

Agreement

On the scientific cooperation between the Federal State Budgetary Institution of Science "National Scientific Center of Marine Biology, Far Eastern Branch, Russian Academy of Sciences", 690041, Vladivostok, ul. Palchevskogo, d. 17, Russian Federation (NSCMB FEB RAS) and Johann Wolfgang Goethe-Universität Frankfurt am Main, Theodor-W.-Adorno-Platz 1, D-60323 Frankfurt am Main, Germany

Vladivostok, Frankfurt am Main, 24th July 2017

Federal State Budgetary Institution of Science "National Scientific Center of Marine Biology, Far Eastern Branch, Russian Academy of Sciences" (NSCMB FEB RAS) represented by the director, academician Adrianov Andrey Vladimirovich, acting on the basis of the Charter, on the one hand, and the Goethe University of Frankfurt am Main, represented by Dr. Sabine Monz on the other hand, together referred to as "the Parties" or the "contracting parties", have concluded this Agreement as follows:

1. Subject of the Agreement

On the scientific cooperation for the implementation of the project no. 14.616.21.0077 "Biogeography of the northwest Pacific fauna (03F0780A). A benchmark study for estimations of alien invasions into the Arctic Ocean in times of rapid climate change - Beneficial" joint scientific studies shall be carried out with the following aim:

- Study of biodiversity and biogeography of the deep-sea fauna of the northwestern (NW) Pacific, based on the collections of four joint Russian-German expeditions 2010-2016 and data from the Russian literature of the last century from various, interconnected deep-sea areas of the NW Pacific, (Basins of the Sea of Japan, Sea of Okhotsk and Bering Sea, the Kuril-Kamchatka Trench area (KKT) and the Aleutian Trench (AT) to assess the current status of the region's deep-sea biota biodiversity and predictions of potential invasions of Pacific species into the Arctic ocean under changing climatic conditions.

Replenish the international databases of ARMS (Arctic Register of Marine Species), WoRMS (The World Register of Marine Species) and OBIS (Ocean Biogeographic information system) with information on the fauna of the deep-sea areas of the NW Pacific

Prepare a joint monograph on the biogeography of the region in order to make the results of our research accessible to the international scientific community and use these results for the assessment and predicting of state and quality of the Arctic marine ecosystem in a changing environment.

The Parties undertake to cooperate and fulfill all obligations under this Agreement.

2. Project Details

The main tasks aimed at achieving the objectives of the project are:

- descriptions of new species and higher level benthic taxa,
- analysis of the composition and distribution of deep-sea benthos of the NW Pacific, identification of the most distributed key species and taxa, both from the abyssal and from the

shallower deep-sea areas of the NW of the Pacific - potential invaders to the Arctic Ocean in the future, in conditions of a decrease in the Arctic ice cover.

- Up-dating with new information the international biogeographic databases and providing biogeographic maps,
- preparation of a monograph on the biogeography of the deep-sea fauna of the NW Pacific with complete information on the composition and biogeography of the region's biota (including analysis and synthesis of data from the collections of joint Russian-German deep-sea expeditions and Russian literature of the last century,

The first stage "Study of the benthos of the Kuril Basin of the Sea of Okhotsk" and collecting the information on the regional fauna from the literature of the last years:
1.03.2017 - 29.12.2017.

The second stage "Study of the fauna of the Kurile-Kamchatka Trench" and collecting the information on the regional fauna from the literature of the last years:
01/01/2018 - 31/12/2018.

The third stage, "Analysis of the distribution of the deep-sea benthic fauna of the northwestern Pacific," replenishment of databases, preparation of a monography:
01/01/2019 - 31/12/2019.

3. Forms of cooperation

Joint planning of research, expeditions, discussion and interpretation of results, realization of working meetings.

Exchange of materials which is of interest to both Parties.

Joint publication of the research results obtained during the co-operation in scientific journals after mutual agreement between the Parties.

