## Annex 6: Gear plots for the Northeastern Atlantic surveys

In this Annex, information about gear geometry from the Northeastern Atlantic IBTS area is presented together with some tentative plots that are being developed for two purposes: (1) visualizing gear geometry data and highlight potential need for correction before data upload to DATRAS; (2) visualizing gear geometry in annual survey summaries.

The plots present the data available from the ongoing year including if available: door spread, wingspread, vertical opening and warp length shoot per depth. Confidence intervals are estimated using a Loess model (Jacoby, 2000). The change of sweep length with depth is presented with different symbols and confidence intervals, and in some cases, some historical data are presented altogether.

## References

Jacoby, W.G. 2000. Loess: a nonparametric, graphical tool for depicting relationships between variables. Electoral Studies, 19: 577–613.

Table A.6.1. Information on gear geometry available in DATRAS and ongoing revisions

Survey	Years	State
UK-SCOSWC-Q4	2013-2014 (new series)	Partial, available from 1990 but different sweep lengths
IE-IGFS-Q3-4	2003-2008, 2014	(2014 supplied on the meeting)
UK-NIGFS-Q4	2009-2014	Partial
FR-CGFS-Q4	1988-2014	Partial (2014 supplied on the meeting)
FR-EVHOE-Q4	1997-2010	(2014 supplied on the meeting)
SP-PORC-Q3	2012-2014	Only vert+doors (needs revision)
SP-NSGFS-Q3-4	2000,-02,-04,-05,-10,-12,-13	Only vert+wings (doors in 2013-14) needs revision
SP-GCGFS	2006,2009,2013	Data are being uploaded
PT-PGFS-Q4	2000,2007,2013	No data (due to lack of equipment)

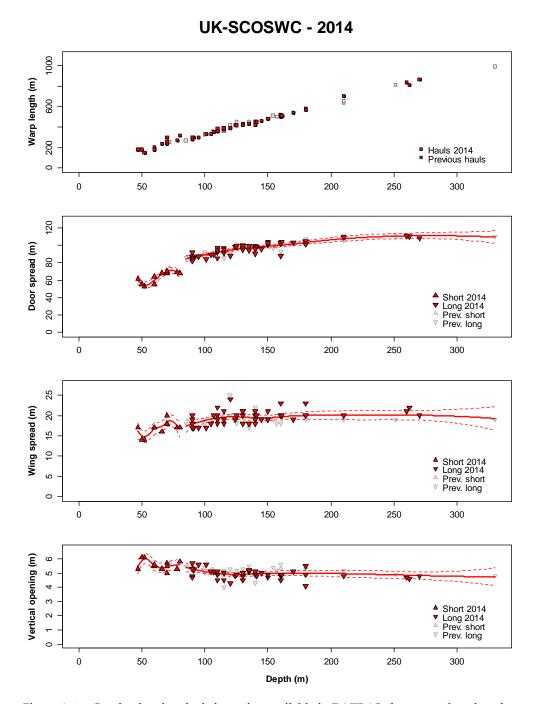


Figure A.6.1. Graphs showing the information available in DATRAS about warp length and gear geometry from SCO-SWC-IBTS in 2013. Confidence interval bands of door spread, wing spread and vertical opening estimated with a Loess smoother procedure, applying a multiplier x5 of the estimated model S.E.

