

PROGRAM AND ABSTRACT PROCEEDINGS

FIFTH INTERNATIONAL SYMPOSIUM ON GIS/SPATIAL ANALYSES IN FISHERY AND AQUATIC SCIENCES



Conference room: Chancellor 1
James Cook Hotel Grand Chancellor
Wellington, New Zealand
August 22(Mon)-25(Thu), 2011



Department of Conservation
Te Papa Atawhai

CONTENTS

(Note) The contents of this booklet are those as of Aug 3, 2011 (the date when we handed its galley to the printing company). Thus, revised contents after Aug. 3 will be informed during the Symposium.

PART I: PROGRAM AND OTHER INFORMATION*

| | | |
|---|---|-----|
| (1) Important notes for participants | | ③ |
| (2) Breakdown of the participating countries and international organizations | | ④ |
| (3) Map and contact points. Symposium venue and direction to the venue (keep it in your wallet) | | ⑤-⑥ |
| (4) Layout of the conference room - | | ⑦ |
| (5) List of the symposium working members | | ⑧ |
| (6) Summary of the presentations | | ⑨ |
| (7) Important notes for presenters (oral, poster and PC demo) | | ⑩ |
| (8) Program | Outline | ⑪ |
| | Day 1: Aug 22 (Mon) | ⑫ |
| | Day 2: Aug 23 (Tue) | ⑬ |
| | Day 3: Aug 24 (Wed) | ⑭ |
| | Day 4: Aug 25 (Thu) | ⑮ |
| | Poster presentations and Software/System demo with PC | ⑯ |
| (9) Snaps from the past symposia. | | ⑰ |
| (10) List of the supporting members and organizations | | ⑱-⑲ |

(*) This part was sent to all the participants in advance by e-mails.

PART II: ABSTRACT PROCEEDINGS

| Type of presentation | Date | No. of papers | Page |
|--|------------------------|--------------------------|-------|
| Oral Presentations | August 22 (Mon) | 8 | 01-14 |
| | August 23 (Tue) | 8 | 15-28 |
| | August 24 (Wed) | 8 | 29-42 |
| | August 25 (Thu) | 6 | 43-52 |
| Poster presentations and Software/ System demonstrations with PC | August 23(Tue)-24(Wed) | 4 (posters) 5 (demos) | 53-70 |

Dear Participants and presenters,

Warm welcome to the 5th International Symposium on GIS/Spatial Analyses in Fishery and Aquatic Sciences here in Wellington, New Zealand. This booklet will provide various and important information for both participants and presenters. It also includes the symposium program and abstract proceedings. We very much appreciate the local co-organizer (Mr. Brent Wood and Ms Frances Nolan, NIWA) and also the local sponsors (Silver Stripe and Department of Conservation) for their great helps and dedications.

August 3, 2011
International Fishery GIS Society

(1) Important note for participants

● **Venue**

Conference room: Chancellor 1, 16th floor, James Cook Hotel Grand Chancellor (location: refer to page ⑤-⑥).

● **Clothes : casual to small casual** (no neckties nor suit required)

● **Weather**

Wellington in August is in the mid winter and there are occasional rains, so bring warm clothes and (mobile) umbrella.

Climate Data for Wellington, New Zealand

| Month | Av. Daily Maximum Temp. (°C) | Av. Daily Minimum Temp. (°C) | Av. hours Sunshine (per day) | Av. No. Days with at least 0.25 mm Rainfall | Average Afternoon Humidity |
|-------|------------------------------|------------------------------|------------------------------|---|----------------------------|
| Aug. | 12 | 7 | 4.4 | 17 | 75 |
| Sep. | 14 | 8 | 5.2 | 15 | 75 |

● **AC power (230 V) and the adopter type (O type)** →



● **Registration and the late registration fee (important)**

Reception desk is located in the entrance area of the conference room (Chancellor 1) and opens from 8:30AM-5PM, daily. **All participants are requested to report to the reception desk for registration** as a first step. At the reception desk, they will give you an envelope containing “Program and abstract proceeding booklet”, “your name badge” and “other information”. If participants have not yet paid the registration fee, please pay the late fee (US\$500, NZ\$550 or EURO 350) by cash or credit cards (VISA, MASTER CARD, JCB or AMEX) at the reception desk.

- **Symposium dinner (Aug. 24 night at the restaurant, James Cook Hotel Grand Chancellor).**

When you register, please also report if you will attend the symposium dinner. All participants are invited. If your spouse and/or friend will attend the dinner, please pay NZ\$60, US\$50 or EURO40 at the reception desk. Cash or Credit card (VISA, MASTER CARD, JCB or AMEX) are acceptable.

- **Language**

We use only English for communications, presentations, abstracts, full papers and all the other relevant matters on the Symposium. For presenters and those who ask questions in the plenary, please speak slowly and clearly as nearly 40% of the participants are non-native English speakers for this time.

- **If you need help....**

If you need helps for any matters please do not hesitate to ask organizers and co-organizers.

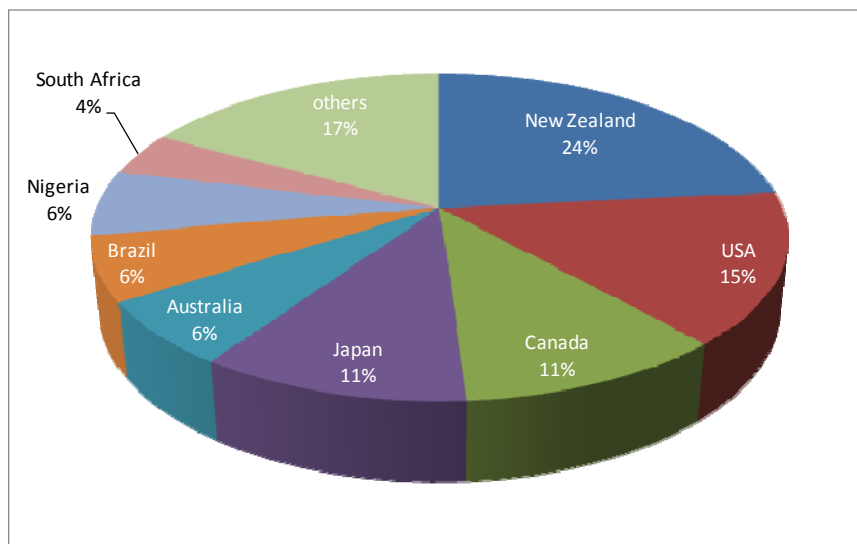
- **Wireless services**

Wireless net work services are available in the plenary (conference) room (Chancellor 1).