Joint presentations on the results at conferences after mutual agreement between the Parties.

Any other activity in the fields which is of interest to both contracting parties after mutual agreement between the Parties.

4. Project implementation and its guarantee

4.1. Within the framework of the project, NSCMB FEB RAS assumes the following obligations:

4.1.1 In 2017:

1. To perform species identification of the following taxa of benthos from the materials collected by the SokhoBio expedition: crustaceans Isopoda (of the families Munnopsidae, Desmosomatidae, Nannoniscidae), Cumacea, Leptostraca, Mysidacea, Copepoda (Calanoida), Bivalvia, Echiura, Sipuncula, echinoderms (Echinoidea), Nematoda, Nemertea, Polychaeta, and Kinorhyncha.
2. To study the distribution and highlight the key genera and species of taxa of deep-sea fauna in the Sea of Okhotsk, listed in paragraph 4.1.1.1.
3. To describe new species from taxonomic groups, listed in paragraph 4.1.1.1., based on materials of the SokhoBio expedition.
4. To organize a Russian-German workshop on the basis of NSCMB FEB RAS, with discussion of the up-to date results of processing of the materials of the SokhoBio and KuramBio II expeditions and technology to collect and systemize the biogeographic data for the databases

4.1.2. In 2018:

- To perform species identification of benthic organisms listed in paragraph 4.1.1.1, based on materials from the KuramBio II expedition.
- To describe new to science species from the taxa, listed in paragraph 4.1.1.1, based on materials collected during the SokhoBio and KuramBio expeditions.
- To collect the information on deep-sea fauna of the northwestern Pacific Ocean, published earlier in Russian literature, and make it available to the German partners for adding it to the international databases such as the ARMS (Arctic Register of Marine Species), WoRMS (The World Register of Marine Species), and OBIS (Ocean Biogeographic information system).

4.1.3. In 2019:

- To summarize own and published data on the composition and distribution of the deep-sea benthos of the taxa listed in paragraph 4.1.1.1. in the northwestern Pacific
- To submit the information on deep-sea fauna of the taxa, listed in paragraph 4.1.1.1., from the materials collected by the SoJaBio, KuramBio, SokhoBio, and KuramBioII expeditions and from Russian literature to the German partners for its preparation to the ARMS, WoRMS, and OBIS international databases.
- To create a database that would include the information on some deep-sea benthic invertebrates from investigated areas of the northwestern Pacific and register it in the Federal Service for Intellectual Property (Rospatent).
- To compile chapters of the monograph on the biogeography of the benthos in the northwestern Pacific of the taxa, listed in paragraph 4.1.1.1.

4.2. Within the framework of the project, the Goethe University of Frankfurt assumes the following obligations:

4.2.1. In 2017:

1. German scientists will work on taxonomy in collaboration with Russian colleagues or will focus on some taxa (e.g. Isopoda of families Macrostylidae, Haploniscidae, Ischnomesidae, Amphipoda and Porifera).
2. Collect data on the distribution and highlight the key families, genera, and species of some selected taxa, listed in 4.2.1.1.
3. Present necessary technical know-how to extract and preparation the information for the biogeographic databases and biogeographic maps (discussion during the workshop in Vladivostok)

4.2.2. In 2018:

- To support Russian colleagues with necessary know-how on the biogeographic databases and biogeographic maps for joint biogeographic work.
- To work with the ARMS (Arctic Register of Marine Species), WoRMS (The World Register of Marine Species), and OBIS (Ocean Biogeographic information system) international databases on the all available information on the deep-sea benthos in the northwestern Pacific.
- To organize a German-Russian workshop in the Senckenberg Museum in Frankfurt, where the results of the study of the deep-sea benthos of the northwestern Pacific and the most efficient ways to prepare the biogeographic databases and the biogeographic Atlas will be discussed.

4.2.3. In 2019:

- To summarize data on the composition and distribution of the deep-sea benthos in the northwestern Pacific into biogeographic maps.