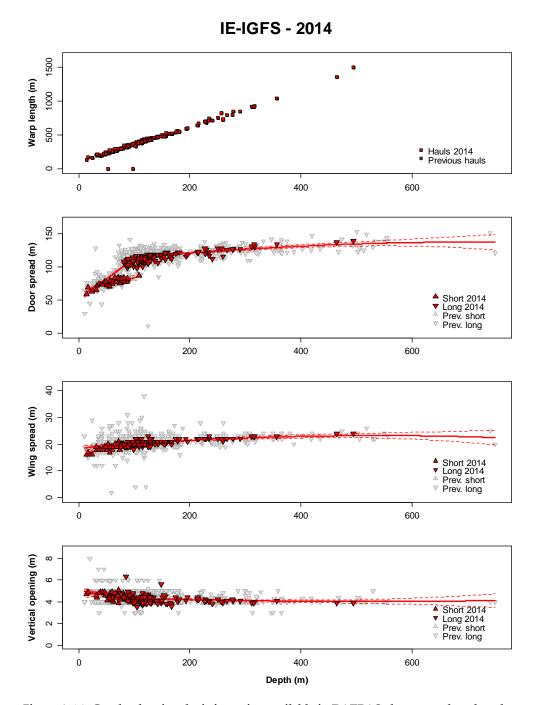


Figure A.6.2. Graphs showing the information available in DATRAS about warp length and gear geometry from IRL-IGFS in 2014, showing the change due to the two different sweep lengths used in the survey. Confidence interval bands of door spread, wing spread and vertical opening were estimated with a Loess smoother procedure, applying a multiplier x5 of the estimated model S.E. The broadening of the bands at the end of the intervals are due to the effect of the mentioned change of sweep length at ~80 m.

## **UK-NIGFS - 2014**

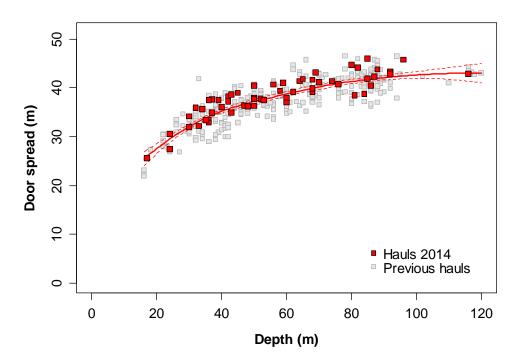


Figure A.6.3. Graphs showing the information available in DATRAS about warp length and gear geometry from NI- IBTS in 2014, showing also data from 2009-13. Only information on door spread has been reported to DATRAS, nevertheless the time series is being revised. Confidence interval bands of door spread, wing spread and vertical opening estimated with a Loess smoother procedure, applying a multiplier x5 of the estimated model S.E.

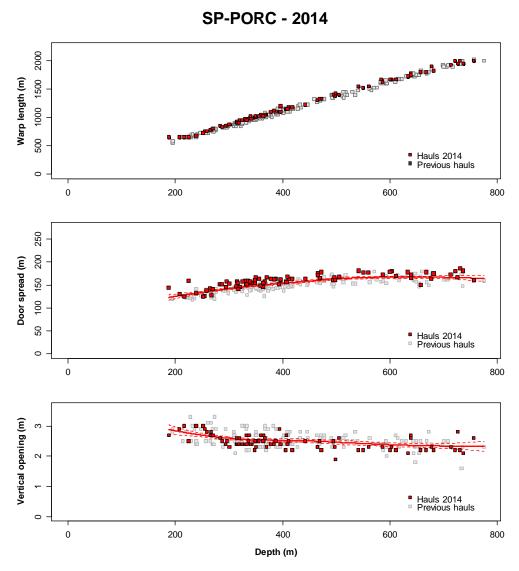


Figure A.6.4. Graphs showing the information available in DATRAS about warp length and gear geometry from SP-Porc in 2014 including historical data from 2012-2013. Confidence interval bands of door spread and vertical opening estimated with a Loess smoother procedure, applying a multiplier x5 of the estimated model S.E. Wing spread information currently is not recorded in this survey.

## FR-CGFS-Q4 - 2014

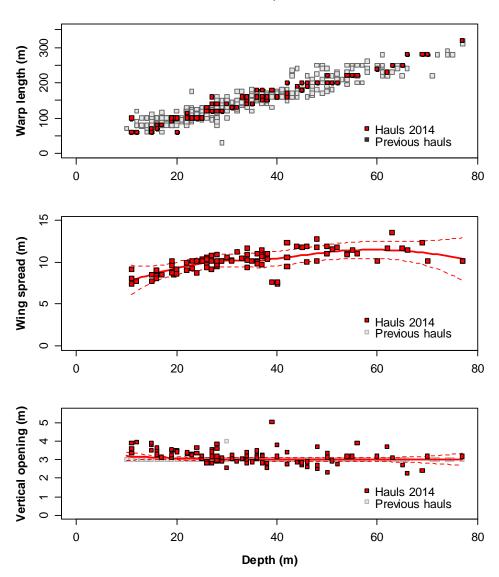


Figure A.6.5. Graphs showing the information available in DATRAS about warp length and gear geometry from FR-CGFS in 2014, and historical data from 2010. A fixed value of 3 m vertical opening was reported before 2014.