- **Lunch**

The lunch time is from 12:30-2PM daily. There are various restaurants, fast food shops and convenience stores around the Hotel. Feel free to ask details to the local and hotel staff.

(2) Breakdowns of participating countries and international organizations



OTHERS INCLUDE:
INTERNATIONAL ORGANIZATION (NAFO AND IATTC),
CZECH REPUBLIC, FRANCE, KENYA, MOROCCO, UGANDA AND UK

NAFO: NORTHWEST ATLANTIC FISHERIES ORGANIZATION, IATTC: INTER-AMERICAN TROPICAL TUNA COMMISSION



(3) Maps and contact points. Please detach this page (5)-(6) and keep it with you.

[CONTACT POINTS AND DIRECTIONS]

Mr. Brent Wood

National Institute of Water and Atmospheric Research (NIWA) Ltd
Private Bag 14901, Kilbirnie, Wellington, New Zealand

Email: b.wood@niwa.co.nz

Phone :+64 (NZ) (4) 386-0300 (from within NZ: 04 386-0300)

Fax :+64 (NZ) (4) 386-0574 (from within NZ: 04 386-0574)

Ms Frances Nolan

National Institute of Water and Atmospheric Research (NIWA) Ltd
Private Bag 14901, Kilbirnie, Wellington, New Zealand

Email: f.nolan@niwa.co.nz

Phone :+64 (NZ) (4) 386-0527 (from within NZ: 04 386-0527)

Fax :+64 (NZ) (4) 386-0574 (from within NZ: 04 386-0574)

How to get to the city from the airport

Wellington Airport is a fifteen minute drive from the central city. You can get into the city by:

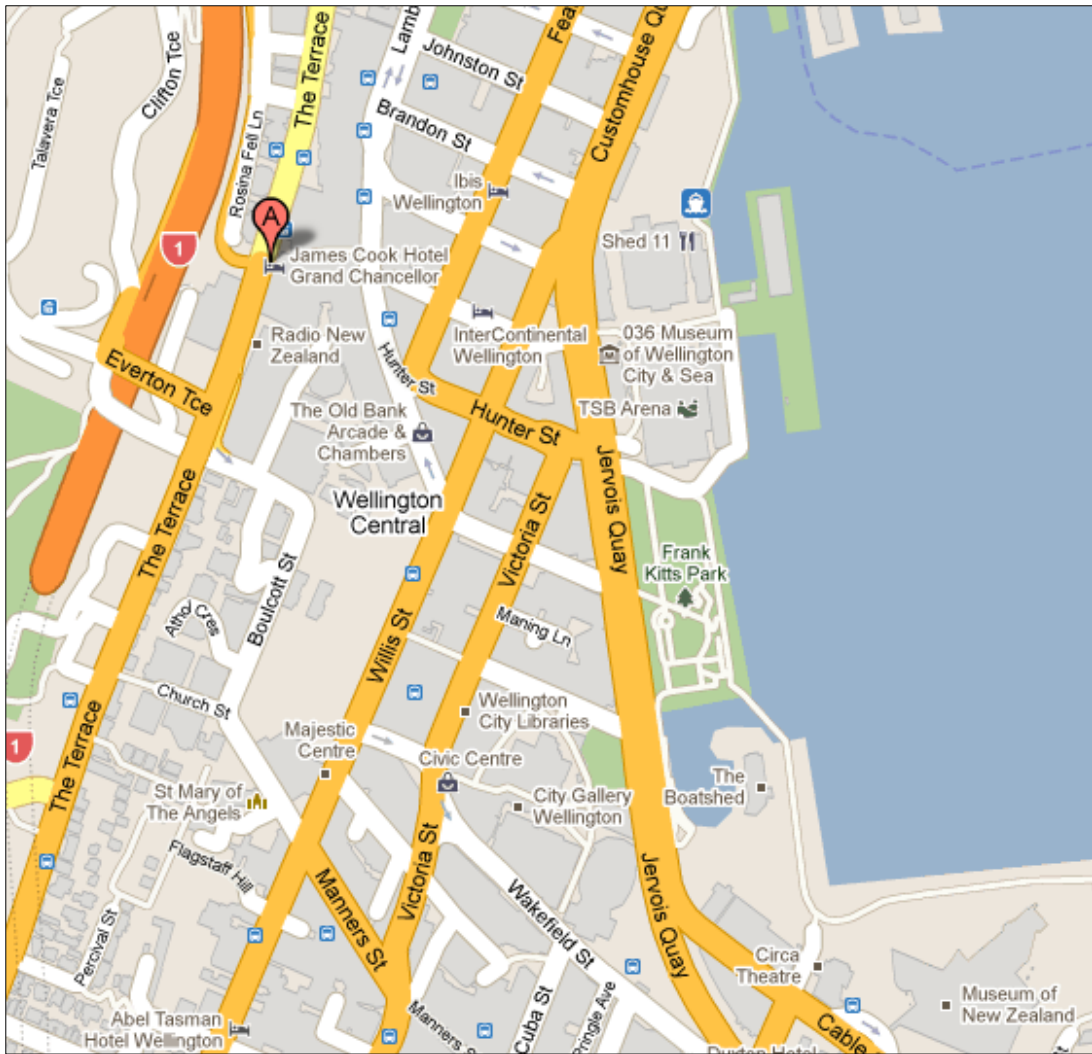
1. Airport Flyer Bus
Departs every 15 minutes from 6.30am to 9.30pm
Approximate cost to the central city is \$7.50
2. Taxi
Approximate fare to the Hotel is \$30 - \$35.
3. Door to Door Shuttles
Approximate fare to the Hotel for one passenger is \$18. If travelling in a group, it is only \$6 for additional passengers.

These services can be found at the airport, on level 0 opposite the luggage collection area.

[MAP OF WELLINGTON, THE AIRPORT, THE VENUE & HOTELS]

Map showing
the drive from
the Airport to
City Centre





Wellington central city map

The venue is located in the central city (marked A), it is an easy walk down to the harbour into the shopping precinct and along to bars and restaurants.

