



PROGRAMME

of the 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)***

October 6–8, 2021, Vladivostok, Russia

A.V. Zhirmunsky National Scientific Center of Marine Biology,
Far Eastern Branch, Russian Academy of Sciences

Primorsky Aquarium—Branch of the NSCMB FEB RAS



October 6 (Wednesday)

Venue – Conference Room of the NSCMB (Palchevsky Str., 17).

8:30 – 9:30 Registration and placement of posters (Lobby of the NSCMB).

Welcome session

9:30 – 9:40 Video to the 50th Anniversary of the foundation of the Institute of Marine Biology.

09:40 – 09:43 Welcome speech by **Prof. Inessa Dyuzen**, Chair of the Organizing Committee, Director of the A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS.

9:43 – 9:46 Welcome speech by **Prof. Valentin I. Sergienko**.

9:46 – 9:50 Welcome video by **Prof. Andrey V. Adrianov**.

Session: History of marine biology research and establishment of the Institute of Marine Biology in Vladivostok (Chair: Prof. Inessa V. Dyuzen).

09:50 – 10:20 **Nadezhda K. Khristoforova**. Academician Alexey V. Zhirmunsky.

10:20 – 10:50 **Anatoliy L. Drozdov**. Academician Alexey Viktorovich Zhirmunsky - founder of experimental marine ecology.

10:50 – 11:00 Collective photo

11:00 – 11:10 Coffee break

Session: Biodiversity in coastal marine and deep-sea habitats (Chair: Dr. Konstantin A. Lutaenko, Dr. Tatiana N. Dautova).

11:10 – 11:30 **Tatiana N. Dautova**. Emperor Chain ecosystems - biodiversity, resources and perspectives.

11:30 – 11:50 **Nickolai V. Shadrin**. Ecosystems of aquatic extreme habitats: diversity and common features.

11:50 – 12:10 **Aleksandr A. Nikitin**. Formation of favorable hydrological structures within feeding migrations for Japanese flying squid in the northwestern part of the Sea of Japan according to satellite observations in 2018-2020.

12:10 – 12:30 **Kseniya N. Lisitsyna**. Macrobenthos structure in the Kara Sea and Laptev Sea (based on materials from expeditions in 2012-2014).

12:30 – 14:00 Lunch

12:30 Excursion to the Center of Electron Microscopy

12:30 Excursion to the Museum of NSCMB FEB RAS

Online session: Biodiversity in coastal marine and deep-sea habitats (Chair: Dr. Konstantin A. Lutaenko). Simultaneous conference interpreting.

14:00 – 14:20 **Song Sun**. Biological oceanography and the development of IOCAS.

14:20 – 14:40 **Xiaoxia Sun**. Long term changes of plankton in China coast.

14:40 – 15:00 **Chaolun Li**. Molecular analyses of the gill symbiosis of the bathymodiolin mussel *Gigantidas platifrons*.

15:00 – 15:20 **Xiang Cai**, Sergei A. Ostroumov. Wetlands and formation of water quality: a review of coastal salt marshes.

15:20 – 15:40 Coffee Break

Online session: Biodiversity in coastal marine and deep-sea habitats (Chair: Dr. Tatiana N. Dautova). Simultaneous conference interpreting.

15:40 – 16:00 **Angelika Brandt.** NW Pacific biodiversity and biogeography studies help understanding faunal changes in the Arctic Ocean.

16:00 – 16:20 **Hanieh Saeedi.** Environmental drivers of benthic community composition in the NW Pacific and the Arctic Ocean.

16:20 – 16:40 **Punyasloke Bhadury.** Biogeographic patterns of marine planktonic cyanobacteria in coastal habitats- what can we infer from 'omics' based approach?

16:40 – 17:00 **Sergei A. Ostroumov,** Xiang Cai. Study of chemico-biotic interactions in the biosphere and hydrosphere and contribution to scientific basis of protection of biodiversity of organisms including marine hydrobionts.

17:00 – 17:20 **Vladimir N. Bocharnikov,** Pavel S. Sorokin. Marine Wilderness Concept for Arctic and Pacific Geographical Research.

17:20 – 18:20 Poster Session. Ice breaking party

18:20 Transfer NSCMB FEB RAS – City center – Primorsky Aquarium

October 7 (Thursday)

Session: Marine ecology and functioning of ecosystems and communities, research on physiology and adaptations of marine organisms (Chair: Dr. Vladimir V. Mordukhovich).

