

# International Workshop for the 4th Amur-Okhotsk Consortium Meeting 2015

**Date: December 17 (Wed) – 18 (Thu), 2014**

**Place: Conference Room (403) at Slavic-Eurasian Research Center, Hokkaido University, Sapporo, Japan**

Access to the venue:

<http://src-h.slav.hokudai.ac.jp/center/srcmap-e3.html>

**Hosted by:**

Pan-Okhotsk Research Center, Institute of Low Temperature Science, Hokkaido University

Slavic-Eurasian Research Center, Hokkaido University

**Co-hosted by:**

Research Institute for Humanity and Nature

Official symposium language: Russian, Chinese, and Mongolian to Japanese (consecutive interpretation)

**Sessions:**

1. Recent progress in studies on environment and sustainable development in the Amur-Okhotsk region
2. Proposal for sustainable future in the Amur-Okhotsk region
3. Towards 2015 Harbin meeting (The 4th International Meeting of the Amur-Okhotsk Consortium)

**Organizing Committee:**

**Prof. Petr Ya. Baklanov**, Pacific Institute of Geography, FEBRAS

**Dr. Zhigang Da**, Heilongjiang Provincial Academy of Social Sciences

**Dr. Oyunbaatar Dambaravjaa**, Institute of Meteorology and Hydrology

**Prof. Naoto Ebuchi**, Institute of Low Temperature Science, Hokkaido University

**Prof. Mari Koyano**, Graduate School of Law, Hokkaido University

**Assoc. Prof. Takayuki Shiraiwa**, Pan-Okhotsk Research Center, Institute of Low Temperature Science, Hokkaido University

**Prof. Shinichiro Tabata**, Slavic-Eurasian Research Center, Hokkaido University

(alphabetical order)

# Program

*December 17 (Wed), 2014-----*

10:00-10:10 Welcome address by **Naoto Ebuchi**, Director of Institute of Low Temperature Science, Hokkaido University

## ***Session 1: Recent progress in studies on environment and sustainable development in the Amur-Okhotsk region***

Chairman: **Shinichiro Tabata**

10:10-10:50 Report from Japan by **Takayuki Shiraiwa** (Pan-Okhotsk Research Center, Institute of Low Temperature Science, Hokkaido University)  
"Japan's Academic as well as Administrative Efforts in Understanding the Environments in the Amur-Okhotsk Region"

10:50-11:30 Report from Russia by **Petr Ya. Baklanov and Victor Ermoshin** (Pacific Institute of Geography, FEBRAS)  
"The Main Directions and Results of Researching the Russian Part of the Amur River Basin in 2013-2014"

11:30-12:10 Report from China by **Zhigang Da** (Heilongjiang Provincial Academy of Social Sciences)  
"Challenges and Chances of China's Border Environment: A Study on Heilongjiang River Basin Environmental Issues"

12:10-12:50 Report from Mongolia by **Oyunbaatar Dambaravjaa** (Institute of Meteorology and Hydrology)  
"Review on Recent Research and Management Activities on Water Resources and Environment in the Mongolian Part of Amur River Basin (Country Report of Mongolia)"

12:50-14:30 Lunch Break

## ***Session 2 Proposal for sustainable future in the Amur-Okhotsk region***

Chairman: **Takayuki Shiraiwa**

14:30-15:10 **Xiaode Chi** (Heilongjiang Provincial Research Academy of Environmental Science)  
"Heilongjiang Provincial Research Academy of Environmental Sciences"

15:10-15:50 **Atsushi Ishii** (Center for Northeast Asian Studies, Tohoku University) and **Mari Koyano** (Graduate School of Law, Hokkaido University)  
"Environmental Cooperation or Diplomacy? Lessons from Transboundary Air Pollution and the Way Forward"

15:50-16:20 Coffee Break

- 16:20-17:00 **Shinichiro Tabata** (Slavic-Eurasian Research Center, Hokkaido University)  
"New Challenges for Hokkaido University towards Russia: Development of the Networks with Universities in the Far East and with Arctic Studies"
- 17:00-18:00 Discussion
- 18:30-20:30 Banquet