A map of the central city highlighting interesting sites, events, restaurants, café's,

Accommodation etc is available from

http://www.wellingtonnz.com/visitor_information/essentials/maps_guides

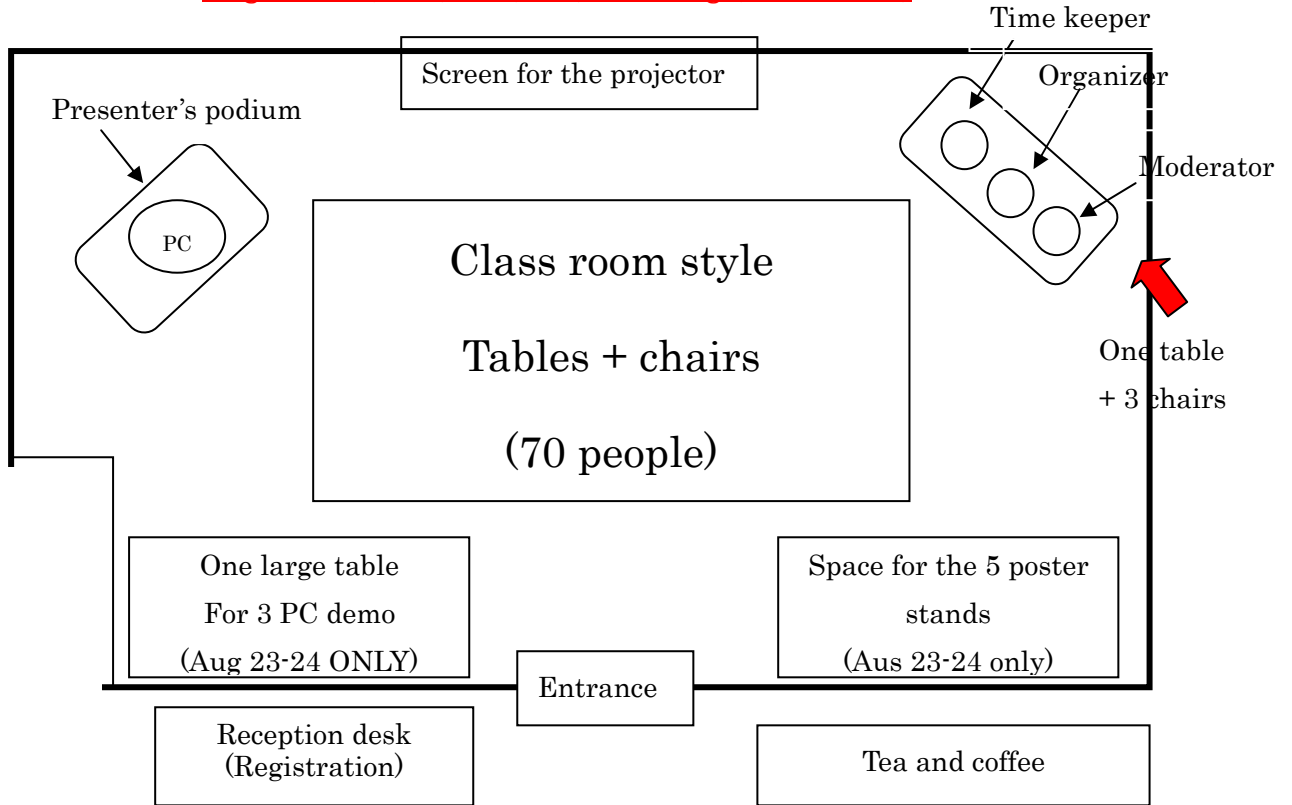
under 'Downtown Wellington Map'

For further information about Wellington city

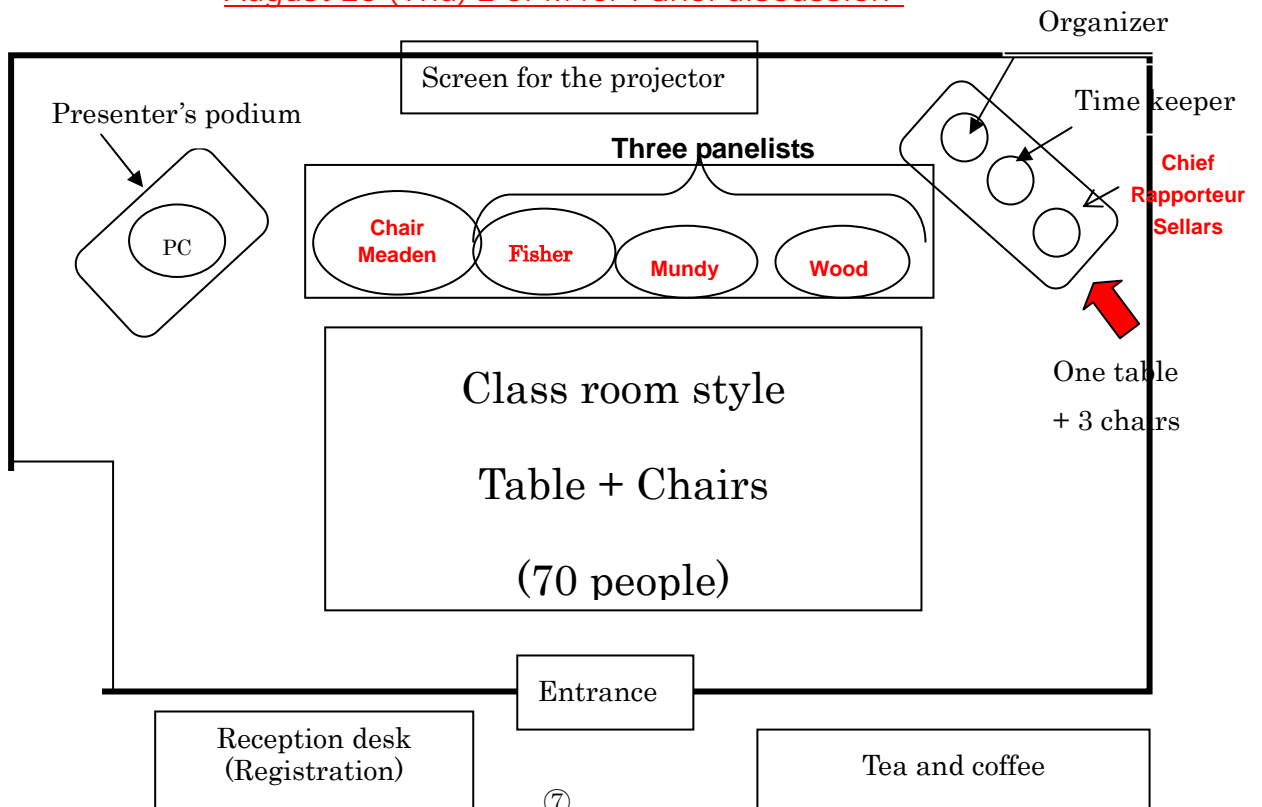
please see <http://www.wellingtonnz.com/>

