Business Programme of the Conference on Bioresources and Fisheries in the Arctic

Arkhangelsk, 11-12 May 2023

Version as of 6 May 2023

Day 1

Official opening

Plenary session

'Aquatic Bioresources. Fisheries and Stock Conservation in the Arctic'

Organizers:

Federal Agency for Fishery, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO)

Moderator:

Vasily Sokolov, Deputy Director, Federal Agency for Fishery

Description

The Arctic seas are rich in aquatic bioresources, making them a strategically important element in economic activity, both for coastal regions and for the nation as a whole. Climate change is creating more fishing opportunities in high latitudes, as many important commercial species are expanding their range and reaching commercial concentrations in regions where there previously was no fishing. However, without sufficient scientific knowledge, it is impossible to effectively manage fisheries without disrupting the fragile ecosystems of the Arctic.

This is even more true for major infrastructure projects that are being implemented or just being planned in the Arctic. When addressing the economic and social challenges of regional development and increasing the areas and scope of mineral production, the fragility of Arctic ecosystems and the need to preserve traditional economic activities must be taken into account.

In this regard, an analysis of the current state of aquatic bioresources as well as their habitat is of great importance. People have been fishing in Arctic waters for many centuries and they have intuitively gained invaluable experience in sustainable fishing by trial and error during this time, as confirmed and magnified by modern scientific data. At the same time, since borders don't matter for fish, different countries need to agree with each other to create an effective system of aquatic bioresources management and fisheries in the Arctic.

- 1. Ilya Shestakov, Director, Federal Agency for Fishery
- 2. Alexander Tsybulsky, Governor of the Arkhangelsk Region
- 3. Kirill Kolonchin, Director, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO); Doctor of Economics
- 4. German Zverev, President, Russian Association of Fisheries Enterprises, Entrepreneurs, and Exporters (VARPE)
- 5. Ruslan Muslimov, Director, Programmes for the Development of the Environmental Safety

Management System, Department for the Introduction of Operational Management and the Industrial Safety Management System, Exploration and Production Unit, Gazprom Neft

6. Yury Kitashin, First Deputy General Director, INARCTICA Northwest

Roundtable 1

'Research and Development of Aquatic Bioresources in the Arctic: Realities and Prospects'

Organizers:

Russian Federal Research Institute of Fisheries and Oceanography (VNIRO)

Moderator:

Konstantin Sokolov, Deputy Director, Polar Branch, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO); Ph.D. in Biology

Description

Aquatic bioresources in the Arctic cannot be developed without systematic scientific research, which has been carried out by fisheries scientists for roughly 120 years. Over this time, a huge amount of data has been accumulated, but new opportunities are opening up for scientists due to the expansion of the ranges of commercial species to the north and northeast as a result of climate change and growing interest in the marine resources of the central part of the Arctic Ocean, as well as its coastlines.

In the new realities, given the remoteness and underdeveloped infrastructure, as well as the economic and geopolitical situation, it is essential to formulate pertinent tasks and propose ways to implement them, including increasing the reliability, scope, and types of scientific information while simultaneously optimizing expenses on obtaining it.

Obviously, this can be accomplished by using new research vessels, and in the future via automated, robotic, and autonomous systems for the continuous monitoring of fishing areas and key habitats of priority fisheries and their habitats in a greater number of water areas. The collection, transmission, and storage of data, as well as new processing algorithms, is also crucial in this regard.

The first experiments of using unmanned aerial vehicles to monitor the coastal zone and satellite systems to rapidly transmit data in high-latitude expeditions have produced impressive results and shown that this is the way to go for the development of scientific research in the Arctic. The fact that the Federal Agency for Fishery is building research vessels and has plans to expand expedition activities make it clear that fisheries science has a promising long-term outlook.

