

W2 FIS Workshop **Methods for standardizing trawl surveys to ensure constant catchability**

Co-Convenors: David A. Somerton (U.S.A.), Jin-Yeong Kim (Korea) and Greg Workman (Canada)

Standardization in the gear and methodology used to conduct pelagic and bottom trawl surveys is essential for a correct interpretation of catch per unit effort as a measure of relative abundance. In the United States, standardization problems stemming from inaccurate measurement of the towing warps on a NOAA survey vessel resulted in a thorough review of standardization methodology and the development of the National Bottom Trawl Survey Protocols (<http://spo.nmfs.noaa.gov/tm/tm65.pdf>) governing the operation of all NOAA-sponsored surveys. Subsequently, ICES formed the Study Group on *Trawl Survey Standardization* to examine the same issue for ICES-sponsored multinational surveys, and to formulate a similar set of standardized operating protocols expected to be published in the fall of 2007. The proposed workshop will review the various pelagic and bottom trawl surveys conducted by PICES member countries, with a focus on the operational protocols used to ensure that survey catchability remains constant over time. Topics to be discussed likely would include a consideration of various instruments to monitor trawl performance, such as acoustic trawl measurement systems, bottom contact sensors and speed through water sensors, as well as trawl design and operation procedures that allow trawl catchability to be robust to environmental variation.

Sunday, October 28, 2007 09:00 – 18:00

- 09:00 *Introduction by convenors*
- 09:10 **Dave Reid (Invited)**
Survey trawl standardization (W2-4473)
- 09:40 **David A. Somerton**
Development of the NOAA national bottom trawl survey protocols (W2-4230)
- 10:00 **Keneth L. Weinberg**
Protocols for conducting Alaska Fisheries Science Center bottom trawl surveys (W2-4284)
- 10:20 **Aimee Keller, Victor Simon and Beth Horness**
Methods for standardizing the U.S. west coast groundfish trawl survey (W2-4295)
- 10:40 *Coffee / tea break*
- 11:00 **Dan Urban, Nicholas Sagalkin and Kally Spalinger**
Alaska Department of Fish and Game trawl surveys in the Gulf of Alaska and eastern Aleutian Islands (W2-4463)
- 11:20 **Greg Workman, Norm Olsen and Rick Stanley**
Development of a standardized Fisheries Independent bottom trawl Survey program (FIS) off the west coast of Canada (W2-4491)
- 11:40 **Jung Hwa Choi, Hui Chun An and Bong Jin Cha**
Introduction of Korean survey bottom-trawl and catchability method (W2-4232)
- 12:00 **M.A. Mizyurkin, A.I. Shevchenko and S.E. Astafyev**
Approach of research trawl surveys certification (W2-4512)
- 12:20 *Discussion of survey standardization methodology*

- 12:40 **Lunch**
- 14:00 **Stan Kotwicki and Michael H. Martin**
The effects of improving accuracy and precision of area swept estimates on relative biomass estimation and stock assessment (W2-4231)
- 14:20 **Yasuzumi Fujimori, Kazushi Miyashita and Satoshi Honda**
Consideration of bottom contact effect on the catch of demersal species in a trawl survey in Japan (W2-4307)
- 14:40 **Orio Yamamura**
Catch efficiency of a small-sized Danish seine (W2-4282)
- 15:00 ***Discussion of research on standardization issues***
- 15:30 ***Coffee / tea break***
- 15:50 **David A. Somerton, Peter T. Munro and Kenneth L. Weinberg**
Whole-gear efficiency of a benthic survey trawl for flatfish (W2-4493)
- 16:10 **D.G. Reid, R.J. Kynoch, I. Penny and K. Peach**
Estimation of catch efficiency in a new angler fish survey trawl (W2-4494)
- 16:30 ***Discussion on estimating absolute catchability***
- 16:50 ***Discussion of standardization issues related to potential international surveys***
- 17:50 ***Concluding remarks***