

WGIDEEPS REPORT 2018 - 1

ICES Ecosystem Observation Steering Group

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Report of the Working Group on International Deep Pelagic Ecosystem Surveys (WGIDEEPS)

13-15 February 2018

ICES HQ, Copenhagen, Denmark



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International Council for
the Exploration of the Sea

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Executive summary

The Working Group on International Deep Pelagic Ecosystem Surveys (WGIDEEPS) met at ICES HQ in Copenhagen from 13-15 February 2018. The meeting, chaired by Kristján Kristinsson, was attended by six participants from Germany, Iceland, Norway and Russia. At the meeting the group planned the redfish survey in the Irminger Sea in June/July 2018.

Prior to the meeting, the Icelandic delegation informed group members that Iceland will not participate in the survey in June/July 2018. To cover the whole distribution area of pelagic redfish in the Irminger Sea a minimum three vessels are needed. The scope of the survey had to be altered and will be carried out in same manner as in 2015. The emphasis is on covering the main distribution area of redfish in the north and south-north area but omit important geographical areas of pelagic redfish in the southwestern area.

The detailed planning of the international trawl/acoustic survey on pelagic redfish in the Irminger Sea and adjacent waters in June/July 2018 has been agreed by all participating countries. Two vessels from Germany and Russia will participate in the survey and operate within an area of around 200 000 square nautical miles (NM²) in the Irminger Sea to estimate the abundance and biomass of pelagic redfish (*Sebastes mentella*). In the depth zone that can be surveyed by hydroacoustic measurements, i.e. shallower than the deep-scattering layer (DSL; down to about 350 m), hydroacoustic measurements and identification trawls will be carried out. Within and below the DSL (down to about 950 m), redfish abundance will be estimated by trawls. The trawl method applied is the same as in the 2009-2015 surveys and is line with the recommendation from ICES to study separately the stocks shallower and deeper than 500 m. As in past surveys, biological data will be collected from the redfish caught in the pelagic trawls, and hydrographical measurements will be taken on regular stations on the survey tracks.

The future of the survey in the Irminger Sea was discussed during the meeting. The withdrawal of Iceland from the international redfish survey in the Irminger Sea and adjacent waters is very unfortunate. No alternatives that could be arranged for compensating the corresponding loss of survey coverage at the time being. The Group is concerned with the decreased data quality and higher uncertainty in the derived data series and consequently the advice on the stock status. The group also encourages relevant delegates and institutes to discuss the priority and the future of the survey in the Irminger Sea and adjacent waters.

1 Administrative details

Working Group name

Working Group on International Deep Pelagic Ecosystem Surveys (WGIDEEPS)

Year of Appointment within the current cycle

2

Reporting year within the current cycle (1, 2 or 3)

2

Chair(s)

Kristján Kristinsson, Iceland

Meeting venue

Copenhagen, Denmark

Meeting dates

13–15 February 2018

2 Terms of Reference d)

According to 2016/MA2/SSGIOM04 The **Working Group on International Deep Pelagic Ecosystem Surveys** (WGIDEEPS) chaired by Kristján Kristinsson, Iceland, will meet in ICES HQ, Copenhagen, Denmark, 13–15 February 2018.

The Terms of Reference applicable for the February meeting are:

- d) Plan the international deep pelagic ecosystem survey with special emphasis on redfish to be carried out in the Irminger Sea and adjacent waters in June/July 2018;

WGIDEEPS will report by 29 March 2018 (January meeting via SSGIOM/EOSG) for the attention of SCICOM and ACOM.

3 Summary of work plan

	Meeting dates	Venue	Reporting details	ToRs
Year 2017	25-27 April	ICES HQ, Denmark	Interim report by 29 May to EOSG	a, b, c
Year 2018	13-15 February	ICES HQ, Denmark	Interim report by 29 March to EOSG	d
Year 2018	6-8 August	Bremerhaven, Germany	Interim report by 1 September to EOSG	e
Year 2019	XX-XX January	Town, Country	Interim report by 1 March to EOSG	f
Year 2019	xx-xx September	Town, Country	Interim report by 10 September to EOSG	g
Year 2019	By correspondence		Final report by 15 September to EOSG	a, b, c, d, e, f, g

4 Cancellation of the Icelandic participation and future of the survey in the Irminger Sea and adjacent waters

In November 2017, the Freshwater and Marine Research Institute (MFRI) in Iceland informed the group that Iceland will not participate in the survey in June/July 2018. No specific reasons were given for the withdrawal. It is the implication of the group that the priority of the MFRI on pelagic redfish re-search is not high which could explain the withdrawal.

