

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



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(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.

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

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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)** →



- **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.

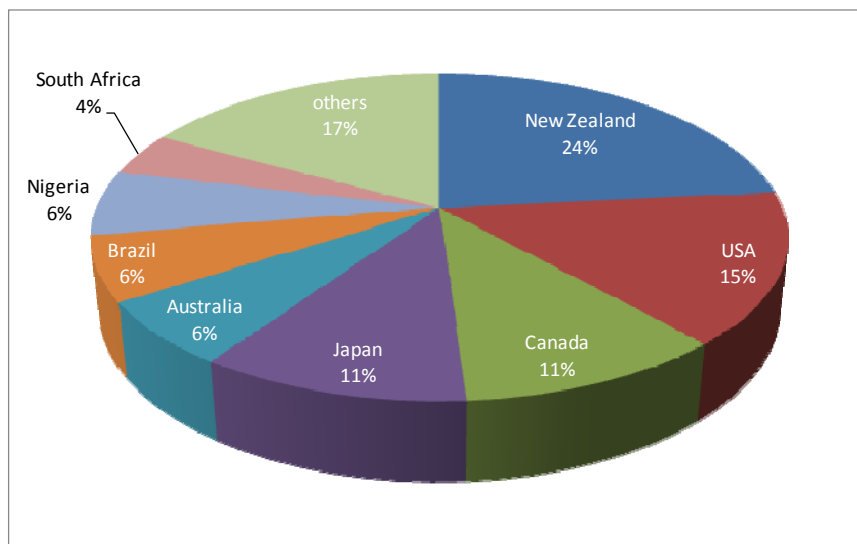
- **Wireless services**

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]

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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:

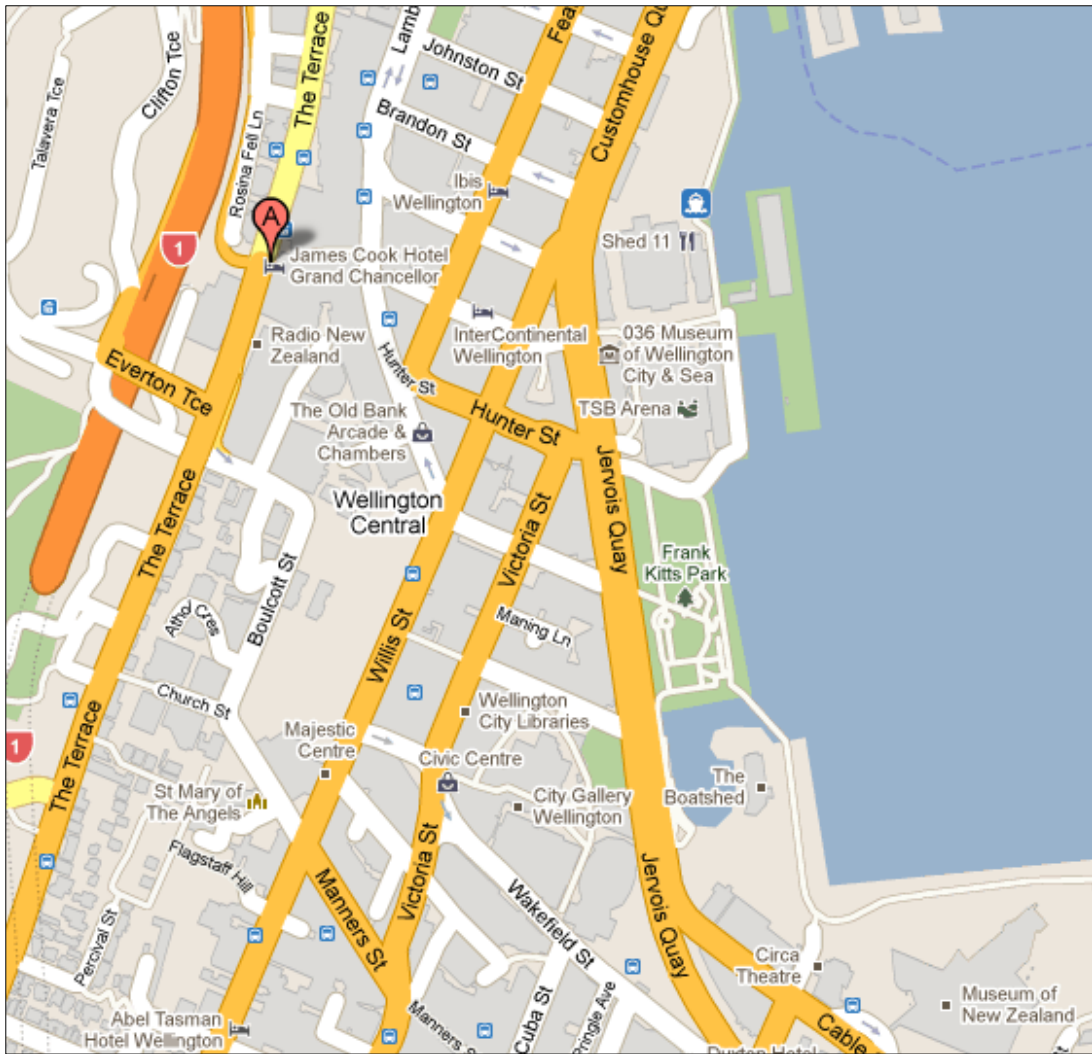
1. Airport Flyer Bus
Departs every 15 minutes from 6.30am to 9.30pm
Approximate cost to the central city is \$7.50
2. Taxi
Approximate fare to the Hotel is \$30 - \$35.
3. Door to Door Shuttles
Approximate fare to the Hotel for one passenger is \$18. If travelling in a group, it is only \$6 for additional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