*December 18 (Thu), 2014-----*

***Session 3 Towards 2015 Harbin meeting (The 4th International Meeting of the Amur-Okhotsk Consortium)***

Moderator: **Takayuki Shiraiwa**

- 09:00-12:00 Discussion

Contact to:  
Amur-Okhotsk Consortium Office (JAPAN)  
Pan-Okhotsk Research Center,  
Institute of Low Temperature Science, Hokkaido University  
Email : ao-consortium@pop.lowtem.hokudai.ac.jp

# 2015年アムール・オホーツクコンソーシアム 第四回会合に向けた国際ワークショップ

**場所：** 北海道大学 スラブ・ユーラシア研究センター大会議室 403  
札幌市北区北9条西7丁目 Tel: 011-706-2388 (直通)

会場へのアクセスはこちらのHPをご覧ください：  
<http://src-h.slav.hokudai.ac.jp/center/srcmap-j3.html>  
\* 参加申込不要（当日会場までお越しください）

**主催：**  
北海道大学 低温科学研究所 環オホーツク観測研究センター  
北海道大学 スラブ・ユーラシア研究センター

**共催：**  
総合地球環境学研究所

**使用言語：** ロシア語・中国語・モンゴル語から日本語への逐次通訳

**セッション：**  
**セッション1** アムール・オホーツク地域の環境・持続可能な発展に関する進展  
**セッション2** アムール・オホーツク地域の持続可能な未来へ向けての提案  
**セッション3** 2015年ハルビンでの国際会合へ向けて

**実行委員：**  
江淵 直人 北海道大学低温科学研究所・所長  
児矢野 マリ 北海道大学大学院法学研究科・教授  
白岩 孝行 北海道大学低温科学研究所環オホーツク観測研究センター・准教授  
笹 志剛 黒龍江省社会科学院東北アジア研究所・所長  
田畑 伸一郎 北海道大学スラブ・ユーラシア研究センター・教授  
オユンバートル ダンバラジャ モンゴル気象水文研究所・主任研究員  
ピョートル バクラノフ ロシア科学アカデミー極東支部太平洋地理学研究所・所長  
(50音順)

## プログラム

### 2014年12月17日(水) -----

10:00-10:10 開会の辞 江淵直人(北海道大学低温科学研究所・所長)

#### セッション1 アムール・オホーツク地域の環境・持続可能な発展に関する進展(座長:田畑伸一郎)

10:10-10:50 日本からの報告 **白岩孝行**(北海道大学 低温科学研究所 環オホーツク観測研究センター)  
「アムール・オホーツク地域の環境を理解するための日本における学術・行政的取り組み」

10:50-11:30 ロシアからの報告 **ピョートル バクラノフ**(ロシア科学アカデミー 太平洋地理学研究所)  
「アムール川流域において実施されたロシアの研究動向」

11:30-12:10 中国からの報告 **笈志剛**(黒龍江省社会科学院 東北アジア研究所)  
「中国国境付近における環境変化と挑戦:黒龍江流域における環境研究」

12:10-12:50 モンゴルからの報告 **オユンバートル ダンバラジャ**(モンゴル気象水文研究所)  
「アムール川流域モンゴル領における最近の水文ならびに水資源研究・事業のレビュー」

12:50-14:30 休憩

#### セッション2 アムール・オホーツク地域の持続可能な未来へ向けての提案(座長:白岩孝行)

14:30-15:10 **遲曉徳**(黒龍江省環境保護科学研究院)  
「黒龍江省環境保護科学研究院の紹介」

15:10-15:50 **石井敦**(東北大学東北アジア研究センター)・**児矢野マリ**(北海道大学 大学院 法学研究科)  
「環境協力が外交か?越境大気汚染からの教訓と将来への指針」

15:50-16:20 休憩

16:20-17:00 **田畑伸一郎**(北海道大学スラブ・ユーラシア研究センター)  
「北海道大学のロシアに対する新たな取組み:極東の大学および北極圏研究とのネットワークの構築」