09:30 – 09:45 **Tatiana Y. Orlova.** 30 years of HAB Monitoring on Russia's East Coast: results and lessons.

09:45 – 10:00 **Lidiya N. Vasilenko.** The radiolarian abundances and diversity in the Pleistocene deposits of the submarine Vityaz Ridge, Northwest Pacific.

10:00 – 10:15 Alla P. Kassatkina, Marina V. Stolyarova, **Alexandr F. Sergeev.** Abnormal plankton organisms as bioindicators in marine waters exposed to environmental pollution.

10:15 – 10:30 **Vadim O. Mokievsky.** Associations of free-living nematodes on the intertidal zone of Vietnam.

10:30 – 10:45 **Iuliia S. Baiandina.** The behavior responses of Black Sea *Mnemiopsis leidyi* to a sharp change in light intensity.

10:45 – 11:00 **Alexey N. Petrov,** Elena L. Nevrova, Sergey A. Trofimov, Iurii I. Litvin. Ascertainment of specific threshold resistance for the Black Sea benthic diatoms (Bacillariophyta) under the copper ions impact in an experiment.

11:00 – 11:10 Coffee break

Session: Marine ecology and functioning of ecosystems and communities, research on physiology and adaptations of marine organisms (Chair: Prof. Evgeniya V. Pushchina).

11:10 – 11:25 **Evgeniya V. Pushchina.** Molecular markers of adult neurogenesis in the brain of trout, *Oncorhynchus mikiss*.

11:25 – 11:40 **Maria E. Stukaneva.** Constitutive and reparative neurogenesis in the cerebellum of juvenile masu salmon, *Oncorhynchus masou*.

11:40 – 11:55 **Eva I. Zharikova,** Evgeniya V. Pushchina. Proliferation and migration of neuronal progenitor cells in telencephalon during constitutive neurogenesis and after traumatic injury of juvenile masu salmon, *Oncorhynchus masou*.

- 11:55 – 12:10 **Ilya A. Kapustyanov**. Investigation of the transduction of the recombinant adeno-associated virus of the mammalian hippocampus in the mesencephalic tegmentum of juvenile chum salmon *Oncorhynchus keta*.
- 12:10 – 12:25 Peter M. Zhadan, **Marina A. Vaschenko**. The influence of environmental factors on spawning of sea urchins with planktotrophic larva.
- 12:25 – 12:40 **Anatolyi A. Komisarenko**. Some addition to feeding ecology of nudibranch mollusk *Coryphella verrucosa* (Nudibranchia, Coryphellidae).

12:40 – 14:00 Lunch

12:40 Excursion to the museum of NSCMB FEB RAS

Session: Molecular genetic and cytological research on marine organisms (Chair: Prof. Vladimir V. Yushin, Dr. Sergey V. Turanov).

- 14:00 – 14:20 **Yuri Ph. Kartavtsev**. Usage of molecular markers: From biodiversity assessment and modern general biology paradigm validation to seafood mislabeling detection.
- 14:20 – 14:40 **Evgeniy S. Balakirev**. Conservation genetics of marine biodiversity.
- 14:40 – 15:00 **Vladimir V. Yushin**. Electron microscopy of the XXI century: methods of cryofixation in the study of aquatic invertebrates.
- 15:00 – 15:15 **Andrey V. Boroda**, Yulia O. Kipryushina, Konstantin V. Yakovlev, Nelly A. Odintsova. The contribution of apoptosis and necrosis in freezing injury of marine invertebrate cells.
- 15:15 – 15:30 **Anna O. Zolotova**, Oleg N. Katugin. The use of Co1 and 16S mitochondrial markers in the study of molecular genetic relationships among squid of the family Gonatidae (Cephalopoda: Teuthida: Oegopsida).

15:30 – 15:40 Coffee break

Session: Biochemistry, marine pharmacology and biotechnologies (Chair: Prof. Yuri. S. Khotimchenko).

