

4. Gulf of Alaska Flatfish (Other) (Executive Summary)

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4.1 Introduction

Assessments for the deepwater and shallow water flatfish complexes have been moved to a biennial schedule to coincide with new survey data. On alternate (even) years we will present an executive summary with last year's key assessment parameters and projections for this year. A discussion at the September 2006 Groundfish Plan Team meetings concluded the following two important points for updating information in off-year assessments:

- 1) Anytime the assessment model is re-run and presented in the SAFE Report, a full assessment document **must** be produced.
- 2) The single-species projection model **may** be re-run using new catch data without re-running the assessment model.

Of the species included in the two complexes, only Dover sole in the deepwater flatfish complex has a formal assessment model. Results of the updated projection model for Dover sole (Tier 3a) are presented in chapter 4a. The other two species in the deepwater flatfish complex, Greenland turbot and deep-sea sole, are both in Tier 6. The shallow water complex is comprised of northern rock sole, southern rock sole, yellowfin sole, butter sole, starry flounder, English sole, sand sole and Alaska plaice. Northern and southern rock sole are in Tier 4 while the other species in the complex are in Tier 5. For further information regarding the deep water and shallow water flatfish complexes, please see last year's full stock assessment (Turnock et al. 2005, <http://www.afsc.noaa.gov/refm/docs/2005/GOAflat.pdf>).

4.2 Updated catch, ABCs and OFLs by species

The only new information available concerning the shallow water and deepwater flatfish complexes (excluding Dover sole) are the updated 2005 catch and the best estimate of 2006 catch. Consequently, the recommended species-level ABCs and OFLs for 2007-8 are the same as those for 2006-7. These values, together with the 2005 and 2006 catches, are presented in the following tables:

| Deepwater flatfish species | 2005 | 2006 | Tier | Mean Catch | Current Assessment ² | | Previous Assessment ³ | |
|-----------------------------|-------|--------------------|------|------------|---------------------------------|-----|----------------------------------|-----|
| | Catch | Catch ¹ | | | ABC | OFL | ABC | OFL |
| Greenland turbot | 4 | 12 | 6 | 238 | 179 | 238 | 179 | 238 |
| Deep-sea sole | 0 | 6 | 6 | 6 | 4 | 6 | 4 | 6 |
| Total (excludes Dover sole) | 4 | 18 | -- | 244 | 183 | 244 | 183 | 244 |

| Shallow water flatfish species | 2005 | 2006 | Tier | F _{ABC} | F _{OFL} | Biomass | Current Assessment ² | | Previous Assessment ³ | |
|--------------------------------|-------|--------------------|------|------------------|------------------|---------|---------------------------------|--------|----------------------------------|--------|
| | Catch | Catch ¹ | | | | | ABC | OFL | ABC | OFL |
| Northern rock sole | 828 | 3,265 | 4 | 0.204 | 0.245 | 91,525 | 15,360 | 18,099 | 15,360 | 18,099 |
| Southern rock sole | 1,347 | 1,110 | 4 | 0.162 | 0.192 | 147,693 | 20,074 | 23,459 | 20,074 | 23,459 |
| Yellowfin sole | 80 | 5 | 5 | 0.15 | 0.2 | 48,823 | 6,179 | 8,048 | 6,179 | 8,048 |
| Butter sole | 1,703 | 2,191 | 5 | 0.15 | 0.2 | 26,226 | 3,319 | 4,323 | 3,319 | 4,323 |
| Starry flounder | 554 | 897 | 5 | 0.15 | 0.2 | 26,586 | 3,365 | 4,382 | 3,365 | 4,382 |
| English sole | 116 | 91 | 5 | 0.15 | 0.2 | 14,595 | 1,847 | 2,406 | 1,847 | 2,406 |
| Sand sole | 99 | 40 | 5 | 0.15 | 0.2 | 2,379 | 301 | 392 | 301 | 392 |
| Alaska plaice | 36 | 5 | 5 | 0.15 | 0.2 | 7,939 | 1,005 | 1,309 | 1,005 | 1,309 |
| Total | 4,763 | 7,605 | -- | -- | -- | 365,766 | 51,450 | 62,418 | 51,450 | 62,418 |

¹Through Oct. 28, 2006. ²Recommended values for 2007, 2008. ³Recommended values for 2006, 2007.

