

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 re-run, and the resultant time series of landings, 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.

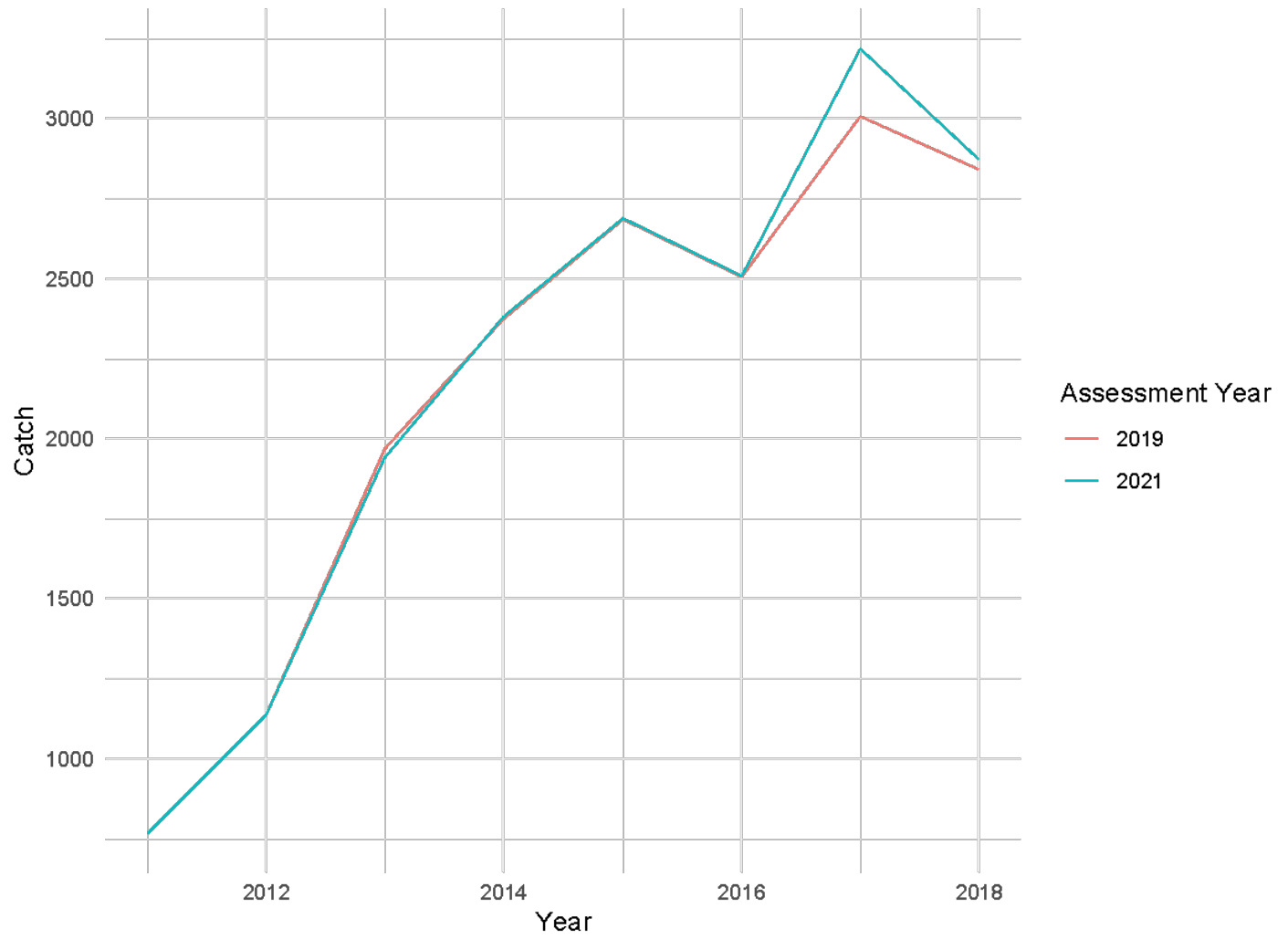


Figure 2. A comparison of spawning stock biomass from the previous update assessment and with the updated catch data.

