

## **Workshop on Rapid Assessment Survey Methodologies for Detecting Non-indigenous Marine Species**

### **Sponsors:**

North Pacific Marine Science Organization (PICES)  
IOC Sub-Commission for the Western Pacific (WESTPAC)  
Phuket Marine Biological Center, Thailand

### **Venue:**

Phuket Marine Biological Center, Phuket, Thailand

### **Dates:**

July 19-21, 2011

### **Convenors:**

Hiroshi Kawai (Kobe University, Japan/PICES; kawai@kobe-u.ac.jp)  
Suchana Apple Chavanich (Chulalongkorn University, Thailand/WESTPAC; Suchana.C@chula.ac.th)  
Thomas Therriault (Fisheries and Oceans Canada/PICES; Thomas.Therriault@dfo-mpo.gc.ca)

### **Participants:**

By invitation only; maximum 25, with emphasis on SE Asian countries

### **Background:**

The North Pacific Marine Science Organization (PICES) has been studying non-indigenous marine species in the North Pacific since 2006, while the Intergovernmental Oceanographic Commission's Sub-Commission for the Western Pacific (IOC-WESTPAC) has been assisting WESTPAC countries in studying marine non-indigenous species since 2009. Thus, non-indigenous marine species continue to be a priority research topic for both organizations and collaborations between PICES and WESTPAC will help scientists in both regions to better understand their respective ecosystems and stimulate cooperation to improve scientific knowledge on this important topic. Among other efforts, WESTPAC and PICES have each hosted regional workshops on Rapid Assessment Surveys, with WESTPAC publishing the report "Current Status of Marine Non-Indigenous Species in the Western Pacific Region". This workshop will enhance the collaborations between these two organizations.

### **Workshop Objectives:**

- 1) Provide a contextual perspective on why monitoring for non-indigenous species is important;
- 2) Educate participants in RAS methodologies and demonstrate their application;
- 3) Provide participants of an overview of the PICES WG-21 database and show how all can benefit from such an application. (*training on database use could be added*).

### **Description:**

Rapid Assessment Surveys (RAS) are one approach to quickly characterize the native, non-native and cryptogenic species present in different locations. Although specific methods vary slightly based on habitats being sampled or taxonomic groups being characterized, PICES WG 21 on *Non-indigenous Aquatic Species* ([http://www.pices.int/members/working\\_groups/wg21.aspx](http://www.pices.int/members/working_groups/wg21.aspx)) has developed methodologies that have been used within member countries to identify non-indigenous species in both intertidal and subtidal habitats. Intertidal habitats have been sampled using both a timed walk and quadrat/grab sampling methods, and subtidal habitats have been sampled using (tunicate) collectors, trapping for macrofauna (primarily crabs) and a survey of the fouling communities on floating docks and their associated structure. Species-level identification can be done using traditional morphological taxonomy, but more often it is becoming necessary to confirm these identifications using genetic markers. Given the global nature of biological invasions, it is important to engage those beyond PICES member countries. Thus, this demonstration workshop will provide participants with the tools to conduct surveys in their own countries and provide a context to why this type of activity is essential and how information on non-native species will be shared among developing and with PICES member countries to benefit all. The assignment of status (native, non-native or cryptogenic) occurs following species identification.

## **Draft Workshop Agenda**

### Day 1

9:00-10:00 Welcome and Introductions  
10:00-10:20 Overview PICES  
10:20-10:40 Overview of WESTPAC  
10:30-10:50 Coffee Break  
10:50-11:30 Background: Non-indigenous Species: Why be concerned?  
11:30-12:30 Introduction to Rapid Assessment Surveys (RAS)  
12:30-14:00 Lunch  
14:00-17:00 Dock Scrapings and Lab Identifications  
18:00 Dinner

### Day 2

9:00-12:30 Beach Collections and Lab Identifications  
12:30-14:00 Lunch  
14:00-15:00 Lecture: Taxonomy and Non-indigenous Species  
15:00-17:00 Continued Processing of Collections  
18:00 Dinner

### Day 3

9:00-10:00 Lecture: Introduction to PICES WG21 Database  
10:00-12:30 Database Installation and Hands-on Use  
12:30-14:00 Lunch  
14:00-14:30 Lecture: Monitoring and Sharing Findings around the Pacific Ocean  
14:30-17:00 Round Table: Application of RAS Methodologies in Developing Countries  
18:00 Dinner and Adjourn