



NORTH PACIFIC FISHERY MANAGEMENT COUNCIL

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Action Memo

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Eric Olson, Chairman
Chris Oliver, Executive Director

SUBJECT:

Pacific cod assessment models - SSC only

ACTION REQUIRED:

Review Pacific cod assessment models

BACKGROUND:

A joint subcommittee of the BSAI Groundfish Plan Team and GOA Groundfish Plan Team convened on March 12, 2014. The objective of the meeting was to review proposals for Eastern Bering Sea (EBS), Aleutian Islands (AI), and Gulf of Alaska (GOA) Pacific cod stock assessment models and recommend a set of models for 2014. The minutes of the Joint Team Subcommittee on Pacific Cod Models are attached. The SSC will review the committee recommendations and provide its recommendations. The Pacific cod stock assessment authors will consider these recommendations in their preparation of the EBS, AI, and GOA Pacific cod stock assessments this fall.

Summary: For this year, the subcommittee proceeded under the assumption that the SSC wishes to continue re-evaluating the 2011 models. However, the subcommittee recommended that 2014 be the final year for re-evaluation of the 2011 models, unless the 2011 model in one or more regions is chosen as the final model in 2014.

EBS

Model 1: Final model from 2011 (same as the final models from 2012 and 2013)

Model 2: Model 5 from the 2012 preliminary assessment (same as Model 4 from the 2012 final and 2013 preliminary assessments)

Model 3: Same as Model 2 in this list, but with:

- survey catchability fixed at 1.0

Model 4: Model 2 from the 2013 preliminary assessment, but with:

- an internally estimated constant added to each year's survey abundance sigma

Model 5: Model 3 from the 2013 preliminary assessment, but with:

- survey catchability fixed at 1.0
- natural mortality estimated freely

AI

Model 1: A new model (author's choice) with the regime change recruitment offset fixed at 0.0

Model 2: A new model (author's choice) with alternative selectivity specification(s)

Model 3: A new model (author's choice) with forced asymptotic selectivity

GOA

Model 0: Final model from 2011

Model 1: Final model from 2013

Model 2: Model 6 from the 2013 preliminary assessment, but with:

- empirical weight at age
- all agecomp data omitted
- use of the SS “multiplier” on ?R instead of setting recent recruitments equal to the mean
- retuned input sample sizes and survey abundance standard deviations

Model 3: Final model from 2013, but with:

- use of the SS “multiplier” on ?R instead of setting recent recruitments equal to the mean
- retuned input sample sizes and survey abundance standard deviations
- empirical weight at age

Model 4: Final model from 2013, but with:

- use of the SS “multiplier” on ?R instead of setting recent recruitments equal to the mean
- retuned input sample sizes and survey abundance standard deviations
- age 1 abundance split out as a separate index