

**INTERNATIONAL SEABED AUTHORITY'S WORKSHOP TO STANDARDIZE
MACROFAUNAL TAXONOMY FOR POLYMETALLIC NODULES
EXPLORATION AREAS IN THE CLARION-CLIPPERTON ZONE**

Jointly organized by the
International Seabed Authority, Kingston, Jamaica
and the
Korea Institute of Ocean Science & Technology

PROVISIONAL AGENDA



East Sea Research Institute.
48, Haeyangwahak-gil, Jukbyeon-myeon, Uljin-gun,
Gyeongsangbuk-do, 767- 813, Korea

23 to 30 November **2014**

SUNDAY 23 NOVEMBER 2014

- 09:00 Bus transfer from the Orakai Songdo Park Hotel in Seoul to the East Sea Research Institute in Uljin (4-5 hours).
- 15:00 – 17:00 Registration

MONDAY 24 NOVEMBER 2014

- 09:00 – 09:30 Welcome to participants
Dr. Gi-Hoon Hong, President, KIOST
Mr. Hyun Tae Kim, Director, Marine Devel. Division, MOF, Korea
- 09:30 – 10:00 Inaugural Address: Introduction to ISA's requirements and overarching objectives of the workshop
H.E. Nii Allotey Odunton, Secretary-General, ISA
- 10:00 – 10:30 Introduction of the experts and participants
Dr. Sandor Mulsow, Head of OREM, ISA
- 10:30 – 11:00 Introduction into the KIOST & local facilities
Dr. Se Jong Ju, Project Manager, KIOST
- 11:00 – 11:30 **COFFEE BREAK**

I. UNIFYING METHODS IN SAMPLING, PRESERVING, PROCESSING AND STUDYING DEEP SEA MACROFAUNA

- 11:30 – 12:00 Layout of the workshop
Dr. Stefan Bräger, ISA
- 12:00 – 12:30 "Gaps in our knowledge: what we need to know to develop sustainable management"
Dr. Gordon Paterson
- 12:30 – 13:00 "The ecological context for the study of biodiversity of the macrofauna of the CCFZ"
Dr. Lenaick Menot
- 13:00 – 14:00 **LUNCH BREAK**

II. TAXONOMIC INTRODUCTION TO MACROFAUNAL CRUSTACEA

- 14:00 – 14:30 “The taxonomy and biogeography of macrofaunal **tanaidacean** crustaceans, with focus on the abyssal Pacific fauna relevant to the CCFZ”
[Dr. Magda Blazewicz-Paszkowycz](#)
- 14:30 – 15:00 “The taxonomy and biogeography of macrofaunal **amphipod** crustaceans, with focus on the abyssal Pacific fauna relevant to the CCFZ”
[Dr. Charlotte Havermans](#) & [Dr. Tammy Horton](#)
- 15:00 – 15:30 “The taxonomy and biogeography of macrofaunal **isopod** crustaceans of the abyssal Pacific fauna relevant to the CCFZ”
[Dr. Stefanie Kaiser](#)
- 15:30 – 16:00 “The taxonomy and biogeography of macrofaunal **ostracod** crustaceans, with focus on the abyssal benthic Pacific fauna relevant to the CCFZ”
[Dr. Ivana Karanovic](#)
- 16:00 – 16:30 **COFFEE BREAK**

III. TAXONOMIC INTRODUCTION TO MACROFAUNAL MOLLUSCA, BRYOZOA AND ANNELIDA

- 16:30 – 17:00 “The taxonomy and biogeography of macrofaunal **molluscs**, with focus on the abyssal benthic Pacific fauna relevant to the CCFZ”
[Paul Valentich-Scott](#)
- 17:00 – 17:30 “The taxonomy and biogeography of macrofaunal **bryozoa**, with focus on the abyssal benthic Pacific fauna relevant to the CCFZ”
[Dr. Dennis Gordon](#)
- 17:30 – 18:00 “The taxonomy and biogeography of macrofaunal **annelids**, with focus on the abyssal benthic Pacific fauna relevant to the CCFZ”
[Dr. Helena Wiklund](#)
- Evening Reception ([hosted by KIOST](#))

TUESDAY 25 NOVEMBER 2014

IV. MOLECULAR TOOLS FOR MACROFAUNA TAXONOMY AND CLASSIFICATION

- 9:00 – 10:00 “Advances in molecular methodologies and the application and interpretation of molecular methodologies for macrofauna classification: Their relevance to environment assessment and monitoring”
[Dr. Thomas Dahlgren](#)
- 10:00 – 10:30 “Developing molecular pipelines to provide samples for barcoding and other analyses”
[Dr. Helena Wiklund](#)
- 10:30 – 11:00 “The pros and cons of barcoding: some preliminary results from recent cruises to the CCFZ”
[Annika Janssen](#)

