## Catch Only Projection for Petrale Sole (Eopsetta jordani) in 2021

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This document provides the first catch-only projection of the 2019 update of petrale sole (*Eopsetta jordani*), with updated catch data through 2020. Updated total catches for years 2013 - 2018 were derived from GEMM reports. Catches from years prior to the end of the data used in the last update were changed in recent years. As such, the original assessment with updated catch data was rerun, and the resultant time series of ladings, spawning stock biomass, and depletion are shown in Figures 1, 2, and 3. A comparison of the landings changes are also shown in Table 1. Estimated 2019, 2020, and projected 2021 and 2022 catches were provided by the Groundfish Management Team (GMT). For years 2023 and beyond, ABC catches were assumed. In the projections, the split of catches among fleets was based upon the split in the final year. Scientific Uncertainty Buffer Fractions are based upon the number of years since the last assessment was conducted in 2019, based upon a Category-1 assessment with P\* = 0.45. Those Buffer Fractions, along with previous and updated catches, OFLs and depletions and updated biomass, spawning output and ABCs are given in Table 2.

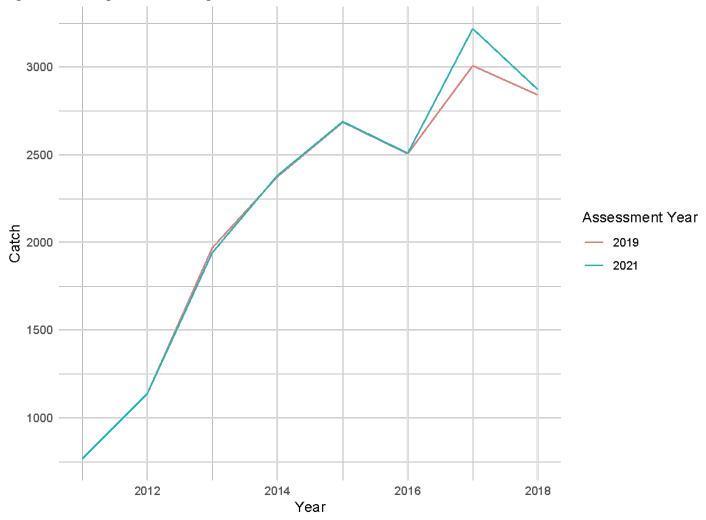


Figure 1. A comparison of the updated catch data.

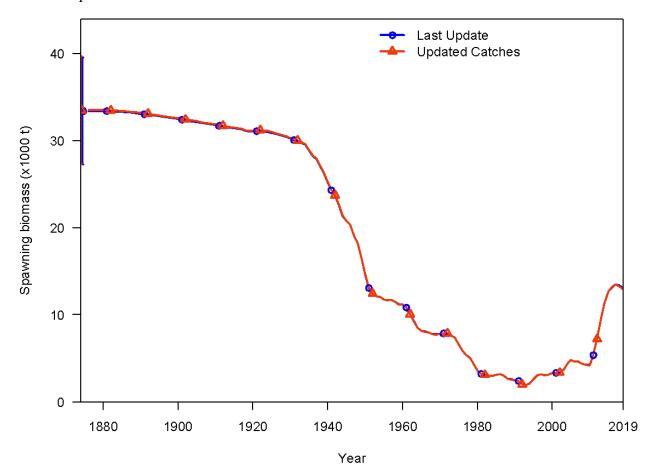


Figure 2. A comparison of spawning stock biomass from the previous update assessment and with the updated catch data.

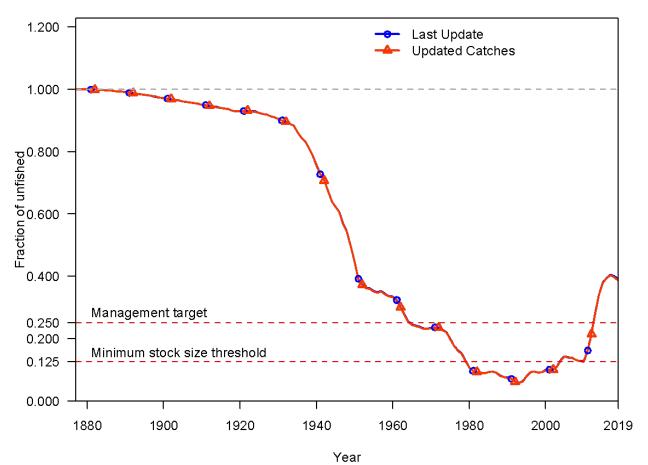


Figure 3. A comparison of depletion from the previous update assessment and with the updated catch data.

Year	Catches from 2021 Update (mt)	Catches from 2019 Assessment (mt)
2011	768	768
2012	1135	1135
2013	1940	1967
2014	2382	2373
2015	2687	2686
2016	2508	2506
2017	3220	3008
2018	2871	2840

Table 1. Table comparison of changes in catch data from previous assessment.

Table 2.	Catch-only	projections	through 2032.
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2019 Assessment Update (mt)	Updated OFL Projection (mt)	Scientific Uncertainty Buffer Fraction	Updated ABC Projection (m)	Assumed Catch in 2019 Assessment Update (mt)	Actualized Catch and Projection (mt)	Summary (Age 3+) Biomass (mt)	Spawning Output (million eggs)	Depletion (%) from 2019 Assessment Update	Depletion (%)
4774				2908	2831			39.1%	38.7%
4592				2845	1965			37.6%	37.3%
4402				4115	4115			36.0%	37.3%
3936				3660	3660			32.3%	33.6%
3634	3763	0.926	3485	3365	3485	20495	10452	30.0%	31.2%
3470	3563	0.922	3285	3199	3285	19962	9968	28.9%	29.8%
3402	3467	0.917	3179	3120	3179	19728	9757	28.5%	29.1%
3392	3434	0.913	3136	3097	3136	19654	9701	28.5%	29.0%
3406	3434	0.909	3121	3096	3121	19645	9715	28.7%	29.0%
3425	3444	0.904	3113	3097	3113	19651	9747	28.8%	29.1%
3442	3454	0.900	3109	3098	3109	19658	9775	29.0%	29.2%
3452	3462	0.896	3102	3093	3102	19659	9792	29.0%	29.2%
	3466	0.892	3092		3092	19659	9800		29.3%
	3469	0.887	3077		3077	19663	9805		29.3%
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