# **International Workshop on Ancient Hydrocarbon Seep** and Cognate Communities

13th-15th June 2019, Sapporo, Hokkaido, Japan Field Trip: 10th-12th June, 2019, Hokkaido



June 13-15, 2019 Sapporo, Japan

Hokkaido University Museum



March 11, 2019







website: http://seep.geobiology.jp

e-mail: seep2019-office@seep.geobiology.jp

Organized by Organizing committee of the 2nd International Workshop on Ancient Hydrocarbon Seep and Cognate Communities, Hokkaido University Museum.



The Hokkaido University Museum

### 2nd International Workshop on Ancient Hydrocarbon Seep and Cognate Communities

### **First Circular**

2nd International Workshop on Ancient Hydrocarbon Seep and Cognate Communities will be held during June 13-15, 2019 at the Hokkaido University Museum in Sapporo City, Hokkaido, Japan.

This symposium will be co-organized with the Hokkaido University Museum. The workshop is sponsored by the Paleontological Society of Japan and Nakagawa Town (Hokkaido).

Meetings: June 13th -15th, 2019 Sapporo, Japan Hokkaido University Museum

Pre-meeting field trip: June 10th - 12th, 2019
Cretaceous and Miocene seep localities in Nakagawa Town,
Obira Town and Ishikari City, Hokkaido

### Scope of the workshop

The discovery of hydrothermal vent ecosystem along the Galápagos Rift in 1977 has changed our perception of deep water marine life. The vent ecosystem consists of large and numerous polychaetes, mollusks, arthropods and other animals. Subsequently, similar communities have been found around hydrocarbon seeps, sunken whale carcasses and sunken driftwood on sea floor. It turned out that these communities depend largely upon chemosynthetic bacteria, especially sulfur-oxidizing bacteria, for their food/energy source, and thus the communities have been called "chemosynthetic communities".

Since the discovery of chemosynthetic communities in modern oceans, numerous ancient chemosynthetic communities have been discovered/re-interpreted worldwide from rock formations of various ages. Majority of ancient chemosynthetic communities was found associated with hydrocarbon seep deposits because of their high fossilization potential related to anaerobic oxidation of methane, which increases alkalinity and triggers precipitation of carbonate minerals.

The great advantages to study on the ancient chemosynthetic communities and their associated seep deposits is that the fossil record allows us to understand the evolution of chemosynthetic communities and the spatial/temporal trajectories of seep systems are much easier to observe than in their modern counterparts. To improve and exchange our knowledge on ancient chemosynthetic communities, the 1st International Workshop on the hydrocarbon seep and cognate communities was held in Warsaw, Poland in 2016. The successful meeting encouraged us to have regular meetings on the ancient seeps.

This time we meet for the 2nd International Workshop on the hydrocarbon seep and cognate communities in Sapporo, Hokkaido, Japan. The Japanese archipelago and surrounding waters yield numerous examples of ancient and modern seeps ranging from the Cretaceous to the Recent times. Following the last workshop, the aims of the 2nd workshop are to exchange ideas, data and contacts among the researchers studying chemosynthetic communities around the world. Paleontological, geochemical and modern biological perspectives are all most welcomed.

We also prepared a 3 days pre-meeting field trip in Hokkaido Island. We will visit Morai (Miocene), Kanajirisawa in Obira Town (Cenomanian, Late Cretaceous) and Nakagawa Town (Santonian-Campanian, Late Cretaceous). You can enjoy taking samples from those classic outcrops.

It is noteworthy that the final stage of the upcoming book on Fossil Hydrocarbon Seeps to be published in the Topics of Paleobiology series of Springer Verlag (editors Andrzej Kaim, Neil H. Landman, J. Kirk Cochran) will be discussed among participating authors.

We heartily invite all paleontologists, geologists, geochemists and biologists involved in seep, vent and fall research to participate in our workshop!

### **Hosting organization**

Organizing committee of the 2nd International Workshop on Ancient Hydrocarbon Seep and Cognate Communities, Hokkaido University Museum. The field trip is supported by the Nakagawa Town and the Nakagawa Museum of Natural History.

