# WORKSHOP ON COBALT-RICH CRUSTS AND THE DIVERSITY AND DISTRIBUTION PATTERNS OF SEAMOUNT FAUNA

Kingston, Jamaica, 27-31 March 2006

## PROVISIONAL AGENDA

### Monday, 27 March 2006

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tr>
<td>09.00 – 10.30</td>
<td>Registration</td>
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<td>10.30 – 11.00</td>
<td>Welcoming remarks and workshop objectives</td>
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<td>- Ambassador Satya N. Nandan, Secretary-General, International Seabed Authority</td>
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<td>11.00 – 11.45</td>
<td>Draft regulations on prospecting and exploration for polymetallic sulphides and cobalt-rich ferromanganese crusts in the Area (ISBA/10/C/WP.1).</td>
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<td>• Focus on crusts</td>
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<td>• Framework for Environmental Protection</td>
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<td>• Data to be provided by prospectors and exploration contractors</td>
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<td>• Monitoring</td>
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<td>• Decision-making</td>
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<td>- Dr. Frida ARMAS-Pfirter, Legal and Technical Commission</td>
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<td>11.45 – 12.15</td>
<td>C • O • F • F • E • B • R • E • A • K</td>
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<td>12.15 – 13.00</td>
<td>Recommendations of the ISA 2004 workshop for the establishment of environmental baselines at mine sites for cobalt-rich crusts and polymetallic sulphides.</td>
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<td>• Framework for the protection of the marine environment at cobalt-rich crust mine sites</td>
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<td>• Data to be provided by prospectors and exploration contractors</td>
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<td>• Knowledge gaps to be addressed by 2006 workshop</td>
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<td>- Mr. Julian Anthony Koslow, Senior Principal Research Scientist</td>
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<td>CSIRO Marine Research, Australia</td>
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<td>13.00 – 14.00</td>
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**POTENTIAL ENVIRONMENTAL IMPACTS FROM EXPLORING FOR AND MINING COBALT-RICH CRUSTS**

14.00 – 14.30 What are cobalt-rich crusts, why are they of interest to potential miners, how are potential commercial deposits geographically distributed, what kinds of fauna are known in these areas?

- James Hein, U.S Geological Survey, California, U.S.A

14.30 – 15.00 What are the steps required to identify and mine a cobalt-rich crusts deposit?
- What types of equipment will be used for mining and transportation of ore?
- What types of impacts can be anticipated from mining?

- Professor Li Li, College of the Mechanical and Electronic Engineering Department of Central South University, Changsha, Hunan, People’s Republic of China

**GLOBAL RESEARCH EFFORTS**

15.00 – 15.30 An overview of the Census of Marine Life’s CenSeam project

- Malcolm Clark, Principal Scientist, Deepwater Fisheries, National Institute of Water & Atmospheric Research, Wellington, New Zealand

15.30 – 16.00 An overview of Seamounts Online and its application to the current problems.

- Karen Stocks, San Diego Supercomputer Center, UCSD, California, United States of America

16.00 – 16.30 C • O • F • F • E • B • R • E • A • K

**NATIONAL RESEARCH APPLICABLE TO THE INTERNATIONAL SEABED AUTHORITY’S FRAMEWORK**

16.30 – 17.00 New Zealand Seamount Studies

- Ashley Rowden, National Institute of Water & Atmospheric Research, Wellington, New Zealand

17.00 – 17.30 French Seamount Studies

- Bertrand Richer de Forges, Centre IRD de Noumea, New Caledonia, France

17.30 – 18.00 Soviet Seamount Studies.

Tina Molodtsova, Shirshov Institute, Moscow, Russian Federation
Tuesday, 28 March 2006

09.00 – 09.30  Seamount Studies in the North Pacific.
- Amy Baco-Taylor, Woods Hole Oceanographic Institution, Maryland, United States of America

09.30 – 10.00  Seamount Studies in the Indian Ocean.
- Dr. Baban Ingole, Scientist, Biological Division, National Institute of Oceanography, India

10.00 – 10.30  European North Atlantic seamount studies.
- Bernd Christiansen, Universitat Hamburg, Germany

10.30 – 11.00  Seamount studies in the NW Atlantic.
- Les Walting, Professor of Oceanography, Darling Marine Center, University of Maine, Walpole, Maine