(4) Layout (16th floor: Chancellor 1)(tentative plan as of Aug 3, 2011)

August 22 (Mon)-25 (Thu) morning (until Noon)



August 25 (Thu) 2-5PM for Panel discussion



(5) List of the symposium working members

| Roles | Name and () Registration number | Country |
|--|---|---|
| Organizer | ITOH (19) | Japan |
| Local co-organizers | WOOD(7) NOLAN (55) | New Zealand New Zealand |
| Convener | NISHIDA (18) | Japan |
| Moderators <i>(alphabetical order of the last names)</i> | CAMPANIS (27) FISHER (49) HINTON (4) KIEFER (46) MEADEN (22) MUELLNER (51) PEDERSON (53) TAYLOR (38) TOJO (44) WOOD (7) YAMANAKA (28) | NAFO (Canada) USA IATTC (USA) USA UK New Zealand Australia USA Japan New Zealand Canada |
| Panel discussion (Sum-up Session) | Chair MEADEN (22) Chief Rapporteur SELLARS (25) Panelists/Rapporteur FISHER (49) MUNDY (48) WOOD (7) | UK New Zealand USA Australia New Zealand |
| Photographers | TOJO (44) One more to be recruited later () | Japan |
| Registration Receptionists | NANBA (21) MAFUNE (20) | Japan Japan |
| Technical assistants & secretaries (International Fishery GIS Society office in Japan) | OYAMA SHIBA | Japan Japan |

Helper's assignments

| August | 22 | 23 | 24 | 25 |
|------------------------|--|-------------|-------------|-------------|
| | Mon | Tue | Wed | Thu |
| time keeper | PEREIRA (2) | VIANNA (3) | SHIKAMI (6) | MAFUNE (20) |
| microphone distributor | VIANNA (3) | PEREIRA (2) | MAFUNE (20) | SHIKAMI (6) |
| Photographer | TOJO (44) and one more person (to be assigned later) | | | |

(6) Summary of the presentations vs. Five themes

FIVE THEMES

[A] INTEGRATING SPATIAL PLANNING

[B] INTRODUCING SOCIAL OR ECONOMIC FACTORS INTO ECOSYSTEMS APPROACHES (EA)

[C] CLIMATE CHANGE EFFECTS

[D] THE INTEGRATION OF GIS WITH OTHER DISCIPLINES OR DIGITAL TOOLS

[E] DATA ACCESS AND DATA SHARING IN GIS PROJECTS

This table will be utilized for the panelists (also participants) in the panel discussion, i.e., to evaluate how 5 themes are reflected in the presentations in the Symposium.

Results of this evaluation will be used for the future symposia.

| Type of presentation | Topic | No. | Themes | | | | |
|---|---|------|-----------------------------|---------------------------|------------------------|----------------------|---------------------|
| | | | [A] | [B] | [C] | [D] | [E] |
| | | | Integrated spatial planning | Socio /Economic in the EA | Climate Change Effects | GIS with other tools | Data access & share |
| Oral presentations | Concepts | 3 | | | | | |
| | Software/systems | 5 | | | | | |
| | Spatial information system | 3 | | | | | |
| | Web-spatial data | 1 | | | | | |
| | Education | 1 | | | | | |
| | Habitats | 4 | | | | | |
| | Habits with RS (Remote Sensing) | 3 | | | | | |
| | Spatial modeling | 3 | | | | | |
| | Managements | 2 | | | | | |
| | Ecosystem managements | 2 | | | | | |
| | Management with RS, GPS data logger and VMS | 3 | | | | | |
| | (total) | (30) | | | | | |
| Poster presentations | Habitats | 2 | | | | | |
| | Management | 2 | | | | | |
| | (total) | (5) | | | | | |
| Software/ System demonstration using PC | Mapping system with underwater camera | 2 | | | | | |
| | Marine GIS software | 1 | | | | | |
| | 4D GIS | 1 | | | | | |
| | (total) | (4) | | | | | |
| Grand total | | 39 | | | | | |

(7) Important note for presenters

● FOR ORAL PRESENTERS (RE: POWERPOINT)

You have 30 minutes in your presentation. We suggest 20-25 minutes for the talk and 5-10 minutes for the time for Questions and Answers. The time keeper will make one ring in 20 minutes, 2 rings in 25' and many rings in 30' then the moderator has to stop the his/her presentation session.

In the oral presentation, we will use one COMMON lap top PC (OS: English Window 7) with MS Office 2010. We suggest to make your PowerPoint by MS Office 2010 or 2007 because if you use other versions of MS Office software (e.g., MS Office 1997-2003), sometime **letters and line alignments will not properly appear on the screen as you expect**. Before your oral presentation you are requested to copy your PowerPoint files to the common lap top PC (located on the speaker's podium in front part of the plenary room, Chancellor 1) and **test if your PowerPoint works and appears OK** during off session periods before 9 AM, tea/coffer breaks or lunch time.

When you copy your PowerPoint files to the common PC, please make the **file name** using your last name + (your registration number), for example, **FISHER (49)**. In the common use lap top PC, we will set 4 folders (on the desktop screen) by date from Aug 22(MON), Aug 23(TUE), Aug 24(WED) and Aug 25(THU). So please copy your PowerPoint files to the corresponding folder to your presentation date.

Please **make PowerPoint in English with larger FONTS**. If you use the special fonts (for example, GIS maps created by some specific GIS software), please install these fonts into that lap top PC, otherwise letters and signs will not appear properly. If you cannot install them, images of such GIS maps should be copied and pasted onto your PowerPoint file, so that you can show the right images and can escape from font problems.

