

PROGRAM

S1 (Wisdom for Recovery from Colossal Multiple Disaster for Great East Japan Earthquake, Tsunami and Nuclear Power)

Sept. 22 (Fri.) am Oral Presentation Room 1

- 10:00 SO01-01 **Impact of the 2011 tsunami on the Manila clam *Ruditapes philippinarum* population and subsequent population dynamics in shallow, semi-enclosed bays in northeastern Japan**
Hirokazu Abe^{1,2}, Masami Hamaguchi¹, Naoto Kajihara¹, Tatsuma Sato^{3,4}, Takashi Iwasaki³, Toshihiro Wada^{3,5}, Takeshi Tomiyama⁶, Toshiyuki Sato⁴, Yuichi Taniai⁷, Akio Oshino⁷, Akihiro Moriyama⁷ and Takashi Kamiyama¹
¹Japan Fisheries Research and Education Agency, Japan, ²Iwate Medical University, Japan, ³Fukushima Prefectural Fisheries Experimental Station, Japan, ⁴Fukushima Prefectural Inland Water Fisheries Experimental Station, Japan, ⁵Fukushima University, Japan, ⁶Hiroshima University, Japan and ⁷Miyagi Prefecture Fisheries Technology Institute, Japan
- 10:15 SO01-02 **Relating changes in the physical environment to the population status of bivalves in the Natori River estuary after the Great East Japan Earthquake**
Kinuko Ito, Koichi Sasaki and Satoshi Katayama
Tohoku University, Japan
- 10:30 SO01-03 **Mechanisms leading to the decline in Pacific oyster seedlings in Matsushima Bay, Japan**
Shigeo Kakehi¹, Takashi Kamiyama¹, Hirokazu Abe², Ryo Matsuura³, Akio Oshino³, Katsuaki Okabe⁴, Kazufumi Takayanagi⁴ and Katsumi Yokouchi¹
¹Japan Fisheries Research and Education Agency, Japan, ²Iwate Medical University, Japan, ³Miyagi Prefecture Fisheries Technology Institute, Japan and ⁴Sanyo Techno Marine, Inc., Japan
- 10:45 SO01-04 **Comparison of the feeding environments of oyster in two bays in Miyagi Prefecture, and estimation of the suitable oyster culture density at Nagatsura Bay**
Yutaka Okumura¹, Hiroto Ota², Yuichi Taniai³, Nana Takeyama³ and Motoyuki Hara⁴
¹Tohoku National Fisheries Research Institute, Japan, ²Miyagi Prefecture Fisheries Technology Institute, Japan, ³Miyagi Prefectural Government, Japan and ⁴Tohoku University, Japan
- 11:00 SO01-05 **Effects of the Great East Japan Earthquake on the *Eisenia bicyclis* community at Oshika Peninsula, Miyagi, Japan**
Daisuke Muraoka¹ and Hitoshi Tamaki²
¹Japan Fisheries Research and Education Agency, Japan and ²Ishinomaki Senshu University, Japan
- 11:15 SO01-06 **Aquaculture practices for new oyster types to facilitate reconstruction of the Tohoku region of Japan after the 2011 tsunami**
Takashi Kamiyama¹, Hiroyuki Yamauchi², Hiroshi Nakaie³ and Ryuichi Miwa⁴
¹Fisheries Research and Education Agency, Japan, ²Miyagi Prefectural Government, Japan, ³Miyagi Prefecture Fisheries Technology Institute, Japan and ⁴Kaiyo Engineering Co., LTD., Japan
- 11:30 SO01-07 **Damage to coho salmon *Oncorhynchus kisutch* aquaculture in Northeastern Japan from the 2011 Earthquake and Tsunami disaster**
Tadahide Kurokawa¹, Kei Sasaki¹, Ikutarou Shimizu¹, Tomiyoshi Togawa², Akira Kumagai³, Kouichi Sugimoto³, Kiyoshi Kikuchi⁴, Sho Hosoya⁴ and Jun Kurita¹
¹Japan Fisheries Research and Education Agency, Japan, ²Nichimo Mariculture Tokyo Branch, Japan, ³Miyagi Prefecture Fisheries Technology Institute, Japan and ⁴The University of Tokyo, Japan
- 11:45 SO01-08 **Restoring the chum salmon return along the Tohoku Pacific coast, northeast Japan**
Miwa Yatsuya¹, Kei Sasaki¹, Kodai Yamane², Yuichi Shimizu³, Yuichiro Yamada⁴, Shunsuke Moriyama⁴, Yoshitomo Nagakura¹ and Hideki Nikaido¹
¹Tohoku National Fisheries Institute, Japan, ²Iwate Prefecture Fisheries Promotion Section, Japan, ³Iwate Fisheries Technology Center, Japan and ⁴Kitasato University, Japan

Sept. 22 (Fri.)	pm	Oral Presentation	Room 1
14:00	SO01-09	Effects of the Tsunami on fish community in coastal waters of northern Japan: a comparison among habitats with different levels of disturbance Yoshikawa Kentaro, Hikaru Nakano and Jun Shoji <i>Hiroshima University, Japan</i>	
14:15	SO01-10	Temporal changes in the surf zone fish assemblage in Otsuchi Bay, Pacific coast of northeastern Japan, with comments on influences of the 2011 Tohoku earthquake and tsunami Tomoaki Goto ¹ , Airi Takanashi ² , Satoru Tamada ³ and Ken-ichi Hayashizaki ³ ¹ <i>Iwate University, Japan</i> , ² <i>Iwate Fisheries Technology Center, Japan</i> and ³ <i>Kitasato University, Japan</i>	
14:30	SO01-11	Temporal changes in fish communities of seagrass beds impacted by a tsunami in Miyako Bay, Japan Daisuke Shimizu, Tsutomu Noda, Yuichiro Fujinami, Yukio Matsumoto, Norio Shirafuji and Masami Hamaguchi <i>Fisheries Research Agency, Japan</i>	
14:45	SO01-12	Recovery of coastal fauna after the 2011 tsunami in Japan revealed by bimonthly underwater visual censuses conducted over six years Reiji Masuda ¹ , Makoto Hatakeyama ² , Mizuki Ogata ¹ , Katsuhide Yokoyama ³ and Masaru Tanaka ⁴ ¹ <i>Kyoto University, Japan</i> , ² <i>NPO Mori-umi, Japan</i> , ³ <i>Tokyo Metropolitan University, Japan</i> and ⁴ <i>Moune Institute for Forest-Sato-Sea Studies, Japan</i>	
15:00	SO01-13	The immediate effects of the tsunami and subsequent ecological changes on ayu populations after the Great East Japan Earthquake Tatsuya Kawakami ¹ , Masayoshi Hata ¹ , Hirohiko Takeshima ² and Tsuguo Otake ¹ ¹ <i>The University of Tokyo, Japan</i> and ² <i>Research Institute for Humanity and Nature, Japan</i>	
15:15	SO01-14	Impact of the great tsunami in 2011 and subsequent temporal and local fishing ban on the quality of nursery grounds and population abundance for Japanese flounder <i>Paralichthys olivaceus</i> in eastern Japan Yutaka Kurita ¹ , Shinji Uehara ² , Yuji Okazaki ¹ , Hiroyuki Togashi ¹ , Yasutoki Shibata ³ , Tsutomu Hattori ³ and Takeshi Tomiyama ⁴ ¹ <i>Tohoku National Fisheries Research Institute, Japan</i> , ² <i>Japan Sea National Fisheries Research Institute, Japan</i> , ³ <i>Tohoku National Fisheries Research Institute, Hachinohe, Japan</i> and ⁴ <i>Hiroshima University, Japan</i>	
15:30	SO01-15	Effect of decreased fishing effort off Fukushima on abundance of demersal fish stocks Yasutoki Shibata ¹ and Akibumi Yamanobe ² ¹ <i>Tohoku National Fisheries Research Institute, Japan</i> and ² <i>Fukushima Fishery Office, Japan</i>	
15:45	SO01-16	Why did Pacific cod population remarkably increase after the Great Japan Earthquake? Yoji Narimatsu, Yasutoki Shibata, Tsutomu Hattori, Toshikazu Yano and Jiro Nagao <i>Tohoku National Fisheries Research Institute, FRA, Japan</i>	
16:00		Break	
16:15	SO01-17	Effects of nuclear power plant accident on marine and freshwater fishes in Fukushima Toshihiro Wada <i>Fukushima University, Japan</i>	
16:30	SO01-18	Strontium-90 contamination of marine fishes from the Fukushima Dai-ichi Nuclear Power Plant accident Shizuho Miki ¹ , Ken Fujimoto ² , Yuya Shigenobu ¹ , Daisuke Ambe ¹ , Hideki Kaeriyama ¹ and Takami Morita ¹ ¹ <i>National Research Institute of Fisheries Science, Japan</i> and ² <i>Fisheries Agency, Japan</i>	

- 16:45 SO01-19 **Spatiotemporal monitoring of ¹³⁷Cs in the freshwater fishery grounds of the algae-grazing fish ayu (*Plecoglossus altivelis*) following the Fukushima Daiichi nuclear power plant accident**
Jun-ichi Tsuboi
Fisheries Research and Education Agency, Japan
- 17:00 SO01-20 **Temporal trends of radiocesium concentration in Japanese freshwater fishes: from field and experimental data**
Shoichiro Yamamoto
Fisheries Research Agency, Japan
- 17:15 SO01-21 **Genetic effects of low level radiation exposure in a long period on freshwater fish**
Masamichi Nakajima¹, Muhammad Fitri Bin Yusof², Syo Taguchi¹, Masato Watanabe³, Atsushi Tomiya³, Shigehiko Izumi³ and Gyo Kawada³
¹*Tohoku University, Japan*, ²*International Islamic University Malaysia, Malaysia* and ³*Fukushima Prefectural Inland Water Fisheries Experimental Station, Japan*

Sept. 22 (Fri.)

Poster Presentation

- SP01-01 **Temporal changes of ¹³⁷ Cs concentrations in Japanese dace *Tribolodon hakonensis* inhabiting lakes and ponds in Fukushima Prefecture**
Kazuyoshi Takasaki¹, Atsushi Tomiya², Toshihiro Wada³, Toshiyuki Sato¹ and Gyo Kawata¹
¹*Fukushima Prefectural Inland Water Fisheries Experimental Station, Japan*, ²*Fukushima Prefectural Fisheries Office, Japan* and ³*Fukushima University, Japan*
- SP01-02 **Bioaccumulation and elimination of ¹³⁷Cs in Japanese dace *Tribolodon hakonensis* under different water temperature conditions**
Wataru Teramoto¹, Keiichi Sasaki¹, Naohiko Inatomi², Hiroataka Nomura², Yukihiko Watanabe², Toshihiro Wada³, Kenji Nanba³ and Shigehiko Izumi¹
¹*Fukushima Prefectural Inland Water Fisheries Experimental Station, Japan*, ²*Marine Ecology Research Institute, Japan* and ³*Fukushima University, Japan*
- SP01-03 **Levels of radioactivity in seafood and current fishery activity in Fukushima Prefecture**
Yoshiharu Nemoto, Daigo Morisita, Masato Watanabe, Atsushi Sanematsu, Akira Matsumoto and Takahiro Moriguchi
Fukushima Prefectural Fisheries Experimental Station, Japan
- SP01-04 **Bottom trawl investigation of changes in demersal fish resource abundance after the Fukushima accident**
Kei Sakamoto, Satoshi Suzuki and Manabu Yamada
Fukushima Prefectural Fisheries Experimental Station, Japan
- SP01-05 **Changes in *Alexandrium* spp. cyst densities in Sendai Bay, Tohoku region of Japan, after the 2011 tsunami**
Takashi Kamiyama¹, Yoshio Masuda², Hiroto Ota³, Shigeho Kakehi¹ and Yutaka Okumura¹
¹*Japan Fisheries Research and Education Agency, Japan*, ²*Miyagi Prefectural Government, Japan* and ³*Miyagi Prefecture Fisheries Technology Institute, Japan*

Sept. 23 (Sat.) am

Oral Presentation

Room 1

- 10:00 SO01-22 **Does radioactive contamination have any impact on the Japanese seafood market?**
Hiroki Wakamatsu and Tsutomu Miyata
Japan Fisheries Research and Education Agency, Japan
- 10:15 SO01-23 **The situation of rumor damage on seafood markets of regions near the Fukushima nuclear power plant after the Fukushima disaster**
Kentaka Aruga
Saitama University, Japan
- 10:30 SO01-25 **Japanese seafood prices: long-term fluctuations and possible influences of the Great East Japan Earthquake in 2011**
Fumika Taguma and Nobuyuki Yagi
The University of Tokyo, Japan

- 10:45 SO01-26 **Who boycott safe, but stigmatized marine products by radioactive contamination? : using conjoint analysis with latent class model**
Tsutom Miyata and Hiroki Wakamatsu
National Research Institute of Fisheries Science, FRA, Japan
- 11:00 SO01-27 **A holistic assessment of the 2011 earth quake and tsunami recovery efforts: an application of fishery performance indicators**
Kanae Tokunaga and Nobuyuki Yagi
The University of Tokyo, Japan
- 11:15 SO01-28 **Microblog utilization for agile strategy making focusing on the oyster market recovery**
Hiroaki Sugino and Nobuyuki Yagi
The University of Tokyo, Japan
- 11:30 SO01-29 **Legal and constitutional system of very large sea wall construction of recovery affairs from Great East Japan Earthquake disaster and decision making of fishery villages**
Satoquo Seino¹ and Masayoshi Tanishita²
¹Kyushu University, Japan and ²Chuo University, Japan

S2 (Fisheries and Fish Biology)

Sept. 22 (Fri.) am **Oral Presentation** **Room 2**

- 10:00 SO02-01 **Recent developments and future opportunities in fishing technology**
Petri Suuronen
Natural Resources Institute, Finland
- 10:30 Break
- 10:45 SO02-02 **On the hippoid crab fishery in southern coast of Java, Indonesia: species diversity, abundance and standing biomass**
Yusli Wardiatno, Ali Mashar, Mennofatria Boer, Nurlisa Alias Butet and Achmad Farajallah
Bogor Agricultural University (IPB), Indonesia
- 11:00 SO02-03 **Spatial-temporal distribution of the blue swimming crab (*Portunus pelagicus*): implication to fisheries management**
Zairion Zairion, Yusli Wardiatno, Achmad Fahrudin and Mennofatria Boer
Bogor Agricultural University (IPB), Indonesia
- 11:15 SO02-04 **Effects of net height of crab entangling nets on the capture of targeted economically important portunid species and non-target species**
Rizalyn Gonzales¹ and Harold Monteclaro²
¹*Visayas, State University-Tolosa, Philippines* and ²*University of the Philippines Visayas, Philippines*
- 11:30 SO02-05 **Distribution of fish in West Segara Anakan Lagoon, Cilacap, Indonesia**
Sulistiono Sulistiono
Bogor Agricultural University, Indonesia
- 11:45 SO02-06 **Spatial distribution and assemblages of larval fish in the Savu Sea Marine National Park, East Nusa Tenggara, Indonesia**
Charles P. H. Simanjuntak¹, Ikram B. Sangadji², Syamsul B. Agus¹, Alan F. Koropitan¹, Jotham Ninef³, Luky Adrianto¹, Nabil U. Balbed¹ and Guntur Wibowo²
¹*Bogor Agricultural University, Indonesia*, ²*Ministry of Marine Affairs and Fisheries (MMAF), Indonesia* and ³*Nusa Cendana University, Indonesia*

Sept. 22 (Fri.) pm **Oral Presentation** **Room 2**

- 14:00 SO02-07 **Distribution and catch composition of filter nets in Iloilo strait: its implications for sustainable utilization and management**
Yrla Mey Santander, Harold Monteclaro, Caridad Jimenez and Armi May Guzman
University of the Philippines Visayas, Philippines
- 14:15 SO02-08 **Finding nemo and friends: elucidating fish diversity in the Philippines using DNA barcoding**
Mudjekeewis D. Santos
National Fisheries Research and Development Institute, Philippines
- 14:30 SO02-09 **Reduction of bycatch and undersized crabs in entangling gillnet by modifying mesh size, hanging ratio and net height**
Harold M. Monteclaro¹ and Rizalyn P. Gonzales²
¹*University of the Philippines Visayas, Philippines* and ²*Visayas State University, Philippines*
- 14:45 SO02-10 **The use of bridle line on the bottom gill nets as the criteria of environmentally friendly fishing gear**
Isrojaty J. Paransa
Tokyo University of Marine Science and Technology, Japan
- 15:00 Break

- 15:15 SO02-11 **Time domain analysis of a coupled system with trawler and trawl gear using a numerical method**
Chun-Woo Lee¹, Jihoon Lee² and Subong Park¹
¹*Pukyong National University, Korea and* ²*Chonnam National University, Korea*
- 15:30 SO02-12 **Reduction of hydrodynamic force acting on beam trawl by covering the beam with polyethylene sheet**
Keigo Ebata¹, Machi Yamane¹, Akimasa Habano¹, Yoichi Arita¹, Atsushi Takeda¹ and Hideharu Tanaka²
¹*Faculty of Fisheries, Kagoshima University, Japan and* ²*Tanaka Fishing Net Co., Ltd., Japan*
- 15:45 SO02-13 **Efficiency of LED lamps towards the catch on boat liftnet fisheries**
Mulyono S. Baskoro and Roza Yusfiandayani
Bogor Agricultural University, Indonesia
- 16:00 SO02-14 **Hydrodynamic characteristics and velocity distribution of pyramid shaped net using CFD analysis**
Yuki Takahashi, Yousuke Ochi, Shintarou Yamasaki and Kaoru Fujita
Japan Fisheries Research and Education Agency, Japan
- 16:15 Break
- 16:30 SO02-15 **Physical setting created by ocean currents for assessing the effect of temperature on the genetic pattern of a cold water species Japanese sand lance *Ammodytes personatus***
Zhiqiang Han¹, Xiuliang Wang¹, Zhiyong Wang², Tianxiang Gao¹, Takashi Yanagimoto³, Yasunori Sakurai⁴ and Koji Iida⁴
¹*Zhejiang Ocean University, China,* ²*Jimei University, China,* ³*National Research Institute of Fisheries Science, Japan and* ⁴*Hokkaido University, Japan*
- 16:45 SO02-16 **Differences in the recruitment fluctuations and factors affecting the recruitment between two walleye pollock stocks in Japan**
Masayuki Chimura¹, Tetsuichiro Funamoto², Hiroshige Tanaka¹, Kazuhiro Sadayasu¹, Orio Yamamura³, Satoshi Honda¹, Tatsuki Oshima¹, Yuuho Yamashita¹ and Mitsuhiro Ishino¹
¹*Japan Fisheries Research and Education Agency, Japan,* ²*Fisheries Agency, Japan and* ³*Hokkaido University, Japan*
- 17:00 SO02-17 **Reproductive biology and growth of the potentially invasive Indian glassy fish (*Parambassis aff. ranga*) (Fish: Ambassidae) in Cirata Reservoir, West Java, Indonesia**
Mohammad Mukhlis Kamal, Niken Tunjung Murti Pratiwi and Chendy Kristiana Natalia
Bogor Agricultural University, Indonesia
- 17:15 SO02-18 **In utero vertebral microchemical signatures in hammerhead shark as a proxy for habitat use and dispersion patterns in pregnant females**
Felipe Amezcua¹, Claire Coiraton¹ and David L. Jones²
¹*Universidad Nacional Autónoma de México, Mexico and* ²*University of South Florida, USA*
- 17:30 SO02-19 **Efficacy of *Pueraria candollei* extract product to growth physiology and protein fingerprinting in marble goby (*Oxyleotris marmorata*)**
Jiraporn Rojtinnakorn¹, Jaturong Matidtor¹, Saengtong Pongjareankit¹, Sudaporn Tongsiri¹ and Krisna R. Torrissen²
¹*Maejo University, Thailand and* ²*Institute of Marine Research, Ecosystem Processes Research Group, Matre Research Station, Norway*
- 17:45 SO02-20 **Interspecies single somatic cell nuclear transplantation technique in Sturgeon**
Effrosyni Fatira¹, Catherine Labbe², Alexandra Depince², Victoria Iegorova¹, Martin Psenicka¹ and Taiju Saito^{1,3}
¹*University of South Bohemia in Ceske Budejovice, Czech Republic,* ²*LPGP, INRA, France and* ³*Ehime University, Japan*

- SP02-01 **Size selectivity of Kenyan beach seine fishery estimated from catch survey data**
Khyria S. Karama and Yoshiki Matsushita
Nagasaki University, Japan
- SP02-02 **Gear modification for fuel saving in towed gear fisheries**
Jungmo Jung¹, Yoshiki Matsushita¹, Yoritake Kajikawa², Yuki Takahashi³ and Takeshi Sakai⁴
¹*Nagasaki University, Japan*, ²*National Fisheries University, Japan*, ³*National Research Institute of Fisheries Engineering, Japan* and ⁴*Seikai National Research Institute of Fisheries, Japan*
- SP02-03 **On the hippoid crab fishery: Development and design of fishing gear for optimal catch**
Gatot Pramuhadi, Yusli Wardiatno and Ali Mashar
Bogor Agricultural University (IPB), Indonesia
- SP02-04 **Evaluation of performance in prediction of species density distribution by machine learning methods**
Lu Fang and Toshihide Kitakado
Tokyo University of Marine Science and Technology, Japan
- SP02-05 **Development opportunities of octopus fisheries in South Sulawesi of Indonesia**
Sugeng Hari Wisudo¹, Mochammad Riyanto¹, Joko Santoso¹ and Osamu Baba²
¹*Bogor Agricultural University, Indonesia* and ²*Tokyo University of Marine Science and Technology, Japan*
- SP02-06 **Hook geometry effects on selectivity**
Yuta Okiyama, Ryota Oyamada, Takahito Kojima and Yuya Makiguchi
Nihon University, Japan
- SP02-07 **Current and future issues in hatchery programs of chum salmon in Hokkaido**
Yasuyuki Miyakoshi, Makoto Fujiwara and Hirokazu Urabe
Hokkaido Research Organization, Japan
- SP02-08 **Fish pass using baffle effects of water flow without plates**
Masaaki Ishikawa and Junji Shirai
National Institute of Technology, Kisarazu College, Japan
- SP02-09 **Development of LED fishing lamps for coastal squid fishing in Yamaguchi Prefecture**
Yoritake Kajikawa¹, Naoki Matubayashi¹, Toshiteru Watanabe² and Kazumasa Yoshimura³
¹*National Fisheries University, Japan*, ²*Yamaguchi Prefectural Fisheries Research Center, Japan* and ³*Yamaguchi Prefectural Industrial Technology Institute, Japan*
- SP02-10 **Reproduction and growth of *Parapenaeus lanceolatus* (Decapoda, Penaeidae) in Kagoshima Bay, Japan**
Jun Ohtomi, Zannatul Farhana and Md. Mosaddequr Rahman
Kagoshima University, Japan
- SP02-11 **Relative growth of the deep-water velvet shrimp *Metapenaeopsis sibogae* (Decapoda, Penaeidae)**
Md. Mosaddequr Rahman and Jun Ohtomi
Kagoshima University, Japan
- SP02-12 **Application of Bayesian state-space surplus production models for assessing the stock status of the North Pacific saury population**
Natsuko Chiba¹, Miyako Naya², Mitsuo Sakai², Satoshi Suyama², Hideaki Kidokoro², Dharmamony Vijai² and Toshihide Kitakado¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Japan Fisheries Research and Education Agency, Japan*
- SP02-13 **Reproductive ecology of smallscale blackfish *Girella leonina* in the upper reaches of the Kuroshio Current**
Takeshi Ito¹, Yudai Iino¹, Ming-Chin Huang², Shiro Itoi¹, Haruo Sugita¹ and Noriyuki Takai¹
¹*Nihon University, Japan* and ²*National University of Tainan, Taiwan*

- SP02-14 **Governing of village fishery project in Chiangmai, Thailand**
Daracha Thiammueang
Maejo University, Thailand
- SP02-15 **Attempt of predictive evaluation of models used for the Indian Ocean bigeye tuna (*Thunnus obesus*)**
Kento Otsuyama and Toshihide Kitakado
Tokyo University of Marine Science and Technology, Japan
- SP02-16 **Mark-recapture methods for estimating abundance of green turtles (*Chelonia mydas*) in Ogasawara Islands, Japan**
Daisuke Endo¹, Yukari Morimoto², Takayuki Sato², Satomi Kondo² and Tohihide Kitakado¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Certified NPO Everlasting Nature of ASIA, Japan*

Sept. 23 (Sat.) am **Oral Presentation** **Room 2**

- 10:00 SO02-21 **Otolith study for future application: a case study on integrating otolith morphology with molecular phylogeny of global marine angelfishes (Teleostei: Pomacanthidae)**
Chih-Wei Chang^{1,2}, Chen-Yi Lee¹ and Kang-Ning Shen³
¹*National Museum of Marine Biology & Aquarium, Taiwan*, ²*National Dong Hwa University, Taiwan* and ³*Agricultural Technology Research Institute, Taiwan*
- 10:30 SO02-22 **Garlic extract product enhancing growth performance, digestive and immune system in Nile tilapia (*Oreochromis niloticus*)**
Mallika Supa-aksorn¹, Krisna Rungruangsak-Torrissen², Sudaporn Tongsir¹ and Jiraporn Rojtinnakorn¹
¹*Maejo University, Thailand* and ²*Institute of Marine Research, Ecosystem Processes Research Group, Matre Research Station, Norway*
- 10:45 SO02-23 **Bottom feeding and high density stocking improve yield and profitability of milkfish culture in marine cages**
Crispino Saclauso¹ and Joebert Toledo²
¹*University of the Philippines Visayas, Philippines* and ²*Feedmix Specialists Inc II, Philippines*
- 11:00 Break
- 11:15 SO02-24 **Develop different cultivation models of seaweed in Burung Island, Seribu Islands Jakarta**
Zulhamsyah Imran, Ridwan Affandi and Septyan Nugraha
Bogor Agricultural University, Indonesia
- 11:30 SO02-25 **Effective gene delivery of chitosan nanoparticles in giant freshwater prawn (*Macrobrachium rosenbergii*)**
Pichai Phongudom¹, Suwalee Ma-anan¹, Chuphong Phakpum¹, Chalermchail Pilapong² and Jiraporn Rojtinnakorn¹
¹*Maejo University, Thailand* and ²*Chiang Mai University, Thailand*
- 11:45 SO02-26 **Anatomical and microscopic structure of thoracic adhesive apparatus in hill stream catfish genus *Glyptothorax* from the northern of Thailand**
Tosapon Chamnivikaipong and Apinun Suvarnaraksha
Maejo University, Thailand

Sept. 23 (Sat.) pm **Oral Presentation** **Room 2**

- 14:00 SO02-27 **A comparison of freshwater fisheries management in the United States and Japan**
Frank J. Rahel¹ and Taniguchi Yoshinori²
¹*University of Wyoming, USA* and ²*Meijo University, Japan*
- 14:15 SO02-28 **Validation of feed back management procedure applied for mixed species data**
Takashi Matsuishi, Dengke Wu, Ryosuke Kinashi and Ledhyane Ika Harlyan
Hokkaido University, Japan

- 14:30 SO02-29 **Monitoring the fisheries in Malampaya sound, Palawan, Philippines: status between man and dolphins**
Benjamin J. Gonzales¹, Maria Victoria Matillano², Geoffrey Aludia², Jona Miguel² and Rassel Climaco²
¹Western Philippines University, Philippines and ²WWF-Palawan, Philippines
- 14:45 SO02-30 **Climate change and destruvtive fishing gear: issues on the supply chain of fish**
Agnes Puspitasari Sudarmo
Universitas Terbuka, Indonesia
- 15:00 SO02-31 **Mangroves as fish habitat in the Mexican Pacific: implications for management**
Felipe Amezcua, Victor Muro and Francisco Flores
Universidad Nacional Autónoma de México, Mexico
- 15:15 SO02-32 **An overview of purse seine fisheries management in Malaysia**
Ledhyane Ika Harlyan and Takashi Matsuishi
Hokkaido University, Japan
- 15:30 SO02-33 **Usefulness of age data for improving management of cetaceans**
Toshihide Kitakado
Tokyo University of Marine Science and Technology, Japan
- 15:45 Break
- 16:00 SO02-34 **Mechanisms of species alternations between anchovy and sardine in response to climate variability: perspectives from interspecific and intersystem comparisons**
Akinori Takasuka¹, Hiroshi Kuroda¹, Takeshi Okunishi¹, Yoshioki Oozeki¹ and Patricia Ayón²
¹Japan Fisheries Research and Education Agency, Japan and ²Instituto del Mar del Perú, Peru
- 16:15 SO02-35 **Evaluation of growth-dependent survival during early stages of Pacific bluefin tuna using otolith microstructure analysis**
Mikio Watai¹, Taiki Ishihara², Osamu Abe², Seiji Ohshimo² and Carlos Augusto Strüssmann²
¹Tokyo University of Marine Science and Technology, Japan and ²Japan Fisheries Research and Education Agency, Japan
- 16:30 SO02-36 **Importance of piscivory for growth and survival in early life stages of Pacific bluefin tuna observed by rearing experiments**
Yosuke Tanaka, Kazunori Kumon, Kentaro Higuchi, Takeshi Eba, Akefumi Nishi, Hideki Nikaïdo and Satoshi Shiozawa
Japan Fisheries Research and Education Agency, Japan
- 16:45 SO02-37 **Biological and technical aspects of yellowfin tuna (*Thunnus albacares*) in Kaur waters, Bengkulu Province**
Roza Yusfiandayani and Mulyono S. Baskoro
Bogor Agricultural University, Indonesia

Sept. 23 (Sat.)