- 1. Alexey Baytalyuk, Deputy Director, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO); Director, Pacific Branch of VNIRO; Ph.D. in Biology, 'Strategy and Support for Future Research in the Arctic'
- 2. Igor Shpakov, Consultant, FAO Liaison Office with the Russian Federation, 'Challenges for the Sustainable Use of Aquatic Bioresources in the Arctic amidst Climate Change'
- 3. Vyacheslav Zilanov, Member, Scientific and Expert Council, Maritime Board of the Russian Government; Full Member (Academician), International Academy of Sciences of Ecology, Human Security, and Nature; Honorary Doctor, Moscow State Technical University; Ph.D. in Biology; Professor, 'Prospects for Fishing in the Open Seas of the Arctic Ocean'

- 4. Yevgeny Darinov, Deputy Director, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO); Director, Tyumen Branch of VNIRO, 'Restoration of Whitefish Stocks in the Arctic Zone of the Yamalo-Nenets Autonomous District (Comprehensive Programme)'
- 5. Konstantin Drevetnyak, General Director, Union of Fishermen of the North, 'Industrial Fishing in the Western Sector of the Arctic: Present and Future'
- 6. Yury Kovalev, Leading Researcher, Laboratory of Marine Bioresources, Aquatic Bioresources Centre, Polar Branch of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO)' Ph.D. in Biology, 'Changes in Stocks and Cod Fishing Prospects in the Barents Sea'
- 7. Igor Melnikov, Deputy Director, Pacific Branch of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO); Ph.D. in Biology, 'Pollock and Other New Resources of the Chukchi Sea'
- 8. Alexey Stesko, Director, Aquatic Bioresources Centre, Polar Branch of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO); Ph.D. in Biology, 'Invertebrates of the Barents and Kara Seas: Development Strategy'
- 9. Olga Maznikova, Department Director, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), Ph.D. in Biology, 'Flounder Resource Potential of the Chukchi Sea'

Roundtable 2

'Infrastructure of the Fishery Industry in the Arctic'

Organizers:

Specialized agencies of the Arkhangelsk and Murmansk Regions

Moderator:

Anna Osinina, Director, Fisheries Department, Ministry of the Agro-Industrial Complex and Trade of the Arkhangelsk Region

Description

By virtue of its geographical remoteness and climate, the Arctic is one of the least populated and socially developed regions of Russia. In recent years, there has been an increase in the number of major infrastructure projects in the mining, energy, and transport industries. This has resulted in an influx of investments for the modernization of port facilities and the entire transport infrastructure. The foundation of this infrastructure will be the Northern Sea Route, which will drive the economic development of the region and improve the business climate, including the fishing industry.

The various regional development scenarios should also include an ecosystem component that takes into account the need to conserve the aquatic bioresources of the Arctic seas, large-scale sustainable fishing, and fish processing to solve social problems facing the population and also respect the interests of the Indigenous people of the North.

- 1. Irina Bazhanova, Minister of the Agro-Industrial Complex and Trade of the Arkhangelsk Region, 'Development of the Fishery Industry of the Arkhangelsk Region'
- 2. Yulia Morozova, Deputy Chairman of the Government of the Kamchatka Territory, 'Building Fishery Infrastructure for the Socioeconomic Development of the Kamchatka Territory'
- 3. Alexandra Amirova, Deputy Minister of Natural Resources, Ecology, and Fisheries of the Murmansk Region, "The Murmansk Region: The Fishing Industry Centre of the Russian Federation'

- 4. Prokopy Nikolayev, Deputy Minister of Agriculture of the Republic of Sakha, 'Development of the Fishery Industry in the Arctic Regions of the Republic of Sakha (Yakutia)'
- 5. Igor Stolonogov, First Deputy General Director, Arkhangelsk Trawl Fleet, 'Complex Maintenance and Fishing Fleet Vessel Repair Practices at the Arkhangelsk Trawl Fleet'
- 6. Alexander Chekalin, Director, Higher School of Fisheries and Marine Technologies, Northern (Arctic) Federal University, 'Interaction between Educational Organizations and Industrial Partners: A Basic Component for the Development of the Fishery Industry in the Arctic'
- 7. Lyubov Abramova, Doctor of Biology; Deputy Director, Fish Food Quality Department, Department for Monitoring the Habitat of Aquatic Bioresources and Their Processed Products, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), 'Improving the Hygienic Standards for Arsenic Content in Fish Food Products: Problem and Solutions'
- 8. Valentin Balashov, Executive Director, Interregional Association of Coastal Fisheries of the Northern Basin, 'The Port of Murmansk: The Role of and Prospects for the Development of a Maritime Transport Corridor in the Arctic'