Anyway please check your PowerPoint including movies, animations, sounds (we try to make sounds from speakers) and other specific applications as earlier as possible, so that you can amend your PowerPoint to work properly. In addition please note we don't use any other lap top PC driven by other OS such as Mac etc. Thus we suggest making your PowerPoint by Window 7 with MS office 2007 or 2010. Please also note that we don't prepare any other projectors such as for OHP, slides, 35mm etc.

● FOR SOFTWARE/SYSTEM PC DEMO AND POSTER PRESENTERS

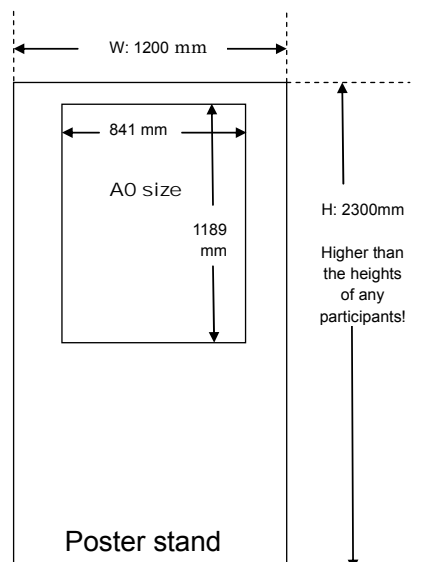
These two presentation sessions will be held from 3:30-5:30PM (in parallel) for 2 days (Aug 23-24) in the rear part of the plenary room (Chancellor 1) (refer to the layout on page ⑦) with tea & coffee. **Presenters are requested to stay and demonstrate your software and explain posters during this time period**. Please prepare your PC or Posters during the lunch time on Aug 23(Tue) and dismantle after 5:30PM on Aug24 (Wed).

For PC presenters

Tables with chairs, wireless internet and AC powers are available.

For Poster presenters

For this time we have the large poster stand. According to the local organizer, the size of the poster stand is W: 1200 mm by H: 2300 mm and you can make your poster in any size smaller than this dimension of the poster stand (see the figure at the right→). However **we suggest making your poster in A0 size (W 841 mm x H 189mm)** so that people can see your poster much easier. But there are no restrictions on the poster size, i.e., you are welcome to make a giant poster in the max size, a little less than W: 1200 mm by H: 2300 mm. We prepare the sticking materials such as push-pins, tapes etc.



(8) PROGRAMS

OUTLINE

| August, 2011 (All events will be held in the conference room :Chancellor 1 except ice breaking party and dinner) | | | | |
|--|---|--|----------------------|---|
| | 22(Mon) | 23(Tue) | 24(Wed) | 25(Thu) |
| 08:30-(all day) | Registration (reception desk in Chancellor 1) | | | |
| 09:00-09:30 | Registration | Spatial information systems (3) | Habitats with RS (2) | Ecosystem management (2) |
| 09:30-10:00 | Openings | | | Management with RS(1) |
| 10:00-10:30 | | | | |
| 10:30-11:00 | Coffee breaks | | | |
| 11:00-11:30 | Concepts (3) | web-spatial data | Habitats with RS (1) | Management with GPS data logger and VMS (3) |
| 11:30-12:00 | | Education (1) | Spatial modeling (2) | |
| 12:00-12:30 | | Habitats (1) | | |
| 12:30-14:00 | <div style="border: 1px solid red; padding: 2px; display: inline-block;">GROUP PHOTO</div> Lunch <div style="border: 1px solid red; padding: 2px; display: inline-block;">SET up Posters & PC</div> | | | |
| 14:00-14:30 | software & systems (3) | Habitats (3) | Spatial modeling (1) | Panel discussion (sum-up session) |
| 14:30-15:00 | | | Managements (2) | |
| 15:00-15:30 | | | | |
| 15:30-16:00 | Coffee breaks | Poster (5) and software PC demo (4) session (with coffee & tea) | | Coffee breaks |
| 16:00-16:30 | software & systems (2) | Closings | | |
| 16:30-17:00 | | | | |
| 17:00-19:00 | ice breaking cocktail party (venue to be informed later) | dismantle (clean up) posters and PCs | | |
| 19:00-21:00 | | Symposium dinner (Restaurant, James Cook Hotel Grand Chancellor) | | |

Program: Day 1 (August 22, Monday)

| August 22 (Monday) Conference room :Chancellor 1 | | | | | | | |
|--|---|---|--|---------------------------|-------------|----------|----------|
| Helpers | | [time keeper] PEREIRA (2) [microphone distributor] VIANNA (3) | | | | | |
| Time | Subject | Moderator | Title | Presenter | Country | Reg. no. | Page no. |
| 08:30 - (all day) | Registration : Reception desk in Chancellor 1 | | | | | | |
| 09:30-10:30 | Openings | MEADEN (22) | Welcome speeches | ITOH (Organizer) | Japan | 19 | / |
| | | | | WOOD (Local co-organizer) | New Zealand | 7 | |
| | | | | FISHER (President, AFS*) | USA | 49 | |
| | | | Remarks | NISHIDA (Convener) | Japan | 18 | |
| 10:30-11:00 | Coffee breaks | | | | | | |
| 11:00-11:30 | Concepts (3) | FISHER (49) | Integrating GIS Across Disciplines: How the Intersection of Biology and Geography has Driven Fisheries GIS | FISHER | USA | 49 | 3 |
| 11:30-12:00 | | | Aquaculture GIS and public policies: a systematization of GisFish publications about applications, concepts and techniques to support a methodological proposition | VIANNA | Brazil | 3 | 4 |
| 12:00-12:30 | | | Fisheries GIS: Is this the world's most important applications software? | MEADEN | UK | 22 | 5 |
| 12:30-14:00 | Lunch | | | | | | |
| 14:00-14:30 | software & systems (3) | PEDERSON (53) | Eonfusion - Applying 4D GIS technology to fisheries science | PEDERSON | Australia | 53 | 6-7 |
| 14:30-15:00 | | | Pelagic Habitat Analysis Module: A Tool for Decision Support for Fisheries | KIEFER | USA | 46 | 8-9 |
| 15:00-15:30 | | | Development of Spatial & Temporal Reporting Tools in Evaluating Commercial Rock Lobster Fisheries Catch and Effort in New Zealand | POPKIN | Canada | 16 | 10 |
| 15:30-16:00 | Coffee breaks | | | | | | |
| 16:00-16:30 | software & systems (2) | KIEFER (46) | AquaMap - Testing and Implementation of an Experimental Benthic Mapping Tool | O'CONNOR | USA | 50 | 11 |
| 16:30-17:00 | | | Introduction to Marine Explorer (menu-driven Marine GIS software) | ITOH + NAMBA | Japan | 19+21 | 12-13 |
| 17:00-19:00 | Ice breaking cocktail party. All are invited. (Venue will be announced later) | | | | | | |