17:00-18:00 ディスカッション

18:30-20:30 懇親会

**2014年12月18日(木)** -----

**セッション3 2015年ハルビンでの国際会合へ向けて(進行役:白岩孝行)**

09:00-12:00 ディスカッション

お問い合わせ先

北海道大学低温科学研究所 環オホーツク観測研究センター  
アムール・オホーツクコンソーシアム事務局

Tel: 011-706-7664 Fax: 011-706-7142

Email: [ao-consortium@pop.lowtem.hokudai.ac.jp](mailto:ao-consortium@pop.lowtem.hokudai.ac.jp)

# **Academic and Administrative Efforts in Understanding the Environment in the Amur-Okhotsk Region**

**Takayuki Shiraiwa**

*Institute of Low Temperature Science, Hokkaido University, Nishi 8, Kita 19, Kita-ku, Sapporo, 060-0819, Japan, shiraiwa@lowtem.hokudai.ac.jp*

## **Abstract**

It is crucial for Japan to conserve and sustainably-use the environment in the Sea of Okhotsk and its adjacent region. The area is characterized by rich biodiversity as exemplified by unique ecosystem in the Shiretoko World Nature Heritage. It is also found through long-term multilateral academic efforts that the environment of the Sea of Okhotsk is closely related to that of the neighboring terrestrial counterparts. Of particular importance is the impact from the Amur River which watershed expands over Mongolia, China and Russia. Various particulate and dissolved elements as well as significant amount of fresh water are supplied to the Sea of Okhotsk from this river. Based on the common understanding of this shared trans-boundary environmental system, the Amur-Okhotsk Consortium has repeated conferences, workshops and joint field researches since its establishment in 2009.

This report will summarize the Japanese members' activities in the framework of the Amur-Okhotsk Consortium since the 3rd International Meeting held in Vladivostok in October 2013. At first, the author will introduce his own preliminary research trip to the upper Bureya River, a Russian tributary of the Amur River, conducted in July 2014 with the help of the Institute of Water and Ecological Problems, RAS. Then it will followed by two administrative efforts in understanding and sustainably-using the environments between Japan and Russia: 1) Conservation of Ecosystem in the Sea of Okhotsk and Japanese-Russian Cooperation by the Ministry of Foreign Affairs of Japan and the Ministry of Environment of Japan; 2) Bilateral economic cooperation program named "The Contribution and Involvement Project" by Hokkaido Government.

# **The Main Directions and Results of Researching the Russian Part of the Amur River Basin in 2013-2014**

**Petr Baklanov and Victor Ermoshin**

*Pacific Geographical Institute, Far Eastern Branch of Russian Academy of Sciences, 7 Radio St., Vladivostok 690041, Russia, pbaklanov@tig.dvo.ru*

## **Abstract**

The main studies were focused on the preliminary analysis of causes and consequences of the largest for the whole period of observation summer flood in the Amur River in 2013; investigation of the ecological problems of gold mining and hydropower industry; preparation of a variety of thematic maps. The causes of flood are high winter runoff, heavy snow storage in winter, spring rains, heavy precipitation in July-August throughout the basin and anthropogenous factors. The temporal movement of the flood was traced and the space images and maps of the flood propagation are presented.

The maps of existing and planned hydropower complexes were compiled. Their possible impact on the ecological situation within the basin – changes in flood-plain ecosystems upstream and downstream of dams, fragmentation and blocking of the river basins, transformation of habitats around the water storage basins - was considered as well as the indices of integral and individual actions of the hydropower stations were estimated. The GIS (Geographical information system) of existing and planned hydropower plants with their affected objects which allows us to simulate the comparable scenario geo-ecologic estimations was developed and created. A series of ecology-evaluation maps displaying the predictive scenarios of the hydropower industry development within the Amur River basin was produced. The maps and atlas of environmental impact when using the placer mining were produced. The map of the investment projects in the Far East which traces the key role of the projects within the Amur River basin was prepared.