Poster Presentation

- SP02-17 **Stage-based modelling and stock assessment for sand lance population in Sanriku, Japan**
Megumi Kawano¹, Mitsuhiro Saeki², Keiichi Onodera², Tsutomu Tamura³ and Toshihide Kitakado¹
¹Tokyo University of Marine Science and Technology, Japan, ²Miyagi Prefecture Fisheries Technology Institute, Japan and ³Institute of Cetacean Research, Japan
- SP02-18 **Population structure analysis of the greater amberjack (*Seriola dumerili*) from three areas in the East China Sea**
Tsubasa Uchino¹, Takamasa Hasegawa², Chiyuki Sassa³, Hsin-Ming Yeh⁴, Kazuyoshi Komeyama⁵, Ryo Kawabe², Takashi Sakamoto¹ and Yoshitaka Sakakura²
¹Tokyo University of Marine Science and Technology, Japan, ²Nagasaki University, Japan, ³Seikai National Fisheries Research Institute, FRA, Japan, ⁴Fisheries Research Institute, Council of Agriculture, Taiwan and ⁵Hokkaido University, Japan

- SP02-19 **Geographical variation in growth pattern during juvenile period of ayu**
Iki Murase^{1,2}, Tatsuya Kawakami² and Kei'ichiro Iguchi¹
¹Nagasaki University, Japan and ²The University of Tokyo, Japan
- SP02-20 **Evaluation of the impact of lack of data on ecosystem modelling**
Hiroaki Murata and Toshihide Kitakado
Tokyo University of Marine Science and Technology, Japan
- SP02-21 **Fish heart rate change estimation in a day or consecutive days using cepstrum analysis**
Takahito Kojima¹, Takashi Hara², Yuko Matsuo³, Yuta Okiyama¹ and Yuya Makiguchi¹
¹Nihon University, Japan, ²Seinan Suisan Co., Ltd., Japan and ³National Institute of Technology, Tomakomai College, Japan
- SP02-22 **Genetic population structure of masu salmon in the Sanriku-region, Japan**
Hideharu Tsukagoshi, Sayuri Terui and Syuiti Abe
Iwate University, Japan
- SP02-23 **Behavioral response of green rurtle *Chelonia mydas* to green light emitting diode (LED) in the laboratory circumstances**
Mochammad Riyanto, Ronny Irawan Wahyu, Ganang Dwi Prasetyo and Roza Yusfiandayani
Bogor Agricultural University, Indonesia
- SP02-24 **Potential northward expansion of tanner crab, *Chionoecetes bairdi*, into the Arctic: evidences from planktonic larvae**
Jose M. Landeira¹, Kohei Matsuno², Yuji Tanaka¹ and Atsushi Yamaguchi³
¹Tokyo University of Marine Science and Technology, Japan, ²Australian Antarctic Division, Australia and ³Hokkaido University, Japan
- SP02-25 **Bayesian estimation of annual survival probabilities for Indo-Pacific bottlenose dolphin (*Tursiops aduncus*)**
Yoshimi Katayama and Toshihide Kitakado
Tokyo University of Marine Science and Technology, Japan
- SP02-26 **Formation of pseudo-bands on the otoliths of walleye pollock *Gadus chalcogrammus* juveniles at high water-temperature**
Yuuho Yamashita, Takashi Yokota, Toru Nakagawa, Hiroshige Tanaka, Masayuki Chimura and Mitsuhiro Ishino
Japan Fisheries Research and Education Agency, Japan
- SP02-27 **Possibility of myoglobin as a molecular marker for phylogenetic relationship of fish**
Ming-Chih Huang¹, Yoshihiro Ochiai² and Shugo Watabe³
¹National University of Tainan, Taiwan, ²Tohoku University, Japan and ³Kitasato University, Japan
- SP02-28 **Flipper beat frequency and body acceleration of loggerhead turtles *Caretta caretta* swimming in a set net**
Maika Shiozawa¹, Daisuke Shiode¹, Keiichi Uchida¹, Seiji Akiyama¹, Fuxiang Hu¹ and Yoshio Hirai²
¹Tokyo University of Marine Science and Technology, Japan and ²Nitto Seimo Co., Ltd., Japan
- SP02-29 **Sex specific expressions of *oct4* (*pou5f1*) gene in gonadal germ cells of the hermaphrodite wrasse *Pseudolabrus sieboldi* and the gonochoristic anchovy *Engraulis japonicus***
Jun Fujita¹, Tapas Chakraborty², Sipra Mohapatra², Kayoko Kurita², Yong-Woon Ryu², Takahiro Matsubara², Michiya Matsuyama¹, Yoshitaka Nagahama² and Kohei Ohta¹
¹Kyushu University, Japan and ²Ehime University, Japan
- SP02-30 **How many species of Sillaginidae (Perciforms) in the coast of China?**
Tianxiang Gao¹, Jiaguang Xiao², Zhiqiang Han¹ and Na Song²
¹Zhejiang Ocean University, China and ²Ocean University of China, China

- SP02-31 **Assessing genetic diversity of rabbitfish (Siganidae: *Siganus canaliculatus*) across environmental gradient from Jakarta Bay to Kepulauan Seribu**
Hawis Madduppa, Beginer Subhan, Mutiara Kristina Margaretha, Aditya Bramandhito, Nurlita Putri Anggraini and Tri Prartono
Bogor Agricultural University, Indonesia
- SP02-32 **Investigation of the seasonable eicosapentaenic acid (EPA) and docosahexaenic acid (DHA) contents in skeletal muscle of big-eyed green-eye *Chlorophthalmus albatrossis* (Aome-eso in Japanese) from Suruga Bay, Shizuoka Prefecture**
Makoto Murofushi¹, Kyoka Umihori² and Yuji Hasegawa³
¹*Koyo-Gakuen College, Japan*, ²*Nihon University, Japan* and ³*Ohura Fisheries Corporation, Japan*
- SP02-33 **Verification of maternal effect on larval walleye pollock *Gadus chalcogrammus* using otolith hatch check diameters**
Keitaro Kajiwara^{1,2}, Kota Suzuki¹, Yota Kano³, Mitsuhiro Nakaya¹ and Tetsuya Takatsu¹
¹*Hokkaido University, Japan*, ²*Hyogo Prefectural Government, Japan* and ³*Higashidori Village Office, Japan*

Sept. 24 (Sun.) am		Oral Presentation	Room 2
10:00	SO02-38	Naturally spawning chum salmon in enhanced and non-enhanced rivers in the eastern Hokkaido Hayato Saneyoshi, Yoshitaka Sasaki, Hajime Omori, Kiyoshi Kasugai and Yasuyuki Miyakoshi <i>Hokkaido Research Organization, Japan</i>	
10:15	SO02-39	Effect of suspended particles on chum salmon fry <i>Oncorhynchus keta</i> Kohei Kishi ¹ , Rei Onodera ¹ , Hisayuki Arakawa ¹ and Yuriko Matsubayashi ² ¹ <i>Tokyo University of Marine Science and Technology, Japan</i> and ² <i>Iwate University, Japan</i>	
10:30	SO02-40	Aspects of the reproductive biology of brook trout <i>Neolissochilus stracheyi</i> (Day, 1871) in Northern, Thailand Thapanee Pholdee and Apinun Suvarnaraksha <i>Maejo University, Thailand</i>	
10:45		Break	
11:00	SO02-41	Horizontal swimming speed and migration path of kokanee salmon in Lake Towada Yoshiaki Yasue ¹ , Shingo Takahashi ² , Kotaro Ichikawa ^{1,3} , Hiromichi Mitamura ^{1,3} and Nobuaki Arai ^{1,3} ¹ <i>Kyoto University, Japan</i> , ² <i>Aomori Prefecture, Japan</i> and ³ <i>CREST, JST, Japan</i>	
11:15	SO02-42	Can catch-and-release of white-spotted charr without stocking sustain the recreational fishery resource in a Japanese river? Yoshinori Taniguchi, Takafumi Enoki, Kazuki Kawamoto and Yuya Nagasaki <i>Meijo University, Japan</i>	
11:30	SO02-43	Evaluating ecological roles of coastal cephalopod in China Seas using integrative approach Yumeng Pang ^{1,2} , Yongjun Tian ¹ , Bin Wang ¹ , Yiping Ren ¹ , Yanli Tang ¹ and Rong Wan ¹ ¹ <i>Ocean University of China, China</i> and ² <i>The University of Tokyo, Japan</i>	

S3 (Biodiversity and Management)

Sept. 24 (Sun.) am Oral Presentation Room 3

- 10:00 SO03-01 **The utilisation of polychaete species as bait in South Africa; past, present and future**
Carol A. Simon
Stellenbosch University, South Africa
- 10:30 SO03-02 **Potential of marine protected area network in Western Kyushu coastal seas and roles of fishery sectors**
Satoquo Seino and Mitsuhiro Aizu
Kyushu University, Japan
- 10:45 SO03-03 **The ecological status and the tactical decisions on the management of reef fisheries through ecosystem approach in the marine protected area**
Ernik Yuliana¹, Menofatria Boer², Achmad Fahrudin², Mohammad M. Kamal² and Shinta T. Pardede³
¹*Universitas Terbuka, Indonesia*, ²*Bogor Agricultural University, Indonesia* and ³*Wildlife Conservation Society Indonesia Marine Program, Indonesia*
- 11:00 SO03-04 **Past, current, and future sharks and rays fishery management in Indonesia (Fish: Elasmobranchii): research and policy perspective**
Mohammad Mukhlis Kamal¹, Muhammad Ghazali Salim¹, Fauzan Bhakti Shafwa², Siti Kusmiati¹, Nenden Siti Noviyanti³, Nina Nurmalia Dewi⁴ and Amaliah Ruwaidah¹
¹*Bogor Agricultural University, Indonesia*, ²*Indonesian Science Institute, Indonesia*, ³*Wildlife Conservation Society, Indonesia* and ⁴*Airlangga University, Indonesia*
- 11:15 SO03-05 **Presence and behaviour of harbour porpoises around a bottom-gillnet observed by passive acoustic monitoring**
Saki Maeda¹, Takashi Matsuishi¹ and Tomonari Akamatsu²
¹*Hokkaido University, Japan* and ²*National Research Institute of Fisheries Engineering, Japan*
- 11:30 SO03-06 **Ecosystem approach to fisheries assessment for lobster fisheries in a tropical-sphere : a case study of Palabuhanratu Bay, West Java, Indonesia**
Luky Adrianto
Bogor Agricultural University, Indonesia
- 11:45 SO03-07 **Impact of El Niño and Indian Ocean Dipole (IOD) on oily sardine (*Sardinella lemuru*) production in Bali strait, Indonesia**
Jonson Lumban-Gaol¹, Risti Endriani Arhatin¹, I. Wayan Nurjaya¹, Bonar Parlindungan Pasaribu¹, Kedarnath Mahapatra² and Takahiro Osawa³
¹*Bogor Agricultural University, Indonesia*, ²*Tokai University, Japan* and ³*Udayana University, Indonesia*

Sept. 24 (Sun.) pm Oral Presentation Room 3

- 14:00 SO03-08 **Species diversity and distribution patterns in polychaetes from Korean tidal flats**
Jae-Sang Hong^{1,2}, Chang-Geun Lee², Chang-Soo Kim², Hyun-Jung Lee², Yoon-Hee Chung², Seok-Hyun Kim², Jae-Yeon Hwang² and Jae-Won Yoo²
¹*Inha University, Korea* and ²*Korea Institute of Coastal Ecology, Korea*
- 14:30 SO03-09 **Seasonal distribution of phytoplankton abundance and diversity in relation to marine biogeochemical parameters in Karimata and Sunda strait, Indonesia**
Iis Triyulianti, Muhammad Zainuri, Sutrisno Anggoro and Ita Widowati
Diponegoro University, Indonesia
- 14:45 SO03-10 **Coastal phytoplankton assemblages in the Japan Sea in summer 2016**
Hideto Tsutsui¹, Nobuhiro Yamawaki², Kenjiro Hinode², Mitsuharu Yagi², Narumi Kusumoto², Yasuhiro Morii² and Richard W. Jordan¹
¹*Yamagata University, Japan* and ²*Nagasaki University, Japan*

- 15:00 SO03-11 **Agglutinated microplankton assemblages in micro-calcareous nodules attached to the ship's rudder**
Nobuhiro Yamawaki¹, Hideto Tsutsui², Narumi Kusumoto¹, Manabu Ishizaki², Yasuhiro Morii¹ and Richard W. Jordan²
¹Nagasaki University, Japan and ²Yamagata University, Japan
- 15:15 SO03-12 **Temporal variation of benthic community assemblage in Gamo Lagoon (Northeast Japan) for five years after the Great East Japan Earthquake and tsunami**
Tomohiko Kondoh, Waka Sato-Okoshi, Goh Nishitani and Yoshinari Endo
Tohoku University, Japan
- 15:30 SO03-13 **Successful mass culture of corals using sexual propagation technique in Thailand and ways to improve coral productions**
Suchana Apple Chavanich¹, Voranop Viyakarn¹, Pataporn Kuanui¹, Se Songploy¹, Heung Sik Park², Toshihiko Fujita³, Kenji Iwao⁴ and Makoto Omori⁴
¹Chulalongkorn University, Thailand, ²Korea Institute of Ocean Science and Technology, Korea, ³National Museum of Nature and Science, Japan and ⁴Akajima Marine Science Laboratory, Japan
- 15:45 SO03-14 **Non-invasive molecular methods to identify bivalve species using DNA extracted from the mantle cavity waters**
Yoshihisa Kurita, Minoru Ikeda and Akihiro Kijima
Tohoku University, Japan
- 16:00 SO03-15 **Counteracting loss of biotechnological resources & ecosystem functions caused by potentially climate change-driven sponge invasions into Indonesian coral reefs**
Hawis Madduppa¹, Beginer Subhan¹, Mustami Yuda Sastria¹, Muhammad Reza Faizal¹, Nurlita Putri Anggraini¹, Januarizka S. Pratomo¹, Peter Schupp² and Carsten Thoms¹
¹Bogor Agricultural University, Indonesia and ²University of Oldenburg, Germany
- 16:15 SO03-16 **Competitive and predatory impacts of invasive Chinese mitten crab on native Japanese mitten crab**
Zhixin Zhang, Masashi Yokota and Carlos Strüssmann
Tokyo University of Marine Science and Technology, Japan
- 16:30 Break
- 16:45 SO03-17 **The effects of the R.A. 9003 (solid waste management act of the Philippines) on the coastal communities of Camotes Islands, Cebu, Philippines: their diversities, distributions and effects to the aquatic environment**
Serapion Tanduyan
Cebu Technological University-San Francisco, Philippines
- 17:00 SO03-18 **Studies on the morphology and ecosystem services provided by subtidal rhodolith habitats in the tropical and subtropical Atlantic Ocean**
Ricardo Haroun
University of Las Palmas de Gran Canaria, Spain
- 17:15 SO03-19 **Carbon storage in tropical seagrass meadows in the Lombok Island, Indonesia**
Zulhamsyah Imran Imran¹, Fery Kurniawan¹, Niken Tunjung Murti Pratiwi¹, M. Arsyad Al Amin¹, Elly Hidayati², Inna Puspa Ayu¹, Aliati ISwantari¹, Fransiskus Mao Tokan² and Prianto Wibowo²
¹Bogor Agricultural University, Indonesia and ²Blue Carbon Consortium, Indonesia
- 17:30 SO03-20 **Effects of clam fisheries on seagrass beds in Moon Lake, China**
Wentao Li, Xiumei Zhang and Peidong Zhang
Ocean University of China, China
- 17:45 SO03-21 **Spatio-temporal variations in quality of habitat consists of multiple seagrass species**
Susumu Chiba¹, Takashi Yusa² and Jun Shoji³
¹Tokyo University of Agriculture, Japan, ²Aomori Prefectural Industrial Technology Research Center, Japan and ³Hiroshima University, Japan

- 18:00 SO03-22 **Ecological responses to water diversion of the eastern route of the South-to-North Water Diversion Project (SNWDP) of China**
Yushun Chen, Chuanbo Guo, Wentong Xia, Xiao Qu, Han Liu, Yingxue Zhang and Wei Xin
Chinese Academy of Sciences, China

Sept. 24 (Sun.)

Poster Presentation

- SP03-01 **Community diversity of macrobenthos in different habitats of Shupaisha Wetland in Oujiang river estuary**
Chengye Hu¹, Yuyue Shui², Kuo Tian¹, Chuncao Zhang¹, Hulin Qin¹, Mengmeng Ji¹ and Bonian Shui¹
¹*Zhejiang Ocean University, China and* ²*Zhoushan Bureau of Oceanology and Fishery, China*
- SP03-02 **Production of specific polyclonal antibodies against the larvae of corallivorous muricid, *Drupella fragum* and *D. cornus* for simple identification**
Takaya Kitamura¹, Toshiharu Iwai¹, Yui Shigematu¹, Shu Nakachi², Takuma Mezaki², Kazuto Takeda³, Masafumi Yamamoto⁴, Chiemi Miura^{1,5} and Takeshi Miura¹
¹*Ehime University, Japan,* ²*Biological Institute on Kuroshio, Japan,* ³*Ainan Sango Wo Mamoru Kyougikai, Japan,* ⁴*Ainan Town Office, Japan and* ⁵*Hiroshima Institute of Technology, Japan*
- SP03-03 **Growth variation in the Ayu (*Plecoglossus altivelis altivelis*) population during upstream migration in the Hirose River, Miyagi, Northeastern Japan**
Ryosuke Watanabe, Kinuko Itou and Satoshi Katayama
Tohoku University, Japan
- SP03-04 **First ID-based observation on the seasonal whale shark (*Rhincodon typus*) community (Fish: Family Rhincodontidae) in Probolinggo waters, East Java, Indonesia**
Mohammad Mukhlis Kamal, Mochammad Tri Hartanto, Sampari Saneraro Suruan, Dhyassalaam Imam and Ilham Habib
Bogor Agricultural University, Indonesia
- SP03-05 **Abundance and diversity macrozoobenthos in Karang Ranjang beach, Ujung Kulon National Park, Banten, West Java**
Febri Ramadhan, Fauzia yudhanti, Nisrina R. Aisy, Dini Rosyana, Muhammad Rizky Halawi, Anastasia Kenes and Bagus Chandra
Institut Pertanian Bogor, Indonesia
- SP03-06 **Comparative study of skull's shape of spotted seal and harbor seal using landmark method**
Yuichi Arai¹, Mari Kobayashi^{1,3}, Minoru Kanaiwa² and Aya Morohoshi³
¹*Tokyo University of Agriculture, Japan,* ²*Mie University, Japan and* ³*NPO Marine Wildlife Center of Japan, Japan*
- SP03-07 **Seasonal movements and diving behaviors by satellite transmitters of the harbor seals in eastern Hokkaido, Japan**
Takayuki Haneda¹ and Mari Kobayashi^{1,2}
¹*Tokyo University of Agriculture, Japan and* ²*NPO Marine Wildlife Center of Japan, Japan*
- SP03-08 **Competition of the spotted seal's food habits between different areas in spring in Hokkaido**
Nobumichi Takano¹, Mari Kobayashi¹, Natuki Watanabe², Shun Hirata², Takuya Sugimura², Mituki Watanabe² and Yayoi Shitamichi²
¹*Tokyo University of Agriculture, Japan and* ²*NPO, Japan*
- SP03-09 **Genetic variation of irrawaddy dolphin (*Orcaella brevirostris*) in Songkhla Lake, Thailand**
Sanit Piyapattanakorn¹, Tanawin Tangsuwongthai¹, Santi Ninwat² and Shugo Watabe³
¹*Chulalongkorn University, Thailand,* ²*Thailand Department of Marine and Coastal Resources, Thailand and* ³*Kitasato University, Japan*
- SP03-10 **Restoration of coastal fisheries: a case of Shandong, China**
Xiumei Zhang, Wentao Li and Peidong Zhang
Ocean University of China, China

- SP03-11 **The seagrass resources and restoration along the coasts of Shandong Peninsula, China**
Peidong Zhang, Wentao Li and Xiumei Zhang
Ocean University of China, China
- SP03-12 **Current status of marine non-indigenous species in Thailand: a case study of the introduced Pacific white shrimp *Litopenaeus vannamei***
Vorano Viyakarn¹, Suchana Chavanich¹, Wansuk Senanan², Suwanna Panutrakul² and Wenxi Zhu³
¹*Chulalongkorn University, Thailand*, ²*Burapha University, Thailand* and ³*IOC Regional Secretariat for WESTPAC, Thailand*
- SP03-13 **The effect of underwater ship noise on humpback whales in the waters of Ogasawara (Bonin) Islands, Japan**
Kyoichi Mori¹, Ryosuke Okamoto², Koki Tsujii^{2,5}, Tomonari Akamatsu³, Naoya Umeda⁴, Yoko Mitani⁵, Rina Yamada¹ and Takahiro Kijima⁶
¹*Teikyo University of Science, Japan*, ²*Ogasawara Whale Watching Association, Japan*,
³*Fisheries Research Agency, Japan*, ⁴*Osaka University, Japan*, ⁵*Hokkaido University, Japan* and
⁶*Ministry of Land, Infrastructure, Transport and Tourism, Japan*
- SP03-14 **Impact of temporal change of salinity to biodefense mechanism of *Haliotis gigantea***
Novi Arisman, Nadia Istiqomah and Takao Yoshimatsu
Mie University, Japan
- SP03-15 **Vitamin B12 effect to reduce turbidity stress on *Moina macrocopa***
Nadia Istiqomah, Novi Arisman and Takao Yoshimatsu
Mie University, Japan
- SP03-16 **Carbon stock and community structure of mangrove in Manalu Bay, Sangihe Islands, as global warming mitigation effort**
Antonius Rumengan¹, Desy M.H. Mantiri², Rizald M. Rompas³ and Andreas A. Hutahaean⁴
¹*Sam Ratulangi University, Indonesia* and ²*Ministry of Marine Affairs & Fisheries, Indonesia*

S4 (Freshwater, Coastal and Marine Environments)

Sept. 22 (Fri.) am **Oral Presentation** **Room 3**

- 10:00 SO04-01 **Sea cucumbers harbor the gut microbiota selected from sediment in their habitat**
Yohei Yamazaki¹, Yuichi Sakai², Manabu Shimono³, Sayaka Mino¹ and Tomoo Sawabe¹
¹*Hokkaido University, Japan*, ²*Hokkaido Research Organization, Local Independent Administrative Agency, Japan* and ³*Oshima Fisheries Extension Office, Japan*
- 10:15 SO04-02 **Activity of nitrification, denitrification and DNRA indigenous bacteria from recirculation aquaculture system of mud crab *Scylla serrata***
Yuni P. Hastuti
Bogor Agricultural University, Indonesia
- 10:30 SO04-03 **Bioremediation of ciprofloxacin (CIP) by isolated CIP resistance bacteria and identification of degradation pathways**
Gayani Y. Liyanage and Pathmalal M. Manage
University of Sri Jayewardenepura, Sri Lanka
- 10:45 Break
- 11:00 SO04-04 **Seasonal variation of pathogenic bacteria in groundwater of the Kelani river basin, Sri Lanka**
Pathmalal M. Manage¹, M.G.Y.L. Mahagamage¹ and M.V.S.C. Pathirage²
¹*University of Sri Jayewardenepura, Sri Lanka* and ²*Medical Research Institute, Sri Lanka*
- 11:15 SO04-05 **Analysis of pigment, metal concentration, cell structure of *Chlorodesmis* sp. from Totok Bay and Blongko waters, North Sulawesi**
Desy M.H. Mantiri, Rene Ch. Kepel, Darusaadah J. Paransa and Nasprianto
Sam Ratulangi University, Indonesia
- 11:30 SO04-06 **Detection of tetracycline and sulfonamide resistance genes in environmental samples**
Sadupama P. Manage¹, Gayani Y. Liyanage² and Pathmalal M. Manage²
¹*Eastern University, Sri Lanka* and ²*University of Sri Jayewardenepura, Sri Lanka*

Sept. 22 (Fri.) pm **Oral Presentation** **Room 3**

- 14:00 SO04-07 **Phytoremediation potential of live green alga *Tetraselmis tetraathele* on cadmium-contaminated seawater**
Marissa C. Naorbe and Augusto E. Serrano Jr.
University of the Philippines Visayas, Philippines
- 14:15 SO04-08 **Potential use of simple biomarkers to detect metal toxicity under different pH in laboratory study**
Khusnul Yaqin
Hasanuddin University, Indonesia
- 14:30 SO04-09 **Sound production by Japanese medaka (*Oryzias latipes*) and its alteration by exposure to aldicarb and copper sulfate**
Ik Joon Kang, Xuchun Qiu and Yuji Oshima
Kyushu University, Japan
- 14:45 SO04-10 **Nutrient characteristics and nutrient loading of super-intensive white shrimp (*Litopenaeus vannamei*) ponds effluent**
Rachman Syah, Muhammad C. Undu and Mat Fahrur
Research Institute for Coastal Aquaculture (RICA), Indonesia
- 15:00 Break
- 15:15 SO04-11 **Abundance and transport process of pelagic microplastics in the ocean environment**
Atsuhiko Isobe
Kyushu University, Japan

- 15:45 SO04-12 **The impact of microplastics on aquatic organisms and ecosystems and its implications for fisheries, food safety and human health**
A. Dick Vethaak
Deltares and VU University, The Netherlands
- 16:15 SO04-15 **Modeling of floating marine debris tracking in Kuta Beach, Bali Island**
Ivonne Radjawane, Hanif Diastomo and Totok Suprijo
Bandung Institute of Technology, Indonesia

Sept. 22 (Fri.)

Poster Presentation

- SP04-01 **Water mass dynamics within Balikpapan Bay, eastern part of Borneo, Indonesia**
I. Wayan Nurjaya
Bogor Agricultural University, Indonesia
- SP04-02 **Wastewater of gourami (*Osfrophonemus goramy*) cultivation treatment by romaine lettuce (*Lactuca sativa* L. var. *longifolia*)**
Hefni Effendi, Yusrianti Purwandari and Yusli Wardiatno
Bogor Agricultural University, Indonesia
- SP04-03 **On the perfection of public interest litigation system of China's offshore oil pollution**
Zhen Lin, Yi Tang and Huajie Liu
Shanghai Ocean University, China
- SP04-04 **The transition of chemical substances from marine sediments in Onagawa Bay after Great East Japan Earthquake**
Toshiyasu Yamaguchi, Takuma Nanba, Azuki Seki, Akiko Yamauchi, Toshiki Nakano, Kenji Kaneko, Minoru Sato and Yoshihiro Ochiai
Tohoku University, Japan
- SP04-05 **Epsilonproteobacteria inhabits the gills of shallow-water invertebrates?**
Yukino Mizutani, Satoshi Fukuzaki and Reiji Tanaka
Mie University, Japan
- SP04-06 **Distribution of the sulfate-reducing bacteria in intestinal tracts of coastal fish and their environments**
Yusuke Kishi, Chia-Hui Chen, Kazuyuki Sagara, Shiro Itoi and Haruo Sugita
Nihon University, Japan
- SP04-07 **Distribution and behavior of harmful algae and trace metals in Harima-Nada, Japan**
Nodoka Kai¹, Kanako Naito¹, Saeko Mito², Kazutaka Miyahara³ and Setsuko Sakamoto⁴
¹*Prefectural University of Hiroshima, Japan*, ²*Research Institute of Innovative Technology for the Earth, Japan*, ³*Hyogo Prefectural Technology Center for Agriculture, Forestry and Fisheries, Japan* and ⁴*National Research Institute of Fisheries and Environment of Inland Sea, Japan*
- SP04-08 **Seasonal dynamics of eukaryotic microbes and prokaryotes in Osaka Bay, Japan**
Nana Haruki¹, Hiroyasu Watai¹, Yuto Yoshiyasu¹, Kana Sawada¹, Keigo Yamamoto², Masami Suzuki³, Yoshihiko Sako¹ and Takashi Yoshida¹
¹*Kyoto University, Japan*, ²*Research Institute of Environment, Agriculture and Fisheries, Japan* and ³*Hyogo Prefectural Technology Center for Agriculture, Forestry and Fisheries, Japan*
- SP04-09 **Protein hydrolysis activity in fish-farming area of Tanabe Bay, Wakayama**
Hiroki Iguchi, Keiya Yamazaki, Keitaro Kato, Gentoku Nakase, Toshinori Suzuki, Akito Taniguchi and Mitsuru Eguchi
Kindai University, Japan
- SP04-10 **Selective utilization of inorganic and organic phosphorus compounds by the bloom forming diatom *Chaetoceros tenuissimus*: new approach using a modified quantitative ³¹P-NMR**
Masaki Zaima¹, Haruo Yamaguchi¹, Ryoko Kuramatsu¹, Mika Minamida¹, Miki Seki¹, Masao Adachi¹, Yuji Tomaru², Haruyasu Asahara³ and Nagatoshi Nishiwaki⁴
¹*Kochi University, Japan*, ²*Japan Fisheries Research and Education Agency, Japan*, ³*Osaka University, Japan* and ⁴*Kochi University of Technology, Japan*

- SP04-11 **Resting strategy of the bloom-forming diatom *Chaetoceros tenuissimus***
Haruo Yamaguchi¹, Narumi Sumida¹, Yasushi Gonda¹, Masao Adachi¹, Ken-Ichiro Ishii² and Yuji Tomaru³
¹Kochi University, Japan, ²Kotyo University, Japan and ³Japan Fisheries Research and Education Agency, Japan
- SP04-12 **Preliminary investigation on effect of plastic pollution on intertidal rock oysters – *Saccostrea cucullata* in selected beaches of Chonburi province, Gulf of Thailand**
Nadeeka Thushari Gajahin Gamage¹, Duminda Mahesh Jayan Senevirathna¹, Amaratne Yakupitiyage² and Suchana Chavanich³
¹Uva Wellassa University, Sri Lanka, ²Asian Institute of Technology, Thailand and ³Chulalongkorn University, Thailand
- SP04-13 **Plastic pollution on sandy beaches in the Republic of Palau**
Honami Kubo¹, Kou Ikejima¹, Peter Vermeiren² and Chuki Hongo^{3,4}
¹Kochi University, Japan, ²The Swiss Federal Institute of Aquatic Science and Technology, Switzerland, ³University of the Ryukyus, Japan and ⁴Palau International Coral Reef Center, Palau

Sept. 23 (Sat.)	am	Oral Presentation	Room 3
10:00	SO04-16	Variation of acoustic incident angle for optimal seagrass identification and aquatic habitat mapping Indra Jaya ¹ , Donny Apdilla ² and Ratih Deswati ¹ ¹ IPB, Indonesia and ² Universitas Maritim Raja Ali Haji, Indonesia	
10:15	SO04-17	Environmental condition of <i>Kappaphycus alvarezii</i> cultivation area after temporal eutropication Ma'ruf Kasim, Ahmad Mustafa, Hamsah and Ermayanti Ishak Halu Oleo University, Indonesia	
10:30	SO04-18	Monitoring and assessing oxygen fluxes in <i>Sargassum</i> beds and seagrass meadows of Omura Bay, Nagasaki, Japan Gregory N. Nishihara ¹ , Mako Saito ¹ , Yukio Inoue ¹ , Kenjiro Hinode ¹ , Ayane Matsuo ¹ and Ryuta Terada ² ¹ Nagasaki University, Japan and ² Kagoshima University, Japan	
10:45	SO04-19	Feel good in hypoxia? – From microbes to whales, diverse life forms subsist on the “dead zone” in an enclosed bay (Omura Bay, Nagasaki) – Minoru Wada ¹ , Ryuji Kondo ² , Yu Umezawa ¹ , Motohiro Shimanaga ³ , Dongsung Kim ⁴ , Toshikazu Suzuki ¹ , Yuuki Kawabata ¹ , Yoshiki Matsushita ¹ , Atsushi Ishimatsu ¹ , Takashi Aoshima ¹ , Hiroyuki Takasu ¹ , Takuro Nakamura ⁵ and Masao Amano ¹ ¹ Nagasaki University, Japan, ² Fukui Prefectural University, Japan, ³ Kumamoto University, Japan, ⁴ Korea Institute of Ocean Science and Technology, Korea and ⁵ UMIDAYORI Diving Service, Japan	
11:00	SO04-20	Differences in fish assemblage structure between mangrove-rich and mangrove-free rivers in the Ryukyu Islands, Japan Allyn Duvin S. Pantallano ¹ , Renan U. Bobiles ^{1,2} and Yohei Nakamura ¹ ¹ Kochi University, Japan and ² Bicol University Tabaco Campus, Philippines	
11:15	SO04-21	Environmental factors affecting the spatial distribution of the Japanese eel <i>Anguilla japonica</i> at the river reach scale Kazuki Matsushige and Noritaka Mochioka Kyushu University, Japan	
11:30	SO04-22	Spatial distribution of pelagic eggs of the black sea bream <i>Acanthopagrus schlegelii</i> in Hiroshima Bay, Japan Kentaro Kawai and Tetsuya Umino Hiroshima University, Japan	

- 11:45 SO04-23 **A Lagrangian modeling approach for the transport of temperate seabass eggs and larvae in a region of freshwater influence**
Seokjin Yoon¹, Keita W. Suzuki², Yoh Yamashita² and Akihide Kasai¹
¹*Hokkaido University, Japan and* ²*Kyoto University, Japan*
- 12:00 SO04-24 **Plastic debris and fisheries: Contamination and effects relevant to fish and shellfish stocks**
Chelsea Rochman
University of Toronto, Canada
- 12:15 SO04-25 **Transcriptome assembly and toxicological analysis in hepatopancreas of pen shell (*Atrina pectinata*) exposed to hypoxia, microplastics and their mixture**
Hai Xu^{1,2}, Kun Chen¹, XuChun Qiu¹, Yohei Shimasaki¹ and Yuji Oshima¹
¹*Kyushu Univerisity, Japan and* ²*Jiangsu University, China*
- 12:30 SO04-26 **Crunch of styrene form by wharf roach**
Yuji Oshima, Yukinari Tsuruda, Hijiri Ogawa and Yohei Shimasaki
Kyushu University, Japan

Sept. 23 (Sat.)

