



**NOAA**  
**FISHERIES**

Alaska Region

# Inclusion of Grenadiers (Family Macrouridae)

## In the Fishery Management Plans for Groundfish of the Bering Sea and Aleutian Islands and Gulf of Alaska

Scott A. Miller, Economist  
NOAA Fisheries Alaska Region Analytical Team



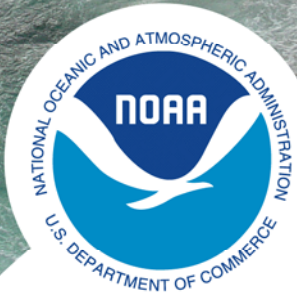
**NOAA  
FISHERIES**  
Alaska Region

# Council Purpose and Need Statement (December 2013)

*Grenadiers are not included in the BSAI or GOA groundfish FMPs. There are no limits on their catch or retention, and no reporting requirements. However, grenadiers are taken as bycatch, especially in longline fisheries; no other Alaskan groundfish has similar levels of catches that is not included in the FMPs. Inclusion in the groundfish FMPs would provide for their precautionary management by, at a minimum, recording their harvest and/or placing limits on their harvest.*



# Alternatives



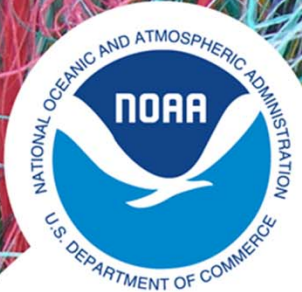
**NOAA**  
**FISHERIES**  
Alaska Region

Alternative 1: No action (Status Quo)

Alternative 2 (Preliminary Preferred Alternative): Include grenadiers (all species) in the BSAI and GOA FMPs as an "ecosystem component"

Alternative 3: Include grenadiers (all species) in the BSAI and GOA FMPs as "in the fishery"

Note: grenadiers species include giant, Pacific, and popeye



**NOAA**  
**FISHERIES**

Alaska Region

# “ecosystem component”

National Standard 1 guidelines (50 CFR 600.310)

- A non-targeted species or species group;
- Not subject to overfishing, overfished, or approaching an overfished condition;
  - BSAI OFL 135,236 mt, 2013 catch 4,135 mt, 2003-13 average catch 2,612 mt.
  - GOA OFL 46,635 mt, 2013 catch 11,218 mt, 2003-13 average catch 8,769 mt.
- Not likely to become subject to overfishing or overfished in the absence of conservation and management measures; and
- Not generally retained (a small amount could be retained) for sale or commercial use.

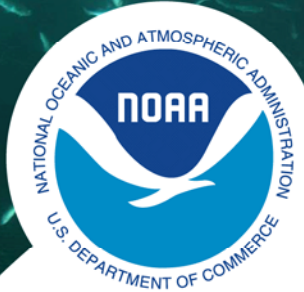


**NOAA**  
**FISHERIES**

Alaska Region

# Reasons for inclusion in the ecosystem component

- For data collection and catch monitoring purposes;
- For ecosystem considerations related to specification of optimum yield (OY) for the associated fishery;
- As considerations in the development of conservation and management measures for the associated fishery;
- Or to address other ecosystem concerns.
  - deep dwelling long lived species (58 year maximum, 23 years to 50% female maturity)
  - apex predator
  - most abundant species on deep slope (200 m-1000 m)
  - mostly female removals
  - GOA giant grenadier received a moderate vulnerability score, between Pacific cod and walleye Pollock. In the BSAI, they also received a moderate score between Pacific cod and Pacific ocean perch

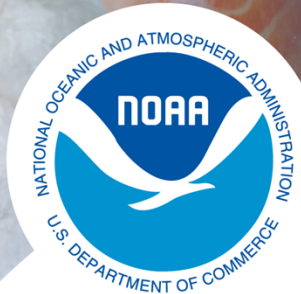


**NOAA**  
**FISHERIES**

Alaska Region

# "in the fishery"

- Stocks that are targeted, and retained for sale or personal use;
- Stocks that are not directly targeted but are taken incidentally in other directed fisheries and are retained for sale or personal use;
- Stocks not targeted or retained but are taken as incidental catch and for which overfishing or overfished status may be a concern.



