Lectures today (10:00-12:15)

**Toxic Marine Organisms**

Lecture 0: Yasuwo Fukuyo (Project Professor, Emeritus Professor)
Activities for today
  - Outline of program
  - Purpose of the activities
  - Brief explanation of WESTPAC and WESTPAC-TMO

Lecture 1: Dr. Toshiyuki Suzuki (Nat. Res. Inst. Fish. Sci.)
Marine toxin research and toxin monitoring system in Japan:
Experiences from Japan

Lecture 2: Dr. Naomasa Oshiro (Nat. Inst. Health Sci.)
Occurrence of ciguatera fish poisoning (CFP) in Japan

05 Nov 2013
Activities for today

Outline of activities

10:00-12:15 Lectures
12:15-13:30 Lunch break
13:30-14:45 Presentations on ciguatera by ESTPAC-TMO (Philippines, Malaysia, Singapore, Thailand and Vietnam)
14:45-15:30 Discussion 1
   What is problem of ciguatera?
   (How to define ciguatera?, Is it serious? etc)
15:30-16:00 Coffee Break
16:00-17:00 Discussion 2
   How to work collaboratively using frame work of WESTPAC-TMO?
17:00-17:10 Closing of the day

18:30-20:30 Party (Hana no Hana at Hongo 3 Chome)
   welcome to join (1000yen/person) need to inform by 12AM
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Lecture room of
Annex house of Yayoi Auditorium

You are here now.

Meeting room this afternoon
Purpose of the activities

1. Exchange information on the occurrence of Ciguatera Fish Poisoning (CFP) in Southeast Japan

2. Share Japanese experiences on CFP, including method of information collecting, clarification of poisoning, sample collecting and monitoring system.
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The lectures are a part of workshop entitled “Technical guideline for Ciguatera study: experiences from Japan” of UNESCO/IOC/WESTPAC-TMO project
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Brief on IOC and its WESTPAC

Dao Viet Ha: Project Leader of WESTPAC-TMO
Yasuwo Fukuyo: former First Vice-Chair
Wenxi ZHU: Head of WESTPAC Secretariat Office

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Tel: +66 2 1411287, E-mail: z.wenxi@unescobkk.org
http://westpac.unescobkk.org
Designated as a specialized mechanism of the United Nations to coordinate ocean scientific research and ocean services worldwide

recognized as competent International Organization in the fields of Marine Scientific Research (Part XIII) and Transfer of Marine Technology (Part XIV) of the United Nations Convention on the Law of the Sea (UNCLOS)

providing technical support to the “Commission on the Limits of the Continental Shelf” and Member States in the submission for the extension of the continental shelf
IOC’s Area of Activities

Ocean Observations and Service

Ocean Science

Disaster Warning and Mitigation

Capacity Development
Figure 9  IOC decentralized network and UNESCO supporting offices
WESTPAC Member States

Australia

China

Fiji

France

Indonesia

Japan

Korea, DPR

Rep. of Korea

Malaysia

New Zealand

Philippines

Russian Federation

Samoa

Singapore

Solomon Islands

Thailand

Tonga

United Kingdom

United States of America

Vietnam

IOC/WESTPAC Member States (20)

Australia

China

Fiji

France

Indonesia

Japan

Korea D.P.R

R.of Korea.

Malaysia

New Zealand

Philippines

Russia

Western Samoa

Singapore

Solomon Islands

Thailand

Tonga

United Kingdom

United States

Vietnam
WESTPAC

Secretariat

WESTPAC Officers

Advisory Group

Ocean Science

Capacity Development

Public Awareness & Outreach Activities

Enhancing the Capability on Oil Spill Response and Restoration of Marine Ecosystem in the Western Pacific

UNESCO/IOC Regional Network of Training and Research Centres on Oceanography in the Western Pacific

Ocean Observations and Service

TMO

NEAR-GOOS

HAB

SEAGOOS

ORSP

ODINWESTPAC

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MHWM
Objectives
To improve the awareness of local community on the natural biotoxins in marine organisms and its risks to human health through the identification of toxic marine organisms and dissemination of relevant scientific information to public.

Project leader and steering group:
Leader: Dr. Dao Viet Ha (National Institute of Oceanography, Vietnam)
Steering group:
Dr. ChengChu Liu (China)  Dr. Somchai Bussarawit (Thailand)
Dr. Ulysses M. Montojo (Philippines)  Dr. Samsur Mohamad (Malaysia)
Dr. Po-Teen Lim (Malaysia)  Dr. Chee Yew Leong (Singapore)
Dr. Pham Xuan Ky (Vietnam)  Dr. Masaaki Kodama (Japan)
Dr. Yasuo Fukuyo (Japan)
Information and advice

Tetradotoxin is head stable, will not be destroyed through cooking process.

Not only puffer's liver, ovary, skin, but also meat may cause poisoning.

In addition to marine puffers, fresh water puffers may also toxic.

No antidote, no local treatment for puffer poisoning, effectively.

Only a licensed restaurants in some countries are allowed to serve puffers under strict regulation.

Please do not process puffers to eat by yourself.

Emergency contact

If you experience any symptoms described above, please contact IMMEDIATELY:

• the nearest hospital/Local health services
• National Poison Centre
• Fisheries Research Institute

UNESCO IOC/WESTPAC
Toxic Marine Organisms Project

A potentially life-threatening human syndromes caused by consumption of toxic puffers

The final English version of 3 folded pages - brochure, front page
**What is puffer fish poisoning?**

Puffer fish poisoning is a type of fish poisoning due to consumption of puffer fish containing the neurotoxin, tetrodotoxin. The toxin is heat stable and water-soluble. It acts as a sodium channel blocker in mammalian nerve cells. Toxin level varies seasonally and differs among the puffer species.

**Symptoms of poisonings**

Victims of puffer fish poisoning show symptoms of sickness within 30 min to 2 hrs, and could lead to fatality if no treatment is given.

- Numbness in tongue, lips, face and extremities (perioral praesthesia)
- Dizziness
- Nausea and vomiting
- Rapid heart rate
- Difficulty in respiration/breathing
- Muscle paralysis (paraesthesia all over the body)
- Diarrhea
- Headache
- Blurring of vision

**First aids/treatments**

- Gastric lavage
- Activated charcoal
- Anti-cholinesterase drugs

**Toxic puffers in Western Pacific region**

- *Arothron hispidus*
  - White spotted puffer
- *Lagocephalus lunaris*
  - Green rough-backed puffer
- *Lagocephalus suzënsis*
- *Takifugu brevinpinnis*
- *Takifugu oblongatus*
  - Lattice blaasop
- *Torquigener gloerfelti*
- *Lagocephalus inermis*
  - Smoothback puffer / smooth blaasop

**Note:**

These are the common toxic puffers responsible in human poisoning.
Focus activities in Oct. 2012 - Dec. 2013:

1. Publication of public awareness material on toxic puffers (referred to TOR. 2): English version of poster and brochure (Photo 7 & 8) and 5 local versions (Chinese, Thai, Malay, Filippino, Vietnamese)

2. Seminar on HABs in Western Pacific as the 3rd TMO Workshop: Exchange, update information on HABs and related issues, strengthen the collaboration between TMO and member governments

3. Translation into local languages and Publication of the ciguatera field guide (with permission of the authors through WESTPAC/IOC)
the 3rd workshop of IOC/WESTPAC-TMO Project at TMSI, NUS, Singapore, 6-10 March, 2013
Welcome to join IOC/WESTPAC activities!

http://westpac.unescobkk.org