Poster Presentation

- SP04-15 **The outbreak process of the bacterial cold-water disease among ayu *Plecoglossus altivelis altivelis*, examined by carbon and nitrogen stable isotope analyses**
Noriyuki Takai¹, Hisato Takeuchi^{1,3}, Nobuhiro Mano¹, Shingo Ueda¹ and Tomohiro Kuwae²
¹*Nihon University, Japan,* ²*Port and Airport Research Institute, Japan and* ³*Toyo University, Japan*
- SP04-16 **Possibility of use of muscle carbon and nitrogen contents for stable isotope analysis of stranded narrow-ridged finless porpoise samples with various conditions**
Ayumu Furuyama¹, Taiga Yodo¹, Noriko Funasaka¹, Ikuo Wakabayashi², Tatsuya Oike³ and Motoi Yoshioka¹
¹*Mie University, Japan,* ²*Toba Aquarium, Japan and* ³*Minamichita Beachland Aquarium, Japan*
- SP04-17 **Environmental DNA metabarcoding with MiFish primer reveals marine fish fauna of Tsushima Island, Nagasaki for establishing a marine protected area**
Mitsuhiro Aizu¹, Satoquo Seino¹, Tetsuya Sado² and Masaki Miya²
¹*Kyushu University, Japan and* ²*Natural History Museum and Institute, Chiba, Japan*

S5 (Material Cycling in Aquatic Ecosystems)

Sept. 24 (Sun.) am Oral Presentation Room 6

- 10:00 SO05-01 **Climate change and harmful algal blooms – lessons learned from the massive 2015 *Pseudo-nitzschia* event**
Vera L. Trainer
National Oceanic and Atmospheric Administration, USA
- 10:30 SO05-02 **A molecular tool for detecting prey items of a heterotrophic marine dinoflagellate, *Dinophysis rotundata***
Goh Nishitani¹, Natsumi Takagi², Yoshihito Takano³, Satoshi Nagai³, Young-Ok Kim⁴ and Akira Ishikawa²
¹*Tohoku University, Japan*, ²*Mie University, Japan*, ³*National Research Institute of Fisheries Science, Japan* and ⁴*Korea Institute of Ocean Science & Technology, Korea*
- 10:45 SO05-03 ***In situ* bottle experiments demonstrating the feasibility of diatom resting stage cells in sediments to prevent red tide occurrences of noxious flagellates**
Ichiro Imai¹, Koya Morita¹, Yumi Imai¹, Kazuyoshi Miyamura², Makoto Noda² and Ken-Ichiro Ishii³
¹*Hokkaido University, Japan*, ²*Oita Prefectural Agriculture, Forestry and Fisheries Research Center, Japan* and ³*Kyoto University, Japan*
- 11:00 SO05-04 **First occurrence of fish-killing red tide by *Karenia mikimotoi* and dynamics in 2015 and 2016 at Hakodate Bay of Hokkaido, northern Japan**
Akinori Kakumu¹, Koya Morita¹, Hiroshi Shimada², Atsushi Yamaguchi¹ and Ichiro Imai¹
¹*Hokkaido University, Japan* and ²*Hokkaido Research Organization, Central Fisheries Research Institute, Japan*
- 11:15 SO05-05 **The effect of land use structure in the catchment area on ecosystems in coastal seas**
Akihhide Kasai
Hokkaido University, Japan
- 11:45 SO05-06 **Development of sustainable aquaculture model base on Sato Umi concept in the coastal area of Indonesia**
Suhendar I. Sachoemar¹, Tetsuo Yanagi², Ratu Siti Aliah¹, Mitsutaku Makino³, Mark L. Wells⁴ and Masahito Hirota⁵
¹*Agency for the Assessment and Application of Technology (BPPT), Indonesia*, ²*Kyushu University, Japan*, ³*Fisheries Research and Education Agency (FREA), Japan*, ⁴*Maine System University, USA* and ⁵*Fisheries Research Agency (FRA), Japan*

Sept. 24 (Sun.) pm Oral Presentation Room 6

- 14:00 SO05-07 **Source and fate of organic matter in region of freshwater influence in the Inner Gulf of Thailand**
Thanomsak Boonphakdee
Burapha University, Thailand
- 14:15 SO05-08 **Load of riverine nutrients and its relation to phytoplankton ecology in heavily eutrophied embayment of Jakarta Bay Indonesia**
Ario Damar¹, Yon Vitner¹ and Karl-Juergen Hesse²
¹*Bogor Agricultural University, Indonesia* and ²*University of Kiel, Germany*
- 14:30 SO05-09 **Contribution of the Submarine Groundwater Discharge (SGD) to sessile bivalve production; estimate by the carbon stable isotope ratio recorded in the shell**
Osamu Tominaga¹, Ryo Sugimoto¹, Masaru Takeuchi¹, Makoto Yamada², Hisami Honda², Shiho Kobayashi³, Jun Shoji⁴ and Makoto Taniguchi²
¹*Fukui Prefectural University, Japan*, ²*Research Institute for Humanity and Nature, Japan*, ³*Kyoto University, Japan* and ⁴*Hiroshima University, Japan*

- 14:45 SO05-10 **Drastic increase of sedimentation rates in the semi-enclosed coastal embayment along the Sea of Japan: possibility of regime shift caused by atmospheric nitrogen deposition**
Ryo Sugimoto¹, Mikiko Tanaka¹, Motoko Fujita², Yoshiki Miyata³ and Seiya Nagao³
¹Fukui Prefectural University, Japan, ²Kyoto University, Japan and ³Kanazawa University, Japan
- 15:00 SO05-11 **Air-water CO₂ gas exchanges and Blue carbon dynamics in estuarine and shallow coastal systems**
Tomohiro Kuwae
Port and Airport Research Institute, Japan
- 15:30 SO05-12 **Assessing anthropogenic impact on deep water methane seep ecosystem**
Hsuan-Wien Chen¹, Zhe Yu Lin² and Hsing-Juh Lin²
¹National Chiayi University, Taiwan and ²National Chung-Hsing University, Taiwan
- 15:45 SO05-13 **Fertilizer application to enhance the growth of raft-cultured oysters**
Tamiji Yamamoto¹, Shigma Ishida¹, Shinya Nakahara², Kiyonori Hiraoka², Yuhei Omichi² and Hidemi Mutsuda¹
¹Hiroshima University, Japan and ²Hiroshima Environment and Health Association, Japan
- 16:00 SO05-14 **Oyster competitors in Hiroshima Bay: prey-predator numerical model**
Wahyudin Putra Sasmita and Tamiji Yamamoto
Hiroshima University, Japan
- 16:15 Break
- 16:30 SO05-15 **Application of the coastal ecosystem complex concept toward integrated management for sustainable coastal fisheries under oligotrophication**
Masakazu Hori¹, Franck Lagarde², Sandrine Vaz², Mitsutaku Makino¹ and Masami Hamaguchi¹
¹Japan Fisheries Research and Education Agency, Japan and ²IFREMER, France
- 17:00 SO05-16 **Nutrient environment in a coastal red seabream aquaculture area in Gokasho Bay, Japan: for practical use of aquaculture effluent**
Satoshi Watanabe, Masayuki Minakawa, Yuka Ishihi, Natsuki Hasegawa and Toshie Matsumoto
Japan Fisheries Research and Education Agency, Japan
- 17:15 SO05-17 **Creation of fish habitats with thinning timbers in Mitsu Bay - a case study of ICZM**
Jamaluddin Fitrah Alam¹, Tamiji Yamamoto¹, Haruka Nakamura¹, Tetsuya Umino¹, Shinya Nakahara², Kiyonori Hiraoka² and Hideyuki Ohtoshi³
¹Hiroshima University, Japan, ²Hiroshima Environment and Health Association, Japan and ³Higashi-Hiroshima City, Japan
- 17:30 SO05-18 **Development of Integrated Multi-Trophic Aquaculture (IMTA) to mitigate the environmental impacts of milkfish mariculture: preliminary results**
Rose Ann Diamante¹, Masashi Kodama², Nerissa Salayo¹ and Raisa Joy Castel¹
¹Southeast Asian Fisheries Development Center/Aquaculture Department, Philippines and ²Japan International Research Center for Agricultural Sciences, Japan
- 17:45 SO05-19 **Studies on the effects of water temperature increase on macroalgal beds (*Moba*) in western Japan – for understanding of the impact mechanism of global warming and future prediction**
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Goro Yoshida¹, Hiromori Shimabukuro¹, Xinyu Guo², Naoki Yoshie², Xiaojie Yu², Noboru Murase³, Mikio Noda³, Setsuo Kiyomoto¹, Tatsuru Kadota¹ and Taku Yoshimura¹
¹Japan Fisheries Research and Education Agency, Japan, ²Ehime University, Japan and ³National Fisheries University, Japan

- SP05-01 **Vertical and horizontal species composition of ciguatera-causing dinoflagellate *Gambierdiscus* spp. (Gonyaulacales) in southern coastal areas of Japan**
Hiroshi Funaki¹, Shouta Yoshii¹, Tomohiro Nishimura¹, Yuta Tanii¹, Kana Hashimoto¹, Kouki Tanaka¹, Ipppei Yanagida², Haruo Yamaguchi¹ and Masao Adachi¹
¹Kochi University, Japan and ²INO NPO, Japan
- SP05-02 **Quorum sensing suggesting activities of algicidal bacteria that kill red tide raphidophyte *Heterosigma akashiwo* and *Chattonella antiqua***
Isamu Kodama¹, Nobuharu Inaba² and Ichiro Imai¹
¹Hokkaido University, Japan and ²Japan Fisheries Research and Education Agency, Japan
- SP05-03 **Diatom resting stage cells and benthic diatoms in the sediment of the Japanese coastal waters**
Nami Ako¹, Kazuyosi Miyamura², Hideki Iwano², Natsuko Nakayama³, Takeshi Masuda⁴ and Ichiro Imai¹
¹Hokkaido University, Japan, ²Oita Prefectural Agriculture, Forestry and Fisheries Research Center, Japan, ³Japan Fisheries Research and Education Agency, Japan and ⁴Mie Prefecture Fisheries Research Institute, Japan
- SP05-04 **Possible contribution of submarine groundwater on feeding and growth of juvenile marbled flounder *Pseudopleuronectes yokohamae* in the Seto Inland Sea, Japan**
Jun Shoji¹, Masaki Hata¹ and Koji Fujita¹
Hiroshima University, Japan
- SP05-05 **Evaluation of the environmental condition of Submarine Groundwater Discharge (SGD) by using nitrate stable isotope ratio recorded in sea lettuce (*Ulva* sp.)**
Takeuchi Masaru¹, Ryo Sugimoto¹, Katsuhiko Kitagawa¹, Shiho Kobayashi², Kengo Ikuta², Jun Shoji³, Makoto Yamada⁴, Hisami Honda⁴, Makoto Taniguchi⁴ and Osamu Tominaga¹
¹Fukui Prefectural University, Japan, ²Kyoto University, Japan, ³Hiroshima University, Japan and ⁴Research Institute for Humanity and Nature Center, Japan
- SP05-06 **Relationship between the intertidal snail, *Batillaria multiformis* and watershed characteristics, estimated from the stable carbon and nitrogen isotope analysis**
Hisashi Yokoyama¹, Ryo Sugimoto², Takahito Rihei², Yuji Tamura³ and Yoh Yamashita¹
¹Kyoto University, Japan, ²Fukui Prefectural University, Japan and ³Oita Prefectural Agriculture, Forestry and Fisheries Research Center, Japan
- SP05-07 **Comparison of aquatic biological production systems between two rivers in Oita Prefecture, Japan**
Toko Kanzaki¹, Manabu Kume¹, Shunya Hashiguchi¹, Mami Harada¹, Noritaka Mochioka², Akihide Kasai³, Yuji Tamura⁴, Hisashi Yokoyama¹, Nobuaki Arai¹ and Yoh Yamashita¹
¹Kyoto University, Japan, ²Kyusyu University, Japan, ³Hokkaido University, Japan and ⁴Oita Prefecture, Japan
- SP05-08 **Proposal of new collection method for juvenile fishes in *Sargassum* beds**
Yoshiya Yasutake and Noritaka Mochioka
Kyushu University, Japan
- SP05-09 **Predicting fish occurrence by data mining techniques**
Jian-Ping Suen and Yan-Cheng Liu
National Cheng Kung University, Taiwan

S6 (Biology of Aquatic Organisms)

Sept. 22 (Fri.) am Oral Presentation Room 7

- 10:00 SO06-01 **Neuromodulatory role of kisspeptins in fish reproduction and behaviour**
Satoshi Ogawa
Monash University Malaysia, Malaysia
- 10:30 SO06-02 **Some artificially applied stressors have a positive effect on fish fitness**
Toshiki Nakano¹, Haiyun Wu², Takafumi Arimoto², Hideaki Endo², Toshiyasu Yamaguchi¹ and Yoshihiro Ochiai¹
¹*Tohoku University, Japan and* ²*Tokyo University of Marine Science and Technology, Japan*
- 10:45 SO06-03 **Unraveling the roles of circulating insulin-like growth factor binding proteins in fish growth**
Munetaka Shimizu
Hokkaido University, Japan
- 11:00 SO06-04 **Function of MCH in skin color change of Koi carp**
Kanta Mizusawa¹, Haruka Isano¹, Eriho Aoki¹, Satoshi Kasagi¹, Yukihiro Hoshino², Noriyuki Hyodo² and Akiyoshi Takahashi¹
¹*Kitasato University, Japan and* ²*Niigata Prefectural Inland Water Fisheries Experiment Station, Japan*
- 11:15 SO06-05 **Development of genome editing technology in chub mackerel, *Scomber japonicus* and knockout of a *VTR-V1a2* by TALEN**
Koki Shibata¹, Hirofumi Ohga¹, Naoki Nagano², Keishi Sakaguchi², Hajime Kitano², Kohei Ohta¹, Satoru Kuhara³, Kousuke Tashiro³, Sangwan Kim³, Tetushi Sakuma³, Takashi Yamamoto², Koichiro Gen³, Atsushi Fujiwara³, Yukinori Kazeto³, Takanori Kobayashi³ and Michiya Matsuyama¹
¹*Kyushu University, Japan,* ²*Hiroshima University, Japan and* ³*Japan Fisheries Research and Education Agency, Japan*
- 11:30 SO06-06 **Gene expression of GtHs and their receptors during the process of final oocyte maturation in the honeycomb grouper *Epinephelus merra***
Takafumi Amagai¹, Daisuke Izumida^{1,2} and Kiyoshi Soyano¹
¹*Nagasaki University, Japan and* ²*Hokkaido National Fisheries Research Institute, Japan*
- 11:45 SO06-07 **Molecular characterization and agonistic activities of KISS1 core peptides in scombroid fish family**
Hirofumi Ohga, Fumiko Akase, Akihiko Yamaguchi, Kohei Ohta and Michiya Matsuyama
Kyushu University, Japan

Sept. 22 (Fri.) pm Oral Presentation Room 7

- 14:00 SO06-08 **Spawning induction of chub mackerel by orally administered nafarelin ([des-Gly10, 3-(2-naphthyl)-D-Ala6]-GnRH_a)**
Kotaro Amezawa¹, Hirofumi Ohga², Ryosuke Yazawa¹, Yutaka Takeuchi³, Michiya Matsuyama² and Goro Yoshizaki¹
¹*Tokyo University of Marine Science and Technology, Japan,* ²*Kyushu University, Japan and* ³*Kagoshima University, Japan*
- 14:15 SO06-09 **Application of otolith analysis to study the possibility of temperature-dependent sex determination in wild cobaltcap silverside**
Kaho Miyoshi¹, Bej Dillip¹, Ricardo Hattori², Calros Strüssmann¹ and Yoji Yamamoto¹
¹*Tokyo University of Marine Science and Technology, Japan and* ²*APTA/SAA, Brazil*
- 14:30 SO06-10 **Spatiotemporal distribution of gonadal apoptosis, *amh* and *cyp19a1a* gene expression during gonadal sex determination/histological differentiation in pejerrey**
Munti Sarida¹, Zhang Yan¹, Ricardo S. Hattori², Yoji Yamamoto¹ and Carlos A. Strüssmann¹
¹*Tokyo University of Marine Science and Technology, Japan and* ²*APTA, Brazil*

- 14:45 SO06-11 **Protective role of the ubiquitin-selective molecular chaperone CDC48 in cold adaptation of a poikilothermic pterobranch**
Shintaro Imamura¹, Tomomi Kato¹, Takeshi Yabu² and Michiaki Yamashita³
¹National Research Institute of Fisheries Science, Japan, ²Nihon University, Japan and ³National Fisheries University, Japan
- 15:00 SO06-12 **Fine scale genetic population structure of chum salmon *Oncorhynchus keta* in the Tsugaruishi River inferred from microsatellite DNA analysis**
Shino Kitamura¹, Hideharu Tsukagoshi¹, Gen Ogawa², Koudai Yamane³, Katsuhiko Ohta³, Tomoaki Goto¹ and Syuiti Abe¹
¹Iwate University, Japan, ²Iwate Prefectural Government, Japan and ³Iwate Fisheries Technology Center, Japan
- 15:15 SO06-13 **Footprints of selection around the sex determining gene in fugu**
Kabir Ahammad, Risa Ieda, Shotaro Hirase, Takashi Koyama, Satoshi Tasumi, Sho Hosoya and Kiyoshi Kikuchi
The University of Tokyo, Japan
- 15:30 SO06-14 **Research on regulatory factors of maturation in shrimp, focusing on vitellogenesis-inhibiting hormone in *Litopenaeus vannamei***
Bong Jung Kang, Zakea Sultana, Hsiang-Yin Chen and Marcy N. Wilder
Japan International Research Center for Agricultural Sciences, Japan
- 15:45 SO06-15 **Population structure and reproductive characteristics of the sea urchin *Heliocidaris crassispina* at the recently colonized area along Oga Peninsula, northeastern Honshu, Japan**
Wenping Feng, Kazumi Narita, Eri Inomata, Masakazu Aoki and Yukio Agatsuma
Tohoku University, Japan
- 16:00 SO06-16 **Manipulating the *Hemigrapsus* life-cycle: On-demand prey for octopus mariculture?**
Leo J.-H. Che and Ian G. Gleadall
Tohoku University, Japan
- 16:15 SO06-17 ***Sargassum* canopy as a possible substrate for the settlement of bivalve larvae**
Kokichi Ito, Masakazu Aoki, Masami Hamaguchi, Eri Inomata and Yukio Agatsuma
Tohoku University, Japan
- 16:30 SO06-18 **Induction of oocyte maturation by retinoic acid in pen shell *Atrina pectinate* and its application in artificial fertilization.**
Masahiko Awaji¹, Toshie Matsumoto¹, Daisuke Ojima¹, Shunsuke Inoue¹, Michio Suzuki² and Masaei Kanematsu¹
¹Fisheries Research Agency, Japan and ²The University of Tokyo, Japan
- 16:45 SO06-19 **Utilization of taurine accumulation systems for adaptation to extreme environments in bivalves**
Koji Inoue¹, Toshihiro Nagasaki¹, Azusa Kinjo-Kakumura¹ and Tomoko Koito²
¹The University of Tokyo, Japan and ²Nihon University, Japan
- 17:00 SO06-20 **Two types of divalent metal transporters discovered in marine organisms**
Mieko Sassa, Azusa Kinjo, Suhaila Rusni and Koji Inoue
The University of Tokyo, Japan
- 17:15 SO06-21 **The role of matrix metalloproteinase 1 in anti-*Vibrio* immune response of abalone**
Yulei Chen
Jimei University, China
- 17:30 SO06-22 **The process of two first polar body formation of androgenetic clam *Corbicula fluminea* eggs labeled with α -, γ -tubulin antibody, rhodamine-phalloidine, and DAPI, observed by confocal microscopy**
Masaru Hotta and Akira Komaru
Mie University, Japan

- SP06-01 **FXD12 associates with sodium-potassium ATPase in the intestines of two euryhaline medakas in response to salinity changes**
Wen-Kai Yang^{1,2}, Chao-Kai Kang¹, An-Di Hsu¹ and Tsung-Han Lee¹
¹National Chung Hsing University, Taiwan and ²Hungkuang University, Taiwan
- SP06-02 **Elucidation of physiological functions of saccus vasculosus as a photoperiodic organ in Japanese eel (*Anguilla japonica*)**
Shun Muneishi¹, Lim Bongsoo², Sungpyo Hur³, Katsuhisa Uchida¹ and Hirohiko Kagawa¹
¹University of Miyazaki, Japan, ²Solforto Co. Ltd., Korea and ³Korea Institute of Ocean Science & Technology, Korea
- SP06-03 **Rise of plasma potassium level directly stimulates branchial K⁺ excreting system in freshwater-acclimated Mozambique tilapia**
Miho Ishii¹, Soichi Watanabe¹, Fumiya Furukawa² and Toyoji Kaneko¹
¹The University of Tokyo, Japan and ²Kitasato University, Japan
- SP06-04 **Anthracene, a light polycyclic aromatic hydrocarbon, induces oxidative stress in coho salmon**
Madoka Okamoto, Haruka Sasaki, Toshiki Nakano, Toshiyasu Yamaguchi and Yoshihiro Ochiai
Tohoku University, Japan
- SP06-05 **Relationship between abundance and localization of maternal mRNA and egg quality in artificially matured Japanese eel**
Moemi Horiuchi¹, Hikari Izumi², Koichiro Gen³, Mark P. Lokman⁴, Shigeho Ijiri¹ and Shinji Adachi¹
¹Hokkaido University, Japan, ²Hirosaki University, Japan, ³Fisheries Research Agency, Japan and ⁴University of Otago, New Zealand
- SP06-06 ***In vitro* 11-ketotestosterone production by the ovary from Japanese eel, *Anguilla japonica***
Yuya Hasegawa¹, Mark P. Lokman², Shigeho Ijiri¹ and Shinji Adachi¹
¹Hokkaido University, Japan and ²University of Otago, New Zealand
- SP06-07 **Histological observations on maternal and fetal appendicular organs in viviparous elasmobranchs**
Wahei Yoshida, Satoshi Hayakawa and Kiyoshi Asahina
Nihon University, Japan
- SP06-08 **Proteomic response of juvenile chum salmon to thermal acclimation**
Takuya Satoh, Tetsuro Yamashita, Hideharu Tsukagoshi, Toshiaki Hirai and Syuiti Abe
Iwate University, Japan
- SP06-09 **Expressions of dual vitellogenin mRNAs in rainbow trout liver tissue exposed to estradiol-17 β and/or insulin-like growth factor I *in vitro***
Haruna Amano, Masahiro Nomura, Ryo Ohgushi, Miho Yokoyama, Kazuya Kawashima and Shunsuke Moriyama
Kitasato University, Japan
- SP06-10 **Marine eels stranded by a serious cold wave in January 2016 in Ryukyu Islands, Japan**
Yusuke Hibino¹, Kei Miyamoto², You Sakurai³ and Seishi Kimura⁴
¹Kyushu University, Japan, ²Okinawa Churashima Foundation, Japan, ³Okinawa Environmental Research Co., Ltd., Japan and ⁴Mie University, Japan
- SP06-11 **Distribution of freshwater shrimps in Myanmar estuary**
Tomonori Usami¹, Than Than Lwin², Masashi Yokota¹ and Yo Usami¹
¹Tokyo University of Marine Science and Technology, Japan and ²Ministry of Agriculture, Livestock and Irrigation, Myanmar
- SP06-12 **Influence of food availability on gonad production of the wild sea urchin *Hemicentrotus pulcherrimus* in the field**
Daichi Nakano¹ and Osamu Tominaga²
¹Fukui Prefectural Fisheries Experimental Station, Japan and ²Fukui Prefectural University, Japan

- SP06-13 **Environmental conditions affect the growth of Akoya pearl oyster (*Pinctada fucata*)**
Chiemi Miura¹, Toshiharu Iwai², Tomohisa Konishi¹, Yoshinari Oguro¹, Atsushi Ido² and Takeshi Miura²
¹Hiroshima Institute of Technology, Japan and ²Ehime University, Japan
- SP06-14 **The analysis of sex changes and sex-related gene expression in Akoya pearl oyster**
Toshiharu Iwai¹, Jeane Siswitasari Mulyana², Masaharu Takahashi³, Chiemi Miura^{1,4} and Takeshi Miura¹
¹Ehime University, Japan, ²Bogor Agricultural University, Indonesia, ³Shimonada Fisheries Cooperative, Japan and ⁴Hiroshima Institute of Technology, Japan
- SP06-15 **Study of climatic fluctuation and environment to population dynamics and life history in oyster *Crassostrea angulata***
Liang-Hsien Chen, Chih-Hao Shen and Wen-Chih Hsu
Chinese Culture University, Taiwan
- SP06-16 **Fatty acid requirement of a jellyfish *Aurelia aurita* s.l.**
Haruka Onishi, Takashi Mishima and Takao Yoshimatsu
Mie University, Japan
- SP06-17 **Genetic structure of the asari clam *Ruditapes philippinarum* juvenile in Ise Bay, Japan, inferred from microsatellite marker analysis**
Natsumi Sano¹, Natsuki Hasegawa², Kazuhiro Hanyu³, Dai Miyawaki⁴, Akira Komaru¹ and Hisami Kuwahara²
¹Mie University, Japan, ²Japan Fisheries Research and Education Agency, Japan, ³Mie Prefecture Fisheries Research Institute, Japan and ⁴Aichi Fisheries Research Institute, Japan
- SP06-18 **Identification of molecular markers associated with ovarian maturation in whiteleg shrimp, *Litopenaeus vannamei*.**
Tomoyuki Okutsu¹, Tetsuya Sakurai² and Kyonoshin Maruyama¹
¹Japan International Research Center for Agricultural Sciences, Japan and ²Kochi University, Japan

Sept. 23 (Sat.)	am	Oral Presentation	Room 7
10:00	SO06-23	The behavioral ecology of leptocephali: marine larvae with unforeseen abilities Michael Miller and Katsumi Tsukamoto <i>Nihon University, Japan</i>	
10:15	SO06-24	Environmental DNA analysis for detecting spawning events of the Japanese eel <i>Anguilla japonica</i> along the west Mariana Ridge in the Pacific Aya Takeuchi ¹ , Takuya Iijima ¹ , Wataru Kakuzen ¹ , Shun Watanabe ² , Yoshiaki Yamada ³ , Akihiro Okamura ³ , Noriyuki Horie ³ , Naomi Mikawa ³ and Katsumi Tsukamoto ¹ ¹ <i>Nihon University, Japan</i> , ² <i>Kindai University, Japan</i> and ³ <i>IRAGO institute Co., Ltd., Japan</i>	
10:30	SO06-25	Estimation of the spatiotemporal characteristics of spawning events of Japanese eels Takatoshi Higuchi ¹ , Shun Watanabe ² , Yoshihiro Niwa ³ , Yoshiaki Yamada ⁴ , Satoshi Arai ¹ , Michael J. Miller ¹ , Toshiyuki Hibiya ³ and Katsumi Tsukamoto ¹ ¹ <i>Nihon University, Japan</i> , ² <i>Kindai University, Japan</i> , ³ <i>The University of Tokyo, Japan</i> and ⁴ <i>IRAGO Institute Co. Ltd., Japan</i>	
10:45	SO06-26	Hiding-place usage of yellow-phase Japanese eels revealed by ultrasonic telemetry in a semi-natural pond Kenta Serizawa ¹ , Shun Watanabe ² , Kotaro Ichikawa ^{3,4} , Hiromichi Mitamura ^{3,4} , Nobuaki Arai ^{3,4} and Katsumi Tsukamoto ¹ ¹ <i>Nihon University, Japan</i> , ² <i>Kindai University, Japan</i> , ³ <i>Kyoto University, Japan</i> , ⁴ <i>Kyoto University, Japan</i> and ⁵ <i>CREST, JST, Japan</i>	
11:00	SO06-27	Spatial movement of black sea bream <i>Acanthopagrus schlegelii</i> in Hiroshima Bay, Japan Atsushi Tsuyuki, Kentaro Kawai, Keishi Muta and Tetsuya Umino <i>Hiroshima University, Japan</i>	

- 11:15 SO06-28 **Diel vertical migration of silver-phase Japanese eels in their spawning area along the west Mariana Ridge**
Shun Watanabe¹, Toshiaki Higuchi², Tsuyoshi Kaku³, Ryotaro Manabe⁴, Akihiro Okamura⁵ and Katsumi Tsukamoto²
¹*Kinda University, Japan*, ²*Nihon University, Japan*, ³*Marubeni Nisshin Feed Co., Ltd., Japan*, ⁴*Ehime Prefectural Fisheries Experimental Station, Japan* and ⁵*Irago Institute Co., Ltd., Japan*
- 11:30 SO06-29 **Net-chasing training improves the behavioral characteristics of fish and crustaceans**
Kohji Takahashi¹ and Reiji Masuda²
¹*Nagasaki University (JSPS PD), Japan* and ²*Kyoto University, Japan*
- 11:45 SO06-30 **Parturition of captive harbour porpoise *Phocoena phocoena* in Otaru Aquarium, Japan**
Natsuki Matsui¹, Nobuya Ise², Masatoshi Tsunokawa², Seiichi Kaji², Ayaka Matsuda¹ and Takashi Matsuishi¹
¹*Hokkaido University, Japan* and ²*Otaru Aquarium, Japan*

Sept. 23 (Sat.)

