

PROGRAM

AFAS2023

Shanghai, CHINA
13 -16 November 2023,

PROGRAM

13th November, 2023

13:00-18:00 Registration

14th November, 2023

08:00-08:30 Registration	
08:30-09:00 Opening Session	
Introduction of Guests and Leaders	
Welcome Address	
Chairman's Address	
Session I Keynote session: Invited lecture	
Chair: Yong Tang, Xianyong Zhao	
09:00-09:40 (SS-1)	Development and application of advanced science and technology in fisheries acoustics Dezhang Chu
09:45-10:25 (SS-2)	The Progress and prospect of monitoring aquatic organisms in the Yangtze River Daqing Chen
10:25-10:45 Coffee/Tea Break & Group photo	
Session II: Acoustic Technology (SGAT1)	
Chair: Kohji Iida, Hsueh-Jung Lu	
10:45-11:00 (AT-1)	Development of the calibration method for the multi-beam scanning sonar and omni-directional calibration results Ryuzo Takahashi, Kouichi Sawada, Tomohiko Matsuura, Tomohito Imaizumi
11:00-11:15 (AT-2)	Methodology development on the use of fishing-vessel-based acoustic data and its application in Antarctic krill biomass estimation Xinliang Wang, Xianyong Zhao, Jichang Zhang, Yunxia Zhao, Gangzhou Fan
11:15-11:30 (AT-3)	Acoustic inference of orientation angle distribution of sakura shrimp ^S Mizuki Habaguchi, Burak Saygili, Tetsutaro Aikawa, Kenichi Kobayashi, Fuxiang Hu, Kazuo Amakasu
11:30-11:45 (AT-4)	Estimation of Antarctic krill body lengths using volume backscattering spectra ^S Natsuki Yamamoto, Kazuo Amakasu, Koki Abe, Ryuichi Matsukura, Hiroto Murase
11:45-12:00 (AT-5)	Deriving Bottom Surface Backscattering Strength from Secondary Reflection Echoes ^Y Akira Iwasa, Akinori Kasai, Yoshihiro Nishiyama, Nobuyo Matsushima
12:00-12:15 (AT-6)	Examination of fast Fourier transform window size on the target strength spectra measurements of Japanese anchovy ^Y Jing Liu, Tomohito Imaizumi, Kazuo Amakasu

12:15-13:30 Lunch	
13:30-14:00 General meeting	
Session III: Theory and Target Strength (SGTS1)	
Chair: Kouichi Sawada, Xinliang Wang	
14:00-14:15 (TS-1)	Target strength measurements and distribution characteristics of herring (<i>Clupea pallasii</i>) using multi-frequency Wooseok Oh, Euna Yoon, Hyoungbeen Lee, Sara Lee, Kyoungsoon Lee
14:15-14:30 (TS-2)	Comparison of Target Strength of Chub Mackerel (<i>Scomber japonicus</i>) from Ex-Situ Measurements and a Theoretical Model S Zhenhong Zhu, Jianfeng Tong, Chuhan Qiu, Minghua Xue, Yong Tang
14:30-14:45 (TS-3)	Identification of Antarctic sliver fish (<i>Pleuragramma antarcticum</i>) and krill in the Antarctic Ross Sea using 2-frequency difference method S Sara Lee, Wooseok Oh, Huoungsu Na, Wuju Son, Jeong-Hoon Kim, Kyoungsoon Lee
14:45-15:00 (TS-4)	Broadband target strength measurements of juvenile Pacific herring (<i>Clupea pallasii</i>) using a tether method S Zi Wang, Naizheng Yan, Kohei Hasegawa, Jun Yamamoto, Tohru Mukai
Chair: Doojin Hwang, Yoshihiro Nishiyama	
15:00-15:15 (TS-5)	Target strength of <i>Jesogammarus annandalei</i>, an endemic amphipod in Lake Biwa Y Naizheng Yan, Tohru Mukai, Kouichi Sawada, Kanako Ishikawa
15:15-15:30 (TS-6)	Hydroacoustic studies on <i>Katsuwonus pelamis</i> and juvenile <i>Thunnus albacares</i> associated with light FAD in the South China Sea Y Jun Zhang, Zuozhia Chen, Peng Zhang
15:30-15:45 (TS-7)	Comparison of Coherent to Incoherent Kirchhoff Ray Mode (KRM) Models in Predicting Backscatter by Swimbladder-bearing Fish Y Chao Li, Qiuming Ai, Dezhang Chu, Jin Yao, Jiangping Tao, Haisen Li
15:45-16:00 Coffee/Tea Break	
Session IV: Acoustic Application (SGAA1)	
Chair: Koki Abe, Nakaret Yasuk	
16:00-16:15 (AA-1)	Spawning biomass estimation of blue mackerel (<i>Scomber australasicus</i>) in Yi-Lan Bay, Northeastern Taiwan during 2020-2023 Hsueh-Jung Lu, Ting-Chieh Huang, Ruei-gu Chen
16:15-16:30 (AA-2)	Measurement of the directional characteristics of backscatter from pelagic fish schools using the omnidirectional sonar S Yohei Ito, Hiroki Ubukata, Kohei Hasegawa, Naizheng Yan, Ryotaro Ishida, Tohru Mukai
16:30-16:45 (AA-3)	Seasonal distribution of marine organisms in the surface layer around nuclear power plants using acoustic S Eunbi Min, Taejong Kang, Jieun Kim, Yoojin Lee, Doojin Hwang