- 15:40 – 15:55 **Sergei A. Eremin**, Olga D. Hendrickson, Elena A. Zvereva, Anatoly V. Zherdev, Boris B. Dzantiev. Development of test systems for rapid immunodetection of phycotoxin microcystin-LR.
- 15:55 – 16:10 **Oksana A. Chadova**, Peter V. Velansky. Polar lipidomic profile of endophytic microalgae *Laminariocolax aecidioides*, *Streblonema corymbiferum* and *Streblonema sp.* (Ectocarpales, Phaeophyceae).
- 16:10 – 16:25 **Ekaterina A. Vodiasova**, Yakov V. Meger, Elina S. Chelebieva, Dmitriy A. Rasskazov. Expression of glutathione S-transferase classes in Bivalvia.
- 16:25 – 16:40 **Sergey A. Dyshlovoy**. From Cytarabin to Blenrep® – 50 years story of “Marine Drugs”. **Online**.

Session: Biodiversity in coastal marine and deep-sea habitats (Chair: Dr. Konstantin A. Lutaenko).

- 16:40 – 16:55 **Ekaterina A. Yurikova**. Ice microalgal flora of the Peter the Great Bay water areas.
- 16:55 – 17:10 **Tatyana N. Klimova**, Polina S. Podrezova, Alexander A. Subbotin Ichthyoplankton of the Black Sea at the beginning of the summer spawning season. **Online**.

Session: Marine ecology and functioning of ecosystems and communities, research on physiology and adaptations of marine organisms (Chair: Prof. Evgeniya V. Pushchina).

- 17:10 – 17:25 Evgenia E. Kolesnikova, Irina V. Golovina, **Aleksandr A. Soldatov**. Correspondence in the activity of energy metabolism oxydoreductases in brain and heart compartments of Black sea scorpionfish *Scorpaena porcus Linnaeus, 1758* under acute hypoxia. **Online**.

17:25 – 17:40 **Dmitry K. Obukhov**, Evgeniya V. Pushchina. The telencephalon of Actinopterygian fish – as special variant in the evolution of the central nervous system of vertebrates. **Online**.

18:20 Transfer NSCMB FEB RAS – City center – Primorsky Aquarium

October 8 (Friday)

Venue – Conference Room of the **Primorsky Aquarium** (25 Akademika Kasyanova str., Russky Island).

9:00 – 09:30 Registration (Lobby of the Primorsky Aquarium).

Session: Animal collection management, captive conservation, scientific research and environmental education in public aquariums (Chair: Dr. Vadim M. Serkov).

09:30 – 09:45 **Greetings from the Monterey Bay Aquarium.**

09:45 – 10:00 **Dmitry L. Pitruk**, Yuri S. Nekotinev, Andrei A. Balanov, Vladimir A. Shelekhov. Methods of enhancing the biodiversity of Russian Far East marine fishes in the Primorsky Aquarium.

10:00 – 10:15 **Anatoly S. Sokolov**. Maintenance and cultivation of some exhibiting algae species (*Saccharina japonica*, *Saccharina cichorioides*, *Undaria pinnatifida*, *Sargassum pallidum*, *Sargassum myiabei*, *Cystoseira crassipes*, *Codium yezoense*, *Ulva fenestata*).

10:15 – 10:30 **Evgeniya F. Morozova**. Prospects for regular replenishment of the “Tropical Seas” exposition in the Primorsky Aquarium using aquaculture methods.

10:30 – 10:45 **Anatoly Yu. Semenchenko**, Sergey F. Zolotukhin. Ecological forms of the Primorie’s cherry salmon (*Oncorhynchus masou* Brevoort).

10:45 – 11:00 Coffee break

Session: Animal collection management, captive conservation, scientific research and environmental education in public aquariums (Chair: Dr. Anatoly Yu. Semenchenko).

11:00 – 11:15 **Olga G. Shevchenko**. The Primorsky Aquarium: Modern Trends in Its Educational and Awareness-Raising Activities.

11:15 – 11:30 **Tatiana V. Chernykh**. Children educational program at the Primorsky Aquarium.

11:30 – 11:45 **Lyubov A. Gliznutsa**, Vadim C. Pokrovsky. Top facilities of Primorsky Aquarium for ecological education of senior students in the AQUALABORATORY.

11:45 – 12:00 Dmitry G. Kravchenko, Nadezhda L. Aseeva, Vera N. Izmyatinskaya, **Denis V. Izmyatinsky**. About the multi-species fishing during the fishery of Arabesque greenling in the “Primorye” subzone from cape Povorotny til cape Zolotoy.