### **Organizing Committee**

Robert G. Jenkins (Kanazawa, Japan), Andrzej Kaim (Warsaw, Poland), Yoshitsugu Kobayashi (Sapporo, Japan), Yasuhiro Iba (Sapporo, Japan), Yoshinori Hikida (Nakagawa, Japan)

### **Scientific Committee**

Robert G. Jenkins (Kanazawa, Japan), Andrzej Kaim (Warsaw, Poland), Steffen Kiel (Stockholm, Sweden), Jörn Peckmann (Hamburg, Germany), Kazutaka Amano (Joetsu, Japan), Yoshinori Hikida (Nakagawa, Japan), Yoshitsugu Kobayashi (Sapporo, Japan), Yasuhiro Iba (Sapporo, Japan)

### **Sponsors**

The Palaenontological Society of Japan Nakagawa Town, Hokkaido

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### 1. Registration

### Registration Fee: 10,000 yen for regular participants. 6,000 yen for students.

The registration fee for regular participants and students includes: abstract volume, welcome drink, official grill party at the Sapporo Beer Garden on June 14th, 2019, and presentation sessions. If you have an accompanying person, please let us know during web registration (actual expenses will be charged).

Registration will be available from March 15th 2019 till April 15th 2019.

Deadline for abstract submission for both oral and poster presentations as well as for the meeting registration and field trip is April 15th, 2019.

Note that the rule first come, first served will be applied for the field trip. Maximum number of participants for the field trip is 20 (see below).

### 2. Payment Information

You can choose payment methods using paypal or pay onsite. We will provide online payment system after we receive your registration form if you prefer to pay using credit card.

### 3. Brief Schedule of the Workshop

The schedule indicated bellow is a tentative one. It will be fixed by end of April, 2019.

# June 13, 2019 Registration and oral presentation. Evening welcome party.

10:00am- Start of registration
11:00am- Oral session will be start

17:00pm-17:30pm Flash talks on Poster presenta-

tions

17:30pm-18:00pm Group photo 18:00pm-20:00pm Welcome drink

## June 14, 2019 Oral and poster presentations.

9:00am-11:30pm Oral sessions

11:30pm-12:45pm Core time for Poster presenta-

tions

12:45pm-14:00pm Lunch break 14:00pm-18:00pm Oral sessions

19:00pm-21:00pm Grill Party at the Sapporo Beer

Factory

### June 15, 2019

9:00am-12:00pm Oral session

12:00pm-13:30pm Lunch break (Business meeting

will be held)

13:30pm-15:00pm Oral sessions 15:00pm-15:15pm Closing address

### 4. Abstract format

Abstracts should not exceed single page A4 with 11pts of font size (Calibri or similar). Template (word doc file) is available at the website:

http://seep.geobiology.jp/registration.html

### 5. Instructions for Presenter

#### Oral talks

We plan time slots of 25 + 5 minutes for regular talks and 15 + 5 for student talks (it will change depending on the number of submitted presentations). Please prepare your presentations in Windows compatible files (Power Point, Adobe Acrobat). No Mac machines will be available (please bring your Mac in the case of you would like to use Mac).

### Poster presentations

Posters size will be provided soon. Poster presenters may provide flash talks before the poster session.

### 6. Pre-meeting field trip

One pre-meeting field trip is scheduled.

# Schedule of the field trip 10th June 2019

8:30AM Meeting at the Sapporo Station or Hokkaido University. The details of meeting point will be announced later.

Travel to Cenomanian (Late Cretaceous) seep along Kanajirisawa Creek in Obira Town.

Night: Accommodation in the Nakagawa Town (PON-PIRA AQUA Hotel).

### 11th June 2019

Nakagawa tour! We will go to the Yasukawa and Omagari seep sites (Santonian-Campanian, Late Creta-

ceous) with observation of channel-levee deposits. You can find well-preserved ammonoids, too. We will also visit the Nakagawa Museum of Natural History.

Night: Accommodation in the Nakagawa Town (PON-PIRA AQUA Hotel).

