

Organizational committee

Prof. Teruhisa Komatsu (President SFJO Japan)
Prof. Hubert-Jean Ceccaldi (President SFJO France)
Prof. Shiro Imawaki (JAMSTEC)
Dr. Yves Henocque (IFREMER/SFJO France)
Dr. Patrick Prouzet (IFREMER/SFJO France)
Prof. Tsutomu Morinaga (SFJO Japan)
Prof. Jiro Yoshida (TUMSAT)
Prof. Hiroshi Kouno (TUMSAT)
Prof. Yasuyuki Koike (ex.TUMSAT)
Prof. Jota Kanda (TUMSAT)
Prof. Yuji Tanaka (TUMSAT)
Prof. Hisayuki Arakawa (TUMSAT)
Prof. Yujiro Kitade (TUMSAT)
Prof. Takeyoshi Nagai (TUMSAT)
Prof. Daigo Yanagimoto (Univ. Tokyo)
Prof. Toshiki Nakano (Tohoku Univ.)
Dr. Hiroshi Uchida (JAMSTEC)
Prof. Kaoru Ichikawa (Kyushu Univ.)
Prof. Mitsuru Hayashi (Kobe Univ.)
Prof. Tomoharu Senjyu (Kyushu Univ.)
Dr. Yutaka Okumura (FRA)
Dr. Hideki Takami (FRA)
Dr. Tetsuo Seki (SFJO Japan)
Prof. Kenji Ookoshi (Toho Univ.)

Scientific committee

Prof. Teruhisa Komatsu (President SFJO Japan)
Prof. Hubert-Jean Ceccaldi (President SFJO France)
Prof. Shiro Imawaki (JAMSTEC)
Dr. Yves Henocque (IFREMER/SFJO France)
Dr. Patrick Prouzet (IFREMER/SFJO France)
Prof. Tsutomu Morinaga (SFJO Japan)
Prof. Jiro Yoshida (TUMSAT)
Prof. Hiroshi Kouno (TUMSAT)
Prof. Yasuyuki Koike (ex.TUMSAT)
Prof. Jean-Claude Dauvin (Université Caen)
Dr. François Galgani (IFREMER/SFJO France)
Dr. Sandrine Ruitton (IFREMER)
Dr. Hervé Thébault (IRSN)

Organizer : Société franco-japonaise d'Océanographie Japan & France

Sponsor : La Maison franco-japonaise, Fondation Franco-Japonaise Sasakawa, Tohoku National Fisheries Research Institute

Support : The Japanese Society of Fisheries Science, Tohoku branch of the JSFS, The Oceanographic Society of Japan, The Society of Fisheries Oceanography, Miyagi Prefecture Fisheries Technology Institute, Iwate Fisheries Technology Center, Fukushima Prefectural Fisheries Experimental Station, Akita Prefectural Fisheries Promotion Center, Aomori industry technology center fisheries research institute, Fisheries Experimental Station of Ibaraki, Tohoku University (Tohoku Ecosystem –Associated Marine Sciences), Tohoku University (Graduate school of agricultural science), Alliance Française de Sendai, Japan Agency for Marine-Earth Science and Technology, L'Ambassade de France au Japon, Cable TV Marinet

Co-support : HUMANWEB Inc., Sanyo Techno Marine Inc., K-Engineering Co. LTD., IDEA Consultants Inc., Kokusai Kogyo Co. LTD., Toyo Corporation, Saikai Laboratory of Aquaculture and Technology Co. LTD., JFE Advantech Co. LTD., SEA-Plus Inc.

Advertisement : Kokusai Kogyo Co. LTD., Toyo Construction Co. LTD., Amco Inc., Saikai Laboratory of Aquaculture and Technology Co. LTD., IDEA Consultants Inc.

Exhibition : Amco Inc., The General Environmental Technos Co. LTD., Saikai Laboratory of Aquaculture and Technology Co. LTD.

Cooperation : Japan Kotsu Co. LTD., Ojima-Kamabokoten Co. LTD., Saura Co. LTD.