12:00 – 12:15 **Alena A. Nabokina**, Ekaterina M. Osipova, Veronika E. Moskovko, Tigran A. Gevorgyan, Arman A. Pakhlevanyan. Methods of Brine Shrimp (*Artemia salina*) raising in Primorsky Aquarium.

12:15 – 13:30 Lunch (restaurant “Trum”)

12:30 Show “Dancing with stingrays”

Session: Animal collection management, captive conservation, scientific research and environmental education in public aquariums (Chair: Dr. Igor O. Katin).

13:30 – 13:45 **Mark E. Andreev**, Julia N. Sokolnikova, Andrei V. Grinchenko. Immune parameters of peripheral blood of beluga whales (*Delphinapterus leucas*) from the scientific and educational complex “Primorsky Aquarium”.

- 13:45 – 14:00 **Nikita D. Kornilov**, Sergey Yu. Sinelnikov, Irina I. Meintser. Techniques and practical experience of cartilaginous fishes training in aquaria.
- 14:00 – 14:15 **Anna S. Panova**, Polina V. Mischenko, Igor O. Katin. Investigation a lateral behavior of spotted seals (*Phoca largha*).
- 14:15 – 14:30 **Polina V. Mischenko**, Anna S. Panova, Igor O. Katin Training of *Phoca largha* and *Delphinapterus leucas* in the “Primorsky Aquarium”.
- 14:30 – 15:00 Excursion to the Center for Collective Use of Modern Scientific Equipment**
- 15:00 – 15:30 Marine mammal show**
- 15:40 – 17:00 Exhibit tour / Behind the scene tour**
- 17:00 – 20:00 Banquet (Restaurant “Trum”)**
- 20:00 Transfer Primorsky Aquarium – City center**

List of posters

№	Authors	Title	Affiliation
17	Xinzheng Li	Study on the long-term changes of macrozoobenthos in the Yellow Sea and East China Sea	Institute of Oceanology Chinese Academy of Sciences, Qingdao, China
22	Natalya V. Ageenko, Konstantin V. Kiselev, Nelly A. Odintsova	Pigmentation and enzymes expressed in pigment cells throughout development and in cell cultures of embryos of the sand dollar <i>Scaphechinus mirabilis</i>	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia Federal Scientific Center of the East Asia Terrestrial Biodiversity FEB RAS, Vladivostok Russia Far Eastern Federal University, Vladivostok, Russia
30	Ekaterina V. Aleksandrova, Alexander A. Nadtochin	Smoltification of chum salmon (<i>Oncorhynchus keta</i>) in Primorsky Aquarium	Primorsky Aquarium–Branch of the NSCMB FEB RAS, Vladivostok, Russia
25	Naig R. O Aleskerov, Igor I. Pushchin, Sergey L. Kondrashov, Svetlana A. Gatilova	Retinal ganglion cell topography and spatial resolution in the masked greenling <i>Hexagrammos octogrammus</i> (Pallas, 1914)	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
18	Elena V. Anufriieva, Nickolai V. Shadrin	Review of animal diversity in hypersaline waters of the world in connection with the problem of desalination of seawater	A.O. Kovalevsky Institute of Biology of the Southern Seas RAS, Sevastopol, Russia
2	Mariya Yu. Barkina, Nina A. Smirnova, Peter V. Velansky, Nina M. Sanina	Molecular species composition and thermotropic behavior of the main polar lipids of <i>Ulva lactuca</i> during rapid and slow cold acclimation	Far Eastern Federal University, Vladivostok, Russia A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
31	Natalya V. Barkina, Nataliya V. Mazitova, Mikhail Yu. Shvetsov	The importance of dolphin therapy for children's health	Far Eastern Federal University, Vladivostok, Russia Vladivostok State

