



NOAA
FISHERIES

BSAI Greenland turbot CIE review summary

Meaghan Bryan

Status of Stock and Multispecies Assessments Program

Resource Ecology and Fisheries Management Division

Details

Where: Virtual

When: April 5-9, 2021

Chair: Kalei Shotwell (AFSC, SSMA)

Reviewers:

Sven Kupchus (Centre for Environment,
Fisheries and Aquaculture Science, UK)

Anders Nielsen (DTU Aqua, Denmark)

Colin Millar (ICES, Denmark)



Participants

| Name | Program | Responsibility |
|----------------|--|--|
| John Brogan* | Age and Growth Program | Review of ageing for Greenland turbot |
| Raul Ramirez* | Fisheries Monitoring and Analysis | Review of Greenland turbot in the observer program |
| Lyle Britt* | Groundfish Assessment Program | Review of Bering sea shelf and slope bottom trawl survey and Greenland turbot data |
| Kevin Siwicke* | Marine Ecology and Stock Assessment Program | Review of longline and tagging for Greenland turbot |
| Katy Echave | Marine Ecology and Stock Assessment Program | Longline survey tagging data |
| Jim Ianelli | Status of Stocks and Multispecies Assessment | Historical stock assessment |
| Sandra Lowe | Status of Stocks and Multispecies Assessment | Supervisor of stock assessment authors |
| Pat Malecha | Marine Ecology and Stock Assessment Program | Supervisor of longline survey and tagging |
| Delsa Anderl | Age and Growth Program | Supervisor of otolith readers |

* Presenters

Terms of reference

Evaluation of the ability of the stock assessment model for BSAI Greenland turbot, with the available data, to provide parameter estimates to assess the current status of Greenland turbot in the BSAI

Evaluation of the strengths and weaknesses in the stock assessment model for BSAI Greenland turbot

Recommendations for improvements to the assessment model



Main conclusion

- Reviewers agreed that the most recently accepted BSAI Greenland turbot assessment model is suitable for management advice
- Reviewers made several recommendations
 - Response to recommendations will be made during the next full assessment in 2022



Recommendations

- Simplify the model
- Re-evaluate of highly parameterized selectivity patterns
 - Re-evaluate the time blocks used on the survey selectivity
- Method used to obtain fixed catchability value and fixed catchability values for the EBS bottom trawl shelf and slope surveys were a concern
 - Estimated with the 2015 Model 14.0 fit without the 2007 through 2015 data
 - Reviewers recommended simplifying model and estimating catchability



Recommendations

- Conduct sensitivity analyses to address concerns about the catch data in the early part of the time series and the model estimate of recruitment in the 1960s and 1970s
- Request unaged otoliths be aged to help inform the model about recruitment prior