(*) AFS : American Fisheries Society (Supporting organization for International Fishery GIS Society) (refer to page 19)

Program: Day 2 (August 23, Tuesday)

| August 23 (Tuesday) Conference room :Chancellor 1 | | | | | | | |
|---|---|-------------|---|-----------|---------------|---------|----------|
| helpers | [time keeper] VIANNA (3) [microphone distributor] PEREIRA (2) | | | | | | |
| Time | Subject | Moderator | Title | Presenter | Country | Reg. no | Page no. |
| 08:30 - (all day) | Registration : Reception desk in Chancellor 1 | | | | | | |
| 09:00-09:30 | Spatial information system (3) | TAYLOR (38) | New Zealand's National Aquatic Biodiversity Information System (NABIS) – aiding the Aquaculture decision processes | SELLARS | New Zealand | 25 | 17 |
| 09:30-10:00 | | | The European governance and the French Science Fishery Information System | BLANC | France | 36 | 18 |
| 10:00-10:30 | | | Utilisation and Integration of fisheries data into a Geographical Information System in South Africa | WILKINSON | South Africa | 35 | 19 |
| 10:30-11:00 | Coffee breaks | | | | | | |
| 11:00-11:30 | Web-spatial data(1) | WOOD (7) | Open Data; Open Standards; Open Source: A case study of a marine survey web portal. | WOOD | New Zealand | 7 | 20-21 |
| 11:30-12:00 | Education (1) | | Capacity building for Marine GIS using Marine Explorer (menu-driven Marine GIS software) | NISHIDA | Japan | 18 | 22-23 |
| 12:00-12:30 | Habitats (1) | | The Northeast Benthic Pelagic Observatory (NEBO) Observes Temporal-Spatial Changes in Habitat Distribution Along the US Northeast Continental Shelf | TAYLOR | USA | 38 | 24 |
| 12:30-14:00 | Group photos => Lunch | | | | | | |
| 14:00-14:30 | Habitats (2) | TOJO (44) | Ecological exploration in distribution scenarios of fishery targeted small pelagic fishes off the Atlantic coast of northwestern Africa | TOJO | Japan/Morocco | 44 | 25 |
| 14:30-15:00 | | | Determining Vessel Use Patterns in Relation to Coral Reef Habitat in Southeast Florida | SWETT | USA | 24 | 26-27 |
| 15:00-15:30 | Habitats (prediction) (1) | | Pin-point fishing grounds prediction using Marine Explorer | ITOH | Japan | 19 | 28 |
| 15:30-17:30 | Posters (5) and software PC demo (4) session (with coffee & tea) | | | | | | |

Program: Day 3 (August 24, Wednesday)

| August 24 (Wednesday) Conference room :Chancellor 1 | | | | | | | | | |
|---|--|---------------|--|-----------|--|-------------|----------------|-------|----|
| helpers | [time keeper] SHIKAMI (6) [microphone distributor] MAFUNE (20) | | | | | | | | |
| Time | Subject | Moderator | Title | Presenter | Country | Reg. no | Page no. | | |
| 08:30 - (all day) | Registration : Reception desk in Chancellor 1 | | | | | | | | |
| 09:00-09:30 | Habitats with RS (3) | TAYLOR (38) | Spatial estimation of the kelp forests (<i>Laminaria</i> spp.) distribution in coastal waters of Osatube, Hokkaido, Japan, using acoustic method | ITO | Japan | 45 | 31 | | |
| 09:30-10:00 | | | Recent applications of the Habitat Mapping Camera System (HabCam) on the US northwest Atlantic continental shelf | Overview | TAYLOR | USA | 38 | 32-33 | |
| 10:00-10:30 | | | | Results | | | | | |
| 10:30-11:00 | | | Coffee breaks | | | | | | |
| 11:00-11:30 | | | | | Using GIS to Evaluate the Approach and Passage Behavior of Salmonid Smolts at a Hydroelectric Project on the Mid-Columbia River, Washington, USA | RIZOR | USA | 29 | 34 |
| 11:30-12:00 | Spatial modeling (3) | MUELLNER (51) | Comparisons between univariate and bivariate geostatistical models for estimating the catch per unit of effort (cpue): a simulation study | PEREIRA | Brazil | 2 | 35 | | |
| 12:00-12:30 | | | Epidemiological methods and their application to aquatic disease control | | MUELLNER | New Zealand | 51 | 36-37 | |
| 12:30-14:00 | | | Lunch | | | | | | |
| 14:00-14:30 | | | | | Visualization of diel in/off shore migrations applying horizontal hydroacoustics and geostatic methods in the fresh water reservoir | MUŠKA | Czech Republic | 37 | 38 |
| 14:30-15:00 | Management (3) | YAMANAKA (28) | The use of Public Participation GIS (PPGIS) to implement the Mariculture Development Local Plans (PLDM) in Santa Catarina, Brazil | VIANNA | Brazil | 3 | 39 | | |
| 15:00-15:30 | | | Using GIS to develop spatial management tools to address fisheries conservation concerns for Quillback rockfish (<i>Sebastes maliger</i>) in British Columbia Canada | | YAMANAKA | Canada | 28 | 40 | |
| 15:30-16:00 | | | Stratification impacts on exploitation of Nile perch in Lake Victoria, East Africa (Cancelled) | | TAABU | Uganda | 47 | 41 | |
| 16:00-17:30 | Posters (5) and software PC demo (4) session (with coffee & tea) | | | | | | | | |
| 19:30(?)- | Symposium dinner (Restaurant, James Cook Hotel Grand Chancellor). All participants are invited. For your spouse and/or friend, please pay (NZ\$60) or (US\$50) or (EURO 40) at the reception of the registration desk at Chancellor 1 by August 23 (Wed). Cash or Credit card (VISA, MASTER CARD, JCB or AMEX) are acceptable. | | | | | | | | |