			University of Economics and Service, Vladivostok, Russia
23	Natalia M. Batishcheva, Victoria D. Iagodina, Vladimir A. Brykov	Microsatellite DNA assessment of multiple paternity in the white-edged rockfish, <i>Sebastes taczanowskii</i>	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
24	Anna E. Vlasenko, Vasiliy G. Kuznetsov, Alexandra O. Pereverzeva, Grigory V. Malykin, Timur Yu. Magarlamov	Tetrodotoxins Secretion and Voltage-Gated Sodium Channel Adaptation in Ribbon Worm <i>Kulikovia alborostrata</i> (Takakura, 1898) (Nemertea)	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
37	Irina E. Volvenko, Konstantin A. Lutaenko, Tatyana V. Chernova	Bivalve mollusk's collection from China in the Zoological Museum, Science and Educational Museum, Far Eastern Federal University (Vladivostok)	V.K. Arseniev Museum of Far East History, Vladivostok, Russia A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia Zoological Museum, Science and Educational Museum, Far Eastern Federal University Vladivostok, Russia
35	Larissa A. Gayko, Tatyana A. Shatilina, Aleksey V. Lysenko	Effect of temperature conditions on dynamics of catches (abundance) of the pink salmon <i>Oncorhynchus gorbusha</i> based on retrospective data (Sea of Japan, Strait of Tartary)	V.I. Il'ichev Pacific Oceanological Institute FEB RAS, Vladivostok, Russia Russian Federal Research Institute of Fisheries and Oceanography, Pacific Branch (TINRO), Vladivostok, Russia
51	Larissa A. Gayko	Alexei Zhirmunsky's idea to create a reserve in the Vostok Bay came to life	V.I. Il'ichev Pacific Oceanological Institute FEB RAS, Vladivostok, Russia
42	Darya D. Golubinskaya, Olga M. Korn	Rhizocephalan barnacles (crustacea: cirripedia) from Peter the Great Bay of the Sea of Japan	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS,

			Vladivostok, Russia
16	Dmitry D. Danilin	Warm-water species of invasive mollusks at Eastern Kamchatka (Avacha Bay)	Kamchatka Branch of the Pacific Geographical Institute FEB RAS, Petropavlovsk-Kamchatsky, Russia
46	Lyudmila S. Dolmatova, Ekaterina P. Karaulova	Effects of the proteins involved in regeneration on the antioxidant enzyme activity of phagocytes in the holothurian <i>Eupentacta fraudatrix</i>	V.I. Il'ichev Pacific Oceanological Institute FEB RAS, Vladivostok, Russia Russian Federal Research Institute of Fisheries and Oceanography, Pacific Branch (TINRO), Vladivostok, Russia
26	Natalia A. Dudko, Anastasia P. Grigorenko, Taisia V. Erofeeva, Fedor E. Gusev, Maria Y. Plotnikova, Anton D. Patrikev, Pelageya S. Mostovshchikova, Igor. A. Kosevich, Evgeny I. Rogaev	Regulation of gene activity in the development of moon jellyfish <i>Aurelia aurita</i>	Vavilov Institute of General Genetics RAS, Moscow, Russia Lomonosov Moscow State University, Moscow, Russia Center for Genetics and Life Science, Sirius University of Science and Technology, Sochi, Russia
8	Anastasia A. Egoraeva, Tatyana V. Sikorskaya, Ekaterina V. Ermolenko, Andrey V. Boroda	Recovery of a symbiotic soft coral <i>Sinularia heterospiculata</i> after a heat stress.	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
47	Natalia V. Zhukova, Vasilii I. Radashevsky	Feeding preferences of shallow-water spionids (Annelida: Polychaeta: Spionidae) inferred from fatty acid biomarkers	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
15	Larisa A. Zelenskaya	Possible Relationships between Seabird Colony Population Changes and Anthropogenic Pressures in and around Magadan and the Staritskogo Peninsula	Institute of Biological Problems of the North, Magadan, Russia
9	Mikhail A. Zuev, Svetlana S. Esenkulova	Occurrence and distribution of cephalopods in the upper epipelagic in Gulf of Alaska and adjacent waters in	Russian Federal Research Institute of Fisheries and