#### 12th June 2019

visit the Miocene seep sites at Morai along the coast of the Sea of Japan.

Return to Sapporo in the evening.

#### Cost

30,000 Yen including accommodation and meals (dinners and breakfast) for two days. A field guide is also provided.

### **Capacity**

max 20 participants. Note that the rule first come, first served will be applied for the field trip.

### Locality information

We will provide field trip guide book at the meeting point. If you need some literatures before going for the trip, please do not hesitate to contact us. We can send you pdf files of some literature related to the sites.

### Kanajirisawa Seep (Cenomanian, Late Cretaceous; Obira Town, Hokkaido)

Cenomanian seep site along the Kanajirisawa Creek. Numerous seep carbonate bodies are exposed along the creek and forest road. Numerous large-sized lucinid bivalves and many silicified gastropods, mostly provannids and hokkaidoconchids, are available. The silicified provannids are often characterized by excellent protoconch preservation (see Kaim et al. 2008 and Kiel et al. 2008)!!

### Yasukawa Seep (Campanian, Late Cretaceous; Nakagawa Town, Hokkaido)

Campanian seep site along the Abeshinai River in Nakagawa Town. There are several relatively small (less than 2 m wide) seep carboante bodies. Jenkins et al. (2007) and Jenkins and Hikida (2011) interpreted these bodies as sediments of diffusive seeps. You may find *Nucinella* and *Acharax* bivalves with hokkaidoconchid gastropods in/around the carbonate bodies.

### Omagari Seep (Santonian-Campanian, Late Cretaceous; Nakagawa Town, Hokkaido)

Santonian-Campanian (most likely Campanian) seep site along the Abeshinai River in Nakagawa Town. This is a large (ca. 5m wide) seep carbonate body

with abundant alleged vestimentiferan worm tubes. Tiny gastropods and brachiopods are present too. See details in Hikida et al. (2003) and Jenkins and Hikida (2011), Kaim et al. (2008; 2009).

### Morai seep (Miocene, Neogene; Morai, Ishikari City, Hokkaido)

Miocene seep deposits are exposed along the cost of the Sea of Japan. There are many colonies comprising vesicomyid, thyasirid and solemyid bivalves. Some of those bivalves have drill holes made by naticid gastropods (Amano, 2003). You can obtain some more information form Ishimura et al. (2005; in Japanese).

### 7. Meals

If you cannot eat any meals because of your religion, constitution, and other reasons, please contact us prior to the symposium. We will arrange for you as possible as we can.

### 8. Travel Information

The workshop will be held at the Hokkaido University Museum in Sapporo City, Hokkaido, Japan. The museum is located in walking distance from the Sapporo Station (the largest station in Hokkaido). You can find many hotels in Sapporo City.

### Climate in June

During June, average temperatures in Sapporo range from 13°-21°C. Mostly sunny and dry (averaged monthly rain days is 6 days), but it can be rainy.

On the other hand, temperature in Nakagawa Town, we will visit for the field work if you applied, is much lower than Sapporo City.

### Finding Your Way from the JR Sapporo Railway Station

The museum is located in the Hokkaido University Sapporo campus about 10 minutes on foot from the northern entrance of the JR Sapporo Railway Station.

You can enter the main gate of the Hokkaido University and find the statue of Dr. William S. Clark. Then, you can follow the avenue of the Poplars with the Hokkaido University Museum (see following map).

Motor vehicles are not allowed on Hokkaido University grounds, so you will need to come by bus, subway, or other public transportation.

## From New Chitose Airport (Shin Chitose Airport)

The best way to get JR Sapporo Railway Station from the New Chitose Airpot is to board JR Airport Express Train. It takes only 30 minuites from airport to Sapporo Station.

### 9. Accommodation

You can find many hotels in Sapporo City. Search through booking.com, hotels.com or other websites. If you can't find any, please contact us.

### 10. Contact address

If you have any question, feel free to contact to office of the organizing committee (seep2019-office@seep. geobiology.jp). Robert G. Jenkins (Kanazawa University) will reply to your contact.

### MAP around Hokkaido University