Program: Day 4 (Last day) (August 25, Thursday)

| August 25 (Thursday) Conference room :Chancellor 1 | | | | | | | |
|---|--|--|---|-------------------------|---------------------------|-------------|---------|
| helpers | [time keeper] MAFUNE (20) [microphone distributor] SHIKAMI (6) | | | | | | |
| Time | Subject | Moderator | Title | Presenter | Country | Reg. no | Page no |
| 08:30 - (all day) | Registration : Reception desk in Chancellor 1 | | | | | | |
| 09:00-09:30 | Ecosystem management (2) | CAMPANIS (27) | Spatial management of Southern Ocean Fisheries: Bioregionalisation and ecosystem processes in the Ross Sea sector of Antarctica | HANCHET | New Zealand | 32 | 45 |
| 09:30-10:00 | | | Capturing the dynamics for sustainability: Comprehensive approach in Canary Current marine ecosystem off the Atlantic coast of northwestern Africa | TOJO | Japan/Morocco | 44 | 46 |
| 10:00-10:30 | Management with RS (1) | | Habitat mapping of tuna species from satellite imagery: towards improving management with GIS | HINTON | IATTC (USA) | 4 | 47 |
| 10:30-11:00 | Coffee breaks | | | | | | |
| 11:00-11:30 | Managements with GPS and VMS (3) | HINTON (4) | Consideration on coastal and small-scale fisheries resource management using the GPS Data-Logger and Marine Explorer (menu-driven marine GIS) | ITOH | Japan | 19 | 48-49 |
| 11:30-12:00 | | | Spatial assessment using geo-referenced diver data: a case study from North-West Tasmania | MUNDY | Australia | 48 | 50 |
| 12:00-12:30 | | | Visualizing VMS Data to Support Fisheries Management Decisions: NAFO's Perspective | CAMPANIS | NAFO (Canada) | 27 | 51 |
| 12:30-14:00 | Lunch | | | | | | |
| 14:00-15:30 | Panel discussion (Sum-up session) | Chair : MEADEN (UK)(22) Chief Rapporteur : SELLARS(NZ) (25) | The objectives of this Session are to highlight progress being made and to discuss ways to move forward. Each panelist will summarize trends in his/her subject area and there will be discussion from the floor that will help demonstrate where fishery GIS/spatial analyses should now be going. Progress of following three themes presented and discussed during the Symposium is especially emphasized, i.e., | | | | |
| | | | topic | Panelist and Rapporteur | | | |
| | | | <input type="checkbox"/> Integrating Spatial Planning | FISHER | USA | 49 | |
| | | | <input type="checkbox"/> The integration of GIS with other disciplines or digital tools | MUNDY | Australia | 48 | |
| <input type="checkbox"/> Data access and data sharing in GIS projects | WOOD | NZ | 7 | | | | |
| | | | Each subject plans to be completed in 20 minutes including presentations and discussions with the floor (10minutes for presentations and 10 minutes for discussions are ideal and suggested). Detail framework of this Session will be announced at the beginning of this Session from the Chair. | | | | |
| 15:30-16:00 | Coffee breaks | | | | | | |
| 16:00-17:00 | Closings | HANCHET (32) | Last remarks and the future | | NISHIDA (Convener) | Japan | 18 |
| | | | Farewell speech | | WOOD (Local co-organizer) | New Zealand | 7 |
| | | | | | MEADEN (*) | UK | 22 |

(*) Representative of the supporting members for International Fishery GIS Society (refer to page 19)

Poster & Software/systems demo sessions

Venue: Rear part of the conference room - Chancellor 1

3:30-5:30 PM, August 22(Tue)-23(Wed)

Presenters should be at the presentation site.

Set-up time of posters and PCs are during the lunch hour, August 22(Tue).

Dismantles (clean up) of posters and PCs are after the session

5:30 PM-, August 23(Thu)

POSTER PRESENTATIONS

(Poster size: 120cm wide by 230cm high) (for details refer to page ⑩)
(Poster stands and sticking materials such as pins are available at the site)

| Presenter | reg no. | county | Subjects | Title | Page |
|-----------|---------|---------------|------------|--|-------|
| TOJO | 39 | Japan/Morocco | Habitats | Spatial dynamics of two small pelagic fishes : sardine (<i>Sardina pilchardus</i>) and sardinella (<i>Sardinella aurita</i>) in the Canary Current System | 55 |
| NÓBREGA | 30 | Brazil | | Latitudinal and bathymetric trends of the abundance of yellowtail snapper <i>Lutjanus chrysurus</i> (Bloch, 1791) (<i>Teleostei, Lutjanidae</i>) caught in northeastern Brazil | 56-57 |
| | | | | Spatial variation in age structure and survival of Greater amberjack <i>Seriola dumerili</i> caught in northeastern Brazil | 58-59 |
| MCARTNEY | 26 | New Zealand | Management | The impact of fishing effort mapping on the decision making process | 60 |
| YAMANAKA | 28 | Canada | | Using GIS to develop spatial management tools to address fisheries conservation concerns for Quillback Rockfish (<i>Sebastes maliger</i>) in British Columbia Canada. | 61 |

SOFTWARE/SYSTEM DEMONSTRATION USING PC

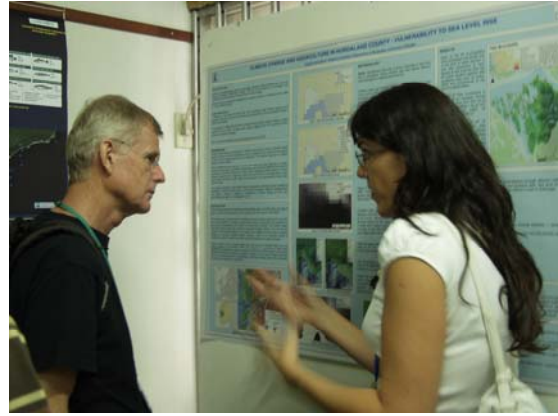
(AC powers, extensions and internets are available)

| Presenter | reg no. | county | Subjects | Title | Page |
|--------------|---------|-----------|---------------------------------------|---|-------|
| TAYLOR | 38 | USA | Mapping system with underwater camera | The Northeast Benthic Pelagic Observatory (NEBO) Observes Temporal-Spatial Changes in Habitat Distribution Along the US Northeast Continental Shelf | 62-63 |
| | | | | Recent applications of the Habitat Mapping Camera System (HabCam) on the US northwest Atlantic continental shelf | 64-65 |
| ITOH + NAMBA | 19 + 21 | Japan | Software | Marine Explorer (Menu driven Marine GIS software) | 66-67 |
| PEDERSON | 53 | Australia | 4D GIS | Eonfusion - Applying 4D GIS technology to fisheries science | 68-69 |