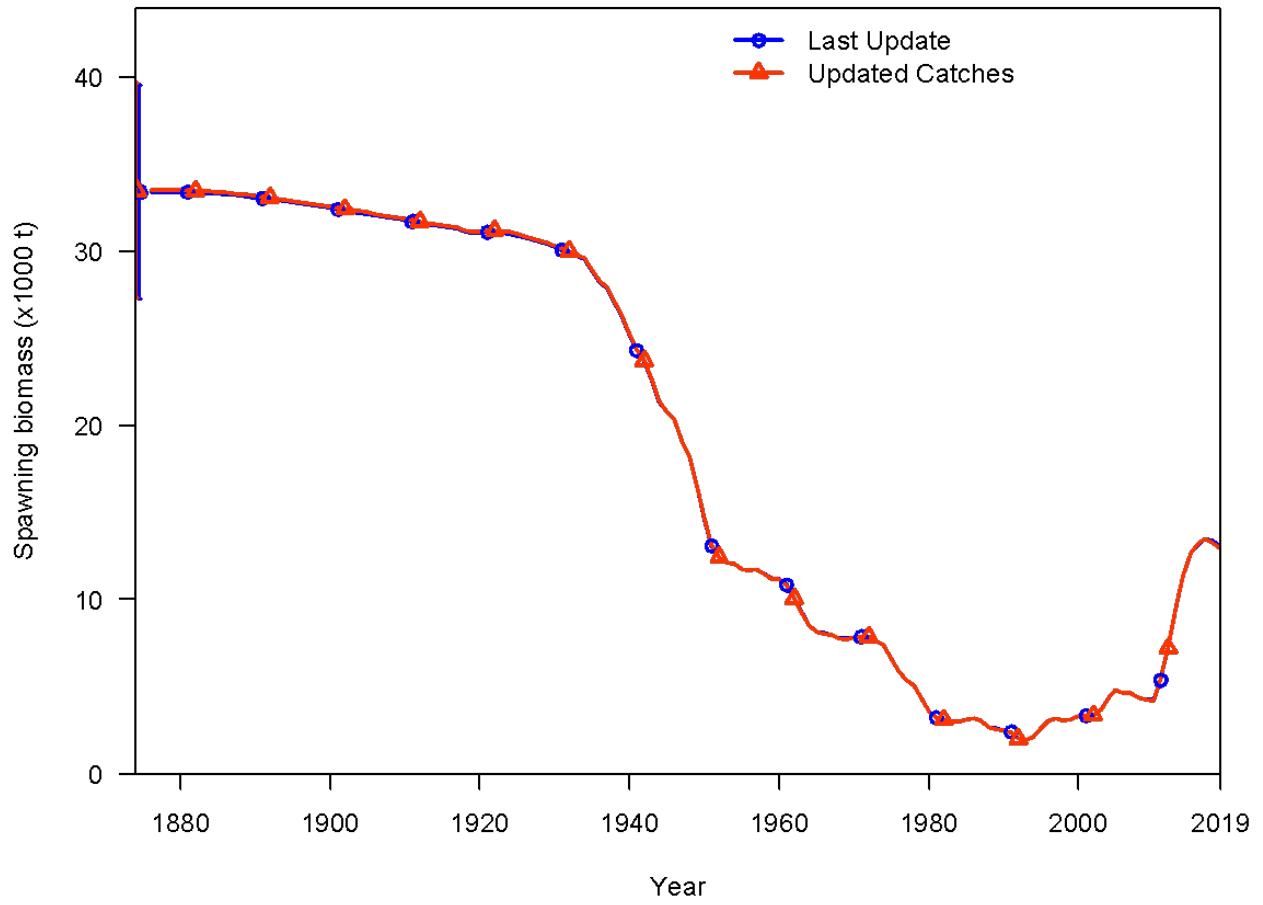


Figure 3. A comparison of depletion from the previous update assessment and with the updated catch data.