Roundtable 3

'New Personnel for the Arctic Region'

Organizers:

Kaliningrad State Technical University

Moderator:

Vladimir Volkogon, Rector, Kaliningrad State Technical University; Chairman, Council of Heads of Educational Organizations, Federal Agency for Fishery

Description

The development of the Arctic regions is a strategically important task. The sustainable use of aquatic bioresources and fishing in the Arctic zone is an integral and crucial part of its economy. The breakthrough socioeconomic development of the Arctic is impossible without addressing the issue of reproducing human resources. What kind of people and expertise does the Arctic need today and in the future? Are educational and scientific organizations ready to meet these needs? What graduates can employers in the Arctic regions expect to hire, particularly fishery specialists?

- 1. Oleg Rusinov, Minister of Education of the Arkhangelsk Region, 'Training of Skilled Workers for Ship Repairs and Port Activities at Professional Educational Organizations of the Arkhangelsk Region'
- 2. Lyudmila Morozova, Prorector, Northern (Arctic) Federal University, 'Reproduction of Human Resources for the Breakthrough Socioeconomic Development of the Arctic Zone'
- 3. Andrey Ronzhin, Director, St. Petersburg Federal Research Centre, Russian Academy of Sciences; Professor, Russian Academy of Sciences, 'Experience of Joint Scientific and Educational Activities of the St. Petersburg Federal Research Centre of the Russian Academy of Sciences and Kaliningrad State Technical University in Robotics and Artificial Intelligence Technologies for the Development of the Labour Potential of the Fishery Industry' (videoconference)
- 4. Maria Knyazeva, Acting Rector, Murmansk State Technical University, 'Practice and Prospects for Training Personnel in the Fishery Industry of the Murmansk Region'

- 5. Yury Kitashin, First Deputy General Director, INARCTICA Northwest, 'Staffing Problems of Enterprises in the Arctic Region'
- 6. Sergey Kunitsyn, Director, AGAMA.RUN Innovation Laboratory; Director, Project Work with Educational Organizations, "Current Formats for Interaction between Enterprises and Universities. The View of Business'
- 7. Pavel Tikhonov, General Director, Russian Salmon, 'Staffing Problems of Enterprises in the Arctic Region'
- 8. Laysan Kambeyeva, Leader of Routine Student Teams of the Volga Federal District, 'Experience of Student Teams in the Northern Territories at Fish Processing Enterprises. Organization of Labour Projects of Student Barge Hauler Teams'

Roundtable 4

'State of Anadromous Fish Stocks, Fishing, and Fishery Regulation in the Arctic Zone'

Organizers:

Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), Ministry of the Agro-Industrial Complex and Trade of the Arkhangelsk Region

Moderator:

Vladimir Belyayev, Deputy Director for Scientific Work, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO); Doctor of Biology

Description

Anadromous fish in the Arctic zone include Atlantic salmon, which is called salmon in northern Russia, and Pacific salmon, of which one species, pink salmon, has successfully acclimatized in the European part of northern Russia and widely permeated the rivers of the White, Barents, and Kara Seas.

Wild Atlantic salmon are a symbol of healthy ecosystems and have great economic and cultural importance, both in industrial and traditional artisanal fisheries and in recreational catch-and-release fishing. This provides employment for the population, and the values associated with the use of salmon for social and cultural purposes significantly enhance the overall cost of this resource, which is difficult to quantify.

Due to a decrease in the salmon population, quotas and fishing efforts have been significantly reduced. As a result, the annual catch of salmon in northern Russia decreased from 1,000 tonnes in the early 1960s to 50 tonnes in recent years. Despite all the efforts, their numbers remain low – and extremely low in some areas – with many stocks having been irretrievably lost as a result of hydro development or are on the verge of being destroyed as a result of IUU fishing.

At the same time, the pink salmon population in the new range has increased significantly, with a record of more than 700 tonnes being caught in 2021. Pink salmon fishing in the European part of northern Russia is currently of great importance for residents of coastal settlements and provides employment for many people as an alternative to salmon fishing.