16:45-17:00 (AA-4)	Calibration of Commercial Fisheries Echo Sounders for the Estimation and Management of Fishery Resources ^Y Yanhui Zhu, Kenji Minami, Yoshihiro Nishiyama, Akinori Kasai, Tsutomu Tokeshi, Mitsuhiro Matsuura, Hikari Horie, Kazushi Miyashita
17:00-17:15 (AA-5)	Decoding the Multifaceted Drivers of <i>Trachurus japonicus</i> Distribution: A Machine Learning-Enhanced Causal Study in the Northern South China Sea ^Y Mingshuai Sun, Zuozhi Chen, Youwei Xu, Yutao Yang
17:15-17:30 (AA-6)	Application of Dual-Frequency Identification Sonar (DIDSON) to monitor large jellyfish in inshore waters of Liaodong Bay Bin Wang, Liu Xiuze, Wang Xiaolin, Xu Yanzhao, Ji Guang, Dong Jing
18:00-20:30	Welcome reception at Franklin Restaurant (First floor)

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Session IV: Acoustic Application (SGAA2) Chair: Ryuzo Takahashi, Jun Zhang	
08:30-08:45 (AA-7)	Acoustic properties of marine communities in conjunction with physical oceanographic features in the Seychelles-Chagos Thermocline Ridge of the Southwest Indian Ocean Myounghee Kang, Sunyoung Oh, Wooseok Oh, Dong-Jin Kang, SungHyun Nam, Kyounghoon Lee
08:45-09:00 (AA-8)	Observation of zooplankton distribution at off the coast of Sanriku area using Acoustic Zooplankton Fish Profiler (AZFP) Yoshiaki Fukuda, Takahiro Tanaka, Tomohito Imaizumi, Yuji Okazaki, Hikaru Honma, Daisuke Hasegawa
09:00-09:15 (AA-9)	The utilization of quantitative echo sounder EK80 in Southeast Asian waters: A perspective of SEAFDEC Nakaret Yasuk, Nopporn Manajit, Santiphong Putsa, Saruttaya Jaroonpongsawat, Koki Abe
09:15-09:30 (AA-10)	Environmental Drivers of Sound-Scattering Layer Distribution in the North Equatorial Current of WCPO: Insights from Acoustic Survey Data ^S Tianji Gao, Jianfeng Tong, Minghua Xue, Zhenhong Zhu, Yue Qiu
Chair: Kyounghoon Lee, Yoshiaki Fukuda	
09:30-09:45 (AA-11)	Real-time monitoring system for marine life in the vicinity of nuclear power plants ^S Taejong Kang, Eunbi Min, Youngtae Son, Doojin Hwang
09:45-10:00 (AA-12)	Uncertainty in acoustic assessment of existing stocks of fishery resources: a case study in Zhanjiang Bay ^S Beixing Li, Bingnan Li, Shaoliang Lv, Ning Chen, Jianyu Dong, Xuefeng Wang
10:00-10:15 (AA-13)	Evaluation of YOLOv5 Algorithm for echogram recognition ^S Jungang Ma, Weiqi Wang, Junfan Yao, Jianfeng Tong, Yong Tang
10:15-10:30	Coffee/Tea Break