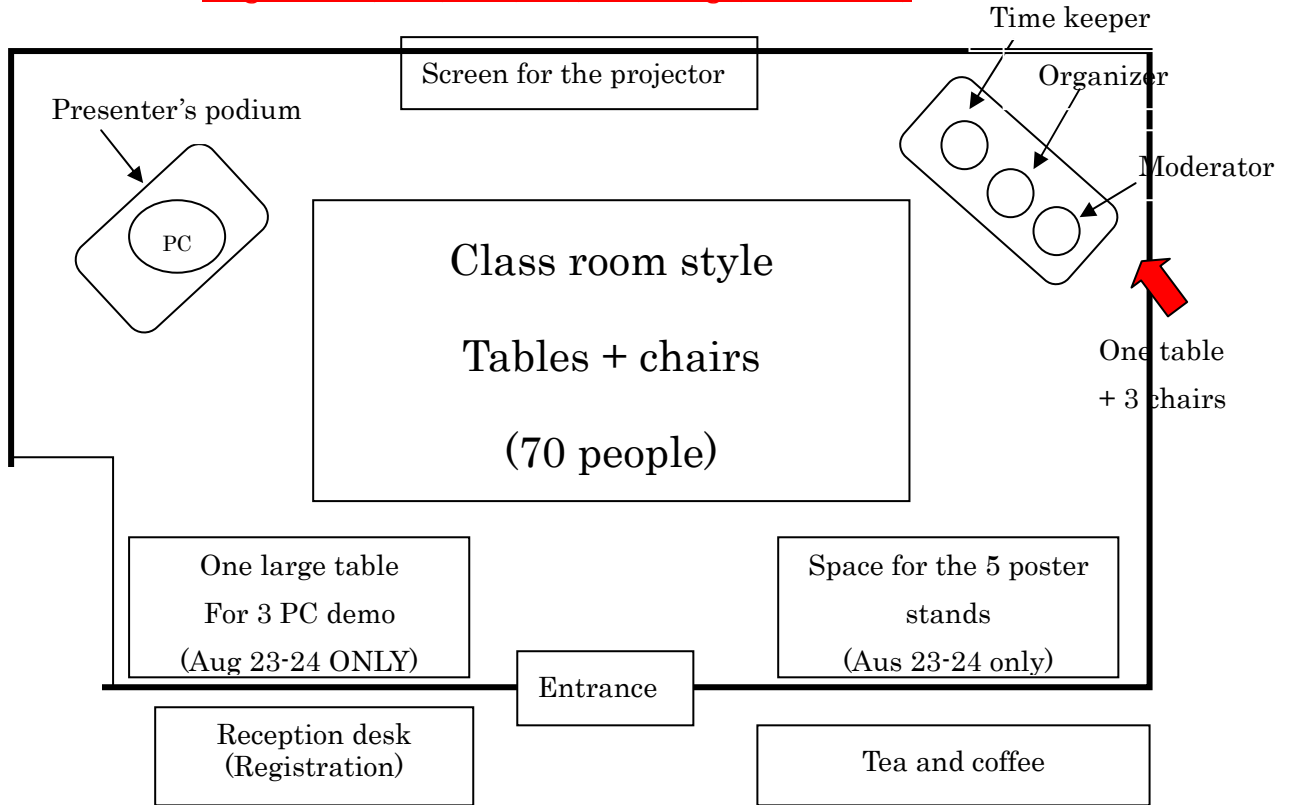
under 'Downtown Wellington Map'

