

## PROGRAM

**Monday 21 November 2016**

08:30-09:00

**Registration**

09:00-09:40

**Opening session**

**Opening address**

*Tohru Mukai*

*Chairman of AFAS2016 Steering Committee*

**Welcome address**

*Kohji Iida*

*Chairman of Asian Fisheries Acoustics Society*

**Welcome address**

*Nobuhiro Fusetani*

*Director of the Center*

*Hakodate Research Center for Fisheries and Oceans*

**Group photo**

09:45-10:45

**Commemorative Speech**

Chair: Yoshinori Miyamoto

**Development of fisheries acoustics in Asia and history of AFAS  
in past decade**

*Kohji Iida*

11:00-12:00

**General Meeting**

Chair: Akira Hamano

12:00-13:00

**Lunch**

13:00-14:40

**Session I : Ecosystem Monitoring (SGEM)**

Chair: Tohru Mukai (Chair of SGEM), Kazuo Amakasu

13:00      **Sound scattering layer on marine object using acoustic Doppler current profiler (ADCP): A case study in Lembeh Strait, North Sulawesi, Indonesia**

○Angga Dwinovantyo<sup>S</sup>, Henry M. Manik, Tri Prartono,  
Susilohadi

13:15      **Dynamics of the zooplankton community around Funka Bay using underwater acoustics**

○Eunho Kim<sup>Y</sup>, Tohru Mukai, Kohji Iida, Doo-jin Hwang,  
Kyoungsoon Lee, Eun-A Yoon, Hyoung Sul La

13:30      **Comparison of catch data by fishing gear and acoustic estimate data in Tongyoung coastal marine ranching areas in 2016**

○Doojin Hwang, Euna Yoon, Eunbee Min, Choongsik Jang,  
Younhyoung Cho, Sungho Suh, Kyungseon Lee  
Youngjae Shin

Chair: Hsueh-Jung Lu, Tomohito Imaizumi

13:45      **Species composition, biomass, and their annual fluctuations in dominant lanternfishes off northeastern Hokkaido, Japan**

○Rintaro Koide<sup>S</sup>, Kazuhiro Sadayasu, Tetsuichiro Funamoto,  
Hiroshige Tanaka, Shinya Ohshima, Nobuo Kimura,  
Kazuyoshi Maekawa, Hiroki Yasuma

14:00      **Revolutionary echo sounding technology I  
-Principle and algorithm-**

○Ikuo Matsuo, Toyoki Sasakura

14:15      **Revolutionary echo sounding technology II  
-Experiment and actual sea trial-**

○Toyoki Sasakura, Ikuo Matsuo

14:30      **Free discussion (10 min.)**

14:40-15:50

**Session II : Theory and Target strength (SGTS)**

Chair: Kouichi Sawada (Chair of SGTS), Yong Tang

14:40 **Tank experiments on variation of target strength while conducting acoustic survey in wind farm area with tilt beam angle**

○*Ting-Chieh Huang<sup>S</sup>, Hsueh-Jung Lu, Ching-Hsien Ho*

14:55 **Acoustic backscattering characteristics of swimming crab *Portunus trituberculatus***

○*Eun-A Yoon<sup>Y</sup>, Eunho Kim, Wooseok Oh, Doo-Jin Hwang, Kyoungheon Lee, Eunbi Min*

15:10 **Size estimation of walleye pollock (*Gadus chalcogrammus*) by using a broadband split-beam system and narrowband echo sounders**

○*Tomohito Imaizumi, Kazuhiro Sadayasu*

15:25 **Practical example of a broadband fish finder**

○*Yuriko Onishi, Masaru Nishida, Yuji Onishi, Takashi Matsumura, Takuto Hazama, Norihiro Yamashita, Nobuo Suzuki*

15:40 **Free discussion (10 min.)**

15:50-16:05

**Coffee/Tea break**

16:05-17:45

**Session III : Echo Survey (SGES)**

Chair: Jenming Liu, Yoshinori Miyamoto

16:05 **Estimating the catch efficiency of a framed midwater trawl using an acoustic method**

○*Zhen Lu<sup>S</sup>, Kohji Iida, Tohru Mukai, Yasuzumi Fujimori*

16:20 **Trial of a new echo sounder, EK80, installed on R/V Kaiyo maru**

○*Kouichi Sawada, Koki Abe, Tomohito Imaizumi, Tomohiko Matsuura, Kohei Hasegawa*

16:35 **Application of multibeam echosounder ME70 to acoustic survey for pelagic fish**