The investigations sponsored by the grant of the Russian Geographical Society and oriented to the integral estimation of environmental change and quality in the coastal regions with the use of the geo-information technologies were started. The investigations cover the coastal areas of the Sea of Okhotsk and Sea of Japan. The key sections were identified and the mapping of techno genic and base natural landscapes was made.



# Challenges and Chances of China's Border Environment: A Study on Heilongjiang River Basin Environmental Issues

**Zhigang Da**

*Institute of Northeast Asian Studies, Heilongjiang Provincial Academy of Social Sciences, Room 1008, No.501 Youyi Road, Daoli District, Harbin, China 150018, dazhigang01@126.com*

## **Abstract**

China enjoys a fast economic growth during the 30 years of reform and opening-up, comprehensive national strength and people's living standards have gone up substantially. However, environmental problems, marked by resources consumption, high-energy consuming, heavy investment and pollution, become increasingly prominent. Some of them even caused collisions between the public and local governments and turned into mass events. Therefore how to balance between development and environment and to better protect environment has become important topic that China has to face in the process of economic transformation, upgrading, as well as sustainable and healthy development. Meanwhile, because of the introduction of advanced foreign environment concept and the awakening of public environmental awareness, the public demands for better environment quality more than ever. Thus environmental problems and the related treatment measures has become important issue of people's livelihood. Under the background of China's regional development transfer from the eastern coastal areas to inland and border areas, especially after the implementation of "One Belt and One Road" strategic concept, the environmental problems are likely to spread to other related countries from border areas and initiate trans-boundary environmental pollution, and also put international cooperation concerning environment problems on the agenda. Among bilateral and multilateral environmental cooperation, Heilongjiang River Basin environment cooperation among China, Russia and Mongolia has become an important part of Northeast Asian environment cooperation because of the shared borders. Against the backdrop of "ruling the country by law" and the neighboring diplomatic idea of "Affinity, Credibility, Reciprocity and Tolerance" with Chinese characteristics, it is imperative that we expand environmental legislation and deepen the international environmental cooperation on the basis of "Environmental Protection Law of the People's Republic of China". Starting with China's present environmental situation, problems and treatment trends, this paper will then discuss the overall not-so-optimistic environmental quality, the worsened northeast pollution and the many measures of environmental governance. With emphasis on Heilongjiang River Basin environment problems and China-Russia environment cooperation, this paper will also discuss the grim reality of border environmental problems, point out the obstacles in the way of Northeast Asia environment cooperation, and finally put forward the corresponding suggestions from the perspectives of bilateral and multilateral cooperation.

# **Review on Recent Research and Management Activities on Water Resources and Environment in the Mongolian Part of Amur River Basin (Country Report of Mongolia)**

**Oyunbaatar Dambaravjaa**

*Institute of Meteorology, Hydrology and Environment, Juulchiny str-5, Ulaanbaat-46, Mongolia,  
oytetuar@yahoo.com*

## **Abstract**

This report covers the following areas such as review on recent flow regime and hydrological changes of selected rivers and lakes in the Mongolian part of the Amur river basin, different national and international research project activities in the region, and introduction of newly established river basin authorities.

In terms of rainfall amount in the Eastern Mongolia in 2013 and 2014, it was relatively wet and warm. Sum of the rainfall exceeds the regional long term mean by 20 and 40 percent, respectively. As for river runoff, it was also higher than regional long term mean by 20-60 percent. Since 2007-2008 was recorded as one of the lowest values, the water level of the Buir lake have increased by 1.5 m. Generally speaking, in recent 5-6 years, there was some increasing tendency of water resources in the Mongolian part of the Amur river basin. The number of hydrological monitoring sites increased in the Mongolian part of Amur river basin, and since 2012 four gauging stations were established at the Ulz, Onon and Khalkhgol rivers.

Recently, the Government of Mongolia had established new organizations responsible for implementation of IWRM planning in the biggest river basins of Mongolia and three of them are established in the Mongolian part of Amur river basin. Structure, status and regulation of this fully governmental organization are approved by Ministry of Nature and Green Development. Introduction of these River Basin Authorities is also included in this report.