For further information about Wellington city

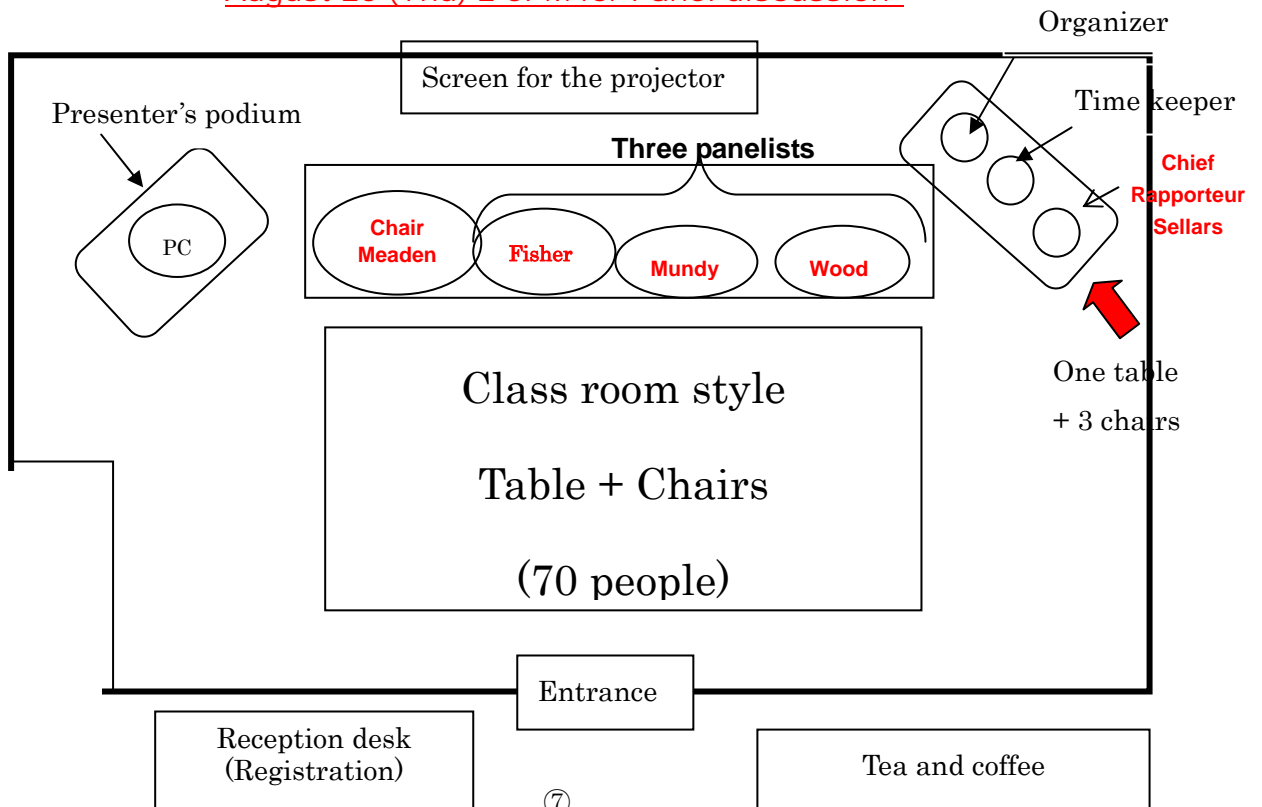
please see <http://www.wellingtonnz.com/>

(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

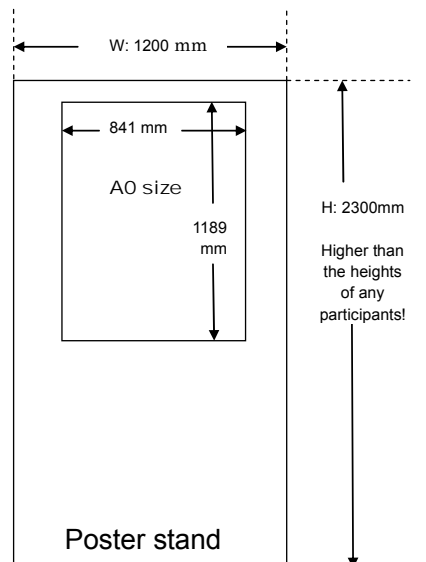
These two presentation sessions will be held from 3:30-5:30PM (in parallel) for 2 days (Aug 23-24) in the rear part of the plenary room (Chancellor 1) (refer to the layout on page ⑦) with tea & coffee. **Presenters are requested to stay and demonstrate your software and explain posters during this time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

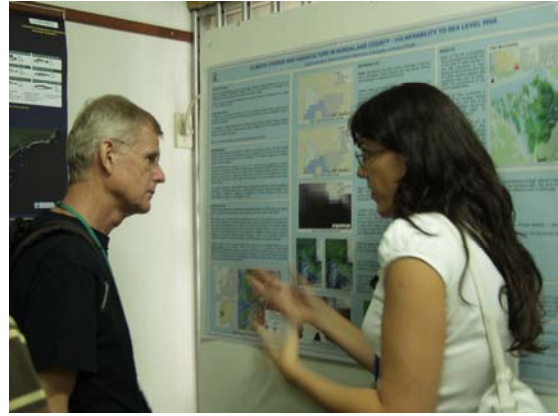
(AC powers, extensions and internets are available)

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

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[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.