Poster Presentation

- SP06-19 **Fluorescent proteins in the gonads of a stony coral, *Euphyllia ancora***
Yi-Ling Chiu, Shinya Shikina and Ching-Fong Chang
National Taiwan Ocean University, Taiwan
- SP06-20 **A GLWamide neuropeptide in the stony coral *Euphyllia ancora*: a possible function in tentacle and mouth contraction in corals**
Shinya Shikina, Jack I-Chen Yao, Tai-Yu Liu and Ching-Fong Chang
National Taiwan Ocean University, Taiwan
- SP06-21 **Lysozyme from Placozoa, an early diverging metazoan, lyses both gram-positive and negative bacteria**
Munetsugu Bam¹ and Hiroaki Nakano²
¹*University of Yamanashi, Japan* and ²*University of Tsukuba, Japan*
- SP06-22 **Effects of nutrient enrichment, irradiance control, and boiling on the color of the brown alga *Undaria pinnatifida***
Hikaru Endo^{1,2}, Atsushi Suzuki¹, Yoichi Sato^{3,4} and Yukio Agatsuma¹
¹*Tohoku University, Japan*, ²*Kagoshima University, Japan*, ³*Riken Food Co., Ltd., Japan* and ⁴*RIKEN, Japan*
- SP06-23 **The photosynthetic responses to temperature and irradiance on two life history stages of a brown alga, *Cladosiphon okamuranus* from Ryukyu Islands, Japan**
Rika Fukumoto¹, Gregory N. Nishihara², Hikaru Endo¹ and Ryuta Terada¹
¹*Kagoshima University, Japan* and ²*Nagasaki University, Japan*
- SP06-24 **The effect of irradiance and temperature on the photosynthesis of a tropical seagrass, *Halodule uninervis* (Cymodoceaceae) from Amami-Oshima Island, Ryukyu Archipelago, Japan**
Natsumi Shimada¹, Gregory N. Nishihara², Hikaru Endo¹ and Ryuta Terada¹
¹*Kagoshima University, Japan* and ²*Nagasaki University, Japan*
- SP06-25 **Major harmful shell-boring species of polydorids from cultured Akoya oysters in Ago Bay, Japan**
Keita Higuchi, Naoki Hashimoto and Kiyohito Nagai
K. MIKIMOTO & CO., LTD., Japan
- SP06-26 **Long periods with closed shells observed from winter to spring in Akoya oysters (*Pinctada fucata martensii*)**
Sho Okano¹, Jyoji Go¹, Kiyohito Nagai¹, Susumu Segawa² and Tsuneo Honjo³
¹*K. MIKIMOTO & CO., LTD., Japan*, ²*Tokyo University of Agriculture, Japan* and ³*Kagawa University, Japan*
- SP06-27 **The role of heat shock transcription factor 1 in medaka (*Oryzias latipes*)**
Fumiya Furukawa, Shin Hamasaki, Natumi Osafune and Takeshi Kitano
Kumamoto University, Japan

- SP06-28 **The role of the transcription factor Smox during appendage regeneration in the crayfish *Procambarus fallax f. virginalis***
Junpei Shinji¹, Hiroshi Miyanishi², Hiroki Gotoh³, Mark Lavine¹ and Laura Lavine¹
¹Washington State University, USA, ²University of Miyazaki, Japan and ³Nagoya University, Japan
- SP06-29 **Nitrate and nitrite exposure affects the eye development of zebrafish**
Febriyansyah Saputra and Mitsuyo Kishida
Kumamoto University, Japan
- SP06-30 **Expression pattern of vasa gene in germ cells and vasa-dsRNA mediated RNA interference in oocytes and early embryos of pacific abalone (*Haliotis discus discus*)**
Lingyun Yu¹, Shioh Ooka², Huan Ye³, Dongdong Xu⁴, Hidehiro Kondo¹, Ryosuke Yazawa¹ and Yutaka Takeuchi^{1,5}
¹Tokyo University of Marine Science and Technology, Japan, ²Japan Ocean Resources Development and Engineering Co., Ltd., Japan, ³Chinese Academy of Fishery Sciences, China, ⁴Marine Fishery Institute of Zhejiang Province, China and ⁵Kagoshima University, Japan
- SP06-31 **Isolation and secondary structure analysis of a novel red color-related pigment-binding protein derived from shrimp *Litopenaeus vannamei* shell**
Chuang Pan, Shoichiro Ishizaki and Yuji Nagashima
Tokyo University of Marine Science and Technology, Japan

S7 (Aquaculture)

Sept. 22 (Fri.)	am	Oral Presentation	Room 5
10:00	SO07-01	Diversified isotypes of immune-related genes as a biodefense strategy in teleost Teruyuki Nakanishi ¹ , Yasuhiro Shibasaki ² and Yuta Matsuura ³ ¹ <i>Nihon University, Japan</i> , ² <i>University of Pennsylvania, USA</i> and ³ <i>National Research Institute of Aquaculture, Japan</i>	
10:30	SO07-02	Classification of hemocytes of kuruma shrimp by membrane protein as a marker Keiichiro Koiwai, Hidehiro Kondo and Ikuo Hirono <i>Tokyo University of Marine Science and Technology, Japan</i>	
10:45	SO07-03	Quantitative proteomic analysis of Pacific oyster hemocytes in response to pathogen-associated molecular patterns Keisuke Takahashi ¹ and Naoki Itoh ² ¹ <i>Tohoku University, Japan</i> and ² <i>The University of Tokyo, Japan</i>	
11:00	SO07-04	Functional analysis of tecrem, a CD46-like complement regulatory protein, on epithelial cells in the common carp Harsha Prakash, Shiori Motobe, Takahiro Nagasawa, Tomonori Somamoto and Miki Nakao <i>Kyushu University, Japan</i>	
11:15	SO07-05	Ligand recognition specificity of carp thrombocytes as the natural type I IFN producing cells. Takahiro Nagasawa, Tomonori Somamoto and Miki Nakao <i>Kyushu University, Japan</i>	
11:30	SO07-06	Comprehensive gene expression analysis in gill-epithelium antigen sampling cells of rainbow trout Haruya Miyazawa ¹ , Uwe Fischer ² , Takuya Yamaguchi ² , Hidehiro Kondo ¹ , Motohiko Sano ¹ and Goshi Kato ¹ ¹ <i>Tokyo University of Marine Science and Technology, Japan</i> and ² <i>Friedrich-Loeffler-Institut, Germany</i>	
11:45	SO07-07	Co-expression analysis of spleen transcriptome in the spleen of rock bream (<i>Oplegnathus fasciatus</i>) naturally infected by RBIV Ahran Kim and Do-Hyung Kim <i>Pukyong National University, Korea</i>	

Sept. 22 (Fri.)	pm	Oral Presentation	Room 5
14:00	SO07-08	IL-17A/F1 regulates expression of antimicrobial peptide genes in the intestine of medaka, <i>Oryzias latipes</i> Jun-ichi Hikima ¹ , Daisuke Ikeda ² , Miwa Nagaoka ¹ , Tomoya Kono ¹ , Masahiro Sakai ¹ , Haruko Takeyama ³ , Takashi Aoki ³ , Nanami Mizusawa ² , Shugo Watabe ² and Masato Kinoshita ⁴ ¹ <i>University of Miyazaki, Japan</i> , ² <i>Kitasato University, Japan</i> , ³ <i>Waseda University, Japan</i> and ⁴ <i>Kyoto University, Japan</i>	
14:15	SO07-09	Two bacterial flagellin genes induce expression of inflammatory cytokine genes in Japanese flounder, <i>Paralichthys olivaceus</i> Natsuki Morimoto ¹ , Tomoya Kono ¹ , Masakazu Kondo ² , Masahiro Sakai ¹ and Jun-ichi Hikima ¹ ¹ <i>University of Miyazaki, Japan</i> and ² <i>National Fisheries University, Japan</i>	
14:30	SO07-10	Functional characterization endonuclease domain-containing 1 gene (ENDOD1) of Japanese flounder <i>Paralichthys olivaceus</i> Hiroki Abe, Keiichiro Koiwai, Reiko Nozaki, Ikuo Hirono and Hidehiro Kondo <i>Tokyo University of Marine Science and Technology, Japan</i>	
14:45	SO07-11	Protection mechanism of silkrose for bacterial pathogen infection in medaka (<i>Oryzias latipes</i>) by comprehensive gene analysis Muhammad Fariz Zahir Ali ¹ , Kenta Kameda ¹ , Fumitaka Kondo ¹ , Atsushi Hashizume ¹ , Toshiharu Iwai ¹ , Chiemi Miura ^{1,2} and Takeshi Miura ¹ ¹ <i>Ehime University, Japan</i> and ² <i>Hiroshima Institute of Technology, Japan</i>	

- 15:00 SO07-12 **The development of a new generation of functional commercial tilapia feeds to reduce the use of harmful antibiotics in intensive aquaculture systems**
Wing-Keong Ng, Chik-Boon Koh and Chaiw-Yee Teoh
Universiti Sains Malaysia, Malaysia
- 15:15 SO07-13 **The anthelmintic effects of rosemary (*Rosmarinus officinalis*) extracts in common carp (*Cyprinus carpio*) and pharmacokinetic activity of 1,8-cineole component**
Mehmet Arif Zoral, Yuki Ishikawa, Toshiaki Ohshima, Kunihiko Futami, Masashi Maita, Makoto Endo and Takayuki Katagiri
Tokyo University of Marine Science and Technology, Japan
- 15:30 SO07-14 ***Bacillus subtilis* and *Bacillus licheniformis* on Nile tilapia fed: intestinal microbiota, zootechnical performance of growth and health**
Leonardo Tachibana, Guilherme Silveira Telli, Danielle de Carla Dias, Carlos Massatoshi Ishikawa, Fabio Rosa Sussel, Raissa Bertonecello Cavalcante and Maria José Ranzani-Paiva
Fisheries Institute - APTA/SAA - Brazil
- 15:45 SO07-15 **Study on effect of extracellular products of microalgae against covert mortality nodavirus (CMNV) in pacific white shrimp (*Litopenaeus vannamei*)**
Matthura Labaiden, Sudarat Saengngern, Supattra Khunsanoh, Ninlawan Chotipan, Chairat Khanjaroen, Wallapa Molex, Songwut Patkeaw and Sataporn Direkbusarakom
Walailak University, Thailand
- 16:00 Break
- 16:15 SO07-16 **Isolation, characterization, and comparative genomic analysis of a novel virulent bacteriophage of *Weissella* sp.**
Dinh Hoai Truong^{1,2}, Kyoka Mitomi¹, Issei Nishiki³ and Terutoyo Yoshida¹
¹University of Miyazaki, Japan, ² Vietnam National University of Agriculture, Vietnam and ³ Fisheries Research Agency, Japan
- 16:30 SO07-17 **Novel biosubstances, α -mangostin and gartanin, from mangosteen (*Garcinia mangostana* L.) candidate for anti-saprolegniiasis agent**
Chanon Jaichuen¹, Jiraporn Rojtinnakorn¹ and Kashio Hatai²
¹Maejo University, Thailand and ²Nippon Veterinary and Life Science University, Japan
- 16:45 SO07-18 **Detection of tetracycline resistance genes in isolated bacteria from aquaculture sites in Sri Lanka**
Pathmalal M. Manage and Gayani Y. Liyanage
University of Sri Jayewardenepura, Sri Lanka
- 17:00 SO07-19 **Whole genome sequences of *Photobacterium damsela* subsp. *piscicida* isolated in Japan and the USA**
Yuki Teru¹, Tomoya Kono¹, Masahiro Sakai¹, Tomokazu Takano², John P. Hawke³, Yutaka Fukuda⁴, Haruko Takeyama⁵, Takashi Aoki⁵ and Jun-ichi Hikima¹
¹University of Miyazaki, Japan, ² National Research Institute of Aquaculture, Japan, ³ Louisiana State University, USA, ⁴ Oita Prefectural Agriculture, Forestry and Fisheries Research Center, Japan and ⁵ Waseda University, Japan
- 17:15 SO07-20 **Application of light emitting diode (LED) to disease control in fish**
Heyong Jin Roh and Do Hyung Kim
Pukyong National University, Korea
- 17:30 SO07-21 **Comparative genome analysis of *Edwardsiella* species**
Nameun Kim and Do-Hyung Kim
Pukyong National University, Korea
- 17:45 SO07-22 **Studies on probiotic effects of *Lactococcus lactis* WFLU12 through its genome sequence and metabolome analysis in olive flounder (*Paralichthys olivaceus*)**
Thanh Luan Nguyen and Do-Hyung Kim
Pukyong National University, Korea

- SP07-01 **Estimation of epidemiological cut-off values for enrofloxacin and its efficacy against streptococcosis in olive flounder, *Paralichthys olivaceus***
Won-kyong Chun and Do-Hyung Kim
Pukyong National University, Korea
- SP07-02 **Positive effects of *Pseudoalteromonas piscicida* and mannanoligosaccharide supplementations through *Artemia* sp. on the growth performance and the health status of Pacific white shrimp (*Litopenaeus vannamei*) larvae**
Widanarni Widanarni, Hamsah, Alimuddin, Munti Yuhana and Muhammad Zairin Jr.
Bogor Agricultural University, Indonesia
- SP07-03 **Antimicrobial activity of two natural products against grouper pathogenic viruses and bacteria**
TsungYu Kao¹, LiPing Ho¹, YeongTorng Chu^{1,2} and HsinYiu Chou¹
¹*National Taiwan Ocean University, Taiwan* and ²*Fisheries Research Institute, Council of Agriculture, Taiwan*
- SP07-04 **Effects of different levels of vitamin C and prolonged nursing on growth and innate immunity of Nile tilapia**
Debasish Saha and Takao Yoshimatsu
Mie University, Japan
- SP07-05 **Protective effects of bacteriophage on experimental *Aeromonas veronii* infection in ranchu and colored carp**
Eijiro Kawahara and Akinori Hayashi
Fukuyama University, Japan
- SP07-06 **Enrichment of probiotic *Lactococcus lactis* strain K-C2 in *Artemia***
Yuki Hayami, Nguyen Thi Hue Linh and Yousuke Taoka
University of Miyazaki, Japan
- SP07-07 **Rearing trial of eel, *Anguilla japonica*, in a closed recirculating system using hot spring water welled up in Saito City, Miyazaki, Japan**
Seika Okane, Kazuho Umetsu, Mizuki Horoiwa, Yukie Kamata, Yuki Hayami, Setsuko Nagai, Noriko Nagasaka, Kenya Horii, Nguyen Thi Hue Lihn, Ryusuke Tanaka, Katsuhisa Uchida and Yousuke Taoka
University of Miyazaki, Japan
- SP07-08 **Selection of suitable probiotic microorganisms for Nile tilapia (*Oreochromis niloticus*)**
Danielle de Carla Dias, Mariene Miyoko Natori, Carlos Massatoshi Ishikawa, Gustavo Siromaru Osti and Leonardo Tachibana
Fisheries Institute - APTA - SAA - Brazil
- SP07-09 **The efficacy of bivalent vaccine in Nile tilapia broodstock on maternal transfer of immunity in preventing *Aeromonas hydrophila* and *Streptococcus agalactiae* infection**
Sukenda Sukenda, Odang Carman, Rahman Rahman, Dendi Hidayatullah and Wesli Pasaribu
Bogor Agricultural University, Indonesia
- SP07-10 **Development of the oral delivery system for shrimp aquaculture using attenuated *Listeria monocytogenes***
Li-Li Chen
National Taiwan Ocean University, Taiwan
- SP07-11 **A possible DNA vaccine candidate encoding a membrane protein by ORF 136 of cyprinid herpesvirus 2 against goldfish herpesviral hematopoietic necrosis**
Azusa Nanjo¹, Tomoya Shibata¹, Chang Wei¹, Teruyuki Nakanishi², Goshi Kato¹ and Motohiko Sano¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Nihon University, Japan*

- SP07-12 **Probiotics *Bacillus subtilis* and *Lactobacillus plantarum* in diet for Nile tilapia (*Oreochromis niloticus*): evaluation of TNF- α , HSP-70 and IL- β gene expression**
Mateus Cardoso Guimarães, Silvana Tápia-Paniagua, Miguel Angel Moriñigo, Amanda Iracy Cavalcante da Silva, Mariene Miyoko Natori, Danielle de Carla Dias and Leonardo Tachibana
Fisheries Institute - SAA/APTA
- SP07-13 **SNP detection within the region related to lymphocystis disease resistance in Japanese flounder *Paralichthys olivaceus***
Saki Kabayama, Ayana Nakajima, Masatoshi Nakamoto, Tsubasa Uchino and Takashi Sakamoto
Tokyo University of Marine Science and Technology, Japan
- SP07-14 **Removal of *Flavobacterium psychrophilum* in spleen of vaccinated ayu *Plecoglossus altivelis* after the challenge**
Yosuke Isaka¹, Kyuma Suzuki², Motohiko Sano¹, Shotaro Izumi³ and Goshi Kato¹
¹*Tokyo University of Marine Science and Technology, Japan*, ²*Gunma Prefectural Fisheries Experimental Station, Japan* and ³*Tokai University, Japan*
- SP07-15 **Maturation-associated changes in non-specific immune response against *Flavobacterium psychrophilum* in Ayu *Plecoglossus altivelis***
Shungo Minami¹, Kyuma Suzuki², Shun Watanabe², Motohiko Sano¹ and Goshi Kato¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Gunma Prefectural Fisheries Experiment Station, Japan*
- SP07-16 **Detection of impact for selective breeding program of bacterial coldwater-disease resistance using DNA maker linked to the resistance trait in ayu *Plecoglossus altivelis***
Miho Hirano¹, Aya Kondo¹, Tsubasa Uchino¹, Masatoshi Nakamoto¹, Tomonori Kuwada² and Takashi Sakamoto¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Gifu Prefectural Research Institute for Fisheries and Aquatic Environments, Japan*
- SP07-17 **Recombinant expression of *Epinephelus lanceolatus* serum amyloid A (EISAA) and analysis of its macrophage modulatory activities.**
Wen-Chun Lin
Academia Sinica, Taiwan
- SP07-18 **Searching for infection related proteases using protease activity assay and next generation sequencing on yellowtail skin fluke *Benedenia seriolae***
Keigo Kobayashi¹, Hirofumi Yamashita², Ikuo Hirono¹ and Hidehiro Kondo¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Ehime Research Institute of Agriculture, Forestry and Fisheries, Japan*
- SP07-19 **Development of a novel peptide antibodies for immunoglobulin M heavy chain detection in various fish species**
Walissara Jirapongpaibroj, Ikuo Hirono and Hidehiro Kondo
Tokyo University of Marine Science and Technology, Japan
- SP07-20 **Production of a specific antibody against banded houndshark *Triakis scyllium* immunoglobulin new antigen receptor**
Masaya Kubo, Ikuo Hirono and Hidehiro Kondo
Tokyo University of Marine Science and Technology, Japan
- SP07-21 **Immunological activity of the abdominal adipose tissue of red sea bream, *Pagrus major***
Miki Takimoto, Ryouta Hishi, Masanobu Mizuguchi, Yui Machida, Kyouka Mitomi, Shigeyuki Tsutsui and Osamu Nakamura
Kitasato University, Japan
- SP07-43 **Development of a novel immunosensor system for fish sex determination**
Haiyun Wu, Taro Sakurai, Goro Yoshizaki, Hitoshi Ohnuki and Hideaki Endo
Tokyo University of Marine Science and Technology, Japan

- SP07-62 **Silkrose is effective for vibriosis of Japanese tiger prawn (*Marsupenaeus japonicas*): evidence from challenge study**
Indri Afriani Yasin¹, Takashi Ohta¹, Atsushi Hashizume¹, Atsushi Ido¹, Chiemi Miura^{1,2} and Takeshi Miura¹
¹*Ehime University, Japan and* ²*Hiroshima Institute of Technology, Japan*
- SP07-63 **Characterization and expression of inflammasome-associated genes in medaka, *Oryzias latipes***
Mikihisa Izumi¹, Tomoya Kono¹, Masahiro Sakai¹, Jun-ichi Hikima¹ and Gouranga Biswas²
¹*University of Miyazaki, Japan and* ²*ICAR-Central Institute of Brackishwater Aquaculture, Kakdwip Research Centre, India*

Sept. 23 (Sat.) am **Oral Presentation** **Room 5**

- 10:00 SO07-23 **Impact of parasitic diseases on fishes of north west Himalayan streams of India**
Feroz Shah and Masood Balkhi
SKUAST-K, India
- 10:15 SO07-24 **Surveillance of white spot syndrome virus (WSSV) and acute hepatopancreatic necrosis disease (AHPND) in the Philippines**
Edgar C. Amar¹, Angela Denise P. Bilbao¹, Leobert D. de la Pena¹, Germin L. Moquera¹, Charles Eugene I. Villanoche¹ and Cynthia P. Saloma²
¹*Southeast Asian Fisheries Development Center, Philippines and* ²*University of the Philippines, Philippines*
- 10:30 SO07-25 **Vaccine against White Spot Syndrome Virus (WSSV) and early mortality syndrome (EMS) for shrimp**
Sataporn Direkbusarakom, Chettupon Pooljun, Ikuo Hirono, Sudarat Saengngern, Suwit Wuthisuthimethavee and Matthura Labaiden
Walailak University Tasala Distric Nakhon Sithammarat, Thailand
- 10:45 SO07-26 **Adjuvant effect of glycolipids delivered from acid-fast bacterium in fish**
Megumi Matsumoto¹, Kyosuke Araki¹, Sayaka Nishimura¹, Kazuma Hayashi¹, Kazuhiro Shiozaki¹, Teruyuki Nakanishi² and Atsushi Yamamoto¹
¹*Kagoshima University, Japan and* ²*Nihon University, Japan*
- 11:00 SO07-27 **Enhancing the efficacy of inactivated streptococcal vaccine by using recombinant surface immunogenic protein**
Sugunya Maneenin
Kasetsart University, Thailand
- 11:15 SO07-28 **Genotypic, phenotypic and secretome analysis of *Vibrio vulnificus* isolated from diseased brown-marbled grouper (*Epinephelus fuscoguttatus*)**
Atittaya Hoihuan
Kasetsart University, Thailand
- 11:30 SO07-29 **Novel strategies for nervous necrosis virus prevention using in Taiwan grouper industry**
Ming-Wei Lu
National Taiwan Ocean University, Taiwan
- 11:45 SO07-30 **Screening of bacteria from salina tilapia (*Oreochromis niloticus*) cultured in floating net cages in Indonesian marine waters**
Sutanti Sutanti, Sugiyo Hadi Pranoto and Ratu Siti Aliah
Agency for The Assessment and Application of Technology (BPPT), Indonesia

Sept. 23 (Sat.) pm **Oral Presentation** **Room 5**

- 14:00 SO07-31 **The application of genomic technologies for the advancement of the aquaculture industry**
Abigail Elizur, Daniel Powell, Scott Cummins and Wayne Knibb
University of the Sunshine Coast, Australia

- 14:30 SO07-32 **Transmission and expression of foreign growth hormone gene in betta transgenic first generation**
Alimuddin Alimudin, Eni Kusri, Muhammad Zairin Jr and Dinar Tri Sulistyowati
Bogor Agricultural University (IPB), Indonesia
- 14:45 SO07-33 **Effects of artificial induction on early development of tetraploid turbot *Scophthalmus maximus***
Zhihao Wu¹, Feng You¹, Jiawei Guo², Lijuan Wang¹ and Zongcheng Song³
¹*Chinese Academy of Sciences, China*, ²*Qingdao Agricultural University, China* and ³*Shenghang Aquatic Science and Technology Co., Ltd., China*
- 15:00 SO07-34 **Sex control of yellow drum (*Nibea albiflora*) for its aquaculture**
Dongdong Xu¹, Ruiyi Chen¹, Bao Lou¹, Fang Yang² and Yutaka Takeuchi³
¹*Marine Fishery Institute of Zhejiang Province, China*, ²*Tokyo University of Marine Science and Technology, Japan* and ³*Kagoshima University, Japan*
- 15:15 SO07-35 **Development of a microinjection-based protocol for impregnation of Japanese whiting (*Sillago japonica*) embryos with cryoprotective agents**
Md Ariful Alam¹, Carlos Augusto Strüssmann¹, Sheikh Mustafizur Rahman², Yoji Yamamoto¹ and Shohei Sakai¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Khulna University, Bangladesh*
- 15:30 Break
- 15:45 SO07-36 **Production of Kyushu bitterling offspring from Chinese rosy bitterling recipients using spermatogonial transplantation**
Anna Octavera and Goro Yoshizaki
Tokyo University of Marine Science and Technology, Japan
- 16:00 SO07-37 **Hybrid croaker recipients showing a germ-cell less phenotype produced donor-derived mullet *Argyrosomus japonicus* sperm following intra-peritoneal germ-cell transplantation**
Yutaka Takeuchi¹, Tasuku Yoshino², Dongdong Xu^{1,3}, Yasuko Ino⁴ and Hiroyuki Yoshikawa⁴
¹*Kagoshima University, Japan*, ²*Tokyo University of Marine Science and Technology, Japan*, ³*Marine Fishery Institute of Zhejiang Province, China* and ⁴*National Fisheries University, Japan*
- 16:15 SO07-38 **Specific visualization of type A spermatogonia using fluorescence-conjugated antibody-recognizing cell surface antigen in Pacific bluefin tuna**
Kensuke Ichida¹, Wataru Kawamura¹, Kanta Mori², Makoto Hayashi³, Ryosuke Yazawa¹ and Goro Yoshizaki¹
¹*Tokyo University of Marine Science and Technology, Japan*, ²*Kagoshima University, Japan* and ³*University of Tsukuba, Japan*
- 16:30 SO07-39 **Diploid and aneuploid spermatogenesis in tetraploid silver crucian carp**
Fumi Yamaguchi¹, Takafumi Fujimoto¹, Masaru Murakami², Hiroko Suzuki³, Hideki Tanaka³, Etsuro Yamaha¹ and Katsutoshi Arai¹
¹*Hokkaido University, Japan*, ²*Azabu University, Japan* and ³*Gunma Prefectural Fisheries Experiment Station, Japan*
- 16:45 SO07-40 **Morphology, physiology, preservation of climbing perch *Anabas testudineus* Bloch. sperm and the endurance to electric shock towards transgenesis by electroporation method**
Fajar Maulana, Alimuddin and Muhammad Zairin Junior
Bogor Agricultural University, Indonesia

Sept. 23 (Sat.)

Poster Presentation

- SP07-22 **Hypothermal stress induced differential expression profiles of the immune response gene, “warm-temperature-acclimation associated 65-kDa protein” (Wap65), in livers between fresh water and seawater milkfish, *Chanos chanos***
Chia-Hao Chang¹, Jing-Yun Lin², Wan-Yu Lo³ and Tsung-Han Lee¹
¹*National Chung Hsing University, Taiwan*, ²*Asia University, Taiwan* and ³*Hungkuang University, Taiwan*

- SP07-23 **Identification of genes associated with Vp_PirAB-like toxin resistance in *Litopenaeus vannamei* based on transcriptome analysis**
 Sasiwipa Tinwongger^{1,2}, Jumroensri Thawonsuwan³, Hidehiro Kondo¹ and Ikuo Hirono¹
¹Tokyo University of Marine Science and Technology, Japan, ²Coastal Fisheries Research and Development Division, Thailand and ³Songkhla Aquatic Animal Health Research Center, Department of Fisheries, Thailand
- SP07-24 **Assessment of *Bacillus amyloliquefaciens* TOA5001 as a potential probiotic against shrimp pathogen**
 Kentaro Imaizumi, Hidehiro Kondo and Ikuo Hirono
 Tokyo University of Marine Science and Technology, Japan
- SP07-25 **Functional characterisation of two novel piscidins from rock bream (*Oplegnathus fasciatus*)**
 Jin-Sol Bae, Jeswin Joseph, Gwang-Min Choi, Dong-Hee Cho, Min-Soo Joo and Chan-Il Park
 Gyeongsang National University, Korea
- SP07-26 **Characteristics and expression of T-cell surface antigen CD2 gene from rock bream (*Oplegnathus fasciatus*) and applicability as a marker**
 Dong-Hee Cho, Jeswin Joseph, Ji-Min Jung, Gwang-Min Choi, Min-Soo Joo and Chan-Il Park
 Gyeongsang National University, Korea
- SP07-27 **Circadian oscillation of *bmal1* and cytokine genes in the medaka**
 Teika Onoue, Jun-ichi Hikima, Masahiro Sakai and Tomoya Kono
 University of Miyazaki, Japan
- SP07-28 **Novel hepatic antimicrobial peptide *HAMP3* genes are strongly activated not only in the liver but also in gill, head kidney and spleen of Nile tilapia to defend against virulent *Streptococcus iniae***
 Chia-Hui Ho, Sheng-Han Wu and Hong-Yi Gong
 National Taiwan Ocean University, Taiwan
- SP07-29 **The effect of high-concentration ascorbic acid supplementation on the expression of interferon-related genes in rainbow trout**
 Eriko Hirose, Takumi Fujikura, Aki Namba, Takanori Ishikawa, Takeshi Yabu, Nobuhiro Mano, Hiroshi Anzai and Teruyuki Nakanishi
 Nihon University, Japan
- SP07-30 ***Nodulisporium* sp. KT29 metabolites to increase growth and immune response of vaname shrimp in marine culture against WSSV and *Vibrio harveyi* co-infection**
 Dinamella Wahjuningrum¹, Sri Hariati¹, Munti Yuhana¹, Kustiariyah Tarman¹, Irzal Effendi¹ and Fazril Saputra²
¹Bogor Agricultural University, Indonesia and ²Teuku Umar University, Aceh, Indonesia
- SP07-31 **Phylogenetic relationships among *Streptococcus dysgalactiae* strains pathogenic to fish by *emm* typing and multilocus sequence analysis**
 Shotaro Ito¹, Issei Nishiki² and Terutoyo Yoshida¹
¹Miyazaki University of Agriculture, Japan and ²Fisheries Research and Education Agency, Japan
- SP07-32 **Epidemiological study of *Lactococcus garvieae* (serotype II) isolated from *Seriola quinqueradiata* and *S. dumerili* in Japan**
 Kazuya Ohbayashi¹, Issei Nishiki² and Terutoyo Yoshida¹
¹University of Miyazaki, Japan and ²Fisheries Research and Education Agency, Japan
- SP07-33 **Characterization of a newly isolated *Vibrio brasiliensis* TN1 from grouper (*Epinephelus coioides*) and screening vaccine candidate antigens by immunoprecipitation approach**
 Li-Ping Ho, Tsung-Yu Kao, Yeong-Torng Chu and Hsin-Yiu Chou
 National Taiwan Ocean University, Taiwan
- SP07-34 **Analysis of genome sequence of *Edwardsiella anguillarum* isolated from Japanese eel (*Anguilla japonica*)**
 Yoonhang Lee, Ahran Kim, Nameun Kim and Do-Hyung Kim
 Pukyong National University, Korea

- SP07-35 **Asymptomatic surviving goldfish: potential infection source of cyprinid herpesvirus 2**
Chang Wei¹, QiuYuan Chuah¹, Azusa Nanjo¹, Taichi Kakazu¹, Hayato Iida¹, Mikio Tanaka², Keitaro Dairiki², Teruyuki Nakanishi³, Goshi Kato¹ and Motohiko Sano¹
¹Tokyo University of Marine Science and Technology, Japan, ²Saitama Fisheries Research Institute, Japan and ³Nihon University, Japan
- SP07-36 **Reisolation and reidentification of diseases causative agents in Asian sea bass (*Lates calcarifer*) in Lampung, Indonesia**
Sri Nuryati, Fitratunisa Fitratunisa and Sukenda Sukenda
Bogor Agricultural University, Indonesia
- SP07-37 **Parentage assignment of Japanese eel based on tri-, tetra-, penta- nucleotide microsatellite**
Shunsuke Ogata¹, Ryusuke Sudo², Moeri Miyao¹, Yoshiaki Yamada³, Katsumi Tsukamoto⁴ and Takashi Sakamoto¹
¹Tokyo University of Marine Life Science and Technology, Japan, ²Fisheries Research and Education Agency, Japan, ³IRAGO Institute Co., Ltd., Japan and ⁴Nihon University, Japan
- SP07-38 **Highly amplification of hepcidin genes and associated microsatellites are potential molecular markers in marker-assisted selection for disease resistance of Nile tilapia**
Hong Nhat Pham^{1,2}, Po-Chun Tseng³, Yi-Hsuan Kuo¹, Chia-Hui Ho¹, Sheng-Han Wu¹, Chang-Wen Huang¹ and Hong-Yi Gong³
¹National Taiwan Ocean University, Taiwan, ²Research Institute for Aquaculture No.1, Vietnam and ³National Taiwan Ocean University & Academia Sinica, Taiwan
- SP07-39 **QTL of rainbow trout associated with growth under low fishmeal diet feeding**
Ryuhei Kinami¹, Eisuke Nakamura¹, Kiyoshi Watanabe¹, Shinzo Uematsu¹, Hisao Uematsu¹, Tsubasa Uchino², Masatoshi Nakamoto² and Takashi Sakamoto²
¹Fishery Research Institute of Shizuoka Prefecture, Japan and ²Tokyo University of Marine Science and Technology, Japan
- SP07-40 **Production of rainbow trout offspring derived from germ cells cultured *in vitro***
Yoshiko Iwasaki and Goro Yoshizaki
Tokyo University of Marine Science and Technology, Japan
- SP07-41 **Effect of immersing 17 α -methyltestosterone on the sex reversal in yellow drum *Nibea albiflora***
Fang Yang¹, Dongdong Xu¹, Ruiyi Chen¹, Takao Hayashida², Yutaka Takeuchi² and Bao Lou¹
¹Marine Fishery Institute of Zhejiang Province, China and ²Tokyo University of Marine Science and Technology, Japan
- SP07-64 **Molecular characterization of *Aeromonas hydrophilla* using fragments of aerolysin and haemolysin genes collected from fishes of western Himalayas**
Feroz Shah, Iqbal Mir and Masood Balkhi
SKUAST-K J&K, India
- SP07-65 **Determination of multiple antibiotic resistant and multiple antibiotic resistance index in bacteria isolated from aquaculture farms**
Gayani Y. Liyanage and Pathmalal M. Manage
University of Sri Jayewardenepura, Sri Lanka
- SP07-66 **Shrimp stomach microbiota of white shrimp (*Litopenaeus vannamei*) was changed after acute hepatopancreatic necrosis disease (AHPND) outbreak**
Han-Ching Wang
National Cheng Kung University, Taiwan
- SP07-67 **Molecular assisted breeding using growth-related markers in dragon and tiger grouper**
Tzong-Yueh Chen
National Cheng Kung University, Taiwan