Finally, we briefly present and introduce activities and outputs of several national and international activities which cover water resources and environmental management issues such as implementation of national science technological project, UNDP Adaptation project, activities related Daurian International Protected Area and transboundary water issues between Mongolia and China.

# Heilongjiang Provincial Research Academy of Environmental Sciences

## **Xiaode Chi**

*The Institute of Northeast Asian Studies, Heilongjiang Provincial Academy of Social Sciences,  
No. 356, Nanzhi road, Daowai district, Harbin, 150056, China, lkcx@126.com*

### **Abstract**

Heilongjiang Provincial Research Academy of Environmental Science (HRAES) is one of the earliest provincial environmental protection professional scientific research agency in China. It is primarily engaged in the research and application in the field of environment science. There are three provincial leading talent teams, regarding the Atmospheric Environment, Environmental Planning, and comprehensive utilization of industrial wastewater, gas and residues. Our work focus on water environment, atmospheric environment, ecological environment, environmental remote sensing and environmental planning. At present, Heilongjiang Provincial Research Academy of Environmental Science (HRAES) is responsible for various national and provincial scientific research task, building good cooperation relationships with high-level research centers and universities, for example, Chinese Research Academy of Environmental Science and Harbin Institute of Technology, to devote to improve the regional environmental quality.

# **Environmental Cooperation or Diplomacy? Lessons from Transboundary Air Pollution and the Way Forward**

**Atsushi Ishii<sup>1</sup> and Mari Koyano<sup>2</sup>**

*<sup>1</sup>Center for Northeast Asian Studies, Tohoku University, 41 Kawauchi, Aoba-ku, Sendai, 980-8576, Japan, ishii@cneas.tohoku.ac.jp*

*<sup>2</sup>Graduate School of Law, Hokkaido University*

## **Abstract**

Despite the fact that there are many transboundary environmental issues in East Asia, including air pollution, fisheries management, and ocean pollution, not so many social science researches into this field has been conducted so far. Consequently, we know very little about the formation, decision-making, outcome, and effectiveness of the various forms of environmental cooperation taking place in East Asia. In this presentation, I will derive some lessons from my research and experience in the East Asian transboundary air pollution issue to further environmental cooperation with a special focus on Japan. Then, I will sketch out some ways to move forward in the field of PM2.5. The distinction between supportive and persuasive cooperation, and a new way of doing science for persuasive environmental cooperation will be explained and emphasized. Also, the definition and role of the epistemic community concept will also be clarified, since there is a huge misunderstanding of the concept that is frequently used in the discussions of enhancing environmental cooperation in East Asia.

# **New Challenges for Hokkaido University towards Russia: Development of the Networks with Universities in the Far East and with Arctic Studies**

**Shinichiro Tabata**

*Slavic-Eurasian Research Center, Hokkaido University, Nishi 7, Kita 9, Kita-ku, Sapporo, 060-0809, Japan,  
shin@slav.hokudai.ac.jp*

## **Abstract**

I am Director of Helsinki Office of Hokkaido University that was established in 2012 to promote research and education collaboration with universities in Europe, including Russia. I am also Chief Representative of Hokkaido University Research Network with North Eurasia that was organized at the beginning of 2014 in order to facilitate cooperation between colleagues of our University in the research in Russia and neighboring areas. I will explain new challenges that Hokkaido University faces today in relations with Russia, i.e., the development of the network with universities in the Russian Far East and the network with Arctic studies.

Since our proposal was adopted by the Ministry of Education and Science, Hokkaido University is beginning a new education program with five universities located in the Russian Far East, i.e., Far Eastern and North-Eastern Federal Universities; and Sakhalin, Irkutsk and Pacific State Universities, which aims to increase student mobility between Hokkaido and these Russian universities.

Concerning the Arctic study network, in Japan only Hokkaido University is a member of the University of Arctic (UArctic), i.e., research and education network of universities and other institutes involved in Arctic studies in the world. In addition, our University is planning to strengthen the network of Arctic studies together with National Institute of Polar Research (NIPR) and Japan Agency for Marine-Earth Science and Technology (JAMSTEC).