日仏イノベーション年



Program

17-18 November

- Excursion
Tokyo-Ichinoseki-Rikuzentakada-Ishinomaki
Ishinomaki-Shizugawa-Shiogama

19 November, The Shiogama public hall

08h30 Registration

09h00 Opening address

09h00-09h15 Teruhisa KOMATSU President of SFJO Japan

09h15-09h30 Hubert-Jean CECCALDI President of SFJO France

Evolution and progress accomplished during previous French-Japanese Symposiums of Oceanography

Key note

Chairpersons Teruhisa KOMATSU & Hubert-Jean CECCALDI

09h30-9h50 : Key note 1-1 Hideki TAKAMI (FRA)

Challenges to revitalize the abalone *Haliotis discus hannai* fishery damaged by the 2011 mega-earthquake and tsunami in Iwate prefecture, northeastern Japan

Key note 1-2 Yutaka OKUMURA (FRA)

Influence of the tsunami on the coastal area of Miyagi Prefecture, Japan

09h50 -10h10 : Key note 2 Patrick PROUZET (IFREMER)

Ecological status of Atlantic salmon (*Salmo salar*) in France

10h10-10h30 : Key note 3 Hisayuki ARAKAWA (TUMSAT)

Explaining the reasons for the slower decrease in radioactive concentrations in some fish species after the Fukushima Daiichi Nuclear Power Plant Disaster

10h30-10h50 : Key note 4 Hubert-Jean CECCALDI (SFJO France)

Future essential orientations in marine sciences and technology and cooperations between the two Sociétés franco-japonaises d'Océanographie

Coffee break

Oral session

Session 1 Natural impacts and recovery of aquaculture

Chairpersons Yujiro KITADE (TUMSAT) & Sandrine RUITTON (Mediterranean Inst. Ocean.)

11h05-11h20 Com-01 Mitsuru HAYASHI (Kobe Univ.)

Shift of water quality in Osaka Bay by the resuspension of marine sediment caused by tsunami

11h20-11h35 Com-02 François POISSON (IFREMER)

By-catch monitoring programme of the French Bluefin tuna longline fishery.

11h35-11h50 Com-03 Shinnosuke KAGA (Iwate Fish.Tech.Ctr.)

On-site depuration of paralytic shellfish poisoning toxins accumulated in the oyster *Crassostrea gigas* in Ofunato Bay, Japan

11h50-12h05 Com-04 Patrick PROUZET (IFREMER)

The European eel (*Anguilla anguilla*) in France: An example of close cooperation among researchers and fishers to study and manage an endangered species.

12h05-12h20 Com-05 Yoshifumi TAKAHASHI (Kyushu Univ.)

An analysis of the potential success for an improved "High quality" oyster entering the existing market.

Group photograph

12h30 -14h00 Lunch

Poster session

14h00-15h00 P01-P15

Session 2 Human impacts

Chairpersons Hisayuki ARAKAWA (TUMSAT) & Yves HENOCQUE (IFREMER)

15h00-15h15 Com-06 Akira MATSUMOTO (TUMSAT)

A feasibility study of an in situ fluorescence spectroscopy system for the detection of deposited oil

15h15-15h30 Com-07 Hervé THÉBAULT (IRSN)

¹³⁷Cs and Tritium concentrations in seawater off the Fukushima Prefecture:
Results from the SOSO 5 Rivers Cruise (October 2014)

15h30-15h45 Com-08 Jun SHOJI (Hiroshima Univ.)

Do species diversity and productivity of fisheries resources increase around submarine groundwater seepages in coastal area?: possible effects of global warming

15h45-16h00 Com-09 François GALGANI (IFREMER)

Plastic in the Mediterranean Sea

Coffee break

Session 3 Promotion of cooperative research on fisheries/oceanography between Japan and France

Chairpersons Ryo KIMURA (FRA) & Sandrine VAZ (IFREMER)

16h20-16h30 Opening address of the session: Executive Director Fuminari ITOH (FRA)

16h30-16h45 PCR-1 Yves HENOCQUE (IFREMER)

Do our ocean policies make any difference to the wellbeing of coastal communities?

16h45-17h00 PCR-2 Masahito HIROTA (FRA)

Fish and seafood value chains and the well-being for local community

17h00-17h15 PCR-3 Franck LAGARDE (IFREMER)

Synthesis of new knowledge about determinism of Pacific oysters (*Crassostrea gigas*) larval recruitment in the Mediterranean Thau Lagoon

17h15-17h30 PCR-4 Masakazu HORI (FRA)

Challenge to harmonize sustainable fishery with water-quality improvement using seagrass-oyster interaction in oligotrophic coastal ecosystems

Banquet

18h00-20h00 Ground palace Shiogama

20 November, The Shiogama public hall

08h30 Registration

Session 4 Challenge of oceanography

Chairpersons Shiro IMAWAKI (JAMSTEC) & Hervé THÉBAULT (IRSN)

09h00-09h15 Com-10 Yujiro KITADE (TUMSAT)

Recent research results and future project in Antarctic Ocean by Umitaka-Maru research group for physical oceanography

09h15-09h30 Com-11 Mathias GIRAULT (Kanagawa academy of Sci. & Tech.)