Sept. 24 (Sun.) am **Oral Presentation** **Room 5**

- 10:00 SO07-41 **From fishing to farming - taking the pressure off the oceans**
Gavin Burnell¹ and Daryl Gunning²
¹University College Cork, Ireland and ²Bantry Marine Research Station, Ireland
- 10:30 SO07-42 **Effects of biofloc in snakeskin gourami (*Trichogaster pectoralis* Regan) culture system on growth performance and fillet quality**
Orapint Jintasataporn¹ and Srinoy Srinoy Chumkam²
¹Kasetsart University, Thailand and ²Valaya Alongkorn Rajabhat University, Thailand
- 10:45 SO07-43 **Effect of high concentration of dissolved oxygen in the rearing water on the rearing performance and stress response in red sea bream and Japanese eel**
Daisuke Katayama¹, Kiyoshi Nakajima², Takehiro Ichinose², Tomokazu Fujita² and Tomonari Kotani¹
¹Kagoshima University, Japan and ²Sanso Electric Co. Ltd., Japan
- 11:00 SO07-44 **Rehabilitation : new life in old shrimp ponds through aquamimicry**
Kriengkrai Satapornvanit
Kasetsart University, Thailand
- 11:15 SO07-45 **Floating raft nets on cultivation of *Eucheuma denticulatum* and *Kappaphycus alvarezii* in Indonesia**
Ma'ruf Kasim¹, Ahmad Mustafa¹, Idul Male¹, Muzuni¹ and Wardha Jalil²
¹Halu Oleo University, Indonesia and ²Dayanu Iksanuddin University, Indonesia
- 11:30 SO07-46 **Culture and growth of *Kappaphycus alvarezii* using hanging long-lines using various concentrations of fish waste liquid fertilizers**
Jennie B. Fernandez
Pangasinan State University-Binmaley Campus, Philippines

Sept. 24 (Sun.) pm **Oral Presentation** **Room 5**

- 14:00 SO07-47 **Application of genome editing technology in aquaculture**
Masato Kinoshita
Kyoto University, Japan
- 14:30 SO07-48 **The application of genomic selection in the genetic improvement of economic traits in the large yellow croaker (*Larimichthys crocea*)**
Linsong Dong, Shijun Xiao and Zhiyong Wang
Jimei University, China
- 14:45 SO07-49 **Construction of new genetic linkage map using the genotyping-by-sequencing method and QTL analysis of growth-related traits in Pacific bluefin tuna**
Tsubasa Uchino¹, Erina Hosoda¹, Yoji Nakamura², Motoshige Yasuike², Miyuki Mekuchi², Masashi Sekino², Atushi Fujiwara², Takuma Sugaya², Yosuke Tanaka², Kazunori Kumon², Yasuo Agawa², Yoshifumi Sawada³, Motohiko Sano¹ and Takashi Sakamoto¹
¹Tokyo University of Marine Science and Technology, Japan, ²Japan Fisheries Research and Education Agency, Japan, ³Japan Fisheries Research and Education Agency, Japan, ⁴Japan Fisheries Research and Education Agency, Japan and ⁵Kindai University, Japan
- 15:00 SO07-50 **A robust male broodstock individual of red sea bream (*Pagrus major*) resistant to RSIVD: genetic dissection and application for marker-assisted breeding**
Eitaro Sawayama¹, Shiho Tanizawa², Shin-Ichi Kitamura², Kei Nakayama², Kohei Ohta³, Akiyuki Ozaki⁴, Hiroyuki Okamoto⁴ and Motohiro Takagi²
¹Marua Suisan Co., Ltd., Japan, ²Ehime University, Japan, ³Kyushu University, Japan and ⁴Fisheries Research Agency, Japan

- 15:15 SO07-51 **Molecular cloning and SNP association analysis of the strong candidate gene responsible for Benedenia disease resistance in Japanese yellowtail *Seriola quinqueradiata***
Masatoshi Nakamoto¹, Yusuke Takeuchi¹, Ryo Kumagai¹, Kazuki Akita¹, Junpei Suzuki¹, Takashi Koyama¹, Tsutomu Noda², Kazunori Yoshida², Akiyuki Ozaki², Kazuo Araki² and Takashi Sakamoto¹
¹Tokyo University of Marine Science and Technology, Japan and ²Japan Fisheries Research and Education Agency, Japan
- 15:30 SO07-52 **Response to mass selection for correlation on growth traits in climbing perch, *Anabas testudineus* (Bloch,1792)**
Jomsuda Duangwongsa¹, Sanga Leesanga², Suchat Jul-a-dung², Metta Tipbunpot² and Pradchayaporn Akaboot³
¹Maejo University, Thailand, ²Department of Fisheries, Thailand and ³Prince of Songkla University, Thailand
- 15:45 SO07-53 **Nacre growth and thickness of Akoya pearls from Japanese and hybrid *Pinctada fucata* in response to the aquaculture temperature condition in Ago Bay, Japan**
Gunawan Muhammad^{1,3}, Takashi Atsumi², Sunardi¹ and Akira Komaru³
¹Padjadjaran University, Indonesia, ²Mie Prefectural Government, Japan and ³Mie University, Japan
- 16:00 SO07-54 **Development of novel method for gonad maturation by oral administration**
Joan Xiao Joe Tang¹, Abigail Elizur², Josephine Nocillado² and Ming-Wei Lu¹
¹National Taiwan Ocean University, Taiwan and ²University of the Sunshine Coast, Australia
- 16:15 SO07-55 **Induction of maturation in catfish (*Clarias* sp.) using pregnant mare's serum gonadotropin hormone, domperidone, and curcumin powder**
Agus Oman Sudrajat, Widi Astuti, Arisna Sari and Harton Arfah
Bogor Agricultural University, Indonesia
- 16:30 SO07-56 **Development of a stable supply system of Pacific bluefin tuna, *Thunnus orientalis*, eggs by manipulations of water temperature and photoperiod in land-based tanks**
Kentaro Higuchi, Koichiro Gen, Toshinori Takashi, Sayumi Sawaguchi, Satoshi Soma, Satoshi Shiozawa, Taizo Morioka, Kazunori Kumon, Hiroshi Hashimoto, Takeshi Eba, Akiko Tsujita, Yoshiaki Ina, Ayako Suzuki, Junpei Konishi, Yoshinori Sotoyama, Yosuke Tanaka, Masakazu Oka and Keiichi Mushiake
Japan Fisheries Research and Education Agency, Japan
- 16:45 SO07-57 **Development of a new counting method of caged bluefin tuna using multi-transducer sonar and pinger**
Akira Hamano¹, Toyoki Sasakura², Noboru Sakakibara³, Takaki Nomura⁴, Susumu Namari², Takeshi Nakamura¹, Shunsuke Ito⁵ and Hideaki Tanoue¹
¹National Fisheries University, Japan, ²Fusion Incorporation, Japan, ³Chubu Siryō Co., Ltd., Japan, ⁴The National Federation of Fisheries Cooperative Associations Mutual Aid, Japan and ⁵Ho-Yo Suisan Co., Ltd., Japan
- 17:00 SO07-58 **Effects of the light spectrum on the behavior, feeding, survival rate and growth of larval longtooth grouper (*Epinephelus bruneus*)**
Momoko Kobayashi and Yasunori Ishibashi
Kindai University, Japan
- 17:15 SO07-59 **The comparison of intracellular structure and eicosapentaenoic acid accumulation of *Nannochloropsis oculata* cells between nutrient-repleted and -depleted phases**
Hideaki Matsui, Mitsuharu Matsumoto and Tomonari Kotani
Kagoshima University, Japan
- 17:30 SO07-60 **Effect of *Thalassiosira weissflogii* and *Amphora* sp. on post-larva of white shrimp *Litopenaeus vanamei***
Wanlapha Molex, Songwut Phatkeaw, Ninlawan Chotipan, Supattra Khunsanoh, Matthura Labaiden and Sataporn Direkbusarakom
Walailak University, Thailand

- 17:45 SO07-61 **Production performance of white shrimp (*Litopenaeus vannamei*) under sea floating net cages with different feeding tray**
Irzal Effendi
Bogor Agricultural University, Indonesia

Sept. 24 (Sun.)

Poster Presentation

- SP07-42 **Development of a immunosensor system using enzyme reaction for detecting oocyte maturation-inducing hormone in fish**
Yusuke Saito, Haiyun Wu, Hitoshi Ohnuki and Hideaki Endo
Tokyo University of Marine Science and Technology, Japan
- SP07-44 **Exploration of fish eustress using wireless biosensor system**
Mario Nakayama¹, Hatsuaki Takahashi¹, Wu Haiyun¹, Takafumi Arimoto¹, Toshiki Nakano² and Hideaki Endo¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Tohoku University, Japan*
- SP07-45 **Development of novel glucose biosensor for fish using self-assembled monolayer**
Yuzu Fujii¹, Kazuki Yamada¹, Haiyun Wu¹, Hitoshi Ohnuki¹, Masataka Murata², Kyoko Hibi³ and Hideaki Endo¹
¹*Tokyo University of Marine Science and Technology, Japan*, ²*Hokkaido Industrial Technology Center, Japan* and ³*Kokugakuin Tochigi Junior College, Japan*
- SP07-46 **Induction of autoantibody against follicle stimulating hormone (FSH) in rainbow trout (*Oncorhynchus mykiss*) by injection of recombinant FSH protein**
Kenji Takase, Reiko Nozaki, Akihiro Harakawa, Masaki Yokota, Ikuo Hirono and Hidehiro Kondo
Tokyo University of Marine Science and Technology, Japan
- SP07-47 **Fertility and ploidy of gametes of allodiploid and allotriploid loach produced by diploid *Misgurnus anguillicaudatus* females and *Paramisgurnus dabryanus* males**
Songqian Huang¹ and Xiaojuan Cao²
¹*The University of Tokyo, Japan* and ²*Huazhong Agricultural University, China*
- SP07-48 **Induction of ovulation in tiger barb *Puntius tetrazona* using spermiation males or ovulating females**
Muhammad Zairin Junior, Fega Iken Amalia and Harton Arfah
Bogor Agricultural University, Indonesia
- SP07-49 **Influence of ultraviolet rays on the survival, feeding, and growth rate of the eggs and larvae of Pacific bluefin tuna (*Thunnus orientalis*)**
Takahiro Tsuji and Yasunori Ishibashi
Kindai University, Japan
- SP07-50 **Effects of the tank shape, water current control and rearing density on the survival rate, feeding, and growth of pacific bluefin tuna, *Thunnus orientalis* larvae**
Hiroki Ikeda, Takayuki Imagawa, Takashi Takeda and Yasunori Ishibashi
Kindai University, Japan
- SP07-51 **Verification of the flow field in rearing rectangular tank using flow visualization**
Tetsuya Sumida¹, Wataru Yamazaki² and Shigeaki Shiotani³
¹*National Institute of Technology, Oshima College, Japan*, ²*Nagaoka University of Technology, Japan* and ³*Osaka University of Economics and Law, Japan*
- SP07-52 **The effects of water current control on the survival rate, feeding, and growth of larval longtooth grouper (*Epinephelus Bruneus*)**
Hiroki Ikeda and Yasunori Ishibashi
Kindai University, Japan
- SP07-53 **Comparison of aeration in closed systems for the culture of Pacific white shrimp (*Litopenaeus vannamei*)**
Songwut Phatkeaw, Wanlapha Molex, Matthura Labaiden and Sataporn Direkbusarakom
Walailak University, Thailand

- SP07-54 **The effects of rearing water salinity on the growth performance in juvenile ayu (*Plecoglossus altivelis*)**
Yoshikazu Sugiyama and Yasunori Ishibashi
Kindai University, Japan
- SP07-55 **Enhancing food security through extensive research in Aquaponics**
Robert Nesta Kagali^{1,2}, Kenneth Omondi Ogila², John Wesonga² and Atsushi Hagiwara¹
¹*Nagasaki University, Japan* and ²*Jomo Kenyatta University of Agriculture and Technology, Kenya*
- SP07-56 **Effect of manganese supplementation to aquacultural wastewater discharged from the recirculating aquaculture system with kuruma shrimp as the culture media of *Chaetoceros gracilis* and *Tetraselmis tetrathele* and their values for initial feeds of kuruma shrimp larvae**
Masato Endo¹, Xuanchen Zhang¹, Reiko Fuseya², Takashi Sakamoto¹, Goro Yoshizaki¹ and Toshio Takeuchi¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Japan Fisheries Research and Education Agency, Japan*
- SP07-57 **Land-based aquaculture of salmon trout using spring water from undersea tunnel in north Japan**
Kosuke Suzuki¹, Satoru Fukuda², Hikari Izumi², Yutaka Maeda³, Koichi Okamura¹ and Naotsune Saga²
¹*Okamura Foods Co., Ltd., Japan*, ²*Hirosaki University, Japan* and ³*Aomori Prefectural Industrial Technology Research Center, Japan*
- SP07-58 **Effect of different feed combinations and *Artemia* feeding regimes on the deformity rate in red-spotted grouper, *Epinephelus akaara*, larvae**
Keisuke Machi, Naoki Iida and Yuichi Fukunishi
Toyama Prefectural Agricultural, Forestry & Fisheries Research Center Fisheries Research Institute, Japan
- SP07-59 **Composting fishwastes as a low-cost and stable diet for mass culture of *Brachionus rotundiformis* Tschugunoff (Rotifera)**
Erick Ochieng Ogello^{1,2}, Stenly Wullur³ and Atsushi Hagiwara¹
¹*Nagasaki University, Japan*, ²*Kenya Marine and Fisheries Research Institute, Kenya* and ³*Sam Ratulangi University, Indonesia*
- SP07-60 **Phototactic behaviors of marine copepod *Tigriopus japonicus* related to developmental stages**
Takahiro Yamade, Hee-Jin Kim, Yoshitaka Sakakura and Atsushi Hagiwara
Nagasaki University, Japan
- SP07-61 **Difference in fatty acid composition of *Rhodomonas* sp. at each growth phase**
Yudai Aritaki, Satoshi Yamamoto, Takashi Mishima and Takao Yoshimatsu
Mie University, Japan

S8 (Biotechnology)

Sept. 22 (Fri.) am		Oral Presentation	Room 6
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| 10:00 | SO08-01 | Fishes of genome 10K project
Byrappa Venkatesh
<i>Institute of Molecular and Cell Biology, Singapore</i> |
| 10:45 | | Break |
| 11:00 | SO08-02 | Strategy for highly effective construction of ultra high resolution linkage map in fish: a test case using torafugu (<i>Takifugu rubripes</i>)
Zhang Xiang ¹ , Huang Songqian ¹ , Daiki Saka ¹ , Misaki Mizukoshi ¹ , Zhang Hong ¹ , Susumu Mitsuyama ¹ , Tan Engkong ¹ , Yoji Igarashi ¹ , Kazutoshi Yoshitake ¹ , Yukata Suzuki ¹ , Shigeharu Kinoshita ¹ , Kazuyoshi Saito ² , Shugo Watabe ³ and Shuichi Asakawa ¹
¹ The University of Tokyo, Japan, ² Akita Prefectural Fisheries Promotion Center, Japan and ³ Kitasato University, Japan |
| 11:15 | SO08-03 | Determination of immunoglobulin novel antigen receptor (IgNAR) <i>in vivo</i> affinity maturation in brownbanded bamboo shark (<i>Chiloscyllium punctatum</i>)
D.P.N. De Silva ^{1,2} , S. Hosoya ¹ , N. Mizuno ¹ , S. Kinoshita ¹ , M. Totsuka ¹ and S. Asakawa ¹
¹ The University of Tokyo, Japan and ² Uva Wellassa University, Sri Lanka |
| 11:30 | SO08-04 | Establishment of fibroblast cell lines derived from four-finned dolphin <i>Tursiops truncatus</i> and induction of pluripotent stem cells
Rina Miyashita ¹ , Atsushi Takayanagi ² , Tetsuo Kirihata ³ , Katsuyuki Hayashi ³ , Seiji Ohsumi ⁴ , Motoi Yoshioka ⁵ , Hidehiro Kato ⁶ and Shuichi Asakawa ¹
¹ The University of Tokyo, Japan, ² Keio University, Japan, ³ Taiji Whale Museum, Japan, ⁴ The Institute of Cetacean Research, Japan, ⁵ Mie University, Japan and ⁶ Tokyo University of Marine Science and Technology, Japan |
| 11:45 | SO08-05 | The question of RNA dynamics in RNA-Seq analysis
Zhongneng Xu ¹ and Shuichi Asakawa ²
¹ Jinan University, China and ² The University of Tokyo, Japan |

Sept. 22 (Fri.) pm		Oral Presentation	Room 6
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| 14:00 | SO08-06 | Transcriptome analysis of immune response against <i>Vibrio harveyi</i> infection in orange-spotted grouper (<i>Epinephelus coioides</i>)
Shun Maekawa ¹ , Omkar Byadgia ¹ , Yao-Chung Chen ¹ , Pei-Chyi Wang ¹ , Shih-Chu Chen ¹ , Takashi Aoki ^{1,2} , Haruko Takeyama ² , Jun-ichi Hikima ³ and Masahiro Sakai ³
¹ National Pingtung University of Science and Technology, Taiwan, ² Waseda University, Japan and ³ University of Miyazaki, Japan |
| 14:15 | SO08-07 | Expression changes of myostatin and GDF11 with aging of zebrafish skeletal muscle
Wengtong Wang ¹ , Shogo Toma ¹ , Yusuke Kijima ¹ , Abdallah Elbially ¹ , Yoji Igarashi ¹ , Shigeharu Kinoshita ¹ , Shuichi Asakawa ¹ and Shugo Watabe ²
¹ The University of Tokyo, Japan and ² Kitasato University, Japan |
| 14:30 | SO08-08 | Molecular basis for the negligible senescence of fish skeletal muscle
Shigeharu Kinoshita ¹ , WangTong Wang ¹ , Yusuke Kijima ¹ , Shogo Toma ¹ , Abdallah Elbially ¹ , Yoji Igarashi ¹ , Shuichi Asakawa ¹ and Shugo Watabe ²
¹ The University of Tokyo, Japan and ² Kitasato University, Japan |
| 14:45 | SO08-09 | Quantitatively analyzing TOR-dependent autophagy in GH transgenic zebrafish embryos by 3D image analysis
Abdallah K. Elbially ¹ , Shigeharu Kinoshita ¹ , Shuichi Asakawa ¹ and Shugo Watabe ²
¹ The University of Tokyo, Japan and ² Kitasato University, Japan |
| 15:00 | SO08-10 | Cysteamine dioxygenase in common carp <i>Cyprinus carpio</i>: cloning, molecular characterization and gene expression
Maria Mojena Gonzales, Yutaka Haga, Hidehiro Kondo, Ikuo Hirono and Shuichi Satoh
<i>Tokyo University of Marine Science and Technology, Japan</i> |

- 15:15 SO08-12 **Double knockout of myostatin a and b genes causes muscle enhancement in zebrafish by CRISPR/Cas9 technology**
Yi Ting Tsai, Sheng Han Wu and Hong-Yi Gong
National Taiwan Ocean University, Taiwan
- 15:30 SO08-13 **TALEN-mediated gene editing of tyrosinase in kawakawa, *Euthynnus affinis***
Rie Goto¹, Ryoko Kawata¹, Dipak Pandey¹, Takeo Hayakawa¹, Taiju Saito¹, Yukinori Kazeto², Koichiro Gen², Tetsushi Sakuma³, Takashi Yamamoto³ and Takahiro Matsubara¹
¹*Ehime University, Japan*, ²*Japan Fisheries Research and Education Agency, Japan* and ³*Hiroshima University, Japan*
- 15:45 SO08-14 **Attempt to generate organic pollutant bioindicator strains of Javanese medaka, *Oryzias javanicus*, using genome editing techniques**
Suhaila Rusni¹, Mieko Sassa¹, Yoshihito Taniguchi², Yusuke Takehana^{3,4}, Masato Kinoshita⁵ and Koji Inoue¹
¹*The University of Tokyo, Japan*, ²*Kyorin University, Japan*, ³*Nagahama Institute of Bio-Science and Technology, Japan*, ⁴*National Institute for Basic Biology, Japan* and ⁵*Kyoto University, Japan*
- 16:00 SO08-15 **Proteomics and characterization of genes functionally involved in ovarian development of the giant tiger shrimp *Penaeus monodon***
Sirawut Klinbunga^{1,2}, Witchlada Talakhun^{1,2}, Mahattanee Phinyo³ and Bavornlak Khamnamtong^{1,2}
¹*National Center for Genetic Engineering and Biotechnology (BIOTEC), National Science and Technology Development Agency (NSTDA), Thailand*, ²*Chulalongkorn University, Thailand* and ³*Naresuan University, Thailand*
- 16:15 SO08-16 **Isolation of farnesoic O-methyltransferase and association between its SNP and reproduction- and growth parameters of giant tiger shrimp *Penaeus monodon***
Puttawan Rongmung¹, Sirawut Klinbunga^{1,2} and Bavornlak Khamnamtong^{1,2}
¹*National Center for Genetic Engineering and Biotechnology, Thailand* and ²*Chulalongkorn University, Thailand*
- 16:30 SO08-17 **Association analysis of single nucleotide polymorphism (SNP) of CycC, Cdc25 and MIH and growth of domesticated giant tiger shrimp *Penaeus monodon***
Bavornlak Khamnamtong^{1,2}, Sirithorn Janpoom^{1,2}, Puttawan Rongmung¹, Piamsak Menasveta² and Sirawut Klinbunga^{1,2}
¹*National Center for Genetic Engineering and Biotechnology, Thailand* and ²*Chulalongkorn University, Thailand*
- 16:45 SO08-18 **The immunostimulatory effect of 5-aminolevulinic acid in white shrimp *Litopenaeus vannamei***
Ivane P. Gerasmio¹, Tohru Tanaka², Asuka Sumi³, Hidehiro Kondo¹ and Ikuo Hirono¹
¹*Tokyo University of Marine Science and Technology, Japan*, ²*SBI Pharmaceuticals Co., Ltd., Japan* and ³*NeoPharma Japan Co., Ltd., Japan*
- 17:00 SO08-19 **Expression and localization of MjPen-II in hemocytes of kuruma shrimp after WSSV challenge**
Kehong Zhang, Keiichiro Koiwai, Hidehiro Kondo and Ikuo Hirono
Tokyo University of Marine Science and Technology, Japan
- 17:15 SO08-20 **Crustacean genomic fossils illuminate the evolutionary history of WSSV**
Satoshi Kawato, Reiko Nozaki, Hidehiro Kondo and Ikuo Hirono
Tokyo University of Marine Science and Technology, Japan
- 17:30 SO08-21 **Transcriptome analysis in the hepatopancreas of *Penaeus vannamei* fed dietary ulvan or fucoidan**
Augusto Jr. Serrano, Barry Leonard Tumbokon and Marj Gem Bunda
University of the Philippines Visayas, Philippines

- 17:45 SO08-11 **The epigenetic modification and relationship between *cyp19a* and its transcription factors in the olive flounder *Paralichthys olivaceus***
Feng You, Zhaofei Fan, Lijuan Wang, Yuan Zheng, Limin Peng, Dongdong Liang, Yuxia Zou and Zhihao Wu
Chinese Academy of Sciences, China

Sept. 22 (Fri.)

Poster Presentation

- SP08-01 **Development of the detection methods of the new fluorescent protein genes that are introduced in GloFish**
Ichiro Oohara¹, Nobuhiko Ojima¹, Miyuki Mekuchi¹, Motoshige Yasuike¹ and Masahiro Kobayashi²
¹*Japan Fisheries Research and Education Agency, Japan* and ²*Fisheries Agency, Japan*
- SP08-02 **Characterization of crustin isoform MjCRS8 and MjCRS9 from kuruma shrimp *Marsupenaeus japonicas***
Gauravkumar M. Tandel, Hidehiro Kondo and Ikuo Hirono
Tokyo University of Marine Science and Technology, Japan
- SP08-03 **Searching for high-quality-pearl indicator proteins: comparison of protein profiles of nacreous layers of pearls, donor and host oysters' shells of *Pinctada fucata***
Aya Kato¹, Daisuke Funabara¹, Satoshi Kanoh¹, Yasushi Tsuchihashi², Isao Kuriyama², Shinji Tanaka², Shigeharu Kinoshita³ and Tetsuji Masaoka⁴
¹*Mie University, Japan*, ²*Mie Prefecture Fisheries Research Institute, Japan*, ³*The University of Tokyo, Japan* and ⁴*Fisheries Research and Education Agency, Japan*
- SP08-04 **Whole genome assembly, genome structure analysis and web framework implementation for Japanese eel (*Anguilla japonica*)**
Shu Hwa Chen¹, I. Hsuan Lu¹, Ping Heng Hsieh¹, Hsiang Yi Hsu², Yu Shan Han² and Chung Yen Lin^{1,2}
¹*Academia Sinica, Taiwan* and ²*National Taiwan University, Taiwan*
- SP08-05 **Omics studies for giant grouper, *Epinephelus lanceolatus***
Shu Hwa Chen¹, I. Hsuan Lu¹, Ping Heng Hsieh¹, Cho Fat Hui², Cheng Fu Kao², Pao Yang Chen⁴, Feng-You Lin³, Shinn lih Yeh³ and Chung Yen Lin^{1,2}
¹*Academia Sinica, Taiwan*, ²*National Taiwan University, Taiwan* and ³*Fisheries Science Institute, Council of Agriculture, Taiwan*
- SP08-06 **Study on yellow pigmentation in the nacre of pearl oyster shells associated with iron**
Chiaki Kasugai¹, Mirai Koide¹, Ko Yasumoto², Shugo Watabe², Kaoru Maeyama³, Fumihito Hattori³, Kiyohito Nagai⁴, Masahito Awaji⁵ and Makoto Kakinuma¹
¹*Mie University, Japan*, ²*Kitasato University, Japan*, ³*Mikimoto Pharmaceutical Co., Ltd., Japan*, ⁴*Mikimoto Co., Ltd., Japan* and ⁵*Fisheries Research Agency, Japan*
- SP08-07 **Functional characterization of three *DUR3*-like genes, *PyDUR3.1/3.2/3.3*, in the marine macroalga *Pyropia yezoensis* (Rhodophyta)**
Ryo Marumoto¹, Moeko Kuwabara¹, Kohei Suzuki¹, Shintaro Iwata¹, Shoei Iwade², Koji Mikami³ and Makoto Kakinuma¹
¹*Mie University, Japan*, ²*Mie Prefecture Fisheries Research Institute, Japan* and ³*Hokkaido University, Japan*
- SP08-08 **Marine metagenomic analysis based on the protein motifs in the Sendai Bay and Sanriku offshore, Japan**
Yoji Igarashi¹, Daisuke Mori¹, Engkong Tan², Susumu Mitsuyama¹, Kazutoshi Yoshitake¹, Shigeharu Kinoshita¹, Shugo Watabe³ and Shuichi Asakawa¹
¹*The University of Tokyo, Japan*, ²*Illumina K.K., Japan* and ³*Kitasato University, Japan*
- SP08-09 **Isolation and characterization of a novel aerobic and hyperthermophilic archaeon isolated from a hot spring in Japan**
Yu Oinishi, Takashi Yoshida, Shin Fujiwara, Maho Yumiya and Yoshihiko Sako
Kyoto University, Japan

- SP08-10 **Isolation and characterization of a new carboxydophilic bacterium**
Yusuke Ogami, Kimiho Omae, Tatsuki Oguro, Yuto Fukuyama, Takashi Yoshida and Yoshihiko Sako
Kyoto University, Japan
- SP08-11 **Age-related expression changes in telomere maintenance genes of zebrafish revealed by RNA-seq**
Yusuke Kijima¹, Wangtong Wang¹, Yoji Igarashi¹, Shigeharu Kinoshita¹, Shuichi Asakawa¹ and Shugo Watabe²
¹*The University of Tokyo, Japan and* ²*Kitasato University, Japan*
- SP08-12 **Studies of two polysaccharide-degrading enzymes from marine bacterium, *Persicobacter* sp. CCB-QB2**
Go Furusawa, Pei-Fang Sim, Nur Hafizah Fazli and Aik-Hong Teh
Universiti Sains Malaysia, Malaysia

Sept. 23 (Sat.) am Oral Presentation Room 6

- 10:00 SO08-22 **Toward better understanding of the Baltic Sea ecosystem services through the studies of cyanobacteria-virus interactions**
Sigitas Sulcius
Nature Research Centre, Lithuania
- 10:45 SO08-23 **What does viral metagenomics provide for future marine ecology and resources?**
Takashi Yoshida, Hiroyuki Ogata and Yoshihiko Sako
Kyoto University, Japan
- 11:00 SO08-24 **Transcriptome analysis of *Microcystis aeruginosa* during Ma-LMM01 phage infection**
Daichi Morimoto, Takashi Honda, Mai Nakata, Yoshihiko Sako and Takashi Yoshida
Kyoto University, Japan
- 11:15 SO08-25 **Comprehensive, spatiotemporal study and applied research of carboxydotrophs**
Yoshihiko Sako and Takashi Yoshida
Kyoto University, Japan
- 11:30 SO08-26 **Genomic analysis of *Calderihabitans maritimus* KKC1, a thermophilic hydrogenogenic carboxydophilic bacterium isolated from marine sediment**
Kimiho Omae¹, Yasuko Yoneda², Yuto Fukuyama¹, Takashi Yoshida¹ and Yoshihiko Sako¹
¹*Kyoto University, Japan and* ²*National Institute of Advanced Industrial Science and Technology (AIST), Japan*
- 11:45 SO08-27 **Analysis of Malaysian mangrove metagenome: exploring genes involving polysaccharides degradation and novel xylan-degrading bacteria**
Gunaselvam Priya, Nyok-Sean Lau, Go Furusawa, Balachandra Dinesh, Swee-Yeok Foong, Al-Ashraf Abdullah Amirul and Alexander Shu-Chien Chong
Universiti Sains Malaysia, Malaysia

Sept. 23 (Sat.) pm Oral Presentation Room 6

- 14:00 SO08-28 **Metagenetic approach using Illumina MiSeq for monitoring eukaryote communities in the Kuroshio region off Japan**
Satoshi Nagai¹, Shingo Urushizaki², Junya Hirai³, Yugo Shimizu¹, Tuneo Ono¹ and Kiyotaka Hidaka¹
¹*Japan Fisheries Research and Education Agency, Japan,* ²*AXIOHELIX Co. Ltd., Japan and* ³*The University of Tokyo, Japan*