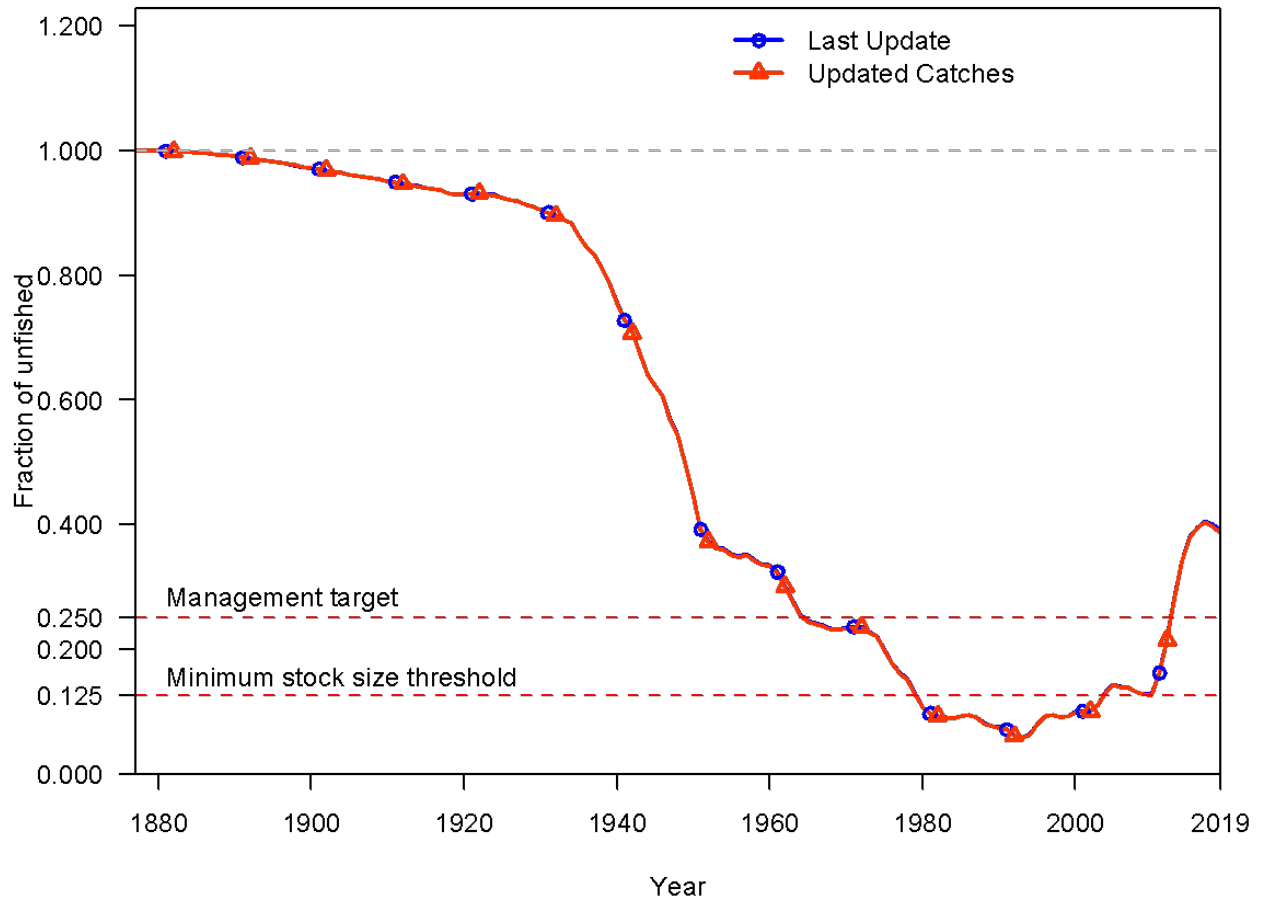


Table 1. Table comparison of changes in catch data from previous assessment.

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

Table 2. Catch-only projections through 2032.

Year	OFLs from 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 (%)
2019	4774				2908	2831			39.1%	38.7%
2020	4592				2845	1965			37.6%	37.3%
2021	4402				4115	4115			36.0%	37.3%
2022	3936				3660	3660			32.3%	33.6%
2023	3634	3763	0.926	3485	3365	3485	20495	10452	30.0%	31.2%
2024	3470	3563	0.922	3285	3199	3285	19962	9968	28.9%	29.8%
2025	3402	3467	0.917	3179	3120	3179	19728	9757	28.5%	29.1%
2026	3392	3434	0.913	3136	3097	3136	19654	9701	28.5%	29.0%
2027	3406	3434	0.909	3121	3096	3121	19645	9715	28.7%	29.0%
2028	3425	3444	0.904	3113	3097	3113	19651	9747	28.8%	29.1%
2029	3442	3454	0.900	3109	3098	3109	19658	9775	29.0%	29.2%
2030	3452	3462	0.896	3102	3093	3102	19659	9792	29.0%	29.2%
2031		3466	0.892	3092		3092	19659	9800		29.3%
2032		3469	0.887	3077		3077	19663	9805		29.3%