*○Koki Abe, Tomohiko Matsuura, Tohya Yasuda*

Chair: Kazushi Miyashita (Chair of SGES), Doojin Hwang

16:50 **Distribution and migratory pattern of fishes in the lower Mun River, Thailand**

*Deeka Ratanachamnong*

17:05 **Implementation of single echo detector for fish density estimation**

*○Henry M. Manik, Indah Nurkomala*

17:20 **Evaluation for fish standing crop on artificial reefs using fishery acoustics**

*JenMing Liu*

17:35 **Free discussion (10 min.)**

18:30-20:30

**Welcome reception at Gotoken**

**Tuesday 22 November 2016**

09:00-09:30

**Registration**

09:30-11:40

**Session IV : Acoustic Technology (SGAT)**

Chair: Myounghee Kang, Koki Abe

09:30 **New tool was used to conduct multiple-frequency acoustic work over-the-side of small vessel in Saanich Inlet for salmon research**

*○Jan Buermans, David Lemon, Matt Stone, Murray Clarke*

09:45 **Scientific data output from conventional echo sounder I = Data format details and example =**

*○Takuto Hazama, Yoshihiro Nishiyama, Shogo Nagai, Shinya Tanimura, Akinori Kasai*

10:00      **Scientific data output from conventional echo sounder II**  
= **Actual field data and evaluation example**=  
    <sup>○</sup>*Shinya Tanimura, Yoshihiro Nishiyama, Syogo Nagai,*  
    *Takuto Hazama, Akinori Kasai*

10:15      **Measurement of flow structure on bell rowing by changing**  
**swimming of *Aurelia aurita***  
    <sup>○</sup>*Yongbeom Pyeon<sup>S</sup>, Euna Yoon, Jinho Chae, Kyoungheon Lee*

Chair: Yasushi Nishimori (Chair of SGAT), Raja Bidin Raja Hassan

10:30      **Recent advances and new tools for hydroacoustic data processing**  
**in Echoview**  
    <sup>○</sup>*Briony Hutton, Bernd Wechner*

10:45      **Detection and verification of artificial reefs in the northern**  
**portion of the straits of Malacca by using side scan sonar**  
    <sup>○</sup>*Azizi Ali, Ahmad Ali, Fadzil Akhir, Aidy Muslim, Shukri Arsad,*  
    *Fathy Kameel, Roslan Latif*

11:00      **Stability assessment of artificial reef in the northern portion of**  
**the straits of Malacca by using Sub-Bottom Profiler (SBP)**  
**images**  
    <sup>○</sup>*Khalid Samo, Azizi Ali, Ahmad bin Ali, AidyMohamed Shawal,*  
    *Mohd Fadzil Mohd Akhir*

11:15      **Development of a multi-transducer sonar system for counting**  
**caged bluefin tuna**  
    <sup>○</sup>*Akira Hamano, Toyoki Sasakura, Noboru Sakakibara,*  
    *Takaki Nomura, Susumu Namari, Takeshi Nakamura,*  
    *Takahiro Nakao, Shynsuke Ito, Hideaki Tanoue*

11:30      **Free discussion (10 min.)**

11:40-12:45

**Lunch**

12:45-14:15

**Poster session & Coffee/Tea**

Chair: Tohru Mukai

**Acoustic survey of Northern Whitefish (*Coregonus peled*) resource in Lake Sayram**

<sup>○</sup>*Yong Tang, Bin Li, Fuyang Bi, Jiuqi Li, Lei Chen, Binbin Xing*

**Distributional factors of juvenile walleye pollock in the Musashi Bank area, northern Japan Sea**

<sup>○</sup>*Takeru Umetsu<sup>S</sup>, Yuichi Tsuda, Yasushi Ito, Hokuto Sirakawa, Kenji Minami, Kazushi Miyashita*

**A tank experimental analysis on the precision of size and abundance estimation using echo integration method**

*Hsin-Hung Huang, Hsueh-Jung Lu, Long-Jing Wu, Ding-Che Huang, <sup>○</sup>Ching-Hsien Ho<sup>Y</sup>*

**Passive acoustic monitoring of Harbour porpoise *Phocoena phocoena* around a bottom gillnet**

<sup>○</sup>*Saki Maeda<sup>S</sup>, Takashi Matsuishi*

**Sound production by Steindachner (*Sebastes taczanowskii*) and relationship between received sounds and fish density**

<sup>○</sup>*Naoto Matsubara<sup>S</sup>, Makoto Sakamoto, Seiji Katakura, Tomonari Akamatsu, Ryuzo Takahashi, Yasuzumi Fujimori, Nobuo Kimura, Kazuyoshi Maekawa, Hiroki Yasuma*