However, the licensing system for the recreational fishing of pink salmon in its current form is creating difficulties for the Indigenous inhabitants of the Pomorye region, which is a significant staple of the family diet. The procedures for organizing recreational fishing are very complex right now, and there is significant liability for violating them. They clearly need to be simplified as much as possible. This must be reliably supported with a clear and understandable fisheries regulation system. The privilege of

simplified fishing for anadromous fish could become one of the incentives for people living in the North and help solve the region's social and demographic problems.

Reports and speakers:

- 1. Andrey Voronkov, Representative, Ministry of Agriculture and Consumer Market of the Komi Republic, 'The Sustainable Use of Fish Stocks in the Komi Republic in the Arctic Zone of the Russian Federation: Current State, Problems, and Prospects'
- 2. Alexandra Amirova, Deputy Minister of Natural Resources, Ecology, and Fisheries of the Murmansk Region, 'Prospects for the Use of Pink Salmon in the White Sea'
- 3. Artyom Tkachenko, Director, Laboratory of Biological Resources of Inland Waters, Polar Branch of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), 'Regulation of Anadromous Fisheries in Russia and Norway: Comparison of Approaches
- 4. Igor Studenov, Deputy Director, Northern Branch of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO); Ph.D. in Biology, 'Anadromous Fisheries in the Large River Systems of the European Part of Northern Russia'
- 5. Yevgeny Lukyanenko, Director, Fisheries and Aquaculture Sector, Department of Natural Resources, Ecology, and the Agro-Industrial Complex of the Nenets Autonomous District (topic TBD)
- 6. Alena Pinyaeva, Deputy Department Director; Chairwoman, Fisheries Committee, Department of Agriculture and Food of the Chukotka Autonomous District, 'Fishing for Anadromous Fish in the Chukotka Autonomous District'
- 7. Marina Kovtun, Russian Salmon Association, 'Recreational Fishing: A Factor in the Conservation of Wild Salmon Populations'

Day 2

International Seminar

on the Development of Aquaculture in the Arctic

Organizers:

Ministry for the Development of the Russian Far East and Arctic,

Far East and Arctic Development Corporation

Moderator:

Description

According to FAO data, global fisheries and aquaculture production expanded to 214 million tonnes in 2020, including 36 million tonnes of algae, while the share of commercial aquaculture reached 56%. The FAO predicts this trend will continue and that the ratio will already be 59% and 41%, respectively, by 2030.

This means great efforts and attention need to be devoted to the development of domestic commercial aquaculture, which amounted to 6.6% (0.35 million tonnes) of the total production of aquatic bioresources in Russia in 2021.

In terms of their natural and climatic conditions, the Arctic seas are the most favourable for the commercial aquaculture of salmon species (salmon and trout).

Today, due to the adverse geopolitical situation, as well as restrictions and prohibitions on trade, there is a shortage of fish feed and stocking material since the Russian production of commercial aquaculture