(9) SNAPS FROM THE PAST SYMPOSIA



OPENINGS (4TH SYMPOSIUM)
Universidade Santa Úrsula
Rio de Janeiro, Brazil



POSTER SESSION (4TH SYMPOSIUM)
Universidade Santa Úrsula
Rio de Janeiro, Brazil



PANEL DISCUSSION (2ND SYMPOSIUM)
(UNIVERSITY OF SUSSEX, UK)



SOFTWARE/SYSTEM DEMO SESSION
(3RD SYMPOSIUM) (SHANGHAI FISHERIES UNIV.)



REGISTRATION (2ND SYMPOSIUM)
(UNIVERSITY OF SUSSEX)



ORAL PRESENTATION (3RD SYMPOSIUM)
(SHANGHAI FISHERIES UNIVERSITY)

(10) LIST OF THE SUPPORTING MEMBERS AND ORGANIZATIONS

[SUPPORTING MEMBERS] (ALPHABETICAL ORDER OF THE LAST NAMES)

Dr José Aguilar-Manjarrez

Fishery Resources Officer, FAO, Via delle Terme di Caracalla, 00153 Rome, Italy

E-mail : Jose.AguilarManjarrez@fao.org
Phone : 39(Italy)-(0 for domestic)-6-570-55452
Fax : 39(Italy)-(0 for domestic)-6-570-53020
Home page : <http://www.fao.org/fishery/gisfish>

Dr Jarbas Bonetti

Federal University of Santa Catarina, Campus Universitario, Florianopolis-SC, 88040-900, Brazil

E-mail : bonetti@cfh.ufsc.br
Phone : 55(Brazil)-(0 for domestic)-48-3231-3400
Fax : 55(Brazil)-(0 for domestic)-48-3231-3434

Dr. Din Chen

Karl E. Peace Endowed Eminent Scholar Chair in Biostatistics

Professor, Jian-Ping Hsu College of Public Health,
Georgia Southern Univ., Statesboro, GA 34060, USA

E-mail : dchen@georgiasouthern.edu

Dr. William L. Fisher

Unit Leader and Associate Professor

U. S. Geological Survey, New York Cooperative Fish and Wildlife Research Unit and
Department of Natural Resources, Cornell University, Ithaca, NY 14853, U.S.A.

E-mail : william.fisher@cornell.edu
Phone : 1(USA)-607-255-2839
Fax : 1(USA)-607-255-1895
Homepage : <http://www.dnr.cornell.edu/cals/dnr/research/fwres/index.cfm/>

Mr Md. Zakir Hossain

Senior Program Specialist & Head Agriculture, Resources and Environment (ARE),
Asian Institute of Technology (AIT), P.O. Box 4, Klong Luang, Pathumthani 12120, THAILAND

E-mail : Zakir.Hossain@ait.ac.th or zakirmh@gmail.com
Phone : 66(Thailand)-816940759 (m) or 66-2524-5268 (o)
Fax : 66(Thailans)-2524-6332(o)
Homepage : <http://extension.ait.ac.th/unit/are>

Dr Alessandro Gimona

Macaulay Institute, Craigiebuckler, Aberdeen, Scotland, U.K.

E-mail : a.gimona@macaulay.ac.uk
Phone : 44(UK)-(0 for domestic)-1224-876544
Fax : 44(UK)-(0 for domestic)-1224-295511

Dr James McDaid Kapetsky (ex-FAO GIS expert)

C-FAST, Inc. (Consultants in Fisheries and Aquaculture Sciences and Technologies),
109 Brookhaven Trail, Leland NC U.S.A.

E-mail : cfast@sigmaxi.net
Phone : 1(USA)-910-371-0012

Dr Geoff Meaden (representative of the supporting members)

Consultant: "Gorewell", Selling Road, Old Wives Lees, Canterbury, Kent, CT4 8BD, UK
E-mail : geoff.meaden@gmail.com
Phone : 44 (UK) - (0 for domestic) - 1227 - 752 275

Dr Francis Maduwuba NWOSU

Senior Research Fellow; Institute of Oceanography,
University of Calabar, PMB 1115 Calabar, Nigeria
E-mail : fmnwsu@yahoo.com
Phone : 234(Nigeria)-803-835-5564

Dr Graham J. Pierce

Department of Zoology, University of Aberdeen,
Tillydrone Avenue, Aberdeen AB24 2TZ, Scotland, U.K.
E-mail : g.j.pierce@abdn.ac.uk
Phone : 44(UK) -(0 for domestic)-1224-272459
Fax : 44(UK) -(0 for domestic)-1224-272396

Dr Naoki Tojo

Japan International Cooperation Agency (JICA) expert (currently out-posted to Morocco)
Institut National de Recherche Halieutique, 2, Rue Tiznit, Casablanca 20270, Morocco
E-mail : bering.raven@gmail.com
Phone : 212(Morocco)-654-78-84-25
FAX : 212(Morocco)-522-26-88-57

Mr Vasilis D. Valavanis

Marine GIS Laboratory (MGIS) PO BOX 2214, 71003, Iraklio, Crete, Greece
E-mail : vasilis@her.hcmr.gr
Phone : 30(Greece)-2810-337817
Fax : 30(Greece)-2810-337822
Homepage (M-GIS) : <http://arch.her.hcmr.gr/>

[SUPPORTING ORGANIZATION]

AMERICAN FISHERIES SOCIETY (AFS) (PRESIDENT: BILL FISHER)

Other voluntary supporting members and organizations are welcome. Please contact the Convener.

Roles of the supporting members and organization are to promote the Symposium, to assist preparation of the Symposium, to assist various matters during and after the Symposium and other related matters.