		winter of 2019	Oceanography, Pacific Branch (TINRO), Vladivostok, Russia Pacific Salmon Foundation, Vancouver, Canada
40	Valentina V. Kasyan	Variability of zooplankton communities over the Emperor Seamounts Chain, Northwest Pacific	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
53	Inna N. Kaufman	The «Sea Reflection» contest as a form of environmental education at the Primorsky Aquarium	Primorsky Aquarium–Branch of the NSCMB FEB RAS, Vladivostok, Russia
19	Ekaterina S. Kladchenko, Alexandra Y. Andreyeva, Tatyana A. Kukhareva, Valentina N. Rychkova	Tolerance to hypersalinity stress in ark clams <i>Anadara kagoshimensis</i>	A.O. Kovalevsky Institute of Biology of the Southern Seas RAS, Sevastopol, Russia
41	Elena E. Kostina, Alexandra P. Tsurpalo	Changes of the intertidal macrobenthic belt-forming communities in Izmeny Bay (Kunashir Island, South Kurile Islands): a survey of 1963 repeated in 1991 and 2011	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
48	Aleksandr V. Iashnikov, Konstantin S. Talnishnikh, Aleksey S. Vasilchenko, Anatoliy L. Drozdov, Darya V. Poshvina, Sergey V. Kravchenko	Assessment of antimicrobial activity of sand dollar <i>Scaphechinus mirabilis</i>	Institute of Environmental and Agricultural Biology (X-BIO), Tyumen State University, Tyumen, Russia A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
7	Natalia F. Kushnerova	Lipid complexes from marine algae as lipolipidemic agents in a high-fat diet	V.I. Il'ichev Pacific Oceanological Institute FEB RAS, Vladivostok, Russia
1	Konstantin A. Lutaenko	Alexey V. Zhirmunsky as malacologist	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
20	Valery N. Lysenko, Vasiliy V. Zharikov	Ecology of the starfish <i>Asterias amurensis</i> in Peter the Great Bay (Sea of Japan)	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS,

			Vladivostok, Russia Pacific Geographical Institute FEB RAS, Vladivostok, Russia
4	Andrey N. Mazeika, Ludmila A. Pomazenkova, Nina M. Sanina, Ekaterina A. Krasheninina	Toxicity and immunogenicity investigation of Tick-borne encephalitis virus chimeric antigen incorporated in immunostimulating complexes based on triterpene glycosides from <i>Cucumaria japonica</i>	Far Eastern Federal University, Vladivostok, Russia
5	Grigorii V.Malykin, Alexei V. Chernyshev, Timur Yu .Magarlamov	Intrabody TTX distribution and possible way of its migration in ribbon worms <i>Cephalothrix cf. simula</i> (Palaeonemertea, Nemertea)	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
10	Elena L. Nevrova, Alexei N. Petrov	Benthic diatoms off Crimean coast (Black Sea): taxonomic diversity and structure of taxocenoses at the locations under varying levels of technogenic pollution	A.O. Kovalevsky Institute of Biology of the Southern Seas RAS, Sevastopol, Russia
29	Platon Yu. Ostashkin, Anastasia K. Perfileva, Elizaveta V. Roshkalaeva	Project activity in the conditions of individualization	Primorsky Aquarium–Branch of the NSCMB FEB RAS, Vladivostok, Russia
33	Olga N. Pavlyuk, Yulia A.Trebukhova, Julia K. Zograf, Nguyen Dinh Tu	Taxonomic composition and seasonal changes of meiofauna communities inhabiting rhizomes of intertidal seagrass meadows in Tien Yen Estuary (South China Sea, Vietnam)	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia; Institute of Ecology and Biological Resources, Vietnam Academy of Science and Technology, Hanoi, Vietnam
13	Vladimir V. Panchenko, Vladimir A. Shelekhov	New data on reproduction and early ontogenesis of the antlered sculpin, <i>Enophrys diceraus</i> (Cottidae) in Peter the Great Bay	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
52	Alexander V. Petrunko	Popularization of science and engineering through case study activities at the Primorsky Aquarium	Primorsky Aquarium–Branch of the NSCMB FEB RAS, Vladivostok, Russia
36	Evgenija V. Dmitrieva, Tatyana A. Polyakova, Nataliya V. Pronkina, Elina S. Chelebieva, Ekaterina A. Vodyasova,	Parasite fauna of ray and stingrays (Pisces: Elasmobranchii) from the coastal water of Vietnam	A.O. Kovalevsky Institute of Biology of the Southern Seas RAS, Sevastopol, Russia