It is the view of the Group that the withdrawal of Iceland from the international redfish survey in the Irminger Sea and adjacent waters is very unfortunate. No alternatives that could be arranged for compensating the corresponding loss of survey coverage at the time being. For this reason the group decided to focus only on surveying pelagic redfish in areas where in previous surveys has been observed to be most abundant, which is in the north and southeast part of the research area. This means that the geographical distribution of pelagic redfish in the southwest area will not be covered.

With only two vessels participating in the survey in 2018, the quality of the survey is seriously hampered and it will also undermine any scientific advice that ICES may provide to national and international bodies.

The future of the pelagic redfish survey in the Irminger Sea and adjacent waters was discussed during the meeting. It is clear to the group that both management bodies and individual nations consider the pelagic redfish research not a high priority. Cancellation of participation of individual nations is often with short notice which means it is impossible to compensate the corresponding loss of survey coverage. The group encourages participant nations and relevant institutes to discuss the importance and priority of pelagic redfish surveys in the Irminger Sea and adjacent waters and decide whether the surveys should be carried out in the future.

5 Planning of the international trawl/acoustic survey on redfish in the Irminger Sea and adjacent waters in June/July 2018

The survey manual for the survey conducted in the Irminger Sea and adjacent waters and is published under the Series of ICES Survey Protocols (SISP) describes in detail the planning of the survey (ICES, 2015). Specific issues that are revised before the survey is described in this section.

5.1 Vessels, timing and survey area

The main objective of this survey is the trawl-acoustic assessment of the pelagic redfish in the Irminger Sea and adjacent waters in June/July 2018. The group agreed to continue to cover area from 55°00'N to 65°30'N and from the 24°W in the east till western boundary to 42°W.

Below is the list of research vessels which will participate in the IDEEP survey in the Irminger Sea and adjacent waters in June/July 2018, time period engaged to the survey and approximate time and number of days in the field:

Name of the vessel	Country	Period	Approx. working period in the field	Days in field
Atlantida	Russia	4 June – 25 July	16 June – 11 July	26
Walther Herwig III	Germany	11 June – 13 July	~18 June – 8 July	21

The vessels will communicate daily via e-mail or telex or telephone. Information on the communication between vessels is given in Annex 3.

In Figure 1 and Table 1 in Annex 4 the planned survey tracks are displayed for each participating vessel.

“Atlantida” will cover the northern area, and “Walther Herwig III” the southern area. The total length of the planned survey tracks is about 5,130 nautical miles (NM), divided between the vessels as follows: “Atlantida” 2,930 NM and “Walther Herwig III” 2,200NM.

The cruise leaders of these vessels will apply for entry into the relevant EEZs by notifications to Greenland and Iceland. The operations in the NAFO Convention Area will be notified to NAFO by each survey leader.

5.2 Trawling

Russia's position regarding the structure of redfish stock in the Irminger Sea remains unchanged, i.e. that there is a single stock of *S. mentella* in that area. With that in view, Russia does not agree with the ICES advice splitting the stock into two nor with the recommendation to conduct stratified surveys dividing the water column arbitrarily into 0-500 and 500-1000 m depth intervals, which generally does not contribute to better quality of stock assessment.

However, recognizing the need to obtain more accurate abundance and biomass estimates, in the light of possible underestimation of the stock by the 2009 international TAS results, the Russian Federation agrees to conduct sampling in the international trawl and acoustic survey of *S. mentella* as described in the ICES Survey Protocol (ICES,

2015). However, Russia will not be able to agree with separate estimates for the stock distributing above 500 m and below 500 m.

If possible, the inflow of redfish into the trawl at the depth intervals described above should be estimated by a probe device mounted to the net.