- 14:15 SO08-29 **Seasonal occurrences of photosynthetic picoeukaryotes in the Ofunato Bay assessed by Illumina MiSeq sequencing**
 Jonaira Rashid¹, Atsushi Kobiyama¹, Md. Shaheed Reza¹, Yuichiro Yamada¹, Yuri Ikeda¹, Daisuke Ikeda¹, Nanami Mizusawa¹, Kazuho Ikeo¹, Shigeru Sato¹, Takehiko Ogata¹, Toshiaki Kudo¹, Shinnosuke Kaga², Shiho Watanabe³, Kimiaki Naiki³, Yoshimasa Kaga³, Katsuhiko Mineta⁴, Vladimir Bajic⁴, Takashi Gojobori⁴ and Shugo Watabe¹
¹*Kitasato University, Japan*, ²*Iwate Prefectural Government, Japan*, ³*Iwate Fisheries Technology Center, Japan* and ⁴*King Abdullah University of Science and Technology, Saudi Arabia*
- 14:30 SO08-30 **Changes in functional traits and diversity of bacterial communities associated with oyster aquaculture farms in Ofunato Bay**
 Md. Shaheed Reza¹, Atsushi Kobiyama¹, Jonaira Rashid¹, Yuichiro Yamada¹, Yuri Ikeda¹, Daisuke Ikeda¹, Nanami Mizusawa¹, Kazuho Ikeo¹, Shigeru Sato¹, Takehiko Ogata¹, Mitsuru Jimbo¹, Toshiaki Kudo¹, Shinnosuke Kaga², Shiho Watanabe³, Kimiaki Naiki³, Yoshimasa Kaga³, Katsuhiko Mineta⁴, Vladimir Bajic⁴, Takashi Gojobori⁴ and Shugo Watabe¹
¹*Kitasato University, Japan*, ²*Iwate Prefectural Government, Japan*, ³*Iwate Fisheries Technology Center, Japan* and ⁴*King Abdullah University of Science and Technology, Saudi Arabia*
- 14:45 SO08-31 **Metagenomic analyses on the microbial communities in the Ofunato Bay: seasonal changes and site-specific differences**
 Shugo Watabe¹, Md. Shaheed Reza¹, Atsushi Kobiyama¹, Kazuho Ikeo¹, Jonaira Rashid¹, Yuichiro Yamada¹, Yuri Ikeda¹, Daisuke Ikeda¹, Nanami Mizusawa¹, Shigeru Sato¹, Takehiko Ogata¹, Mitsuru Jimbo¹, Toshiaki Kudo¹, Shinnosuke Kaga², Shiho Watanabe³, Kimiaki Naiki³, Yoshimasa Kaga³, Katsuhiko Mineta⁴, Vladimir Bajic⁴ and Takashi Gojobori⁴
¹*Kitasato University, Japan*, ²*Iwate Prefectural Government, Japan*, ³*Iwate Fisheries Technology Center, Japan* and ⁴*King Abdullah University of Science and Technology (KAUST), Saudi Arabia*
- 15:00 SO08-32 **Analyses on bacterial communities using shotgun metagenomic data collected in 2015 and 2016 from the Ofunato Bay, Japan**
 Atsushi Kobiyama¹, Jonaira Rashid¹, Md. Shaheed Reza¹, Yuichiro Yamada¹, Yuri Ikeda¹, Daisuke Ikeda¹, Nanami Mizusawa¹, Kazuho Ikeo¹, Shigeru Sato¹, Mitsuru Jimbo¹, Toshiaki Kudo¹, Shinnosuke Kaga², Shiho Watanabe³, Kimiaki Naiki³, Satoshi Segawa³, Yoshimasa Kaga³, Katsuhiko Mineta⁴, Vladimir Bajic⁴, Takashi Gojobori⁴ and Shugo Watabe¹
¹*Kitasato University, Japan*, ²*Iwate Prefectural Government, Japan*, ³*Iwate Fisheries Technology Center, Japan* and ⁴*King Abdullah University of Science and Technology, Saudi Arabia*
- 15:15 SO08-33 **Seasonal change in the abundance of DMSP catabolic genes in Sanriku Ofunato Bay**
 Toshiaki Kudo¹, Atsushi Kobiyama¹, Jonaira Rashid¹, Md. Shaheed Reza¹, Yuichiro Yamada¹, Yuri Ikeda¹, Daisuke Ikeda¹, Nanami Mizusawa¹, Kazuho Ikeo¹, Shigeru Sato¹, Takehiko Ogata¹, Mitsuru Jimbo¹, Shinnosuke Kaga², Shiho Watanabe², Kimiaki Naiki², Yoshimasa Kaga², Satoshi Segawa², Katsuhiko Mineta³, Vladimir Bajic³, Takashi Gojobori³ and Shugo Watabe¹
¹*Kitasato University, Japan*, ²*Iwate Fisheries Technology Center, Japan* and ³*KAUST, Saudi Arabia*
- 15:30 SO08-34 **Seasonal changes in the microbial communities of the Tama River at suburban Tokyo revealed by metagenomic analysis**
 Nanami Mizusawa, Md. Shaheed Reza, Chiharu Oikawa, Daisuke Ouchi, Atsushi Kobiyama, Yuichiro Yamada, Yuri Ikeda, Daisuke Ikeda, Kazuho Ikeo, Shigeru Sato, Toshiaki Kudo, Ko Yasumoto, Mitsuru Jimbo and Shugo Watabe
Kitasato University, Japan

- 15:45 SO08-35 **Collection of shotgun metagenome data and construction of database at the pacific side of Tohoku area in Japan**
Kazutoshi Yoshitake¹, Takehiro Yamakawa², Tomoko Sakami³, Akira Kuwata³, Shuichi Asakawa¹, Masanobu Kawachi⁴, Kazuho Ikee⁵, Yoshizumi Ishino⁶ and Takashi Gojobori⁷
¹The University of Tokyo, Japan, ²Japan Software Management Co., Ltd., Japan, ³Japan Fisheries Research and Education Agency, Japan, ⁴National Institute for Environmental Studies, Japan, ⁵National Institute of Genetics, Japan, ⁶Kyushu University, Japan and ⁷King Abdullah University of Science and Technology, Saudi Arabia
- 16:00 SO08-36 **Functional analyses of organic network in the calcite crystal of the prismatic layer of *Pinctada fucata***
Michio Suzuki¹, Hiroyuki Kintsu¹, Taiga Okumura¹, Lumi Negishi¹, Shinsuke Ifuku², Toshihiro Kogure¹ and Shohei Sakuda¹
¹The University of Tokyo, Japan and ²Tottori University, Japan
- 16:15 SO08-37 **Novel mechanisms for calcification of marine organisms and its application**
Ko Yasumoto¹, Mariko Iijima¹, Kana Fujii¹, Azusa Kubota¹, Jun Yasumoto², Mina Yasumoto-Hirose³, Mitsuru Jimbo¹ and Shugo Watabe¹
¹Kitasato University, Japan, ²University of the Ryukyus, Japan and ³Tropical Technology Plus, Japan
- 16:30 SO08-38 **New insights into the molecular mechanism of molluscan catch contraction: the twitchin D1 phosphorylation site interacts with tropomyosin in a phosphorylation-sensitive manner**
Daisuke Funabara, Ikuko Nakano and Satoshi Kanoh
Mie University, Japan
- 16:45 SO08-39 **Research on the *Pinctada fucata* genome for pearl farming**
Takeshi Takeuchi and Noriyuki Satoh
Okinawa Institute of Science and Technology Graduate University, Japan

Sept. 23 (Sat.)

Poster Presentation

- SP08-13 **Determining the diet of parrot fish (*Scarus ovifrons*) using a 18S metabarcoding analysis**
Chiho Homma¹, Daiki Inokuchi¹, Tomohiro Nishimura¹, Haruo Yamaguchi¹, Hiroyasu Sato², Kouhei Onishi¹ and Masao Adachi¹
¹Kochi University, Japan and ²The University of Tokyo, Japan
- SP08-14 **Development of a control method for acute hepatopancreatic necrosis disease (AHPND) in *Litopenaeus vannamei* using IgY antibody-incorporated feeds**
Rika Nakamura¹, Masaichi Yamamoto², Jumroensri Thawonsuwand³, Hidehiro Kondo¹ and Ikuo Hirono¹
¹Tokyo University of Marine Science and Technology, Japan, ²GCAT Inc., Japan and ³Songkla Aquatic Animal Health Research Center, Development of Fisheries, Thailand
- SP08-15 **Rapid 16S rRNA metagenomic analysis on the microbial communities in salted and fermented squid**
Daisuke Ouchi¹, Nanami Mizusawa¹, Yoshihiro Takahashi¹, Ko Yasumoto¹, Mitsuru Jimbo¹, Atsuko Nagaoka², Nobuhiko Ueki², Yoko Matsuoka², Jianrong Wan² and Shugo Watabe¹
¹Kitasato University, Japan and ²Suzuhiro Kamaboko Honten Co. Ltd., Japan
- SP08-16 **Localized pH increase in calcifying fluids of primary coral polyps possibly associated with calcification processes**
Azusa Kubota¹, Ko Yasumoto¹, Mariko Iijima¹, Jun Yasumoto², Mina Yasumoto-Hirose³, Yoshikazu Ohno⁴, Mitsuru Jimbo¹ and Shugo Watabe¹
¹Kitasato University, Japan, ²University of the Ryukyus, Japan, ³Tropical Technology Plus, Japan and ⁴Okinawa Institute of Science and Technology Graduate University, Japan
- SP08-17 **A method for analyzing metagenome data based on protein motifs**
Daisuke Mori, Susumu Mitsuyama, Yoji Igarashi, Kazutoshi Yoshitake and Shuichi Asakawa
The University of Tokyo, Japan

- SP08-18 **The mechanisms involved in phosphate inhibition against calcification of acroporid coral**
 Mariko Iijima¹, Ko Yasumoto¹, Jun Yasumoto², Mina Yasumoto-Hirose³, Mitsuru Jimbo¹ and Shugo Watabe¹
¹*Kitasato University, Japan*, ²*University of the Ryukyus, Japan* and ³*Tropical Technology Plus, Japan*
- SP08-19 **Properties of proteins electrically extracted from the nacreous protein sheets of Japanese pearl oyster *Pinctada fucata***
 Natsumi Miyashita¹, Daisuke Funabara¹, Kiyohito Nagai² and Satoshi Kanoh¹
¹*Mie University, Japan* and ²*K. MIKIMOTO & Co., LTD., Japan*
- SP08-20 **Characterization of tropomyosin, troponin, and calponin of Japanese pearl oyster adductor muscle and their interaction analyses**
 Daisuke Ishikawa, Daisuke Funabara and Satoshi Kanoh
Mie University, Japan
- SP08-21 **Metagenome monitoring of biological environment in shrimp culture pond**
 Yuki Midorikawa¹, Tsubasa Uchino¹, Yoshinori Nomura², Motoyuki Nakane², Mamoru Sameshima², Hidehiro Kondo¹, Ikuo Hirono¹, Matthura Labaiden³, Sataporn Direkbusarakom³, Goshi Kato¹ and Motohiko Sano¹
¹*Tokyo University of Marine Science and Technology, Japan*, ²*Kumamoto Prefectural Fisheries Research Center, Japan* and ³*Walailak University, Thailand*
- SP08-22 **The total genome analysis of wakame (*Undaria pinnarida*) and related colocalization bacteria**
 Yoshihiro Takahashi¹, Md. Shaheed Reza¹, Nanami Mizusawa¹, Ko Yasumoto¹, Misturu Jimbo¹, Nobuyoshi Nanba¹, Hiroki Koyama², Kazutoshi Yoshitake³, Takanori Kobayashi⁴, Yoichi Sato⁵ and Shugo Watabe¹
¹*Kitasato University, Japan*, ²*Hiroshima University, Japan*, ³*The University of Tokyo, Japan*, ⁴*Japan Fisheries Research and Education Agency, Japan* and ⁵*Riken Food Co. Ltd., Japan*
- SP08-23 **Screening of genes involved in yellow coloration of Akoya pearl**
 Mikihiro Shinohara¹, Engkong Tang¹, Shigeharu Kinoshita¹, Shuichi Asakawa¹, Daisuke Funabara², Makoto Kakinuma², Kaoru Maeyama³, Kiyohito Nagai⁴, Masahiko Awaji⁵ and Shugo Watabe⁶
¹*The University of Tokyo of Agricultural and Life Sciences, Japan*, ²*Mie University, Japan*, ³*Mikimoto Cosmetics, Japan*, ⁴*Mikimoto Pearl Institute, Japan*, ⁵*Fisheries Research Agency, Japan* and ⁶*Kitasato University, Japan*
- SP08-24 **Searching for amino acid residues essential for urea resistance in myosin of shark *Triakis scyllium* by ultraviolet absorption spectral analysis**
 Yuma Oguri, Daisuke Funabara and Satoshi Kanoh
Mie University, Japan
- SP08-25 **Whole genome sequencing for ayu *Plecoglossus altivelis***
 Masatoshi Nakamoto, Tsubasa Uchino, Eriko Koshimizu and Takashi Sakamoto
Tokyo University of Marine Science and Technology, Japan
- SP08-26 **Enhancement of carotenoid synthesis in *Chlamydomonas reinhardtii* by genetic engineering**
 Tateki Morikawa, Yusuke Uraguchi, Shohei Sanda, Satoshi Nakagawa and Shigeki Sawayama
Kyoto University, Japan

S9 (Biochemistry and Metabolism)

Sept. 23 (Sat.) am Oral Presentation Room 4

- 10:00 SO09-01 **Biosynthesis of long-chain polyunsaturated fatty acids in aquatic animals**
Oscar Monroig
University of Stirling, UK
- 10:30 SO09-02 **Early nutritional programming improves the retention of EPA and DHA in Atlantic salmon (*Salmo salar*) fed low marine feeds**
Douglas R. Tocher¹, Michael Clarkson¹, Luisa M. Vera¹, Dan Leeming², Herve Migaud¹ and John F. Taylor¹
¹*University of Stirling, UK and* ²*BioMar Ltd., UK*
- 10:45 SO09-03 **Molecular characterization of elov16 genes in *Misgurnus anguillicaudatus* and their potential roles in adaptation to cold temperature**
Jian Gao, Jingwen Chen, Cui Cui and Xiaojuan Cao
Huazhong Agricultural University, China
- 11:00 Break
- 11:15 SO09-04 **Molecular cloning of apolipoprotein-14 gene in Mekong giant catfish: its transcripts are regulated by nutritional state independently**
Anurak Khieokhajonkhet
Naresuan University, Thailand
- 11:30 SO09-05 **Cysteine dioxygenase and cysteamine dioxygenase as enzymes for taurine synthesis and negative effect of cysteamine on growth of common carp *Cyprinus carpio***
Maria Mojena Gonzales, Yutaka Haga, Hidehiro Kondo, Ikuo Hirono and Shuichi Satoh
Tokyo University of Marine Science and Technology, Japan
- 11:45 SO09-06 **Total biomass and feed efficiency of Indonesian saline tilapia (*O. niloticus*) fed with recombinant growth hormone (rGH) in two cycles (dry and rainy seasons)**
Dedy Yaniharto, Aliah Ratu Siti, Sujatmiko Wisnu, Novi Megawati and Sutanti
The Agency for Assessment and Application of Technology, Indonesia

Sept. 23 (Sat.) pm Oral Presentation Room 4

- 14:00 SO09-07 **Application of stable isotope labeling in aquatic biochemistry**
Gen Kaneko
University of Houston-Victoria, USA
- 14:15 SO09-08 **The effects of amino acids on TOR signaling in fish**
Kazuyuki Ohara¹, Yuusuke Kaneko², Hazuki Yoshinaga² and Hideki Ushio²
¹*Showagakuin Junior College, Japan and* ²*The University of Tokyo, Japan*
- 14:30 SO09-09 **Dynamics of proteolysis regulation in teleost skeletal muscle: a multiple linear regression analysis using quantitative peptidome**
Yuri Kominami, Tatsuya Hayashi, Tetsuji Tokihiro and Hideki Ushio
The University of Tokyo, Japan
- 14:45 SO09-10 **Characterization of nutritional biorhythms using trans-omics and microbiome approaches in the leopard coral grouper**
Miyuki Mekuchi¹, Kenji Sakata², Tomohiro Yamaguchi³, Taiga Asakura², Masahiko Koiso³ and Jun Kikuchi^{2,4,5}
¹*National Research Institute of Fisheries Science, Japan,* ²*RIKEN, Japan,* ³*Seikai National Fisheries Research Institute, Japan,* ⁴*Yokohama City University, Japan and* ⁵*Nagoya University, Japan*
- 15:00 SO09-11 **Gene expressions of *slc15a1a* and *b*, genes that encode oligopeptide transporters, in the intestine of Mozambique tilapia in relation to nutrient condition**
Zenith Gaye A. Orozco, Satoshi Soma, Toyoji Kaneko and Soichi Watanabe
The University of Tokyo, Japan

- 15:15 Break
- 15:30 SO09-12 **Growth and omega-3 fatty acid production by a coldwater microalga**
Hirono Suzuki¹, Chris J. Hulatt¹, Rene H. Wijffels^{1,2} and Kiron Viswanath¹
¹*Nord Universitet, Norway and* ²*Wageningen University, The Netherlands*
- 15:45 SO09-13 **Effects of phytosterol administration on FXR functions in fish**
Mai Takase and Hideki Ushio
The University of Tokyo, Japan
- 16:00 SO09-14 **Desialylation of gangliosides regulates triglyceride accumulation in fish liver**
Kazuki Oishi, Mina Miyazaki, Wataru Nishimura, Masaharu Komatsu and Kazuhiro Shiozaki
Kagoshima University, Japan
- 16:15 SO09-15 **Effects of dietary amino acid-imbalance on lipid metabolism in fish**
Hazuki Yoshinaga¹, Naoki Kabeya¹, Hideki Ushio¹, Yutaka Haga² and Shuichi Satoh²
¹*The University of Tokyo, Japan and* ²*Tokyo University of Marine Science and Technology, Japan*
- 16:30 SO09-16 **Evaluation of lysine supplementation on hydrolyzed rubber seed meal based diet for Nile tilapia, *Oreochromis niloticus***
Muhammad A. Suprayudi and Didi H. Yusuf
Bogor Agricultural University, Indonesia

Sept. 23 (Sat.)

Poster Presentation

-
- SP09-01 **Partial replacement of fish meal for milkfish *Chanos chanos* feed using poultry by-product meal**
Tsuyoshi Sugita¹, Amafe B. Gavile² and Joemel G. Sumbing³
¹*Japan International Research Center for Agriculture Sciences, Japan,* ²*Aquaculture Department of Southeast Asian Fisheries Development Center, Philippines and* ³*Yokohama National University, Japan*
- SP09-02 **Effects of stocking density on growth and biochemical compositions in juvenile milkfish, *Chanos chanos***
Amafe B. Gavile¹, Joemel G. Sumbing² and Tsuyoshi Sugita³
¹*Aquaculture Department of Southeast Asian Fisheries Development Center, Philippines,* ²*Yokohama National University, Japan and* ³*Japan International Research Center for Agriculture Sciences, Japan*
- SP09-03 **The effect of different dietary algal meal levels on docosahexaenoic acid accumulation during the production of docosahexaenoic acid-rich yellowtail**
Junpei Shinagawa, Toshiro Masumoto and Haruhisa Fukada
Kochi University, Japan
- SP09-04 **Characteristics of lipid and fatty acid compositions of seven edible macroalgae**
Hiroaki Saito¹, Nao Gushiken², Satoshi Moromizato³ and Rieko Yamashiro⁴
¹*Ishikawa Prefectural University, Japan,* ²*Okinawa Flour Milling Co., Ltd., Japan,* ³*Okinawa Prefectural Fisheries Research and Extension Center, Japan and* ⁴*Okinawa Local Government, Japan*
- SP09-05 **Acquiring the capability of docosahexaenoic acid synthesis by three alternative ways in freshwater soles (Pleuronectiformes: Achiridae)**
Yoshiyuki Matsushita¹, Shuwa Sanada¹, Naoki Kabeya², Yutaka Haga¹, Shuichi Satoh¹, Ryosuke Yazawa¹ and Goro Yoshizaki¹
¹*Tokyo University of Marine Science and Technology, Japan and* ²*The University of Tokyo, Japan*
- SP09-06 **Positional distribution of fatty acid in triacylglycerols of large rainbow trout cultivated in Shizuoka Prefecture**
Mamiko Mochizuki¹ and Yomi Watanabe²
¹*Shizuoka Prefectural Research Institute of Fishery, Japan and* ²*Osaka Research Institute of Industrial Science and Technology, Japan*

- SP09-07 **Characteristics of the fatty acid composition of two tropical gastropods (*Strombus luhuanus* and *Turbo marmorata*) with a bivalve (*Pinctada margaritifera*) in the coral reef**
Hiroaki Saito¹, Hirofumi Kubo² and Motoya Tamaki³
¹Ishikawa Prefectural University, Japan, ²Okinawa Prefectural Fisheries Research and Extension Center, Japan and ³Seikai National Fisheries Research Institute, Japan
- SP09-08 **Influence of squid liver meal as the major protein source in prematuration diet on growth and gonadal amino acid content of rabbitfish, *Siganus guttatus***
Asda Laining, Agus Nawang and Akhmad Mustafa
Research Institute for Coastal Aquaculture (RICA), Indonesia
- SP09-09 **Growth performance of adult yellowtail *Seriola quinqueradiata* fed extruded low-fish meal diet in commercial aquaculture; potential for cost reduction**
Noriko Ishida¹, Hitoshi Matsuo², Kazuki Matsukura³, Tomohiko Koshiisi⁴, Soetsu Yanagi⁵ and Shuichi Satoh⁶
¹Japan Fisheries Research and Education Agency, Japan, ²Azuma-Cho Fishery Cooperative, Japan, ³Nagasaki Prefectural Institute of Fisheries, Japan, ⁴Marubeni Nisshin Feed Co., Ltd., Japan, ⁵Kagoshima Prefectural Fisheries Technology and Development Center, Japan and ⁶Tokyo University of Marine Science and Technology, Japan
- SP09-10 **Response of appetite-related hormones and a digestive hormone to orally administered fish meal in yellowtail**
Haruhisa Fukada¹, Tsubasa Ueno¹, Junpei Shinagawa¹, Susumu Irie², Toshiro Masumoto¹ and Atsushi Akimoto²
¹Kochi University, Japan and ²Feed One Co., Ltd., Japan
- SP09-11 **Growth performance and nutrient utilization of hybrid catfish (*Heteroclaris*) fed variegated grasshopper meal**
Gabriel G. Bake¹, Josephine E. SANI¹, Desmond C. NWANGW², Masato Endo³, Yutaka Haga³ and Shuichi Satoh³
¹Federal University of Technology Minna, Nigeria, ²National Institute for Freshwater Fisheries Research, Nigeria and ³Tokyo University of Marine Science and Technology, Japan
- SP09-12 **Possible energy sources at embryonic developmental stages and after hatching of Pacific bluefin tuna, *Thunnus orientalis***
Amal Biswas, Ayumi Kato, Haruka Hashimoto, Norihide Takahashi, Shukei Masuma and Kenji Takii
Kindai University, Japan

Sept. 24 (Sun.) am	Oral Presentation	Room 4
10:00	SO09-17 Use of <i>Telescopium</i> mussel meal and traditional coconut oil as alternative protein and lipid sources in the diet on the growth and survival rate of spiny lobster (<i>Panulirus ornatus</i>) Agus Kurnia, Wellem H. Muskita, Muhaimin Hamzah, Oce Astuti and Muhammad Haikal Halu Oleo University, Indonesia	
10:15	SO09-18 Carotenoid-enriched diet fed since pre-maturation stage enhanced gonadal maturation and biochemical properties in several tissues of pond reared black tiger shrimp (<i>Penaeus monodon</i>) Asda Laining, Ike Trismawanti, Usman and Kamaruddin Research Institute for Coastal Aquaculture (RICA), Indonesia	
10:30	SO09-19 Efficacy of fibrolytic enzymes on digestibility of some local raw materials for aquafeed Sittichai Hatachote, Orapin Jintasataporn and Srinoy Chumkam Kasetsart University, Thailand	
10:45	SO09-20 Effects of replacing soybean meal with water hyacinth (<i>Eichhornia crassipes</i>) leaf meal on growth and feed utilization of juvenile river carp (<i>Leptobarbus hoevenii</i>) Indra Suharman, Adelina Adelina, Nur El Fajri and Nirwan Fadli Pulungan Universitas Riau, Indonesia	
11:00	Break	

- 11:15 SO09-21 **Evaluation of cooked sword bean seed (*Canavalia gladiata*) meal inclusion in the practical diet of heteroclaris fingerlings**
Gabriel G. Bake¹, Olamide O. Aibuki¹, Ahmed Kpotun¹, Adam Abdullahi², Masato Endo³ and Yutaka Haga³
¹Federal University of Technology Minna, Nigeria, ² University of Ilorin Ilorin Kwara State, Nigeria and ³ Tokyo University of Marine Science and Technology, Japan
- 11:30 SO09-22 **Dietary glutamic acid supplementation as a novel strategy to enhance African catfish *Clarias gariepinus* growth performance and feed utilization efficiency**
Dedi Jusadi, Julie Ekasari, Wildan N. Yusup, Apriana Vinasyiam, Eddy Supriyono and N. Bambang P. Utomo
Bogor Agricultural University, Indonesia
- 11:45 SO09-23 **Growth and carcass quality of harvested river catfish (*Hemibagrus nemurus*) fed diets containing salted trash fish as a replacement for fishmeal**
Bustari Hasan, Iskandar Putra, Indra Suharman and Dian Iriani
Universitas Riau, Indonesia

Sept. 24 (Sun.) pm

Oral Presentation

Room 4

- 14:00 SO09-24 **Garlic (*Allium sativum*) extract product enhancing digestive physiology and growth performance in marble goby (*Oxyleotris marmorata*) juvenile**
Jaturong Matidtor
Maejo University, Thailand
- 14:15 SO09-25 **Cowpea and mung bean as novel dietary protein sources for milkfish, *Chanos chanos***
Mary Jane S. Apines-Amar¹, Relicardo M. Coloso², Cecilia J. Jaspé¹, Ma. Shirley M. Golez¹, Ma. Novie A. Murillo¹, Marj Gem B. Bunda¹ and Joyce M. Salvilla¹
¹University of the Philippines Visayas, Philippines and ² Southeast Asian Fisheries Development Center, Philippines
- 14:30 SO09-26 **Influence of salinity and complete fish meal replacement on growth performance and relative expression of growth related genes in Nile tilapia, *Oreochromis niloticus***
Sandamali Sakunthala Herath¹, Yutaka Haga², Masato Endo² and Shuichi Satoh²
¹University of Ruhuna, Sri Lanka and ² Tokyo University of Marine Science and Technology, Japan
- 14:45 SO09-27 **Growth and digestive enzyme activity of Nile tilapia fed with diet containing fermented grass from cow stomach**
Worawit Chukwannuan and Sudaporn Tongsiro
Maejo University, Thailand
- 15:00 SO09-28 **The effects of dietary combined use of soybean extract and plant oil mixture on growth and whole body and tissue essential and non-essential amino acid and fatty acid compositions in juvenile Nile Tilapia, *Oreochromis niloticus* L.**
Kenan Engin and Almila Uysal
Mersin University, Turkey
- 15:15 SO09-29 **Effects of chlorella supplementaion to the low fish meal diets on growth, body composition, digestion, and disease resistance in rainbow trout, *Oncorhynchus mykiss***
Hao Mei¹, Fengyu Li, Yutaka Haga, Makoto Endo, Hidehiro Kondo, Ikuo Hirono and Shuichi Satoh
Tokyo University of Marine Science and Technology, Japan
- 15:30 SO09-30 **Growth performance, survival, and expression of immune related gene in rainbow trout, *Oncorhynchus mykiss* pre-fed with supplemental level of arginine, ornithine, and citrulline upon challenge with *Vibrio anguillarum***
Ichsan A. Fauzi, Yutaka Haga, Hidehiro Kondo, Ikuo Hirono and Shuichi Satoh
Tokyo University of Marine Science and Technology, Japan

- 15:45 SO09-31 **Utility of soybean products as an alternative protein source in juvenile Pacific bluefin tuna, *Thunnus orientalis***
Amal Biswas and Kenji Takii
Kindai University, Japan
- 16:00 Break
- 16:15 SO09-32 **Nutritional programming of marine fish for a better utilization of diets low in fishmeal and fish oil**
Marisol Izquierdo
ECOAQUA Institute, Spain
- 16:30 SO09-33 **Condition optimization of trypsin and chymotrypsin activities in *Lates calcarifer***
Winyoo Boonprasert, Prachaub Chaibu, Chanagun Chitmanat, Jongkon Promya and Kriangsak Mengamphan
Maejo University, Thailand
- 16:45 SO09-34 **Non-fish meal, non-fish oil diet development for red seabream, *Pagrus major*, with microalgae *Schizochytrium* sp.**
Taekyoung Seong¹, Yutaka Haga¹, Renato Kitajima² and Shuichi Satoh¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Alltech Japan, Japan*
- 17:00 SO09-35 **Effect of supplementation with taurine and enzyme complex to low fish meal diet on growth and enterohepatic health of juvenile red sea bream, *Pagrus major***
Fengyu Li, Yutaka Haga, Hidehiro Kondo, Makoto Endo, Ikuo Hirono and Shuichi Satoh
Tokyo University of Marine Science and Technology, Japan
- 17:15 SO09-36 **The growth performance in substitution for fish meal with yellow mealworm (*Tenebrio molitor*) in the diets for red seabream (*Pagrus major*)**
Atsushi Ido¹, Atsushi Hashizume¹, Chiemi Miura² and Takeshi Miura¹
¹*Ehime University, Japan* and ²*Hiroshima Institute of Technology, Japan*
- 17:30 SO09-37 **Potential of housefly larva (*Musca domestica*) in sole replacement of fish meal; ingredient analysis and feeding trial in young red seabream (*Pagrus major*)**
Serigne Thierno Thiaw¹, Atsushi Hashizume¹, Atsushi Ido¹, Takayuki Takahashi¹, Chiemi Miura^{1,2} and Takeshi Miura¹
¹*Ehime University, Japan* and ²*Hiroshima Institute of Technology, Japan*
- 17:45 SO09-38 **Growth performance of juvenile red sea bream *Pagrus major* fed with various fish protein sources in formulated diets**
JeongHyeon Cho¹, Reiji Masuda², Yutaka Haga¹ and Shuichi Satoh¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Kyoto University Maizuru Fisheries Research Station, Japan*

Sept. 24 (Sun.)