Automatic sorting system and incubation at single plankton level using microfluidic devices

09h30-09h45 Com-12 Daigo YANAGIMOTO (Univ. Tokyo)

Observation of near-bottom current on the continental shelf off Sanriku

09h45-10h00 Com-13 Jean-Claude DAUVIN (Université Caen)

The English Channel: towards a new Japanese Sea

Coffee break

Session 5 Coastal ecosystem and management

Chairpersons Yasuyuki KOIKE (SFJO Japan) & Jean-Claude DAUVIN (Université Caen)

10h15-10h30 Com-14 Sandrine RUITTON (Mediterranean Inst. Ocean.)

Japanese vs. French artificial reefs: high technology vs. design to enhance ecological services

10h30-10h45 Com-15 Satomi TAKAGI (Tohoku Univ.)

Improvement of gonad quality of the sea urchin *Mesocentrotus nudus* by short-term cage culture

10h45-11h00 Com-16 Nelly FERROU & Gérard FOURNEAU (Aquitaine Landes Récifs)

Artificial reefs installation along the Aquitaine Coast

11h15-11h30 Com-17 Sandrine VAZ (IFREMER)

Quantitative mapping of fish habitat: from knowledge to spatialised fishery management

11h30-11h45 Com-18 Kazumi WAKITA (Tokai Univ.)

Perceptions of marine ecosystem services: A case study from remote islands, Taketomi Town

11h45-12h00 Com-19 Catherine BOISNEAU (Comité Nat. Pêche Professionnelle en Eau Douce)

Amphidromous fishes management in continental waters. The need for an integrated approach

Reception at The Embassy of France in Japan (11-44, Minami Azabu-4, Minato, Tokyo)

21 November, The hall of Nichifutsu Kaikan (La Maison Franco-Janonaise) in Ebisu

09h30 Registration

Session 6 Aquaculture

Chairpersons Tetsuo SEKI (AFFTIS) & François GALGANI (IFREMER)

10h00-10h15 Com-20 Hirokazu ABE(FRA)

Larval and juvenile dynamics of the Manila clam *Ruditapes philippinarum* in Matsushima Bay and Mangoku-ura Inlet, northeastern Japan, following 2011 tsunami disaster

10h15-10h30 Com-21 Catherine MARIOJOULS (AgroParisTech)

Certification schemes for sustainable aquaculture and feeding

10h30-10h45 Com-22 Waka SATO-OHKOSHI (Tohoku Univ.)

Ecological impacts of the 2011 earthquake and tsunami on the subtidal macrobenthic community in Onagawa Bay, northeastern Japan

10h45-11h00 Com-23 Jean-Claude DAUVIN (Université Caen)

One year colonisation by zoobenthic species on an eco-friendly artificial reef in the English Channel intertidal zone

11h00-11h15 Com-24 Rena SHIBATA (FRA)

Retinomotor and stress responses of marbled sole *Pleuronectes yokohamae* under the LEDs

Coffee break

11h30-12h00 Summarize of Symposium

Chairpersons Presidents of SFJO Japan & France

Group photograph

Open Seminar for Public (with interpretation)

PM, 21 November, The hall of Nichifutsu Kaikan (La Maison Franco-Janonaise) in Ebisu

Historical Relationship between France and Japan on Oyster Culture, for the renovation of aquaculture in Sanriku

13h00 Registration

13h30-13h40 Opening address

Teruhisa KOMATSU (President of SFJO-J)

13h40-14h10 History and solidarity on Oyster culture in both countries

Yasuyuki KOIKE (ex. Prof. of TUMSAT)

14h10-14h40 Situation of Oyster culture in France. Dr. Catherine MARIOJOULS (Agro.Paris.Tech)

14h40-1500 Break

15h00-15h30 Situation and new trial on Oyster culture in Japan.

Tetsuo SEKI (AFFTIS)

15h30-16h00 New challenge on commercialization and culture technique of Oyster in Japan:

Ms. Kyoko WASHIASHI (Oyster innovation Co. Humanweb)

16h00-16h30 Cooperation between France and Japon on Oyster culture and future prospects.