Roman Vityavev, Chairman, Far Eastern	is largely dependent on imports.		
Union of Mariculture Enterprises	Urgent measures are needed to ensure the production of the amount of Russian feed and stocking material required for the stable production of commercial products, primarily salmon, including in recirculating water supply units.		
	The development of Arctic aquaculture will reduce prices in this segment of the domestic market,		
	ensure the availability of products for a wider range of the population, and increase the overall level of		
	fish and seafood consumption in the country.		
	Reports and speakers:		
	1. Dmitry Klyuneyev, Director, Fishery Development Department, Far East and Arctic Development		
	Corporation, "The Current Situation in Aquaculture"		
	2. Vasily Sokolov, Deputy Director, Federal Agency for Fishery		
	3. Yury Kitashin, First Deputy General Director, INARCTICA Northwest		
	4. Sergey Mironov, Founder, Meat & Fish Restaurant Chain		
	5. Alexey Salnikov, Deputy General Director, La Mare (videoconference)		
	6. Yekaterina Mikhaleva, Project Manager, Agribusiness Practice, Strategy Partners, 'Prospects of the Market for the Development of Trout Stocking Material'		
	7. Oleg Ryabov, Director, Fish Department, Globus Retail Chain, 'Development of Arctic Fish Sales at Hyperglobus. Impact of Market Trends on Demand and Product Range'		
	8. Olesya Popova, Founder and Development Director, Food Team, 'Development of the Deep Processing of Fish Products, Waste-Free Production, and Innovations'		
	9. Dmitry Trifonov, Commercial Director, NTech Research Company, 'Fish Champions on the Shelf' 10. Yevgeny Khrabskov, Managing Director, RSHB-Insurance, 'Aquaculture Business Insurance'		
	11. Ilya Solodukhin, Director, Office for Relations with Clients from the North Caucasus Federal		
	District, Ural Federal District, Siberian Federal District, and Far Eastern Federal District, Big Business		
	Department, Rosselkhozbank, 'Support for the Development of Aquaculture and Processing: A Bank's View'		
	12. Anatoly Alexashin, Advisor to the General Director, United Shipbuilding Corporation, 'Open Sea Fish Breeding Facility'		
	13. Morteza Yusifi, Associate Professor, Department of Veterinary Medicine, Peoples' Friendship		
	University of Russia, 'Maximizing Aquaculture Efficiency and Minimizing Environmental Impact in		

Arctic Aquaculture: Strategies for Sustainable Production'

Roundtable 5

Description

The seas of the Russian Arctic, excluding the polar bear, are home to more than 20 species

'Marine Mammals of the Arctic'

Organizers:

Ministry of the Agro-Industrial Complex and Trade of the Arkhangelsk Region

Moderator:

Vyacheslav Bizikov, Deputy Director for Research, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO); Doctor of Biology (populations) of marine mammals (cetaceans and pinnipeds), some of which live here year-round, while others are only present during certain times of the year (seasonal migrants). Over the last two decades, the number of the latter has been increasing, which is due to climate change associated with warming. In the Barents and White Seas, where 11 species of more than 1.8 million cetaceans and pinnipeds live throughout the year, nine species are seasonal migrants. The most prevalent species is the White Sea harp seal, of which there are roughly 1.5 million according to the joint ICES/NAFO/NAMMCO Working Group on harp seals and hooded seals.

According to BIMI (Norway), marine mammals in the Barents Sea eat 7.1 million tonnes of fish per year, most of which are commercial fish species. This amount is comparable with the total permissible catch for fisheries. This circumstance means there is a need for scientifically based regulation of the state of marine mammal populations in the Arctic and, above all, in fishing areas.

Reports and speakers:

- 1. Vladimir Zabavnikov, Director, Department of Marine Mammals, Polar Branch of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), 'Marine Mammals Living in the Barents Sea'
- 2. Roman Batanov, Director, Department of Scientific Research of Bioresources in Inland Reservoirs and Waters Adjacent to the Chukotka Autonomous District, Pacific Branch of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), 'Resource Potential of Pinnipeds and Cetaceans amidst the Offshore Development of the Far Eastern Seas in the Eastern Sector of the Arctic'
- 3. Sabina Strelchenko, Director, Bureau, 'Mammal Fishing in the Magadan Region'
- 4. Alexey Pogarsky, General Director, Cardinal Fishery Company, "Practice of Harvesting and Processing Sea Animals in Sakhalin'
- 5. Lev Sidorov, Ph.D. in Biology; Director, Department of Marine Mammals, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), 'UAV Aerial Surveys of Harp Seals on Ice in the White Sea in Spring 2023'

Roundtable 6

'Monitoring and Conservation of Ecosystems in the Arctic Region'

Organizers:

Russian Federal Research Institute of Fisheries and Oceanography (VNIRO)

Description

Modern research shows that the climate is changing faster in the Arctic than in other parts of the planet (the so-called 'Arctic amplification of climate change'). The Arctic is rich in natural resources, economic activity is developing in the region, and the manmade impact on ecosystems is growing. The problem of plastic pollution in the marine environment has drawn increased attention from researchers in recent years. Arctic ecosystems are less resistant to natural and artificial external influences due to their lower level of biodiversity. Despite the success of a set of measures to ensure the responsible and

Moderator:

Kirill Kivva, Ph.D. in Geography; Director, Department of Climate Dynamics and Aquatic Ecosystems, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO)

sustainable use of Arctic resources, including in fisheries, there remain opportunities for further development and response to new challenges. This roundtable aims to create a platform for representatives of the government, science, and industry to discuss these opportunities.