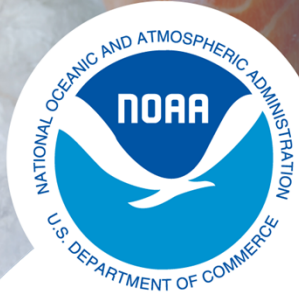
**NOAA**  
**FISHERIES**  
Alaska Region

## Maximum Retainable Amount (MRA) Range (2%-20%) under Alternative 2, the PPA.

- Two percent MRA likely limits development of markets: The lower range MRA has been used in the forage fish classification, for example, with the rationale being to ban targeted fishing of these ecologically important species.
- Higher MRAs would allow retention and potential utilization of grenadiers that are incidentally caught. As the MRA increases, there is less likelihood of regulatory discards of grenadiers, and greater potential for retention if markets can be developed.
- Analysis of fish ticket and production report data for 2013 shows that there was almost no reported retention of grenadiers in the BSAI (only 1 mt), no reported retention by catcher/processors in the GOA, and 55 mt (.5 % overall) of giant grenadiers were retained by catcher vessels in the GOA.
  - Of this retention of grenadiers, 35 mt was made into fish meal, 17 mt was discarded at the dock, 3 mt was retained for bait, and less than 1 mt was sold.
  - Thus, there is no evidence that grenadiers are presently being targeted or purposely retained. It is much more likely that grenadiers are being retained only when mixed in with other catch.



**NOAA FISHERIES**



**NOAA**  
**FISHERIES**

Alaska Region

## Potential Socioeconomic Effects

- Alternative 2 has no short term effects on fishery revenue. Would impose some recordkeeping and reporting requirements.
- Alternative 3 Affects TAC in BSAI only
- Incidental, or directed, grenadier TAC would be “funded” from reduced TAC of another species
- Actual TAC reductions would occur in the annual TAC setting process and would vary depending on stock assessments, and whether the 2 million mt cap is binding. Thus, actual impacts are unknown.

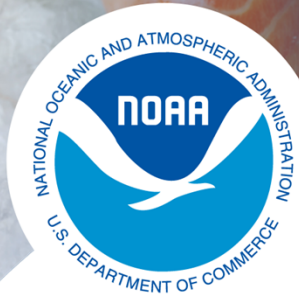


**NOAA FISHERIES**



## Transition from

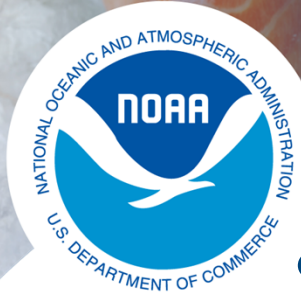
## “ecosystem component” species to “in the fishery.”



### **NOAA** **FISHERIES** Alaska Region

- FMPs may be reviewed by the Council to determine whether changing conditions have changed the applicability of the “ecosystem component” species classification criteria for a species.
- If viable markets for grenadiers can be developed then the “not generally retained for sale or personal use” and possibly the “a non-targeted species or species group” criteria may no longer be valid.
- If dramatically increased catch were to occur in the future then the “not subject to overfishing and/or overfished” criteria may no longer be valid.
- If such changes in criteria become a future concern the Council could initiate analysis of whether grenadiers meet the criteria for being reclassified as “in the fishery.”





**NOAA**  
**FISHERIES**  
Alaska Region

## Decision Points for Final Action

- Preferred Alternative Selection
- If Alternative 2 (PPA), “ecosystem component”, specify MRA within range of 2 percent to 20 percent.
- Specify action for each region, BSAI and GOA, separately.



**NOAA FISHERIES**

An underwater video photograph taken from the ROV *Jason II* of what are believed to be two giant grenadier at a depth of 1,203 m in the Aleutian Islands. Photo by Doris Alcorn.



<http://www.afsc.noaa.gov/Quarterly/amj2008/amjfeaturelead.htm>



NOAA FISHERIES