Session V: Acoustic in Marine Ranch and Fresh Water (SGAMF1)	
Chair: Jen-Ming Liu, Shaowen Ye	
10:30-10:45 (AMF-1)	An Attempt to Estimate the Distribution Area of <i>Cyanobacteria</i> in a Dam Lake Using Acoustic Measurements S Taisei Sugawara, Kenji Minami, Sangyeob Kim, Takashi Inagawa, Jiro Okitsu, Shougo Sakamoto, Tomonori Osugi, Nobuyuki Azuma, Yanhui Zhu, Kazushi Miyashita
10:45-11:00 (AMF-2)	Investigation of seasonal variation in the spatial distribution of <i>Cyanobacteria</i> in Onuma, Japan S Tomoyuki Oba, Yanhui Zhu, Nobuhiko Sato, Kouhei Yoshida, Hao Sheng, Kenji Minami, Kazushi Miyashita
11:00-11:15 (AMF-3)	Acoustic assessment and spatial distribution of fishery resources in national Marine ranches in southern area of Yintan, Guangxi S Lulian Niu, Guobao Chen, Jianwei Zou, Fei Tong, Jie Yu
11:15-11:30 (AMF-4)	The Comparison of Day-Time and Night-Time Survey with Acoustics Horizontal Beaming: Study Case in Cimandiri River, Indonesia Y Freddy Supriyadi, Dina Muthmainnah, Zulkarnaen Fahmi, Tomohito Shimizu, Ni Komang Suryati, Yanu Prasetyo Pamungkas, Yenni Sri Mulyani, Ellis Nurjuliasti Ningsih
11:30-11:45 (AMF-5)	A consideration for shallow freshwater acoustic survey in China Kohji Iida, Aihuan Guo, Julin Yuan
11:45-12:45 Lunch	
12:45-13:45 Poster Session	
Chair: Naizheng Yan, Jing Liu	
P1	<i>Nemopilema numurai</i> target recognition and tracking based on acoustic monitoring technology Wenhao Wang, Yong Tang
P2	Evaluation of Feature-based models for Sediment Classification based on Scientific and Commercial Echosounders S Wang Xi, Jianfeng Tong, Jin Zhang
P3	Species Identification of anchovy (<i>Engraulis japonicus</i>) Using by Multi-Frequency S Jiyeon Kim, Geunchang Park, Wooseok Oh, Euna Yoon, Hyoungbeen Lee, Sunyoung Oh, Sala Lee, Kyounghoon Lee
P4	The Application of Multi-beam Sonar in Monitoring and Early Warning of Cold-source Organisms Wei Meng, Junfeng Kang, Qian Huang, Cunlu zhou, Xiaolin liu, Tao wang, Xiangwen Wang, Yuanyuan Fu, Huihui Tian, Jun Du
P5	Impact of Morphological Parameters on Scattering Characteristics of <i>Collichthys lucidus</i> in the Yangtze River Estuary S Chuhan Qiu, Jianfeng Tong, Minghua Xue, Zhenhong Zhu

P6	Using acoustic telemetry to monitor fishery resources and habitat use in an offshore wind farm off western Taiwan S Kai-Chi Chiang, Nan-Jay Su, Hsin-Ju Chang, Wei-Chuan Chiang
P7	A tank experimental analysis on the precision of size and abundance estimation using echo integration method Hsin-Hung Huang, Te-Ping Chen, Hsueh-Jung Lu
P8	Swimming depth effect on in situ target strength of spawning blue mackerel (<i>Scomber australasicus</i>): an experiment in Yi-Lan Bay, Northeastern Taiwan Ting-Chieh Huang, Jia Rong Lin, Hsueh-Jung Lu
P9	Estimation of size structure of large yellow croaker (<i>Larimichthys crocea</i>) in offshore farming platform using hydroacoustic technique S Hongquan Li, Zhongchang Song, Weijie Fu, Nana Zhou, Jiangang Hui, Zhongchang Song, Yu Zhang
P10	Broadband Quantization Technology and Application of Split Beam Echosounder Qiuming Ai, Haisen Li, Jin Yao, Chao Li, Jiangping Tao
P11	Study on the diel vertical migration characteristics of the deep scattering layer in the southwestern Indian Ocean based on acoustic data Shujie Wan, Xinjun Chen
P12	Detection and preliminary analysis of <i>penaeus vannamei</i> in aquaculture ponds based on active identification sonar S Quanshui Lu, Wei Shen, Zhanfei Peng, Zhengliang Cao, Jin Zhang
P13	Density estimates of fishery resources in the Yedang Reservoir using Hydroacoustic survey Geunchang Park, Wooseok Oh, Kyoungsoon Lee
P14	Influence of Environmental Factors on Pacific Saury (<i>Cololabis saira</i>) in the Northwest Pacific Ocean by using acoustic methods S Shuo Lyu, Minghua Xue, Jianfeng Tong, Siquan Tian
P15	Study on variation of near-field acoustic scattering from fish target with COMSOL modeling in the tank experiment Zhengliang Cao, Weijie Wang, Yueying Li, Hongxiang Zhu, Zhaocheng Li, Zixian Wang
P16	Hydroacoustic assessment fish density, size and biomass in the middle-size reservoir after non-classical biomanipulation Aihuan Guo, Qingping Lian, Pengcheng Sheng, Wei Luo, Qiang Sheng, Julin Yuan
P17	Time-domain and frequency-domain characteristics of vocal signals in the large yellow croaker, <i>Larimichthys crocea</i> S Maoran Xu, Xuguang Zhang
P18	Acoustic deterrent research on the pantropical spotted dolphins (<i>Stenella attenuate</i>) in the light-falling net fishery in the South China Sea