Reports and speakers:

- 1. Igor Shpakov, Consultant, FAO Liaison Office with the Russian Federation, 'Arctic Ecosystems: Current State and Prospects in the Context of the UN Decade on Ecosystem Restoration
- 2. Vyacheslav Bizikov, Doctor of Biology; Deputy Director for Research, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), 'Key Challenges in Environmental Monitoring and Projects To Restore the Stock of Aquatic Bioresources in the Arctic Based on the Example of the Norilo-Pyasinsky Lake and River System'
- 3. Viktoria Kondratovich, Director, Environmental Protection Department, Gazprom Neft Shelf, 'Environmental Monitoring and Conservation of Biodiversity in Gazprom Neft Shelf's Zone of Responsibility'
- 4. Vasily Povazhny, Ph.D. in Biology; Director, Otto Schmidt Russian-German Laboratory for Polar and Marine Research, Arctic and Antarctic Research Institute, 'Prospects for Monitoring Changes in Biological Productivity in the Seas of the Siberian Shelf' (videoconference)
- 5. Andrey Pedchenko, Ph.D. in Geography; Leading Researcher, Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), 'Plastic Pollution of the Arctic Seas: New Challenges for Science and Industry'
- 6. Alexander Bengert, General Director, Hydrographic Enterprise (Rosatom State Corporation), 'Compensation for Damage to Aquatic Bioresources during the Implementation of Infrastructure Projects on the Northern Sea Route'
- 7. Tatyana Sorokina, Ph.D. in Law; Director, Arctic Biomonitoring Laboratory, Northern (Arctic) Federal University, 'Current Content of Pollutants and Substances in Fish Traditionally Consumed by Residents of the Arkhangelsk Region'

Roundtable 7

'Traditional Types of Marine Fishing in the Arctic and Their Regulation'

Organizers:

Fisheries Organization Department of the Federal Agency for Fishery

Description

For inhabitants of the Arctic and the Indigenous peoples of the North, Siberia, and the Far East, fishing (including seal hunting) is a traditional way of hunting and, above all, serves as one of the main food products. Moreover, the catch and sale of aquatic bioresources is classified as traditional economic activities of Indigenous peoples.

In Russia, there are quite realistic resource opportunities to solve the problem of Indigenous peoples maintaining their traditional way of life and economic activities. When choosing the optimal balance between their needs and the existing natural and social realities, a wide range of existing factors must

Russian Association of Indigenous Peoples of the North

Moderator:

Yulia Yakel, Lawyer, Russian Association of Indigenous Peoples of the North

be taken into account. Starting in 2023, a 'no-declaration' procedure for providing aquatic bioresources to individuals who are on the List of Indigenous Peoples has been launched based on an initiative from the Federal Agency for Fishery.

Research by fishery scientists indicates that aquatic bioresources in the Arctic regions currently have the potential to withstand the transition of residents of coastal villages to a self-sufficiency system with the products of these traditional industries.

The traditional enterprises of small-numbered peoples need to expand their economic potential. Such communities are local economic mainstays virtually throughout the entire Arctic, and one of the measures to develop entrepreneurship in the Arctic zone should be creating conditions to modernize traditional branches of economic activity, assign the status of agricultural producers to communities and small businesses, and increase the production of aquatic bioresources (no less than the amount allocated to commercial enterprises in the same territories).

The development of traditional fishing as a type of economic activity among communities and other associations of Indigenous peoples guarantees stability and efficiency in the development of remote rural areas and resource conservation.