Poster Presentation

- SP09-13 **Molecular cloning of novel chitinase genes from two species of crustaceans, red king crab *Paralithodes camtschaticus* and snow crab *Chionoecetes opilio***
Kakeru Fujimori, Momo Kanai, Ryo Nishino, Hiromi Kakizaki, Hideto Fukushima and Masahiro Matsumiya
Nihon University, Japan
- SP09-14 **Characterization and primary structure of chitinase from the hepatopancreas of red snow crab *Chionoecetes japonicus***
Ryuichi Houya, Hiromi Kakizaki, Ryo Nishino, Hideto Fukushima and Masahiro Matsumiya
Nihon University, Japan
- SP09-15 **Characterization of tilapia sialidases and its significance in bacterial infection**
Akinobu Honda¹, Petros Kingstone Chigwechokha², Rena Wakamatsu¹, Yuko Kamada¹, Masaharu Komatsu¹ and Kazuhiro Shiozaki¹
¹*Kagoshima University, Japan* and ²*Mzuzu University, Malawi*

SP09-16 **Chitinolytic enzyme of Japanese sardine (*Sardinops melanostictus*): distribution of the organs and molecular cloning of a novel chitinase gene from the kidney**
Miku Watanabe, Satoshi Kawashima, Hiromi Kakizaki, Hideto Fukushima and Masahiro Matsumiya
Nihon University, Japan

S10 (Post Harvest Science and Technology)

Sept. 22 (Fri.)	am	Oral Presentation	Room 8
10:00	SO10-01	Suggestion of new quality evaluation method of a live squid as a <i>sashimi</i> material Sanae Kato ¹ , Takashi Kitayama ¹ , Shiho Tanaka ¹ and Takeya Yoshioka ² ¹ Kagoshima University, Japan and ² Hokkaido Industrial Technology Center, Japan	
10:15	SO10-02	Evaluation of transport form with quality and environmental load of Japanese common squid (<i>Todarodes pacificus</i>) Futa Nagashima, Toru Suzuki and Manabu Watanabe Tokyo University of Marine Science and Technology, Japan	
10:30	SO10-03	Effect of olive leaf powder supplemented to fish feed on biochemical properties of red sea bream muscle Muh Ali Arsyad ^{1,4} , Masahiro Ogawa ^{1,2} , Takashi Akazawa ^{1,2} , Chie Nozaki ² and Kenichi Oyama ³ ¹ Ehime University Affiliated to Kagawa University, Japan, ² Kagawa University, Japan, ³ Kagawa Prefectural Fisheries Experimental Station, Japan and ⁴ State Polytechnic of Agriculture, Indonesia	
10:45	SO10-04	Simultaneous determination of freshness and histamine of fish flesh Minoru Sato, Yorihiko Shiba, Michiko Sasaki, Shinya Ito, Kenichiro Kurashima, Toshiyasu Yamaguchi, Toshiki Nakano and Yoshihiro Ochiai Tohoku University, Japan	
11:00	SO10-05	Characteristics of proteolysis in the autolysis of sea cucumber <i>Stichopus japonicus</i> body wall Yue Tang ^{1,2} , Wenhui Shang ¹ , Jinjian Sun ¹ , Yang Yang ¹ , Zhengyu Zhang ¹ and Haitao Wu ^{1,2} ¹ Dalian Polytechnic University, China and ² National Engineering Research Center of Seafood, China	
11:15	SO10-06	Calcium signals regulated apoptosis induction is involved in UVA-induced sea cucumber <i>Stichopus japonicas</i> autolysis Liang Song ^{1,2} , Yue Ding ¹ , Yue Tang ^{1,2} , Jingyu Tian ¹ , Jing Zhang ¹ , Dayong Zhou ^{1,2} and Beiwei Zhu ^{1,2} ¹ Dalian Polytechnic University, China and ² National Engineering Research Center of Seafood, China	
11:30	SO10-07	Fluorescence fingerprint approach for monitoring the post-mortem changes in frozen horse mackerel fillets Md. Mizanur Rahman, Mario Shibata, Naho Nakazawa, Tomoaki Hagiwara, Kazufumi Osako and Emiko Okazaki Tokyo University of Marine Science and Technology, Japan	
11:45	SO10-08	Study on the thawing method for frozen spotted mackerel with high freshness Yuki Fuchiyama, Naho Nakazawa, Kaihei Okumura, Kazufumi Osako and Emiko Okazaki Tokyo University of Marine Science and Technology, Japan	
Sept. 22 (Fri.)	pm	Oral Presentation	Room 8
14:00	SO10-09	Effect of chitosan microcapsules loaded with nisin on the quality of small yellow croaker Tiantian Wu and Yaqin Hu Zhejiang University, China	
14:15	SO10-10	Optimization of the preparation conditions of phlorotannin from <i>Undaria pinnatifida</i> sporophyll and its antioxidant and anti-inflammatory activities Zhe Xu, Hao Sun, Xiaoyu Zhang, Baoyu He, Xiufang Dong and Hang Qi Dalian Polytechnic University, China	
14:30	SO10-11	Water dynamics in abalone during drying and rehydration processes assessed by LF-NMR and MRI Yukun Song ¹ , Mingqian Tan ^{1,2} and Beiwei Zhu ^{1,2} ¹ Dalian Polytechnic University, China and ² National Engineering Research Center of Seafood, China	

- 14:45 SO10-12 **Methodology of ice crystal analysis in hairtail samples during freezing**
Lanlan Luan
Zhejiang University, China
- 15:00 SO10-13 **The formation of ice crystals in *Penaeus chinensis* treated by ultrasonic assisted freezing**
Yingchun Xiang and Yaqin Hu
Zhejiang University, China
- 15:15 SO10-14 **Effect of the processing/freezing method on properties of frozen surimi gels**
Yi Lun Tung¹, Yoshinobu Hiraoka², Ru Jia¹, Naho Nakazawa¹, Kazufumi Osako¹ and Emiko Okazaki¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Ehime Institute of Invention and Innovation, Japan*
- 15:30 SO10-15 **Quality evaluation method for frozen surimi by suwari speed and activation energy**
Koki Yamada, Hiroo Fuchimoto, Akane Konishi, Ryouzuke Takahashi, Hideto Fukushima and Masahiro Matsumiya
Nihon University, Japan
- 15:45 SO10-16 **Application of emulsifying fish oil into commercial surimi-based product**
Liqiong Niu¹, Yoshihisa Suzuki², Hideto Fukushima³, Gao Yuanpei¹, Naho Nakazawa¹, Kazufumi Osako¹ and Emiko Okazaki¹
¹*Tokyo University of Marine Science and Technology, Japan*, ²*Maruyo Suzuki Company, Japan* and ³*Nihon University, Japan*
- 16:00 Break
- 16:15 SO10-17 **Study on the mechanism of serine proteinase induced modori phenomons in ISP protein isolate from blue scad (*Decapterus maruadsi*)**
Le Chang Sun, Yi Chen Lin, Zhong Chan, Ling Weng, Guang Ming Liu, Wu Yin Weng and Min Jie Cao
Jimei University, China
- 16:30 Break
- 16:45 SO10-19 **cDNA cloning of paramyosin from several kinds of squid mantle muscle**
Takayuki Kajita, Yoshiko Takeda, Saki Yoshida, Hiromi Kakizaki, Hideto Fukushima and Masahiro Matsumiya
Nihon University, Japan
- 17:00 SO10-20 **Seasonal variation of breaking strength and chemical composition in the muscles of Spotted Mackerel *Scomber australasicus* and Pacific Mackerel *Scomber japonicus***
Kanako Hashimoto^{1,2}, Shozo Kobayashi¹ and Michiaki Yamashita^{2,3,4}
¹*Chiba Prefectural Fisheries Research Center, Japan*, ²*Tokyo University of Marine Science and Technology, Japan*, ³*National Fisheries University, Japan* and ⁴*National Research Institute of Fisheries Science, Japan*
- 17:15 SO10-21 **Mass spectrometry analysis and in silico prediction of allergenicity of peptides in tryptic hydrolysates of the proteins from *Ruditapes philippinarum***
Yue Yu, Meiling Qiao, Fengjiao Mao, Di Wu and Ming Du
Dalian Polytechnic University, China
- 17:30 SO10-22 **Effect of sterilization treatment on tropomyosin, a shellfish major allergen**
Ying Lu¹, Tianjiao Huang¹, Xiao Yuan², Xin Lin¹ and Hideki Ushio²
¹*Shanghai Ocean University, China* and ²*The University of Tokyo, Japan*
- 17:45 SO10-23 **pH-dependence of coiled-coil structural parameters of shrimp tropomyosin studied by molecular dynamics simulation**
Hideo Ozawa¹, Koji Umezawa², Mitsunori Takano³, Shoichiro Ishizaki⁴, Shugo Watabe⁵ and Yoshihiro Ochiai⁶
¹*Kanagawa Institute of Technology, Japan*, ²*Shinshu University, Japan*, ³*Waseda University, Japan*, ⁴*Tokyo University of Marine Science and Technology, Japan*, ⁵*Kitasato Univerisity, Japan* and ⁶*Tohoku University, Japan*

- SP10-01 **Effects of plasticizers on the properties of carrageenan edible film**
Roike I. Montolalu¹, Daisy M. Makapedua¹, Ayub Meko², Feny Mentang¹, Henny A. Dien¹, Siegfried Berhimpon¹, Hiroo Ogawa³ and Yuri Tashiro⁴
¹Sam Ratulangi University, Indonesia, ²Artha Wacana Christian University, Indonesia, ³Tokyo University of Marine Science and Technology, Japan and ⁴Kyoto Prefectural University, Japan
- SP10-02 **Effect of different washing solutions on chemical interactions and gel properties of silver carp (*Hypophthalmichthys molitrix*) surimi gels**
Yongkang Luo and Longteng Zhang
China Agricultural University, China
- SP10-03 **Effect of polyphenol on gel properties of Surimi**
Aminah Hajah Thaha
Universitas Islam Negeri Makassar, Indonesia
- SP10-04 **Gel properties of by-catch fish surimi**
Ritsuko Wada, Takenao Kurihara, Tatsuya Kobayashi, Tadao Kashiwamura, Yuki Shirahata and Momo Narisawa
National Fisheries University, Japan
- SP10-05 **Influence of the protease inhibitors on the gel-forming ability of recovered North Pacific krill *Euphausia pacifica* protein using NaCl solution treatment**
Kayo Amano, Kigen Takahashi, Emiko Okazaki and Kazufumi Osako
Tokyo University of Marine Science and Technology, Japan
- SP10-06 **Tribology of agar and fish meat gel**
Yuri Tashiro¹, Chikako Tomohiro² and Hiroo Ogawa²
¹Kyoto Prefectural University, Japan and ²Tokyo University of Marine Science and Technology, Japan
- SP10-07 **Suppressive effect of ATP and trimethylamine-N-oxide on urea-denaturation of shark myosin Ca-ATPase**
Yumi Ogata, Sanae Kato and Ikuo Kimura
Kagoshima University, Japan
- SP10-08 **A physiological function of TMAOase, Aspolin**
Tomoe Iwakiri, Mami Akatsuka, Sanae Kato, Atsushi Yamamoto and Ikuo Kimura
Kagoshima University, Japan
- SP10-09 **Rapid evaluation of big-eye tuna (*Thunnus obesus*) quality changes based on near infrared reflectance spectroscopy (NIRS) and low field nuclear magnetic resonance (LF ¹H NMR)**
Lei Xiao¹, Wei-qing Lan¹, Shu-cheng Liu², Xiao-hong Sun¹, Bing-zhao Shi¹ and Jing Xie¹
¹Shanghai Ocean University, China and ²Guangdong Ocean University, China
- SP10-10 **A new method for assessing the freshness of fish meat based on metabolome analysis technology**
Ryota Mabuchi, Huiqing Zhao, Rumi Kondo and Shota Tanimoto
Prefectural University of Hiroshima, Japan
- SP10-11 **Applicability of a taste sensing system to objectively assess taste of seafood**
Ken Touhata¹, Masaaki Habara², Hidekazu Ikezaki² and Noriko Ishida¹
¹Japan Fisheries Research and Education Agency, Japan and ²Intelligent Sensor Technology, Inc., Japan
- SP10-12 **High Quality Transportation of Fresh Fish by Slurry Ice**
Takeya Yoshioka, Yasunori Kinoshita and Tomoko Nishimura
Hokkaido Industrial Technology Center, Japan

- SP10-13 **The effect of antioxidant and antibacterial nanocapsule liquid smoke on catfish fillet (*Pangasius* sp.) during storage at room temperature and cold temperature**
Fronthea Swastawati, Ahmad Ni'matullah Al-Baari, Eko Susanto and Lukita Purnamayati
Diponegoro University, Indonesia
- SP10-14 **Postmortem autodigestion of juvenile body of sardines during cold storage**
Seiko Tamotsu, Satoshi Hujita and Ikuo Kimura
Kagoshima University, Japan
- SP10-15 **Identification of special spoilage organisms in sturgeon during ice storage and development of their growth models**
Jinlan Zhang, Zhichao Zhang, Meng Gui and Pinglan Li
China Agricultural University, China

Sept. 23 (Sat.)	am	Oral Presentation	Room 8
10:00	SO10-24	Moisture absorption characteristic of sea cucumber peptide powder and effect of hygroscopicity on volatile components Peiyu Xue, Yue Zhao, Ke Wang and Songyi Lin <i>Dalian Polytechnic University, China</i>	
10:15	SO10-25	A novel peptide with calcium-chelating capacity from sea cucumber ovum tryptic hydrolysates and the possible chelating mechanism Pengbo Cui, Songyi Lin, Yixing Wang and Na Sun <i>Dalian Polytechnic University, China</i>	
10:30	SO10-26	Production of Anti-inflammatory fish myofibrillar protein and peptides by conjugation with alginate oligosaccharide through the Maillard reaction Hiroki Saeki, Mizuho Nishizawa and Musashi Saigusa <i>Hokkaido University, Japan</i>	
10:45	SO10-27	Selenoneine, selenium-containing imidazole compound, inhibits metalloenzymes, i.e., angiotensin-converting enzyme and tyrosinase by selenol-metal ion interaction Takuya Seko ¹ , Shintaro Imamura ¹ , Kenji Ishihara ¹ , Yumiko Yamashita ¹ and Michiaki Yamashita ² ¹ National Research Institute of Fisheries Science, Japan and ² National Fisheries University, Japan	
11:00	SO10-28	Development of functional foods rich in Se-containing imidazole compound, selenoneine, from tuna and fisheries wastes Michiaki Yamashita ¹ and Yumiko Yamashita ² ¹ National Fisheries University, Japan and ² National Research Institute of Fisheries Science, Japan	
11:15	SO10-29	The anti-allergic activities of polysaccharides from <i>Chondrus verrucosus</i> (Rhodophyta, Gigartinales) Xiaolu He, Akiko Yamauchi, Toshiki Nakano, Toshiyasu Yamaguchi and Yoshihiro Ochiai <i>Tohoku University, Japan</i>	
11:30	SO10-30	Effects of ergothioneine-rich mushroom extract on the stability of liposomal astaxanthin under oxidation-induced conditions Jade Pahila, Yuki Ishikawa and Toshiaki Ohshima <i>Tokyo University of Marine Science and Technology, Japan</i>	
11:45	SO10-18	Dynamics of myosin heavy chain degradation in deepsea bonefish surimi gel Ryoko Nakamizo ¹ , Yuri Kominami ¹ , Kentaro Mine ¹ , Misako Nakaya ¹ , Shigeru Okada ¹ , Yoko Matsuoka ² , Nobuhiko Ueki ² , Jianrong Wan ² , Shugo Watabe ^{2,3} and Hideki Ushio ¹ ¹ The University of Tokyo, Japan, ² Suzuhiro FPL, Japan and ³ Kitasato University, Japan	

Sept. 23 (Sat.)	pm	Oral Presentation	Room 8
14:00	SO10-31	Species identification by DNA barcoding and sarcoplasmic protein profiles of underutilized Indonesian freshwater fish Asya Fathya Nur Zakiah ¹ , Mala Nurilmala ¹ , Agoes Mardiono Jacob ¹ and Yoshihiro Ochiai ² ¹ Bogor Agricultural University, Indonesia and ² Tohoku University, Japan	
14:15	SO10-32	Species identification by DNA barcoding and bioprospecting of Indonesian seahorses Mala Nurilmala ¹ , Evi Maya Sari ¹ , Asadatun Abdullah ¹ , Agus Oman Sudrajat ¹ and Yoshihiro Ochiai ² ¹ Bogor Agricultural University, Indonesia and ² Tohoku University, Japan	
14:30	SO10-33	Chemical and minerals composition of dried seaweed <i>Eucheuma spinosum</i> collected from Indonesia coastal sea regions Andarini Diharmi ¹ , Dedi Fardiaz ² , Nuri Andarwulan ² and Suardi Loekman ¹ ¹ Universitas Riau, Indonesia and ² Researcher of SEAFAST Centre	
14:45	SO10-34	Effect of <i>Sargassum hystrix</i> on blood biochemistry profile of stress-induced Wistar Rats Amir Husni, Radipta Lailatussifa and Alim Isnansetyo Universitas Gadjah Mada, Indonesia	
15:00	SO10-35	Extraction and characterization of acid- and pepsin-soluble collagen from scales of marine and freshwater fishes caught from temperate and sub-tropical countries Sheik Md. Moniruzzaman, Kigen Takahashi, Emiko Okazaki and Kazufumi Osako Tokyo University of Marine Science and Technology, Japan	
15:15	SO10-36	A study on the quality of natural flavoring powder processed from shrimp waste Suparmi Suparmi, Edison and Rchal Susilo Riau University, Indonesia	
15:30	SO10-37	Isolation and identification of protease-producing <i>Pseudomonas</i> sp. PD14 in the gut of rabbitfish, <i>Siganus guttatus</i> (Bloch 1787) Cindy Armada and Rhoda Mae Simora University of the Philippines Visayas, Philippines	
15:45	SO10-38	Extraction and detailed characterization of phospholipid-enriched oils from six species of edible clams Zhongyuan Liu, Xin Zhou and Dayong Zhou Dalian Polytechnic University, China	
16:00	SO10-39	Study on the fatty acid compositions of deep-sea isopod <i>Bathynomus doederleinii</i> Takayuki Sawasaki, Kigen Takahashi, Kouichi Kurose, Emiko Okazaki and Kazufumi Osako Tokyo University of Marine Science and Technology, Japan	
16:15	SO10-40	Lipid profile in different tissues of abalone <i>Haliotis discus hannai</i> Ino Yuying Zhang, Lei Qin, Dayong Zhou, Xianbing XU, Ming Du and Beiwei Zhu Dalian Polytechnic University of Food Science and Technology, China	
16:30	SO10-41	Functional characteristics of cookies containing snakehead [<i>Ophiocephalus striatus</i> (Bloch, 1793)] fish protein concentrate fortified with <i>Chlorella</i> sp. Dewita Buchari and Syahrul Universitas Riau, Indonesia	

Sept. 23 (Sat.) **Poster Presentation**

- SP10-16 **Studies on functional constituents in the brown alga *Undaria undariodes***
Ayako Nagato, Makoto Kakinuma and Wataru Miki
Mie University, Japan

- SP10-17 **Chemical characterization of polysaccharides from three seaweed species and their potential biological activities**
Xiaolu He, Shenjing Liu, Akiko Yamauchi, Toshiki Nakano, Toshiyasu Yamaguchi and Yoshihiro Ochiai
Tohoku University, Japan
- SP10-18 **Efficient extraction of dulse (*Palmaria palmata*) phycobiliproteins as a source of anti-inflammatory components by enzymatic degradation of cell wall**
Monami Kanai, Daichi Sugita, DaeYong Lee, Yutaka Shimizu and Hiroki Saeki
Hokkaido University, Japan
- SP10-19 **Characterization and antioxidant properties of abalone viscera hydrolysates fractionated by ultrafiltration**
Wuyin Weng, Peixiao Wei and Yanjun Ye
Jimei University, China
- SP10-20 **Healthy functionality of fermented *Saccharina angustata* with lactic acid bacteria**
Yuki Dakeyama and Naoko Hamada-Sato
Tokyo University of Marine Science and Technology, Japan
- SP10-21 **The inhibitory effect of sturgeon chondroitin sulfate on colorectal cancer *in vitro***
Ruiyun Wu, Jinlan Zhang, Lei Liu and Pinglan Li
China Agricultural University, Beijing
- SP10-22 **Characterization and functional properties of an extracellular protease from a fish gut isolate *Pseudomonas* sp. PD14**
Cindy Armada, Rhoda Mae Simora, Sharon Nunal and Augusto Serrano Jr.
University of the Philippines Visayas, Philippines
- SP10-23 **Studies on functional constituents in low quality *Pyropia yezoensis* thalli**
Makoto Kakinuma¹, Ayako Nagato¹, Kaoru Maeyama², Fumihiro Hattori² and Noriko Ishida³
¹*Mie University, Japan*, ²*Mikimoto Pharmaceutical Co., Ltd., Japan* and ³*Fisheries Research Agency, Japan*
- SP10-24 **Biochemical characteristics of type I collagen of seven fish species from various habitat temperatures and its role in adaptation to water temperature**
Monami Akita¹, Yuri Nishikawa¹, Yohsuke Ohuchi¹, Yuya Shigenobu², Daisuke Ambe², Takami Morita², Kohsuke Adachi¹ and Katsuji Morioka¹
¹*Kochi University, Japan* and ²*Japan Fisheries Research and Education Agency, Japan*
- SP10-25 **Expression of collagen metabolism-related genes and its relation to texture and collagen content of red seabream (*Pagrus major*) meat**
Nobuyoshi Nakatsuji¹, Kohsuke Adachi² and Katsuji Morioka²
¹*Ehime University, Japan* and ²*Kochi University, Japan*
- SP10-26 **Extraction and characterization of freshwater and marine fish skin collagen as Halal gelatin sources**
Mala Nurilmala¹, Agoes Mardiono Jacob¹, Heny Suryamarevita¹ and Yoshihiro Ochiai²
¹*Bogor Agricultural University, Indonesia* and ²*Tohoku University, Japan*
- SP10-27 **Utilization of the sawdust from frozen tuna processing – Composition analysis and quality evaluation of trial products**
Emi Shinohara¹, Naoko Yoshikawa² and Yoshihiro Ochiai³
¹*Tokai University, Japan*, ²*Shizuoka Institute of Science and Technology, Japan* and ³*Tohoku University, Japan*

Sept. 24 (Sun.) am

Oral Presentation

Room 8

- 10:00 SO10-43 **Towards the effective utilization of deep sea fish resources**
Yoshihiro Ochiai¹, Yuki Terada², Mizuki Matsumoto³ and Naoko Yoshikawa³
¹*Tohoku University, Japan*, ²*Tokai University, Japan* and ³*Shizuoka Institute of Science and Technology, Japan*

- 10:15 SO10-44 **Physico-chemical and functional properties of roe protein concentrate from Spanish Mackerel (*Scomberomorus commersonii*) and its application on infant food formulation**
Joko Santoso¹, Marcia Angela² and Lisa Amanda Yakhin²
¹Bogor Agricultural University, Indonesia and ²Pelita Harapan University, Indonesia
- 10:30 SO10-45 **Study on the methods for the concentration determination of collagens from calf and fish**
Xin Chen, Jingjing Chen, Junjie Zhang and Rui Duan
HuaiHai Institute of Technology, China
- 10:45 Break
- 11:00 SO10-46 **Effect of spawning on endogenous proteinases in abdominal muscle of threadfin bream *Nemipterus virgatus***
Jin-yang Liu¹, Asami Yoshida¹, Kazuya Shiota², Yasuhiko Shiina² and Kiyoshi Osatomi¹
¹Nagasaki University, Japan and ²Maruha Nichiro Corporation, Japan
- 11:15 SO10-47 **Removing fish scale by using tuna protease**
Jirapa Hinsui, Thongpipat Luangthong, Supannika Thikakun, Nichaphat Detkamhaeng and Natechanok Mahachoo
Kasetsart University, Thailand
- 11:30 SO10-48 **Effects of polysaccharide on the stability of enzymatic hydrolysates of *Mytilus edulis***
Fengjiao Mao¹, Pujie Shi², Hui Chen¹, Zhenyu Wang¹, Yue Yu¹, Xianbing Xu¹ and Ming Du¹
¹Dalian Polytechnic University, China and ²Harbin Institute of Technology, China
- 11:45 SO10-49 **IMP accumulation as affected by temperature-dependent AMP degradation activity in postmortem muscle of white leg shrimp**
Masahito Matsukawa, Ryouzuke Hirose and Tooru Ooizumi
Fukui Prefectural University, Japan

Sept. 24 (Sun.) pm

Oral Presentation

Room 8

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- 14:00 SO10-50 **The removal of fishy odor from tilapia skin using for gelatin extraction**
Patwarin Tohmadlea and Jirapa Hinsui
Kasetsart University, Thailand
- 14:15 SO10-51 **Metagenomic analysis of microbial succession and changes in volatile compounds during an optimization fermentation process of *Chouguiyu* (stinky mandarin fish)**
Sasa Liu, Rongqian Zhu, Ruiqi Bao, Xiangying Wu, Chaofan Ji, Xiuping Dong and Xiping Lin
Dalian Polytechnic University, National Engineering Research Center of Seafood, China
- 14:30 SO10-52 **Effects of temperature fluctuation on the quality and microbial diversity of large yellow croaker (*Pseudosciaena crocea*) with ice during logistic process**
Weiqing Lan, Qian Wang, Xiao-hong Sun, Xiao-hui Yang and Jing Xie
Shanghai Ocean University, China
- 14:45 SO10-53 **The effect of initial freshness on the quality change of tuna meat during frozen storage**
Naho Nakazawa¹, Ritsuko Wada², Hideto Fukushima³, Shinji Kono⁴, Ryusuke Tanaka⁵ and Emiko Okazaki¹
¹Tokyo University of Marine Science and Technology (TUMSAT), Japan, ²National Fisheries University, Japan, ³Nihon University, Japan, ⁴Mayekawa Mfg. Co. Ltd., Japan and ⁵Miyazaki University, Japan
- 15:00 Break
- 15:15 SO10-54 **Effect of salting and frozen storage on the quality of tuna meat**
Qingqing Jiang, Naho Nakazawa, Kazufumi Osako and Emiko Okazaki
Tokyo University of Marine Science and Technology, Japan
- 15:30 SO10-55 **ATP in frozen muscle works as a cryoprotectant of myoglobin**
Shinya Fuse, Yumi Ogata, Riho Iwane, Sanae Kato and Ikuro Kimura
Kagoshima University, Japan

- 15:45 SO10-56 **Effect of starch grain size on changes in quality of heat-induced surimi gels upon freezing**
Ru Jia¹, Toyohiko Katano², Yuki Watanabe¹, Naho Nakazawa¹, Kazufumi Osako¹ and Emiko Okazaki¹
¹*Tokyo University of Marine Science and Technology, Japan and* ²*Nihon Starch Co., LTD., Japan*
- 16:00 SO10-57 **Effective use of microbial transglutaminase to improve the texture of walleye pollack surimi gel**
Tooru Ooizumi¹, Yosiharu Ikedo¹, Masahito Matsukawa¹, Hiroaki Sato² and Takeshi Okamoto²
¹*Fukui Prefectural University, Japan and* ²*Ajinomoto Co., Inc., Japan*
- 16:15 SO10-58 **Gelation of scallop adductor muscle at low ionic strength condition**
Yuanyong Tian¹, Huamao Wei², Junrong Liu³ and Chunhong Yuan⁴
¹*Dalian Ocean University, China and* ²*Iwate University, Japan*
- 16:30 Break
- 16:45 SO10-60 **Antioxidant and antibacterial effect of liquid smoke nanocapsules on catfish (*Pangasius* sp.) fillet during room and cold storage**
Fronthea Swastawati¹, Ahmad N. Al-Baari¹, Eko Susanto^{1,2}, Lukita Purnamayati¹ and Eko P. Ritanto¹
¹*Diponegoro University, Indonesia and* ²*Hokkaido University, Japan*
- 17:00 SO10-61 **Optimization and characterization of citrus essential oil loaded chitosan based microcapsules and its application in superchilled storage of Pacific white shrimp (*Penaeus vannamei*)**
Yuan Li
Zhejiang University, China
- 17:15 SO10-62 **Green synthesis of sodium alginate-silver nanoparticles (AgNPs) with ultrasonic treatment and their antibacterial activity**
Ying Shao, Chun H Wu and Ya Q Hu
Zhejiang University, China

Sept. 24 (Sun.)

Poster Presentation

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- SP10-28 **Purification, stability and secondary structure of major yolk protein from the body wall of sea cucumber (*Stichopus japonicus*)**
Chan Zhong, Le-Chang Sun, Ling Weng, Guang-Ming Liu and Min-Jie Cao
Jimei University, China
- SP10-29 **Characterization of composition and lipid in various deep sea fish species from Suruga Bay**
Jun Howard¹, Akiko Yamauchi², Toshiyasu Yamaguchi³, Toshiki Nakano⁴ and Yoshihiro Ochiai⁵
Tohoku University, Japan
- SP10-30 **Freezing and freeze-drying of sea urchins**
Fuko Kitamura, Osato Miyawaki and Toru Suzuki
Tokyo University of Marine Science and Technology, Japan
- SP10-31 **Effects of different freezing methods on the volatile components of grass carp meat**
Wenzheng Shi, Cuicui Kang and Xichang Wang
Shanghai Ocean University, China
- SP10-32 **Development of a new thawing method applying electromagnetic wave irradiation**
Minoru Sato¹, Toshiyasu Yamaguchi¹, Akiko Yamauchi¹, Toshiki Nakano¹ and Yoshihiro Ochiai¹
Tohoku University, Japan
- SP10-33 **The influence of drying processes on dynamics of water mobility and distribution in Sur clam access LF-NMR**
Siqi Wang¹, Mingqian Tan^{1,2} and Beiwei Zhu^{1,2}
¹*Dalian Polytechnic University, China and* ²*National Engineering Research Center of Seafood, China*

- SP10-34 **An effective method for cadmium removal from scallop by-product enzymatic hydrolysate**
Kailun Hu¹, Jingfeng Yang² and Beiwei Zhu³
¹*Dalian Polytechnic University, China* and ²*National Engineering Research Center of Seafood, China*
- SP10-35 **Pesticide residues control in foods imported into Japan; HACCP-oriented approach to ensure regulatory compliance**
Chiaki Miura¹, Goichiro Yukawa¹, Naoko Hamada- Sato¹ and Naoki Shinoda²
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Cargill Japan Ltd., Japan*
- SP10-36 **The forms of fluoride in Antarctic krill (*Euphausia superba*) oil extracted with hexane and its removal with different absorbents**
Fawen Yin¹ and Dayong Zhou^{1,2}
¹*Dalian Polytechnic University, China* and ²*National Engineering Research Center of Seafood, China*
- SP10-37 **The structural fluctuation of the histamine oxidase by molecular dynamics simulation**
Hideo Ozawa¹, Yoshihiro Ochiai² and Akira Yamamura¹
¹*Kanagawa Institute of Technology, Japan* and ²*Tohoku University, Japan*

S11 (Safety of Fisheries Product)

Sept. 24 (Sun.) pm

Oral Presentation

Room 2

- 14:00 SO11-01 **Identification of Selenoneine-methylmercury complex in animal tissues**
Michiaki Yamashita¹, Shintaro Imamura² and Yumiko Yamashita²
¹National Fisheries University, Japan and ²National Research Institute of Fisheries Science, Japan
- 14:30 SO11-02 **Exosome-mediated methylmercury detoxification accelerated by selenium compound, selenoneine in aquatic organism**
Shintaro Imamura¹, Tomomi Kato¹, Takuya Seko¹, Kenji Ishihara¹, Yumiko Yamashita¹, Takeshi Yabu², Ståle Ellingsen³, Heidi Amlund³, Anne-Katrine L. Haldorsen³ and Michiaki Yamashita⁴
¹National Research Institute of Fisheries Science, Japan, ²Nihon University, Japan, ³National Institute of Nutrition and Seafood Research, Norway and ⁴National Fisheries University, Japan
- 14:45 SO11-03 **Bioaccumulation of trace metals in Mediterranean mussels (*Mytilus galloprovincialis*) from a copper-alloy fish farm and potential risk assessment**
Murat Yigit¹, Barbaros Celikkol², Sevdan Yilmaz¹, Musa Bulut¹, Bayram Kizilkaya¹, Baris Ozalp¹, Robert Dwyer³, Masashi Maita⁴, Ümüt Yigit¹, Sebahattin Ergun¹ and Yesim Buyukates¹
¹Canakkale Onsekiz Mart University, Turkey, ²University of New Hampshire, USA, ³International Copper Association, USA and ⁴Tokyo University of Marine Sciences and Technology, Japan
- 15:00 Break
- 15:15 SO11-04 **Food allergy risk of the female salmon meat in salmon roe allergic patient**
Yutaka Shimizu, Lingjia Shi, Tomono Hikasa, Shiki Moriyama and Hiroki Saeki
Hokkaido University, Japan
- 15:30 SO11-05 **Antimicrobial mechanism of *Ginkgo biloba* leaves extracts (GBLE) against *Shewanella putrefaciens***
Weiqing Lan, Qian Wang, Xiaohong Sun and Jing Xie
Shanghai Ocean University, China
- 15:45 SO11-06 **Different precooling strategies on the freshness of farmed perch (*Lateolabrax japonicus*) during logistics process**
Weiqing Lan, Wanjun Zhang, Qiyue Wu and Jing Xie
Shanghai Ocean University, China
- 16:00 Break
- 16:15 SO11-07 **Tetrodotoxin-specific toxin uptake and maturation-associated toxin accumulation in the pufferfish *Takifugu pardalis***
Wei Gao¹, Yoko Kanahara¹, Ryohei Tatsuno², Hiroyuki Yoshikawa², Kiyoshi Soyano¹, Tomohiro Takatani¹ and Osamu Arakawa¹
¹Nagasaki University, Japan and ²National Fisheries University, Japan
- 16:30 SO11-08 **Haptenic properties of tetrodotoxin conjugated to carrier proteins by using dithiol reagents**
Suzuka Takaishi, Ko Yasumoto, Atsushi Kobiyama and Shigeru Sato
Kitasato University, Japan
- 16:45 SO11-09 ***In vitro* uptake of tetrodotoxin into marine gastropods by tissue culture**
Rieko Ohki¹, Takuya Matsumoto², Shoichiro Ishizaki¹ and Yuji Nagashima¹
¹Tokyo University of Marine Science and Technology, Japan and ²Prefectural University of Hiroshima, Japan