- To compile in collaboration with the Russian scientists chapters of the monograph on the biogeography of the deep-sea benthos in the northwestern Pacific.
- To update the ARMS, WoRMS, and OBIS databases with the information obtained during the joined expeditions SoJaBio, KuramBio, SokhoBio and KuramBio II and from all available literature (mainly in Russian).
- To make up, format, and publish the biogeographic Atlas, summarizing the world knowledge of deep-sea benthic fauna in the northwestern Pacific

4.3. The research results will be used within the scope of the work involved in the cooperation under this agreement. The Parties hereby grant each other a non-exclusive and non-transferable, temporally and locally unlimited right of use, free of charge, to the research for scientific and research activities. The possibility of using the research results in scientific investigations of third parties is subject to the amicable decision of the Russian (NSCMB FEB RAS) and the German (Goethe University) project leader.

4.4. Each contractor shall carry out the work using the equipment and other infrastructure available to him.

5. Financial and legal obligations

Both Parties cover the costs incurred for the project on their own responsibility from the funds of the respective project application.

6. Duration of the contract and execution of works

The agreement will enter into force on the date on which it is signed by the Parties and it will remain in force until December 31, 2019.

The agreement can be extended on the basis of an additional partnership agreement.

7. Partners obligations

The Parties agree that all scientific data received during the implementation of the project is in equal access for the both Parties.

8. Partners responsibilities, Jurisdiction

All disputes, disagreements or claims arising out of or relating to this agreement, shall be governed by, and construed by, German law. The courts of Frankfurt am Main, Germany, shall have exclusive jurisdiction.

9. Conditions for early termination

This Agreement may be terminated by the Contracting Parties before the deadlines set out in Article 6, with the mutual consent of the Contracting Parties.

Either Party may terminate this agreement with immediate effect by giving notice to the other Party for good cause such as but not limited to any serious breach of the provisions set out in this agreement despite written reminder.

10. Force majeure

In the event that one of the Parties cannot fulfill its obligations under this agreement due to circumstances of force majeure (any cause arising from or attributable to acts, events, non-happenings, omissions, accidents or acts of God beyond the reasonable control of the party due to perform), this contracting party is obligated to submit a written notification within thirty days from the moment of force majeure to the other Party, having described in detail the force majeure circumstances and those obligations, the performance of which is suspended in connection with it. The party affected by the circumstances of force majeure shall be excused from performance to the extent of such prevention and is obliged to take

all reasonable measures to remedy the consequences of these circumstances to the best of his knowledge and conscience.

11. Liability

Claims by the Parties against each other for compensation for damage or loss shall be excluded, except when such claims are on grounds of intent or gross negligence. Liability for injury to persons and for violation of an essential contractual obligation are exempted from the preceding exclusion of liability and shall be governed by the relevant provisions of statute law.

12. Other conditions

Mutual claims on the part of the contracting parties are first decided by mutual agreement by means of consultations and discussions.

13. Final provisions

Any changes to the terms of this Agreement, including, but not limited to, the deadlines for execution and similar disclosures, shall be void without prior written consent from the parties to the Agreement. The agreement can only be changed in written form with the signature of the representatives of the contracting parties. This shall also apply to a waiver of the requirement of written form in this paragraph.

The agreement is drawn up in two copies, both of which are equally legally valid, one copy for each contracting party.

14. Information on contracting parties

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Johann Wolfgang Goethe-Universität
Frankfurt am Main
Address: Theodor-W.-Adorno-Platz 1,
D-60323 Frankfurt am Main, Germany

Signatures

From NSCMB FEB RAS



Director, academician, Dr. Andrey
Vladimirovich Adrianov



Dr. Marina Maljutina

From Johann Wolfgang Goethe-Universität
Frankfurt am Main



Head of Research Service Center
Dr. Sabine Monz



Prof. Dr. Angelika Brandt