	Ha Vo Thi, Than Nguyen Thi Thay		Vietnam-Russia Tropical Centre, Nha Trang, Vietnam
11	Vladimir V. Mordukhovich, Daria A. Portnova, Sergei I. Kiyashko, Anastasia A. Saulenko	Meiobenthos at methane seeps on the Koryak slope of the Bering Sea	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia Far Eastern Federal University, Vladivostok, Russia Shirshov Institute of Oceanology RAS, Moscow, Russia
39	Anna V. Radovets, Natalya K. Kolotukhina, Nadezhda K. Khristoforova	Species composition and distribution of pelagic larvae of bivalves in Far Eastern Marine Reserve	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia Far Eastern Federal University, Vladivostok, Russia
44	Svetlana A. Rodkina	Study of benthic communities of the Piip volcano by fatty acid trophic markers	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
54	Dmitry V. Serkov, Artem I. Gerasimenko	Herpetological Collection of the Primorsky Aquarium	Primorsky Aquarium–Branch of the NSCMB FEB RAS, Vladivostok, Russia
38	Alla V. Silina	Pattern of effects of environmental factors on shell growth rates in the scallop <i>Mizuhopecten yessoensis</i>	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
34	Anastasia V. Sinenko, Anna A. Anisimova, Irina A. Dmitrieva, Nadezhda K. Khristoforova	Hemocytes of the Manila clam <i>Ruditapes philippinarum</i> (Adams et Reeve, 1850) as a potential biomarker of heavy metal pollution in marine environment monitoring	Far Eastern Federal University, Vladivostok, Russia
6	Vladimir G. Sprygin	Assessment of the hepatoprotective effect of lipid complex from marine red algae <i>ahnfeltia tobuchiensis</i> against ccl4	V.I. Il'ichev Pacific Oceanological Institute FEB RAS,

		induced hepatotoxicity in mice	Vladivostok, Russia
43	Anna A. Starinets, Igor V. Manzhulo	Synaptamide provides anti-inflammatory and analgesic effects after the peripheral nervous system injury in rats	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
12	Tatyana S. Tarasova, Alexandra V. Romanova, Baoquan Li, Linlin Chen Bo Song, Xiaojing Li, Konstantin A. Lutaenko	Benthic foraminifera of the genus Ammonia from the intertidal sandy/silty bottom of Sishili Bay, Yellow Sea	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia Far East Geological Institute FEB RAS, Vladivostok , Russia Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, Yantai, China
49	Anna A. Tyrtysnaia, Anatoly V. Bondar, Sophia P. Konovalova, Ruslan M. Sultanov, Igor V. Manzhulo	Effect of N- Docosahexanoyl ethanolamine obtained from squid <i>Berryteuthis magister</i> on hippocampal plasticity in a murine model of neuroinflammation	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
3	Alexandra V. Fialko, Daria I. Melnikova, Inessa V. Dyuzhen, Timur Yu. Magarlamov	Biotechnological potential of psychrotolerant bacteria associated with Antarctic ribbon worms (Nemertea)	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
45	Svetlana E. Fomenko, Elena S. Drugova	Influence of the extracts from marine algae on the antioxidant system status at acute stress	V.I. Il'ichev Pacific Oceanological Institute FEB RAS, Vladivostok, Russia
50	Elena M. Chaban, Boris I. Sirenko, Elena P. Tikhonova, Alexey V. Smirnov	Marine Research Laboratory of the Zoological Institute of the RAS in the study of marine ecosystems of the Arctic and Far Eastern Seas in the 1960s–80s under the direction of A.N. Golikov	Zoological Institute RAS, Saint- Petersburg, Russia
14	Vladimir A. Shelekhov, Irina V. Epur, Andrey A. Balanov, Anastasia I. Voytovskaya, Valeriya V. Tupchii	Specifics of spawning ecology and early development of stichaeidae fish in Peter The Great Bay	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia Far Eastern State Technical Fisheries University, Vladivostok, Russia
27	Olga V. Yurchenko,	Somatic cells supporting gametogenesis	A.V. Zhirmunsky

	Oleg G. Borzykh, Alexander V. Kalachev	in deep-sea clam <i>Calyplogena pacifica</i>	National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
28	Viktoria D. Iagodina, Vladimir A. Brykov	Identification of population structure of Japanese sea cucumbers, <i>Apostichopus japonicus</i> , from Peter the Great Bay, Sea of Japan, using microsatellite loci	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
32	Maria A. Maiorova, Yulia O. Kipryushina, Konstantin V. Yakovlev	Cortically localized maternal messenger RNAs in sea urchin unfertilized eggs, a transcriptomic approach	A.V. Zhirmunsky National Scientific Center of Marine Biology FEB RAS, Vladivostok, Russia
21	Alena A. Nabokina, Natalia P. Fadeeva	A current knowledge of composition and ecology of the free-living nematodes of the family Microlaimidae from the Far Eastern seas	Far Eastern Federal University, Vladivostok, Russia