- SP11-01 **Long-term investigation of polycyclic aromatic hydrocarbon (PAHs) concentrations in *Crassostrea angulata***
Liang-Hsien Chen, Yung-I Li, Wei-Syuan Ciou, Yu-Hung Chou, Chen-Wei Hsu and Yu-Hsiang Huang
Chinese Culture University, Taiwan
- SP11-02 **Evaluation and visualization by biothermometer of quality in pink prawn, *Pandalus nipponensis***
Hiroko Seki¹, Lee Tae Soo¹, Natsumi Inoue¹, Kazunori Kobayashi¹, Toshiyuki Okano², Sentaro Tsuru³, Koichi Hidaka³, Kentaro Oda³, Michio Ogawa³ and Naoko Hamada-Sato¹
¹*Tokyo University of Marine Science and Technology, Japan*, ²*Fishing Boat and System Engineering Association, Japan* and ³*Japan Fisheries Research and Education Agency, Japan*
- SP11-03 **Species identification of salmonid fish in commercial seafood sold as “salmon” using PCR-RFLP analysis**
Ryutaro Ueda, Chihiro Yoshida, Kazuki Hasegawa, Shiro Itoi and Haruo Sugita
Nihon University, Japan
- SP11-04 **Health and safety managements operation of aquatic products in Taiwan**
Che Chun Chen
National Chiayi University, Taiwan
- SP11-05 **Effects of cooking on the flavor quality of white shrimp**
Xiuxia Duan, Wenzheng Shi, Nan Xu, Zhihe Wang and Bing Fang
Shanghai Ocean University, China
- SP11-06 **Tetrodotoxin monitoring of biological specimens and evaluation of toxin profile in the 2015 food poisoning case caused by the scavenging gastropod *Nassarius (Alectrion) glans* “Kinshibai”**
Kazunari Tsujimura, Hiroki Yoshimura, Toshitsugu Taguri and Hideaki Motomura
Nagasaki Prefectural Institute of Environment and Public Health, Japan
- SP11-07 **Biological distribution and individual differences of diarrhetic shellfish toxins in Japanese scallops**
Ryoji Matsushima¹, Hajime Uchida¹, Ryuichi Watanabe¹, Hiroshi Oikawa¹, Yuki Kosaka² and Toshiyuki Suzuki¹
¹*National Research Institute of Fisheries Science, Japan* and ²*Aomori Prefectural Industrial Technology Research Center, Japan*
- SP11-08 **Carrier-mediated transport of tetrodotoxin in porcine renal proximal tubule epithelial cell line LLC-PK1 monolayers**
Takuya Matsumoto¹, Yui Ishizaki¹, Keika Mochizuki¹, Mitsuru Aoyagi¹, Yoshiharu Mitoma¹, Shoichiro Ishizaki² and Yuji Nagashima²
¹*Prefectural University of Hiroshima, Japan* and ²*Tokyo University of Marine Science and Technology, Japan*
- SP11-09 **Toxification process of *Takifugu* pufferfish: detection of TTX-bearing organisms in intestinal contents of pufferfish**
Shiro Itoi, Mitsuki Takei, Riko Yamada and Haruo Sugita
Nihon University, Japan
- SP11-10 **Tetrodotoxin dynamics in the pufferfish *Takifugu rubripes* changes depending of its liver development**
Ryohei Tatsuno¹, Wei Gao², Hiroyuki Yoshikawa¹, Hiroshi Takahashi¹, Tsubasa Fukuda¹, Manabu Furushita¹, Gregory N. Nishihara², Tomohiro Takatani² and Osamu Arakawa²
¹*National Fisheries University, Japan* and ²*Nagasaki University, Japan*
- SP11-11 **Effects of sexual maturation on the toxicity of the toxic flatworm *Planocera multitentaculata***
Hiroyuki Ueda, Riko Yamada, Mitsuki Takei, Misato Abe, Shiro Itoi and Haruo Sugita
Nihon University, Japan

S12 (Marine Natural Products Chemistry)

Sept. 24 (Sun.) am Oral Presentation Room 7

- 10:00 SO12-01 **Discovery new bioactive compounds from actinomycetes inhabiting marine environments**
Dong-Chan Oh
Seoul National University, Korea
- 10:30 SO12-02 **Novel guanidine alkaloids from an aqueous extract of Palauan *Epizoanthus* sp.**
Ryuichi Sakai¹, Ken Matsumura¹, James Reimer² and Masaki Fujita¹
¹*Hokkaido University, Japan and* ²*University of the Ryukyus, Japan*
- 10:45 SO12-03 **Discovery and chemistry of biologically active marine natural products**
Shigeki Matsunaga¹, Kentaro Takada¹, Yuki Hitora¹, Reiko Ueoka¹, Shigeru Okada¹ and Yuji Ise²
¹*The University of Tokyo, Japan and* ²*Nagoya University, Japan*
- 11:00 SO12-04 **Properties of collagens from the skin of the northern snakehead (*Channa argus*)**
Rui Duan, Jie Wu, Jia Wang and Junjie Zhang
Huaihai Institute of Technology, China
- 11:15 SO12-05 **Structural and functional analyses of a novel high-mannose specific lectin from an edible red alga *Meristotheca papulosa***
Makoto Hirayama, Suwako Chinen, Nana Kameda and Kanji Hori
Hiroshima University, Japan
- 11:30 SO12-06 **Isolation and characterization of a pink-colored Carotenoprotein from the ovary of Japanese scallop *Mizhopecten yessoensis***
Satoko Matsunaga, Maria Oozuchi and Kaori Nakamura
National Institute of Technology HAKODATE College, Japan
- 11:45 SO12-07 **The lectins of a coral control the motion of *Symbiodinium***
Mitsuru Jimbo¹, Ryota Takeuchi¹, Nami Kuniya¹, Fumika Tanimoto¹, Hiroshi Yamashita², Go Suzuki², Ko Yasumoto¹ and Shugo Watabe¹
¹*Kitasato University, Japan and* ²*Japan Fisheries Research and Education, Japan*

Sept. 24 (Sun.) pm Oral Presentation Room 7

- 14:00 SO12-08 **Overview of diversity and recent studies of Zoantharia (Anthozoa: Hexacorallia): potential sources for novel marine natural products**
James Reimer¹, Maria E.A. Santos¹, Hiroki Kise¹, Javier Montenegro¹ and Takuma Fujii²
¹*University of the Ryukyus, Japan and* ²*Kagoshima University, Japan*
- 14:30 SO12-09 **Unique metabolites regulating cell-proliferation from marine dinoflagellates *Amphidinium* species**
Masashi Tsuda
Kochi University, Japan
- 15:00 SO12-10 **Preparation and characterization of a novel polysaccharide from red seaweed *Bangia fuscopurpurea* with its inhibitory effects on carbohydrate-digestion enzymes**
Zedong Jiang¹, Hui Ni¹, Yanbing Zhu², Lijun Li³ and Huinong Cai¹
¹*Jimei University, China,* ²*Xiamen Southern Ocean Technology Center, China and* ³*Fujian Provincial Key Laboratory of Food Microbiology and Enzyme Engineering Technology, China*
- 15:15 SO12-11 **Studies on sex pheromones in helmet crabs and blue crabs**
Michiya Kamio
Tokyo University of Marine Science and Technology, Japan

- 15:30 SO12-12 **Effective extraction of carotenoprotein from Pacific white shrimp (*Litopenaeus vannamei*) shells using albacore tuna (*Thunnus alalunga*) spleen trypsin**
Tanchanok Poonsin¹, Benjamin K. Simpson², Soottawat Benjakul³, Wonnop Visessanguan⁴, Asami Yoshida⁵ and Sappasith Klomklao¹
¹Thaksin University, Thailand, ²McGill University, Canada, ³Prince of Songkla University, Thailand, ⁴National Science and Technology Development Agency, Thailand and ⁵Nagasaki University, Japan
- 15:45 SO12-13 **Exploration of biosynthetic enzymes of marine polyethers in dinoflagellates**
Masayuki Satake, Daisuke Naganuma and Takahisa Genji
The University of Tokyo, Japan
- 16:15 SO12-14 **Diversity of Japanese sponges: implication for future study of natural products chemistry**
Yuji Ise
Nagoya University, Japan
- 16:45 SO12-15 **Biologically active secondary metabolites derived from marine-derived actinomycetes**
Kentaro Takada
The University of Tokyo, Japan
- 17:00 SO12-16 **Characterization and formulation of sunscreen from seaweed *Padina australis* and *Euchema cottonii* slurry**
Nurjanah Nurjanah¹, Ruddy Suwandi¹, Effionora Anwar², Fevita Maharani¹ and Taufik Hidayat³
¹Bogor Agriculture University, Indonesia, ²University of Indonesia, Indonesia and ³University of Sultan Ageng Tirtayasa, Indonesia
- 17:15 SO12-17 **Formation and characterization of nano/micro particles based on chitosan and alginate for biomaterial delivery**
Tiantian Wu and Yaqin Hu
Zhejiang University of Food Science and Nutrition, China
- 17:30 SO12-18 **Biosynthetic pathway of saxitoxin based on the structures of its intermediates**
Mari Yotsu-Yamashita, Shigeki Tsuchiya, Yuko Cho and Keiichi Konoki
Tohoku University, Japan
- 18:00 SO12-19 **Biosynthetic origin of mycalolides from marine sponge *Mycale* sp.**
Masaki Fujita¹, Risa Nitana¹, Yosuke Itaka¹, Yusuke Goto¹ and Ryuichi Sakai¹
Hokkaido University, Japan
- 18:15 SO12-20 **Juvenile *Acropora tenuis* attracts *Symbiodinium* by using GlcNAc-binding lectin**
Ryota Takeuchi¹, Mitsuru Jimbo¹, Fumika Tanimoto¹, Nami Kuniya¹, Hiroshi Yamashita², Go Suzuki², Ko Yasumoto¹ and Shugo Watabe¹
¹Kitasato University, Japan and ²Japan Fisheries Research and Education Agency, Japan

Sept. 24 (Sun.)

Poster Presentation

- SP12-01 **Epinecidin-1 protects mice from LPS-induced endotoxemia and cecal ligation and puncture-induced polymicrobial sepsis**
Bor-Chyuan Su, Han-Ning Huang and Jyh-Yih Chen
Academia Sinica, Taiwan
- SP12-02 **Antimicrobial peptide epinecidin-1 promote complete skin regeneration of methicillin-resistant *Staphylococcus aureus* infected burn wound in swine models**
Huang Han-Ning¹, Pan Chieh-Yu², Wu Hung-Yi³ and Chen Jyh-Yih¹
¹Academia Sinica, Taiwan, ²National Kaohsiung Marine University, Taiwan and ³National Pingtung University of Science and Technology, Taiwan
- SP12-03 **Bromophenols as antioxidants and tyrosinase inhibitors**
Md. Reazul Islam, Daisuke Mikami and Hideyuki Kurihara
Hokkaido University, Japan

- SP12-04 **Identification of phycobiliprotein and antioxidant activity of PBP peptides from *Pyropia yezoensis***
Eun-Young Kim, Youn Hee Choi and Taek-Jeong Nam
Pukyong National University, Korea
- SP12-05 **Bio-transformation of paralytic shellfish toxin by the hemolymph of shore crab *Gaetice depressus***
Shunsuke Yokozuka¹, Yoichiro Kitani², Nobuo Suzuki², Shoichiro Ishizaki¹ and Yuji Nagashima¹
¹*Tokyo University of Marine Science and Technology, Japan* and ²*Kanazawa University, Japan*
- SP12-06 **Isolation of algicidal compounds from the red alga *Tricleocarpa cylindrical* against the red-tide phytoplankton *Chattonella antiqua***
Shijiao Zha, Kazuyoshi Kuwano and Fumito Ishibashi
Nagasaki University, Japan
- SP12-07 **Decreasing mechanism of lipoxygenase-mediated peroxides by seaweed constituents**
Hideyuki Kurihara and Kenta Yachiyama
Hokkaido University, Japan
- SP12-08 **Mutagenesis effect on microalgae *Nannochloropsis oculata*, *Dunaliella salina* and *Tetraselmis chuii***
Mujizat Kawaroe, Dina Augustine, Amelia S. Gustina and Arini Nadia
Bogor Agricultural University, Indonesia
- SP12-09 **The effects of polyamines on photosynthesis of cyanobacteria**
Shota Shinozuka¹, Ko Yasumoto¹, Tsuyoshi Sakata¹, Mina Yasumoto-Hirose², Jun Yasumoto³, Mitsuru Jimbo¹ and Shugo Watabe¹
¹*Kitasato University, Japan*, ²*Tropical Technology Plus, Japan* and ³*University of the Ryukyus, Japan*
- SP12-10 **Beneficial roles of organic selenium by fish consumption**
Yumiko Yamashita¹ and Michiaki Yamashita²
¹*National Research Institute of Fisheries Science* and ²*National Fisheries University*
- SP12-11 **A novel sponge-derived protein Thrombocortcin selectively interact with thrombopoietin receptor**
Hiromi Watari¹, Hiroya Nakajima¹, Wataru Atuumi¹, Takanori Nakamura², Nanya Takeshi² and Masaki Fujita¹
¹*Hokkaido University, Japan* and ²*Nissan Chemical Industries, Ltd., Japan*
- SP12-12 **Bioactive alkaloids from solitary tunicate *Cnemidocarpa irene***
Kei Miyako, Yohei Tadokoro, Taichi Ichimori, Masaki Fujita and Ryuichi Sakai
Hokkaido University, Japan
- SP12-13 **Survey of Japanese edible seaweeds for hemagglutinins**
Hirotaka Kakita and Hideki Obika
¹*Nihon University, Japan* and ²*National Institute of Advanced Industrial Science and Technology, Japan*
- SP12-14 **Structure investigation of poecillastrins**
Raku Irie, Kentaro Takada, Shigeru Okada and Shigeki Matsunaga
The University of Tokyo, Japan
- SP12-15 **Isolation and characterization immunoactive peptides from the enzymatic hydrolysate of *Paphia undulata* meat**
Xiao-qing He, Wen-hong Cao, Chao-hua Zhang and Xiao-ming Qin
Guangdong Ocean University, China
- SP12-16 **Anti-fatigue effect in mice of protein hydrolysate from oyster *Ostrea plicatula* Gmelin**
Xiao-ming Qin, Geng-xin Hao, Chao-hua Zhang and Wen-hong Cao
Guangdong Ocean University, China

- SP12-17 **Release principle of peptides and amino acids during the autolysis *Litopenaeus vannamei* head after UV-C irradiation stress**
Wen-hong Cao, Shen Tian, Chao-hua Zhang and Xiao-ming Qin
Guangdong Ocean University, China
- SP12-18 **Antimicrobial alkaloids from a deep-sea marine sponge**
Fukutaro Kagoshima, Kentaro Takada, Shigeru Okada and Shigeki Matsunaga
The University of Tokyo, Japan
- SP12-19 **Bioactive screening of the cyanobacteria obtained from Tokyo Bay coastal area**
Mioko Kawaguchi, Shota Sato, Takumi Osada, Minami Watanabe, Masayuki Fukuoka, Hidekazu Suzuki and Hiroshi Nagai Nagai
Tokyo University of Marine Science and Technology, Japan
- SP12-20 **Structure and biosynthesis of surugamides**
Akihiro Ninomiya¹, Yohei Katsuyama¹, Takefumi Kuranaga², Masayuki Miyazaki³, Yuichi Nogi³, Shigeru Okada¹, Toshiyuki Wakimoto², Yasuo Ohnishi¹, Shigeki Matsunaga¹ and Kentaro Takada¹
¹*The University of Tokyo, Japan*, ²*Hokkaido University, Japan* and ³*Japan Agency for Marine-Earth Science and Technology, Japan*
- SP12-21 **Conformation change of myosin from common carp induced by pH-shift**
Yuangyong Tian¹, Chunhong Yuan² and Junrong Liu¹
¹*Dalian Ocean University, China* and ²*Iwate University, Japan*
- SP12-22 **Isolation and actin assisted structure conversion of a trisoxazole macrolide**
Rei Suo, Kentaro Takada, Shigeru Okada and Shigeki Matsunaga
The University of Tokyo, Japan
- SP12-23 **Theonellamide H, a “colony dependent” cytotoxic peptide from the marine sponge *Theonella swinhoei***
Kazuya Fukuhara, Kentaro Takada, Shigeru Okada and Shigeki Matsunaga
The University of Tokyo, Japan
- SP12-24 **Biochemical characteristics of a unique glycoprotein in the dermis of sea cucumber**
Shoshi Mizuta
Fukui Prefectural University, Japan
- SP12-25 **Anti-inflammatory and anti-atopic activity of *Sargassum miyabei* ethanol extract**
Min Ji Kim, Yeon Ji Kim, Sun Hee Park, So Yeong Park, Go Eun Kim, Koth Bong Woo Ri Kim, Ji Hye Kim, Xiaotong Xu and Dong Hyun Ahn
Pukyong National University, Korea
- SP12-26 **Immunoregulatory activity of enzymatic extract of *Gracilaria textorii* using crude enzyme from *Shewanella oneidensis* PKA 1008**
Sun Hee Park, Xiaoting Xu, Min Ji Kim, So Yeong Park, Go Eun Kim, Yeon Ji Kim, Koth Bong Woo Ri Kim, Ji Hye Kim and Dong Hyun Ahn
Pukyong National University, Korea

S13 (Fisheries Economics and Social Science)

Sept. 23 (Sat.) pm

Oral Presentation

Room 1

-
- 14:00 SO13-01 **Increase transparency in fisheries subsidies in support of sustainable development goal 14: life under water**
Rashid Ussif Sumaila
The University of British Columbia, Canada
- 14:30 SO13-02 **The impact of fishery subsidies on resource stocks**
Yutaro Sakai
University of Calgary, Canada
- 14:45 SO13-03 **Study on the international economic effects of the subsidies on fisheries and the export aquatic products in “One Road and One Belt” area**
Yuan Chai and Shuolin Huang
Shanghai Ocean University, China
- 15:00 SO13-04 **Why do you want to overfish?: from a view point of fisheries economic theory and economic experiment**
Hiroki Wakamatsu
Japan Fisheries Research and Education Agency, Japan
- 15:15 SO13-05 **Factors affecting cooperative behavior among locals and migrants in the coastal communities: empirical study from Ishigaki island, Okinawa, Japan**
Aoi Sugimoto, Hiroaki Sugino and Nobuyuki Yagi
The University of Tokyo, Japan
- 15:30 Break
- 15:45 SO13-06 **Are the Japanese regional seafood markets integrated?**
Kentaka Aruga
Saitama University, Japan
- 16:00 SO13-07 **Price formation of fish in landing markets: an analysis of Japanese spiny lobster in Mie Prefecture**
Yuki Kinoshita and Nobuyuki Yagi
The University of Tokyo, Japan
- 16:15 SO13-08 **The factors affecting import price of frozen shrimp in Japan market: Evidences of Thailand and Vietnam**
Thi Phuong Dong Khuu and Takashi Matsuishi
Hokkaido University, Japan
- 16:30 SO13-09 **Where do risks in shrimp farming come from? Empirical result from small-scale farmers in East Java, Indonesia**
Riski A. Lestariadi and Yamao Masahiro
Hiroshima University, Japan
- 16:45 Discussion

Sept. 23 (Sat.)

Poster Presentation

-
- SP13-01 **Fishing quotas can be justified under common price of shared resources?**
Takeshi Ogawa
Senshu University, Japan
- SP13-02 **Valuation of economic and social impact of the fishing gear “cantrang” in Central Kava province, Indonesia**
Nimmi Zulfainarni, Ahmad Yani, Faradissa and Agus S Kadda
Bogor Agricultural University, Indonesia

- SP13-03 **Economical feasibility of chlorella and dried artemia-based artificial feed for ornamental koi fish (*Cyprinus carpio haematopterus*) larviculture: case in Indonesia**
Fahma Fiqhiyyah Nur Azizah and Gede Suantika
Institut Teknologi Bandung, Indonesia
- SP13-04 **Combating illegal, unreported and unregulated: impact IUU fishing in Indonesia water**
Andri Iskandar¹ and Wahyu Puji Astiyani²
¹*Bogor Agricultural University, Indonesia* and ²*National Taiwan Ocean University, Taiwan*
- SP13-05 **Effects of stock and socio-economic variability on long-term fluctuations in small-scale squid jigging fisheries for Japanese common squid, *Todarodes pacificus*, in Sanriku district, Pacific coast of northeastern Japan**
Tomoaki Goto
Iwate University, Japan

Sept. 24 (Sun.) am **Oral Presentation** **Room 1**

- 10:00 SO13-10 **Current supporting activities and the future issues in the Southeast Asia region by South East Asia Fisheries Development Center**
Kaoru Ishii
Southeast Asian Fisheries Development Center (SEAFDEC), Thailand
- 10:15 SO13-11 **Role of SEAFDFEC/MFRDMD toward food security in the Southeast Asian region**
Raja Bidin Raja Hassan
Southeast Asian Fisheries Development Center (SEAFDEC), Malaysia
- 10:30 SO13-12 **The activities of IFRDMD**
Arif Wibowo
Southeast Asian Fisheries Development Center (SEAFDEC), Indonesia
- 10:45 SO13-13 **Promoting sustainable fisheries, responsible development of aquaculture contribution to improve nutrition security**
Kom Silapajarn
Southeast Asian Fisheries Development Center (SEAFDEC), Thailand
- 11:00 SO13-14 **ASEAN cooperation toward combating IUU fishing**
Somboon Siriraksophon
Southeast Asian Fisheries Development Center (SEAFDEC), Thailand
- 11:15 SO13-15 **SEAFDEC/AQD RD&E initiatives: towards sustainable aquaculture development**
Evelyn Grace Ayson
Southeast Asian Fisheries Development Center (SEAFDEC), Philippines
- 11:30 SO13-16 **The status of the existing ASEAN fishery legislation to meet the requirement of global ecolabeling certification standards**
Sopha Lieng, Nobuyuki Yagi, Hiroe Ishihara and Akane Monohara
The University of Tokyo, Japan

Sept. 24 (Sun.) pm **Oral Presentation** **Room 1**

- 14:00 SO13-17 **Towards increased understanding: Contrasting the US and Japan's federal fisheries science and management**
Siri Hakala
National Marine Fisheries Service, National Oceanic & Atmospheric Administration, USA
- 14:30 SO13-18 **Fish less, earn more: An experience of Japanese cooperation in Senegal**
Naohiko Watanuki
OAFIC Co., Ltd., Japan
- 14:45 SO13-19 **Quantitative evaluations of competitive races to fish in fisheries under output controls**
Yudai Hanzawa¹ and Kazumi Sakuramoto²
¹*Fisheries Research & Education Agency, Japan* and ²*Tokyo University of Marine Science and Technology, Japan*

- 15:00 SO13-20 **SH"U"N Project: A science outreach to fisheries sector and consumer**
Mitsutaku Makino, Hiroki Wakamatsu, Shingo Watari, Masashi Kiyota, Shiroh Yonezaki, Juri Hori, Hiroshi Zenitani, Toyomitu Horii, Shinji Uehara, Hiroyuki Shimada, Masaki Kananiwa, Keiichi Mito, Tatsu Kishida and Yoshioki Oozeki
Japan Fisheries Research and Education Agency, Japan
- 15:15 Break
- 15:30 SO13-21 **Community perception of ecosystem function: key to sustainable mangrove management**
Desy M.H. Mantiri¹, Johanis Ohoitumur², Terry L. Kepel³, Antonius Rumengan⁴, Jardie Andaki⁵, Rene Ch Kepel⁶ and Andreas A. Hutahaean⁷
¹*Sam Ratulangi University, Indonesia*, ²*Pineleng Seminari, School of Philosophy, Indonesia* and ³*Ministry Indonesia of Marine Affairs and Fisheries, Indonesia*
- 15:45 SO13-22 **The difference in men and women's involvement and motivation in fish farming in rural areas of Boeny region, North West Madagascar**
Miarisoa Razafindrabe
The University of Tokyo, Japan
- 16:00 SO13-23 **Economic valuation of cultural services of Koto Panjang reservoir in Kampar district of Riau Province**
Trisla Warningsih¹, Daniel Djokosetiyanto², Achmad Fahrudin² and Luky Adrianto²
¹*Riau University of Fisheries and Marine, Indonesia* and ²*Bogor Agriculture University of Fisheries and Marine Science, Indonesia*
- 16:15 SO13-24 **Establishing an integrated information network of leisure fisheries in Taiwan**
Ting-Chun Liao and Chung-Ling Chen
National Cheng Kung University, Taiwan
- 16:30 Discussion

Sept. 24 (Sun.)

Poster Presentation

- SP13-06 **Role of aged fishers in Japanese fishery and its policy implications**
Haruko Yamashita¹ and Takafumi Kudo²
¹*Daito Bunka University, Japan* and ²*Tokyo University of Marine Science and Technology, Japan*
- SP13-07 **Anthropogenic activities and waste disposal practices in the ports and fish landing areas of Camotes Islands, Cebu, Philippines**
Serapion Tanduyan
Cebu Technological University-San Francisco, Philippines
- SP13-08 **Evaluation of magnitude of recreational fishing in Taiwan**
Chien-Ho Liu and Chung-Ling Chen
National Cheng Kung University, Taiwan
- SP13-09 **Visualising characteristics of knowledge and experiences for fishery management activities in Japan**
Shion Takemura and Mitsutaku Makino
Japan Fisheries Research & Education Agency, Japan
- SP13-10 **Coastal community empowerment management (through an effort on catch product quality development and initiation of market improvement of anchovy fish (*Stolephorus* spp.) in Saramaake, North Mollucas, Indonesia): need assessment, program and evaluation**
Sulistiono Sulistiono
Bogor Agricultural University, Indonesia
- SP13-11 **Research of overall planning of land and sea in Chinese coastal areas**
Xu Tao and Yi Tang
Shanghai Ocean University, China

SP13-12 **Present status seaweed cultivation and prospect application of Sato Umi concept in Indonesia**
Wisnu Sujatmiko, Ratu Siti Aliah, Deddy Yaniharto and Suhendar I. Sachoemar
Agency for the Assessment and Application of Technology (BPPT), Indonesia

SP13-13 **Coastal resource user's profile of Islas de Gigantes, central Philippines**
Leovigildo Rey Alaban, Nora Suerte, Elena Bontia and Quin Clarito
Northern Iloilo Polytechnic State College, Philippines

S14 (Education and International Cooperation)

Sept. 22 (Fri.) am **Oral Presentation** **Room 4**

10:00 SO14-01 **25 years of PICES: a trajectory of the international cooperation on marine science in the North Pacific Ocean**
Tokio Wada and Hiroya Sugisaki
Japan Fisheries Research and Education Agency, Japan

10:45 Break

11:00 SO14-02 **Marine education system in Taiwan**
Chin-Kuo Wu and Liang-Ting Tsai
National Taiwan Ocean University, Taiwan

11:15 SO14-03 **Recent developments of aquaculture education in Taiwan**
Chen-Huei Huang
National Chiayi University, Taiwan

11:30 SO14-04 **Making the best use of discarded bycatch of deep sea bottom trawl fisheries as tool for biodiversity and biological resource outreach activity**
Toshiro Saruwatari¹, Fumiko Sakai² and Yasushi Arai²
¹*The University of Tokyo, Japan* and ²*Seikei Junior and Senior High School, Japan*

11:45 SO14-05 **Capturing and visualizing the notion of modern rural community: using a structured free-answer questionnaire designed with time axis**
Aoi Sugimoto, Hiroaki Sugino and Nobuyuki Yagi
The University of Tokyo, Japan

Sept. 22 (Fri.) pm **Oral Presentation** **Room 4**

14:00 SO14-06 **Fishery cooperation in the South China Sea under the the strategy of blue growth**
Peng Wei
ShangHai Ocean University, China

14:15 SO14-07 **International cooperative marine science: examining the impacts of climate change on fisheries dynamics in the East China Sea**
Wei-Chuan Chiang¹, Seishiro Furukawa², Shun Watanabe^{3,4}, Hsien-Chung Lin⁵, Kazuki Tone³, Takamasa Hasegawa³, Ching-Ping Lu⁵, Nan-Jay Su⁵, Sheng-Ping Wang⁵, Hsin-Ming Yeh⁶, Kazuyoshi Komeyama⁷, Itsumi Nakamura², Yuka Morita², Greg Nishihara², Kiyoshi Soyano², Yoshitaka Sakakura³ and Ryo Kawabe²
¹*Fisheries Research Institute, Taiwan*, ²*Nagasaki University, Japan*, ³*Nagasaki University, Japan*, ⁴*Gunma Prefectural Fisheries Experimental Station, Japan*, ⁵*National Taiwan Ocean University, Taiwan*, ⁶*Fisheries Research Institute, Taiwan* and ⁷*Hokkaido University, Japan*

14:30 Break

14:45 SO14-08 **The current status of fisheries in Japan and the Japan Society of Fisheries Science today**
Katsumi Tsukamoto
Japanese Society of Fisheries Science, Japan

15:00 SO14-09 **Sardines in Australia: an integrated approach to determining stock structure**
Bronwyn M. Gillanders¹, Christopher Izzo¹ and Tim M. Ward²
¹*University of Adelaide, Australia* and ²*South Australian Research and Development Institute, Aquatic Sciences, Australia*

- 15:15 SO14-10 **Understanding fish populations in a changing world: a review and synthesis of key themes emerging from the FSBI's 50th anniversary symposium**
Iain Barber
Nottingham Trent University, UK
- 15:30 SO14-11 **Korean fisheries production and prospect**
Sang Moo Kim
Gangneung-Wonju National University, Korea
- 15:45 SO14-12 **Communicating fisheries science to stakeholders and policy makers: a challenge for the future of fisheries management in the USA**
Steve L. McMullin
American Fisheries Society, USA
- 16:00 SO14-13 **Asian Fisheries Society (AFS): its outlook and commitments for fisheries and aquaculture development in the Asia-Pacific**
Joykrushna Jena
Universiti Putra Malaysia, Malaysia
- 16:15 Break
- 16:30 SO14-14 **Progressive effort towards developing globalized human resources at Faculty of Fisheries, Kagoshima University**
Keiko Kito, Kazuhiko Anraku, Munechika Ishizaki, Keigo Ebata, Hikaru Endo, Kazuhiro Shiozaki and Shunsuke Koshio
Kagoshima University, Japan
- 16:45 SO14-15 **The University of the Philippines Visayas: Facing the challenges of ASEAN integration and globalization**
Crispino Saclauso, Yap Encarnacion Emilia and Harold Monteclaro
University of the Philippines Visayas, Philippines
- 17:00 SO14-16 **International cooperation for fisheries and marine education at Sam Ratulangi University, Manado, Indonesia**
Johnny Budiman
Sam Ratulangi University, Indonesia
- 17:15 SO14-17 **The cooperation between the school of fisheries and aquaculture sciences with international institutions for postgraduate programmes enhancement: the ILP experience**
Wan Mohd Rauhan Wan Hussin and Mazlan Abd. Ghaffar
Universiti Malaysia Terengganu, Malaysia
- 17:30 SO14-18 **Nha Trang University's training and research collaborations**
Nam Quach
Nha Trang Univerisit, Vietnam
- 17:45 SO14-19 **Developing a responsive curriculum for sustainable fisheries and aquaculture at the Faculty of Fisheries, Kasetsart University, Thailand**
Kriengkrai Satapornvanit
Kasetsart University, Thailand

Sept. 22 (Fri.)

Poster Presentation

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- SP14-01 **Increasing awareness of the policies and processes involved in the establishment of government supported aquaculture in Nepal**
Abhimanyu Shrestha¹, Puja Sangwa¹, Sujita Balami¹ and Samantha Farquhar²
¹*Agriculture and Forestry University, Nepal* and ²*University of Washington, USA*
- SP14-02 **Activity of the Research Center for Marine Education (RCME), the University of Tokyo**
Kaoru Kubokawa, Yoshihiro Niwa, Koudai Taguchi, Mitsumasa Hioki and Daiki Kato
The Tokyo University, Japan