- 1. Grigory Ledkov, Senator, Russian Federation Council; President, Russian Association of Indigenous Peoples of the North, 'Traditional Fishing of Indigenous Peoples of the Arctic: Problems and Solutions' (videoconference)
- 2. Ildar Gilmutdinov, First Deputy Chairman, State Duma Committee on Nationalities, 'Traditional Fishing. Problems and Solutions' (videoconference)
- 3. Anna Otke, Senator, Russian Federation Council; President, Association of Indigenous Peoples of Chukotka, 'Regulation of Seal Hunting in the Arctic' (videoconference)
- 4. Yury Khatanzeysky, Deputy Governor of the Nenets Autonomous District for the Affairs of the Nenets and Other Indigenous Minorities of the North, 'Traditional Fishing in the Nenets Autonomous District' (videoconference)
- 5. Roza Dolgan, Commissioner for the Rights of Indigenous Minorities in the Kamchatka Territory, 'Realization of the Rights of Indigenous Peoples to Catch Aquatic Bioresources'
- 6. Yelena Golomareva, Chairwoman, Committee on Indigenous Minorities of the North and Arctic Affairs, State Assembly (Il Tumen) of the Republic of Sakha (Yakutia), 'Traditional Fishing Based on the Example of Yakutia: Realities and the Future'
- 7. Vladimir Zabavnikov, Director, Department of Marine Mammals, Polar Branch of the Russian Federal Research Institute of Fisheries and Oceanography (VNIRO), 'Commercial Species of Marine Mammals in the Western and Central Sectors of the Russian Arctic'
- 8. Alexander Kudryavtsev, First Deputy Director, Department of Agriculture and Food of the Chukotka

Autonomous District, 'Special Aspects of Seal Hunting in the Chukotka Autonomous District'

9. Valentin Andreytsev, Chairman, Union of Indigenous Peoples of the Primorsky Territory, 'Traditional Fishing: Present and Future'

10. Grigory Dyukarev, Chairman, Council of Representatives of the Indigenous Peoples of the Russian North, Siberia, and the Far East Living in the Krasnoyarsk Territory, 'The Impact of Climate Change on the Fishing Industry of the Indigenous Peoples of Taimyr' (videoconference)

11. Vyacheslav Shadrin, Chairman, Council of Elders of the Yukagir people, 'Problems with Traditional Fishing by Indigenous Minorities'

Draft Timing of the Business Programme of the Conference on Bioresources and Fisheries in the Arctic Arkhangelsk, 11-12 May 2023

Version as of 4 May 2023

Time	Day 1. 11 May					
9:00 - 10:00	Registration. Morning coffee					
10:00 - 10:10	Official opening					
10:10 - 12:00	Plenary session (Hall 1)					
10.10 – 12.00	'Aquatic Bioresources. Fisheries and Stock Conservation in the Arctic'					
12:00 – 13:00	Lunch					
	Roundtable 1 (Hall 2)		Roundtable 2 (Hall 3)			
13:00 - 15:00	'Research and Development of Aquatic Bioresources in the 'Infras		'Infrastructure	ture of the Fishery Industry in the Arctic'		
	Arctic: Realities and Prospects'					
15:00 – 15:30	Coffee break					
15:30 – 17:30	Roundtable 3 (Hall 3)	Roundtable 4 (Hall 2)			
	'New Personnel for the Arctic Region' 'S		'State of Anadro	'State of Anadromous Fish Stocks, Fishing, and Fishery		
			Reg	gulation in the Arctic Zone'		
18:00	Dinner					
	Day 2. 12 May					
9:30 - 10:00	Morning coffee					
10:00 – 12:00	International Seminar (Hall 3, start 9:30)		Roundtable 5 (Hall 2)			
	on the Development of Aquaculture in the Arctic		'Marine Mammals of the Arctic'			
12:00 - 13:00	Lunch					
13:00 – 15:00	Roundtable 6 (Hall 2) Roundtab		e 7 (Hall 3)	Meeting (Room 146)		
	'Monitoring and Conservation of	'Traditional Types of	f Marine Fishing in	'Consideration of a Draft Comprehensive		
	Ecosystems in the Arctic Region'	the Arctic and Their Regulation'		Programme for the Restoration of		
	_			Valuable Whitefish Species in the Ob-		
45.00 45.30		C 66 1 1		Irtysh Fishery Region'		
15:00 – 15:30	Coffee break					