep-sea habitats and has shown that exploration using modern gear reveals much higher biodiversity than previously reported, even for well-studied areas.

Our four joint Russian-German deep-sea expeditions to the Northwest Pacific undertaken in 2010-2016 may serve as an example of such cooperation. The main goal of the expeditions was to comparatively study the biodiversity and biogeography of benthos in a number of adjacent deep-sea basins. Featuring one of the most productive and diverse ecosystems in the world's oceans, this region includes the Kuril-Kamchatka Trench, which is among the deepest on Earth (9 500 m), a huge abyssal plain bordering it on the east and marginal seas lying to the west of the trench.

During these expeditions benthos of all size classes (meio-, macro-, and megafauna) was sampled for all types of biological studies using a set of modern, specially designed gears (epibenthic sledge, multicorers and box corers). Four expeditions yielded upwards of 5 000 collected samples, more than 11 500 underwater pictures, and over 1 100 minutes of video footage.

As a result, the species list for the whole studied region was increased more than eight-fold, from ~550 deep-sea species previously known from the Northwest Pacific to ~ 4500. Over 60% of the collected species were new to science.

In April 2021, the NSCMB FEB RAS took part in an expedition to the coastal waters of Vietnam. Also on the expedition were staff researchers from the PIBOC FEB RAS, POI FEB RAS, IBSS RAS and representatives of several Vietnamese scientific institutions. Sampling was carried out at 55 stations. The expedition resulted in the collection of 46 bottom-sediment samples for the study of the meiofauna composition and 271 sponge samples, including 130 for chemical screening.

Compilers and translators: K.A. Lutaenko, A.I. Grishina, I.V. Ustinova



JOINT PUBLICATIONS  
(STATISTICS FROM INTERNATIONAL DATABASES)  
SCOPUS DOCUMENTS



Palchevskogo str.17, Vladivostok,  
690041, Russia  
Phone: +7 ( 423 ) 2310905  
Fax: +7 ( 423 ) 2310900  
nscmb@mail.ru



Rusky Island, Vladivostok,  
690922, Russia  
Phone: +74232239422  
WhatsApp: +79841974522  
primocean@primocean.ru