5.3 Further issues

5.3.1 Exchange of experts

Germany and Russia invited other participants to join their part of the survey. Due to staff limitation, the German and Russian survey partners will not be able to send guest scientists from their labs onto other vessels.

5.3.2 Participation of further countries

The Group was again facing the problem of covering the entire survey area with only two vessels, resulting in a large spacing of survey tracks and trawl hauls and the geographical area of redfish not being covered completely. To improve the precision of the survey by increasing the density of the tracks and trawl stations, additional vessels should take part in the survey. The Group recommended as in 2005 (ICES, 2005a) that “at least four vessels should participate to allow a sufficiently dense coverage of the survey area and to permit an improvement in the quality of the derived abundance and biomass estimates. Thus, the efforts directed at involving other nations in the survey should be continued.”

Notwithstanding the disappointing outcome of earlier attempts, the group will continue its efforts in involving further countries in the survey. The group also notes that other non-EU countries involved in the fishery should consider their participation in the survey.

The group considered it appropriate to approach NEAFC to get nations involved in the commercial fishery to participate in the surveys. This should be done through the ICES Secretariat with an official letter to NEAFC.

5.3.3 Time schedule for the survey report

The final reporting will take place during the next WGIDEEPS meeting in Bremerhaven, Germany from 6–8 August 2018. To finalize the work for three days, the following plan will be followed:

As soon as the vessel has finished scrutinising the acoustic data, after the survey tracks are finished, the data must be sent to the other participant. Not later than 22 July, all data shall be sent via e-mail to all cruise leaders and Co-Chairs. The data shall be sent in the format described in Annexes 3 and 4 in the SISP manual and all participants shall have a copy in an electronic format.

Russia will calculate the abundance estimation of the redfish within and deeper than the DSL, including writing of the material and methods, results and discussion. Additionally, the Icelandic participant will calculate the abundance estimation according to the method proposed in the interim report (ICES, 2017).

Russia will work up the environmental data, including the drawing of pictures, writing of the material and methods, results and discussion.

Russia will calculate and finalize the acoustic data, including writing of the material and methods, results and discussion. Russia will also draw the cruise tracks and information on stations.

Germany will be responsible for writing about biological results, including writing of the material and methods, results and discussion.

All drafts must be sent to the WGIDEEPS Co-Chairs before 1 August 2018.

6 Progress report on ToRs and workplan

- *Progress by ToR*

ToR d was discussed and addressed during the meeting. Specific recommendation associated with the ToR is provided.

- *Changes / Edits / Addition to ToRs*

There are no changes to the current list of ToRs.

- *Cooperation with other WG*

Collaboration and coordination between WGIDEEPS and assessment EG's (AFWG, NWWG, WGINOR) need to be reinforced and specific recommendations were made in this direction in 2017.

- *Cooperation with Advisory structures*

WGIDEEPS does not generate advice but contributes by providing data to advisory EG's.

- *Science highlights*

WGIDEEPS does not have direct scientific output but contributes to scientific research by providing data which have been used in number of publications in recent years.

7 Revisions to the work plan and justification

No revision of the work plan.

8 Next meetings

6-8 August 2018 in Bremerhaven, Germany.

9 References

- ICES. 2015. Manual for the International Deep Pelagic Ecosystem Survey in the Irminger Sea and Adjacent Waters. Series of ICES Survey Protocols SISP 11 – IDEEPS VI. 49 pp.
- ICES. 2017. Interim Report of the Working Group on International Deep Pelagic Surveys. WGIDEEPS Report 2017 25-27 April 2017. ICES Headquarters, Denmark. ICES CM 2017/SSGIEOM:14. 13 pp.

Annex 1: List of participants

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Annex 2: Recommendations

Recommendation	Addressed to
1. Encourage and support participation of Russian scientists to WGIDEEPS and preparation of survey data in DATRAS format, even if not uploaded onto the DATRAS database.	Council/Delegates, EOSG
2. Discuss and evaluate the value of the international deep pelagic survey in the Irminger Sea and adjacent waters as the support is currently limited.	Council/Delegates, NEAFC, NWWG, ACOM, EOSG
3. Evaluate the IDEEP surveys as a platform for the study of mesopelagic layer in the North Atlantic and assess collaboration with upcoming ecosystem research in the investigation areas of IDEEPS.	Council/Delegates, EOSG
4. Involve more countries in the Irminger and Norwegian Seas surveys.	ICES Secretariat, Delegates