	Y Teng Wang, Jie Li, Peng Zhang, Weijie Fu, Yu Zhang, Zhongchang Song
Session V: Acoustic in Marine Ranch and Fresh Water (SGAMF2)	
Chair: Yasushi Nishimori, Jiangping Tao	
13:45-14:00 (AMF-6)	Estimation of Siamese mud carp <i>Henicorhynchus siamensis</i> (Sauvage, 1881) stocks with virtual population analysis (VPA), hydroacoustics technique and gillnet CPUE in Lamtakong Reservoir, Nakhon Ratchasima Province, Thailand Deeka Ratanachamnong
14:00-14:15 (AMF-7)	<i>In situ</i> testing of the Yangtze fish species for the TS-frequency distribution using the wideband technologies Jiangping Tao, Qiuming Ai, Jin Yao, Chao Li, Yao Jin, Haisen Li
14:15-14:30 (AMF-8)	Standing stock of an aquaculture pond measured by using an echosounder Hendra Setiazi, Po-Yuk So, Jen-Ming Liu
14:30-14:45 (AMF-9)	Evaluation of white shrimp (<i>Litopenaeus vannamei</i>) standing stock in a pond using fishery acoustics Jen-Ming Liu, Po-Yuk So, Hendra Setiazi
Chair: Myounghee Kang, Hui Zhang	
14:45-15:00 (AMF-10)	Evaluating Milkfish Standing Stock in Ponds and Its Impact on Carbon Sink using Fishery Acoustics Po-Yuk So, Jen-Ming, Liu, Hendra Setiazi
15:00-15:15 (AMF-11)	Development of Sensing Systems for Aquaculture Productivity Yasushi Nishimori
15:15-15:30 (AMF-12)	Stationary Hydroacoustic Monitoring of Fish Activity near the ‘Sunshine 1’ Marine Ranch Platform in Haizhou Bay, China Yongxian Wang, Jifeng Si, Yaobin Wang, Zhimin Wang
15:30-15:45 (AMF-13)	History, progress and prospects of hydroacoustic applications and research in Chinese inland fisheries and conservation practices: a systematic review Shaowen Ye, Yuxi Lian, Geng Huang, Hui Zhang, Jiangping Tao, Puze Wang, Zhongjie Li
15:45-16:00 Coffee/Tea Break	
Session VI: Sponsors Presentation (SP)	
Chair: Wei Shen, Jianfeng Tong	
16:00-16:15 (SP-1)	Kongsberg EK80 – Ocean Observation Echo Sounder System Bjarne Torkelsen
16:15-16:35 (SP-2)	Furuno products for sustainable fishery Yong Wang, Daisuke Nishikubo, Takashi Matsumura
16:35-16:50 (SP-3)	The latest developments for Echoview Briony Hutton

16:50-17:05 (SP-4)	Introducing NexTrak, the World's Most Advanced Acoustic Telemetry System Chuanang Liu
17:05-17:20 (SP-5)	Automated Monitoring Systems for Fisheries Applications Yadong Huang
17:20-17:40	Closing Session
18:00-21:00	Farewell Reception at Edison Hall (Second floor)

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09:00-17:00	Post-conference activities
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