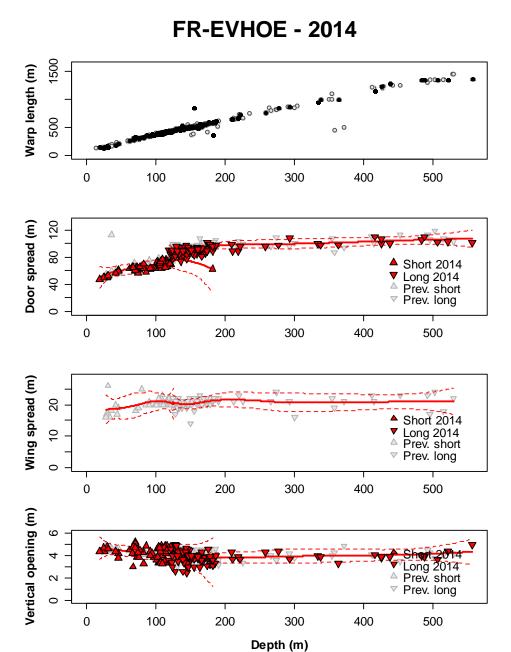


Figure A.6.6. Graphs showing the information available in DATRAS about warp length and gear geometry from FR-EVHOE in 2014, marking the difference between the two warp lengths used in the survey. Confidence interval bands of door spread, wing spread and vertical opening estimated with a Loess smoother procedure, applying a multiplier x5 of the estimated model S.E.

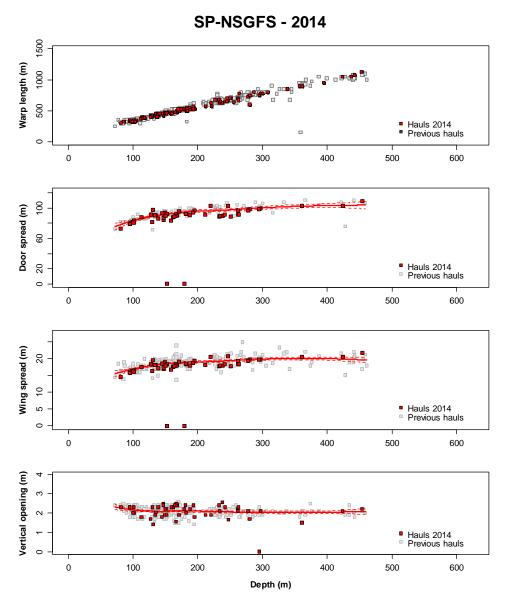


Figure A.6.7. Graphs showing the information available in DATRAS about warp length and gear geometry from SP-NORTH in 2014 including historical data from 2010-2013. Confidence interval bands of door spread, wing spread and vertical opening estimated with a Loess smoother procedure, applying a multiplier x5 of the estimated model S.E. Door spread estimated from wing spread using a conversion factor Door spread=Wing spread×(Sweeps+Net length)/Net Length.

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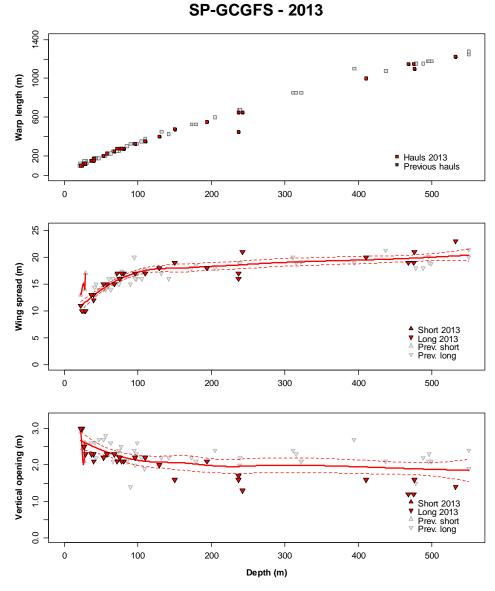


Figure A.6.8. Graphs showing the information available in DATRAS about warp length and gear geometry from SP-GCGFS in 2013 including historical data from 2006 and 2009. Confidence interval bands of door spread, wing spread and vertical opening estimated with a Loess smoother procedure, applying a multiplier x 5 of the estimated model S.E. Door spread estimated from wing spread using a conversion factor Door spread=Wing spread×(Sweeps+Net length)/Net Length.