Annex 3: Information on communication between vessels for the Irminger Sea survey

RV “Atlantida” (Russia)

Call sign: UALU

Inmarsat C IMN: 427301487

E-mail: atlantniro@marsatmail.com

RV “Walther Herwig III” (Germany)

Call sign: DBFR

Telephone: 00870 763936068

Telefax: 00870 763936070 or
00870 600365043

Data: 00870 600365042

Inmarsat C (Telex): +581 421121550

e-mail: matthias.bernreuther@thuenen.de

Annex 4: Cruise tracks

Table 1. Agreed preliminary cruise tracks for the international survey on redfish in June/July 2018.

Atlantida			Walther Herwig III		
Lat N	Long W	Distance	Lat N	Long W	Distance
64.45	28.30	Start	60.15	29.30	Start
64.45	34.00	141	60.15	41.00	342
63.45	36.00	79	59.15	43.00	85
63.45	27.25	228	59.15	33.00	306
63.45	26.25	40	58.15	34.30	76
63.15	38.10	317	58.15	43.30	284
62.45	40.00	58	57.15	43.30	60
62.45	26.10	379	57.15	36.00	243
62.15	27.30	48	56.15	37.30	78
62.15	40.00	349	56.15	43.00	183
61.45	40.30	33	55.15	41.30	79
61.45	34.25	173	55.15	37.00	154
62.15	33.30	40	59.15	31.00	309
59.40	26.15	262			
61.45	29.25	156			
61.45	33.00	102			
61.15	34.00	41			
61.15	40.00	173			
60.45	40.30	33			
60.45	31.00	278			
Total sailing (NM)		2,930			2,199
Days in the field		26			18
Average sailing/day		113			122

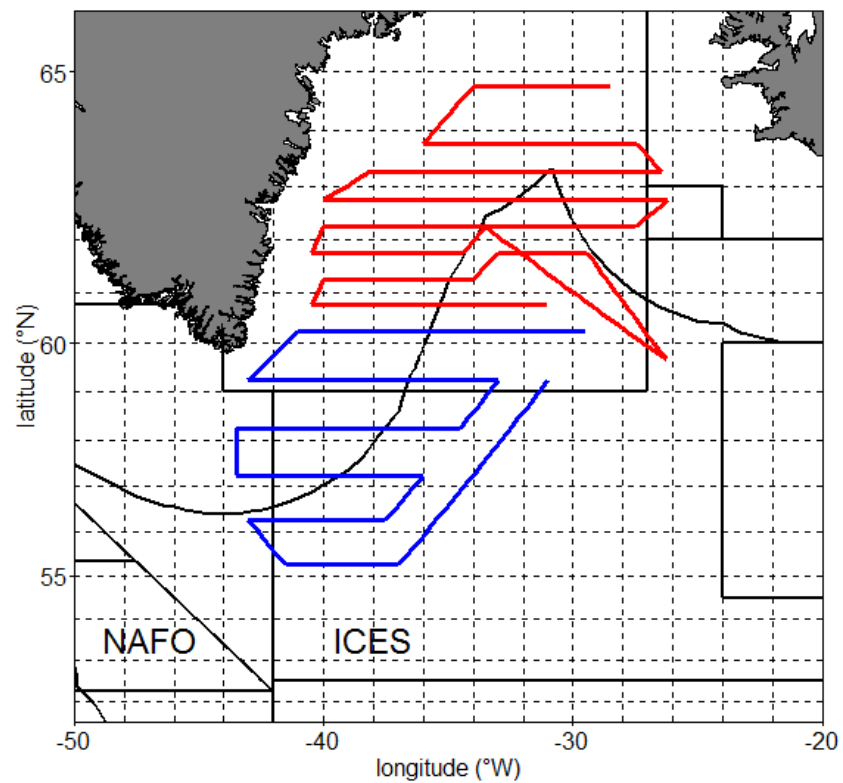


Figure 1. Preliminary cruise tracks of the international survey on redfish in June/July 2018. Red: RV "Atlantida". Blue: RV "Walther Herwig III".