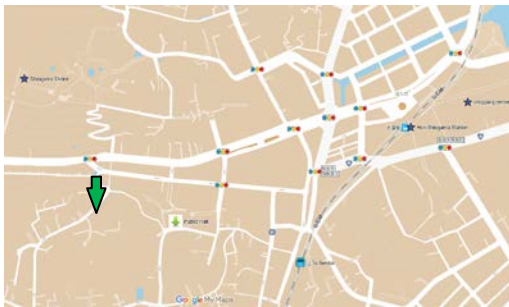
Franck LAGARDE (IFREMER)

16h30-17h00 Discussion

17h00-17 h15 Closing address

Prof. Hubert-Jean CECCALDI (President of SFJO-F)

17h30 Cocktail (with concert of the flute)



The Shioyama public hall (↓)



The hall of Nichifutsu Kaikan in Ebisu (●)

Poster session

- P-01 Mathias GIRAULT (Kanagawa Academy Sci. & Tech.)**
Development of a Microfluidic Sorting System in Oceanography
- P-02 Miwa YATSUYA (FRA)**
Clearance rates of *Crassostrea* spp. on oyster reef in temperate semi-enclosed Ariake Bay, western Japan
- P-03 Hidekazu SHIRAI (Sanyo Techno Marine, Inc.)**
A high-resolution unstructured grid finite volume model for currents around narrow straits of Matsushima Bay
- P-04 Toshiki NAKANO (Tohoku Univ.)**
Quantitative Metabolome Profiling of Growth Hormone Transgenic Coho Salmon
- P-05 Ken HIGUCHI (TUMSAT)**
Development of an underwater NaI(Tl) scintillation spectrometer to monitor seabed radioactivity
- P-06 Haruka SUZUKI (Tohoku Univ.)**
Distributional changes in the kelp *Eisenia bicyclis* resulting from the subsidence and the landfill for breakwater restoration after the 2011 Tohoku Earthquake
- P-07 Minoru TOMIYAMA (Aichi Fisheries Research Institute)**
Factor analysis of upstream migrating Ayu in the Yahagi River using machine learning
- P-08 Yutaka OKUMURA (FRA)**
Suitable quantity of oyster culture in Oginohama Bay, Miyagi, Japan
- P-09 Hikaru ENDO (Tohoku Univ.)**
Combined effects of nutrient availability, light intensity, and temperature on the photosynthetic pigments and color of the brown alga *Undaria pinnatifida*
- P-10 Keiichi YAMAZAKI (TUMSAT)**
Amplification of near-inertial period fluctuation associated with passage of typhoon around the Tango Peninsula, Japan
- P-11 Hiroyuki TOGASHI (FRA)**
The use of stable isotopes for food web analyses: An example of food webs in a coastal ecosystem in Sendai Bay
- P-12 Yuki KUBO (Tohoku Univ.)**
Seasonal movements of the herbivorous gastropod *Omhalius rusticus*
- P-13 Takuro NAKAGAWA (TUMSAT)**
Relationship between patterns of fish behavior and concentration of radioactive materials after nuclear accident by the 2011 Great East Japan Earthquake.
- P-14 Yoshichika IKEDA (TUMSAT)**
Development of a de-oiling process for seabed sediments
- P-15 Teruhisa KOMATSU (Univ. Tokyo)**
Trophic cascade of seaweed forests in Sanriku Coast after the huge tsunami on 11 March 2011
- P-16 Gérard FOURNEAU (Aquitaine Landes Récifs)**
Implantation of artificial reefs on the French Atlantic Coast

Preface

The sea under human and natural impacts: challenge of oceanography to the future Earth

The sea is an indispensable component of Earth system. Human societies obtain great benefit from the sea. Global warming threatens the sea through seawater temperature rise, acidification, sea-level rise and huge depressions. The tsunami repeats destroying coastal zones. Increase in population and industries along the coast, especially in Asia, cause degradation of coastal ecosystems through direct and indirect manners such as reclamation, overexploitation of bioresources and pollution. We need to understand physical, chemical and biological mechanisms of the sea and threats of human and natural impacts on the sea and its ecosystems at the present day. Based on comprehensive understanding of the sea including the impacts, we can forecast the sea in the future Earth according to several scenarios of global warming. In order to prevent the sea in the future Earth from in sustainable conditions, sustainability science and education for sustainable environments concerning the sea are also needed now. The 16th France-Japan Symposium on Marine Science focuses on progress in oceanography to understand the present sea from physical, chemical, biological and ecological aspects including fisheries science. We discuss the sea in the future Earth under different scenarios and how we establish sustainable ocean through marine science.

Teruhisa Komatsu : President of SFJO Japan

Hubert-Jean Ceccaldi : President of SFJO France