**Fish behavior controlling by using acoustic taming technology in marine ranching**

*Guosheng Zhang, <sup>○</sup>Binbin Xing<sup>Y</sup>, Xin Zhuang, Jing Liu, Jingyu Zhou, Zhenyu Wang, Yining Wang*

**Studies on pinnhead flounder and juvenile walleye using a quantitative echo-sounder in and near Funka Bay, Hokkaido, Japan**

**-characteristics of echogram and volume backscattering strength SV-**

<sup>○</sup>*Naizheng Yan<sup>S</sup>, Tohru Mukai, Jun Yamamoto*

**A study on ecosystem impacts of encircling gillnet fishery**

<sup>○</sup>*Inwoo Han<sup>S</sup>, Euna Yoon, Wooseok Oh, Yongbeom Pyeon,  
Kyoungsoon Lee*

**The passive acoustic monitoring of bearded seals at the southern  
Chukchi Sea during 2012–2015**

<sup>○</sup>*Mina Jimbo<sup>S</sup>, Koki Tsujii, Daisuke Mizuguchi,  
Kazushi Miyashita, Yoko Mitani*

**The diel vertical migration of shrimp schools associated with the  
environment in the I-Lan Bay, Taiwan**

<sup>○</sup>*Ying-Pu Ma<sup>S</sup>, Szu-Chia Kao, Zheng-Tang Huang, Ming-An Lee,  
Kohji Iida*

**Annual fluctuation in species composition and biomass of two  
dominant myctophid fishes off western Kyushu, Japan**

<sup>○</sup>*Shinya Ohshima<sup>S</sup>, Tohya Yasuda, Masa-aki Fukuwaka,  
Rintaro Koide, Koki Abe, Hiroki Yasuma*

**Temporal distribution of ribbon seal vocalizations in the Nemuro  
Strait, the Okhotsk Sea**

<sup>○</sup>*Mayuko Otsuki<sup>S</sup>, Tomonari Akamatsu, Takahiro Nobetsu,  
Yoko Mitani*

14:15-16:10

**Session V : Acoustic Application (SGAA)**

Chair: Hyeon-Ok Shin, Yuttana Theparoonrat

14:15      **Spatial - temporal variation of biological sounds of fishes and  
crustacean in Tateyama Bay**

<sup>○</sup>*Ryuzo Takahashi<sup>Y</sup>, Tomohito Imaizumi, Matsuo Ikuo,  
Tomonari Akamatsu*

14:30      **Measurement of bottom backscattering strength using single  
beam echosounder**

<sup>○</sup>*Steven Solikin<sup>S</sup>, Henry M. Manik, Sri Pujiyati, Susilohadi*

14:45      **The swimming behavioral properties of fish near Yokji island in  
the South Sea of South Korea obtained using fish track  
techniques**

<sup>○</sup>*Myounghee Kang, Junsu Park, Junseong Park,  
Junghwa Choi*

Chair: Tomonari Akamatsu (Chair of SGAA), Ming-An Lee

15:00 **Acoustic tracking of pacific herring (*clupea pallasii*) in coastal spawning ground using supersonic telemetry**

○Makoto Tomiyasu<sup>S</sup>, Hokuto Shirakawa, Yuki Iino  
Kazushi Miyashita

15:15 **Measurement and analysis for biology sounds of large yellow croaker (*Larimichthys crocea*) within the netting cage**

○Lei-ming Yin<sup>S</sup>, Hong-liang Huang, Xue-zhong Chen

15:30 **Sound of a croaker and tidal current measured at Shinan coastal area, Korea**

○Hyeon-Ok Shin, Gyeom Heo, Min-A Heo

15:45 **Acoustical property in the head of toothed whale influence the directivity of clicks**

○Mika Kuroda<sup>S</sup>, Motoki Sasaki, Kazutaka Yamada, Nobuhiro Miki, Masao Amano, Tadasu K. Yamada, Takashi Matsuishi

16:00 **Free discussion (10 min.)**

16:10-16:40

**Closing session**

17:30-18:30

**ONSEN (Hot Spring) break at Yunokawa Hanabishi Hotel**

18:30-20:30

**Banquet**

**Wednesday 23 November 2016**

10:00-12:00

**The special symposium for citizens**

09:00-12:30

**Half day excursion for AFAS attendee**