11.00 – 11.30  C • O • F • F • E • B • R • E • A • K

11.30 – 12.00  Seamount ophiuroids: diversity, extent, reliability, and patterns of distribution and endemism.
- Tim O’Hara, Museum Victoria, Melbourne, Australia

Species Based Research

12.00 – 12.30  Seamount sponges: diversity, extent, reliability, and patterns of distribution and endemism.
- Thomas Schlacher, Senior Lecturer in Marine Science, University of the Sunshine Coast, Maroochydore, Queensland, Australia

- Dr Alex Rogers, Senior Research Fellow, Institute of Zoology, Zoological Society of London

13.00 – 14.00  L • U • N • C • H

Other Topics of Interest

14.00 – 14.30  Genetic Studies of Seamount Faunas: Lessons for Dispersal, Colonization and Connectivity.
- Tim Shank, Woods Hole Oceanographic Institution, Maryland, United States of America

14.30 – 15.00  General Deep-sea biogeography - perspectives from the abyssal plain.
- Dr. Craig R. Smith, Professor, Department of Oceanography, University of Hawaii, USA

15.30 – 16.00  Modelling seamount diversity and biogeography.
- Derek Tittensor, Department of Biological Sciences, Dalhousie University, Halifax, N.S. Canada

15.30 – 16.00  C • O • F • F • E • B • R • E • A • K
INFORMAL WORKING GROUPS

16.00 – 16.30 Formation of working groups and objectives of each group.
Working groups are:

- SW Pacific – a biogeographic synthesis of data from the region
- NE Pacific – a biogeographic synthesis of data from the region
- Atlantic – a biogeographic synthesis of data from the region

Discussion Leader: Mr. Julian Anthony Koslow. Senior Principal Research Scientist, CSIRO Marine Research, Australia

16.30 – 18.00 Working Groups Meet

Wednesday, 29 March 2006

09.00 – 11.00 Plenary meeting to discuss progress and determine whether
biogeographic synthesis should be carried out on the global scale or
for a reduced area of interest
Discussion Leader: Mr. Julian Anthony Koslow. Senior Principal Research Scientist, CSIRO Marine Research, Australia

11.00 – 11.30 C • O • F • F • E • E • B • R • E • A • K

11.30 – 12.30 Working Groups Meet

12.30 – 13.00 Working Groups Meet.

13.00 – 14.00 L • U • N • C • H

14.00 – 16.00 Working Groups Meet

16.00 – 16.30 C • O • F • F • E • E • B • R • E • A • K

16:30 – 17:30 Working Groups Meet

17.30 – 18.00 Plenary Meeting to Report on Progress
Discussion Leader: Mr. Julian Anthony Koslow. Senior Principal Research Scientist, CSIRO Marine Research, Australia

Thursday, 30 March 2006

09.00 – 11.00 Global and/or pan Pacific biogeographic analysis.

11.00 – 11.30 C • O • F • F • E • E • B • R • E • A • K

11.30 – 13.00 Global and/or pan Pacific biogeographic analysis.

13.00 – 14.00 L • U • N • C • H

14:00 – 15:00 Global and/or pan Pacific biogeographic analysis.

15.00 – 15.30 Preparation of draft reports from each working group.
15:30 – 16:00  C • O • F • F • E • E  B • R • E • A • K

16:00 – 17:00  Finalisation of draft reports from each working group

17:00 – 18:00  Working Groups report to the Plenary on biogeographic synthesis for the areas where analysis was possible.

**Friday, 31 March 2006**

09.00 – 10.00  Review of available taxonomic information and the formation of new working groups to discuss taxonomic issues

10.00 – 11.00  Groups meet to discuss taxonomy

11.00 – 11.30  C • O • F • F • E • E  B • R • E • A • K

11.30 – 13.00  Report on taxonomic issues (including confidence in data, etc.).

13.00 – 14.00  L • U • N • C • H

**Workshop Summary and Recommendations**

14.00 – 15.30  Discussion of the implications of available data and information for the protection of the environment at cobalt-rich crust mine sites

15.30 – 16.00  C • O • F • F • E • E  B • R • E • A • K

16.00 – 17.30  Possible collaborations to address knowledge gaps

17.30 – 18.00  Presentation of recommendations

18.00  Closing remarks