4.3 Area Apportionment

The recommended apportionment percentages are identical to last year, because there is no new survey information. The following table shows the recommended apportionment for 2007:

| Stock/Assemblage | Area: | West | | | Southeast | Total |
|--|-------------------|---------|---------|---------|-----------|--------|
| | | Western | Central | Yakutat | Outside | |
| Deep water flatfish (excludes Dover sole) | Apportionment (%) | 66 | 25 | 5 | 4 | 100 |
| | Area ABC (mt) | 122 | 44 | 9 | 8 | 183 |
| Shallow water flatfish | Apportionment (%) | 48 | 47 | 1 | 4 | 100 |
| | Area ABC (mt) | 24,720 | 24,258 | 628 | 1844 | 51,450 |

4.4 Research Priorities

More aging data is needed to improve estimates of natural mortality for Tier 5 species. Expanding the GOA trawl survey to consistently cover the continental slope to 1000m depth would improve biomass estimates for the deepwater flatfish species, possibly allowing Greenland turbot and deep-sea sole to move from Tier 6 to Tier 5.

4.5 Summaries for Plan Team

| Species/Assemblage | Year | Biomass | OFL ² | ABC ² | TAC ² | Catch ³ |
|--|------|-----------------------|------------------|------------------|------------------|--------------------|
| Deep water flatfish (includes Dover sole) | 2005 | 130,000 ^{1a} | 8,490 | 6,820 | 6,820 | 414 |
| | 2006 | 132,460 ^{1a} | 11,008 | 8,665 | 8,665 | 389 |
| | 2007 | 134,196 ^{1a} | 10,431 | 8,707 | | |
| | 2008 | 135,552 ^{1a} | 11,412 | 8,983 | | |
| Shallow water flatfish | 2005 | 365,766 ^{1b} | 63,840 | 52,070 | 20,740 | 4,769 |
| | 2006 | 365,766 ^{1b} | 62,418 | 51,450 | 19,972 | 7,605 |
| | 2007 | 365,766 ^{1b} | 62,418 | 51,450 | | |
| | 2008 | 365,766 ^{1b} | 62,418 | 51,450 | | |

^{1a}Total biomass for Dover sole from the age-structured model (2005) or projection model (2006-2008). ^{1b}Total biomass as estimated from trawl survey data. ²As published in the Federal Register (2005, 2006) or as recommended based on the tier system (2007, 2008). ³As of Oct. 28, 2006.

| Stock/ Assemblage | Area | 2006 | | | | 2,007 | | 2008 | |
|--|-------|------------------|------------------|------------------|--------------------|-------|--------|--------|--------|
| | | OFL ¹ | ABC ¹ | TAC ¹ | Catch ² | OFL | ABC | OFL | ABC |
| Deep water flatfish (includes Dover sole) | W | -- | 420 | 420 | 7 | -- | 420 | -- | 430 |
| | C | -- | 4,139 | 4,139 | 360 | -- | 4,163 | -- | 4,296 |
| | WYAK | -- | 2,661 | 2,661 | 12 | -- | 2,677 | -- | 2,763 |
| | SEO | -- | 1,445 | 1,445 | 10 | -- | 1,447 | -- | 1,494 |
| | Total | | 11,008 | 8,665 | 8,665 | 389 | 10,431 | 8,707 | 11,412 |
| Shallow water flatfish | W | -- | 24,720 | 4,500 | 236 | -- | 24,720 | -- | 24,720 |
| | C | -- | 24,258 | 13,000 | 7,368 | -- | 24,258 | -- | 24,258 |
| | WYAK | -- | 628 | 628 | 0 | -- | 628 | -- | 628 |
| | SEO | -- | 1,844 | 1,844 | 1 | -- | 1,844 | -- | 1,844 |
| | Total | | 62,418 | 51,450 | 19,972 | 7,605 | 62,418 | 51,450 | 62,418 |

¹As published in the Federal Register. ²As of Oct. 28, 2006.

Note: Tables of ABCs, OFLs, and TACs published in the Federal Register are available for:

2005: http://www.fakr.noaa.gov/sustainablefisheries/specs05_06/goatable1.pdf

2006: http://www.fakr.noaa.gov/sustainablefisheries/specs06_07/goatable1.pdf