Consideration of an alternative to the biomass-weighted M for the Gulf of Alaska sculpin complex.

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In November 2013, the Plan Team noted that method for estimating M in the sculpin complex may be problematic. The method currently uses a 4-year biomass-weighted average. It was suggested that this result would respond to declines in less productive species by increasing the target harvest rate for the complex.

I have provided three alternatives to use for the 2015 GOA sculpin complex:

1. The current methodology (M=0.222).
2. A strict average of species-specific M estimates for the complex (M=0.265)
3. A biomass-weighted M that includes biomass estimates for the entire biomass time series (M=0.221).

The author recommends a longer-term average than the one currently used, such as option 3 above. Biomass estimates for the 4 species that are used to estimate M are relatively constant over time. Regardless of the methodology, the estimate of M should take into account whether a recent decline has taken place in any sculpin species.