11:00 – 11:30 **COFFEE BREAK**

V. STATUS OF CONTRACTORS’ ACTIVITIES ON BIOLOGICAL BASELINE SURVEYING: FROM SAMPLING TO TAXONOMIC IDENTIFICATION

- 11:30 – 11:50 Interoceanmetal Joint Organization, Poland
[Representative of IOM](#)
- 11:50 – 12:10 Yuzhmorgeologiya, Russia
[Representative of Yuzhmorgeologiya](#)
- 12:10 – 12:30 Government of the Republic of Korea
[Representative of KORDI](#)
- 12:30 – 13:00 China Ocean Mineral Resources Research and Development Association
[Representative of COMRA](#)

13:00 – 14:00 **LUNCH BREAK**

- 14:00 – 14:20 Deep Ocean Resources Development Co., Ltd., Japan
[Representative of DORD](#)
- 14:20 – 14:40 Institut Francais de Recherche pour l’Exploitation de la Mer
[Representative of IFREMER](#)
- 14:40 – 15:00 The Ministry of Earth Sciences for The Republic of India
[Representative of INDIA](#)

15:00 – 15:20	Federal Institute for Geosciences and Natural Resources of the Federal Republic of Germany Representative of BGR
15:20 – 15:50	COFFEE BREAK
15:50 – 16:10	Nauru Ocean Resources Inc. Representative of NORI
16:10 – 16:30	Tonga Offshore Mining Limited Representative of TOML
16:30 – 16:50	GRL Sea Mineral Resources NV Representative of GRL
16:50 – 17:10	UK Seabed Resources Ltd., United Kingdom Representative of UKSRL
17:10 – 17:30	Japan Oil, Gas and Metals National Corporation Representative of JOGMEC
17:30 – 17:50	Plenary Discussion and Concluding Remarks
17:50 – 18:00	Organising of working groups for taxonomic assessment

WEDNESDAY 26 NOVEMBER 2014

VI. EXCHANGE OF KNOWLEDGE AND EXPERTISE ON TAXONOMIC STANDARDIZATION BETWEEN EXPERTS AND CONTRACTORS FOR IMPORTANT MACROFAUNAL TAXA.

9:00 – 11:00	Assessment of biological material: One-to-one (experts and contractors) exchanges of knowledge and experiences about taxonomic issues: from surveying and handling to standard taxonomic identification.
11:00 – 11:30	COFFEE BREAK
11:30 – 13:00	One-to-one assessment of biological material continued
13:00 – 14:00	LUNCH BREAK

14:00 – 15:30 One-to-one assessment of biological material continued

15:30 – 16:00 **COFFEE BREAK**

16:00 – 18:00 One-to-one assessment of biological material continued

THURSDAY 27 NOVEMBER 2014

9:00 – 11:00 One-to-one assessment of biological material continued

11:00 – 11:30 **COFFEE BREAK**

11:30 – 13:00 One-to-one assessment of biological material continued

13:00 – 14:00 **LUNCH BREAK**

14:00 – Evening Technical Tour followed by a Dinner
(organized and hosted by KIOST)

FRIDAY 28 NOVEMBER 2014

9:00 – 11:00 One-to-one assessment of biological material continued

11:00 – 11:30 **COFFEE BREAK**

11:30 – 13:00 Closure of One-to-one assessment of biological material:
Taxonomic review and summary of findings of the practical sessions.
Plenary discussion on practical approaches to improve taxonomy
knowledge of the macrofauna of the manganese nodule areas.

13:00 – 14:00 **LUNCH BREAK**

14:00 – 15:30 Genomic tools for use in taxonomy and biogeography:
Plenary working session on appropriate molecular methods.

15:30 – 16:00 **COFFEE BREAK**

16:00 – 18:00 Closure of plenary working session on appropriate molecular methods with concluding remarks and recommendations.

SATURDAY 29 NOVEMBER 2014

VII. PLENARY DISCUSSIONS OF WORKSHOP RESULTS AND RECOMMENDATIONS

09:00 – 10:00 “Making the data available: introduction to the design of a biodiversity database concept for the abyssal CCFZ”
[Dr. Gordon Paterson](#), [Dr. Lenaick Menot](#) & [Dr. Sandor Mulsow](#)

10:00 - 11:00 “The value of collections – lessons from the offshore oil and gas industries”
[Dr. Tammy Horton](#)

11:00 – 11:30 **COFFEE BREAK**

11:30 – 13:00 Plenary discussion: *Conception and design of a database of references, samples and images of the macrofaunal taxa for the CCZ region.*

13:00 – 14:00 **LUNCH BREAK**

14:00 – 15:30 Plenary discussion: *Prospective publication of the ISA workshop results on developing approaches and standards for the taxonomic analyses of deep-sea macrofauna.*

15:30 – 16:00 **COFFEE BREAK**

16:00 – 18:00 Plenary discussion: *Agreed recommendations of the participants of the ISA workshop for deep-sea macrofauna standardization taxonomy and classification.*

18:00 Closure of the meeting
[Dr. Jung Keuk Kang](#), KIOST
[H.E. Nii Allotey Odunton](#), Secretary-General, ISA

SUNDAY 30 NOVEMBER 2014

09:00 Bus transfer to Seoul (4-5 hours).