

Catch only projection for petrale sole

Ian G. Taylor

NOAA Fisheries Northwest Fisheries Science Center, 2725 Montlake Blvd E, Seattle, WA 98112

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This document details a catch-only projection for petrale sole. The most recent assessment for petrale sole was conducted in 2023. This analysis updates catches between 2023 - 2024 to the best information about observed removals as provided by the Groundfish Management Team (GMT). The removals for 2025 and 2026 were set equal to mortality projections provided by the GMT for each fleet in the model. For years 2027 and beyond, removals were set equal to the projected Annual Catch Limit (ACL) based on a category 1 time-varying σ of 0.5 and a P* value of 0.45. These buffers are the same as in the previous stock assessment, with two additional years of buffers for years 2035 and 2036.

An alternative projection is provided in the second table where the assumed catch in 2026 is based on ACL from a catch-only projection through 2025 rather than the current harvest specifications. An assumption of 92% attainment estimated by the GMT was used in both cases.

Table 1: Original 2023 projection and new catch-only projection for OFLs (mt), buffer, ABCs (mt), actual & assumed catch (mt), ACLs (mt), spawning output (trillions of eggs), and stock status (fraction of unfished spawning output) given the removals. The gray shading indicates values associated with the original 2023 assessment projection. In both the original model and the new projection, the removals for years beyond the values in the ‘Actual & Assumed Removals’ columns are the ACL values estimated from that model.

Year	OFL (2023)	OFL	Buffer	ABC (2023)	ABC	Actual & Assumed Removals (2023)	Actual & Assumed Removals	ACL (2023)	ACL	Spawning Output	Stock Status (2023)	Stock Status
2023	—	—	—	—	—	3,485	2,902	—	—	7.69	0.336	0.336
2024	—	—	—	—	—	3,285	2,927	—	—	6.98	0.293	0.305
2025	2,518	—	—	2,354	—	—	2,157	2,354	—	6.29	0.255	0.275
2026	2,424	—	—	2,255	—	—	2,052	2,238	—	6.09	0.243	0.266
2027	2,422	2,701	0.926	2,242	2,501	—	—	2,217	2,501	6.06	0.239	0.265
2028	2,475	2,670	0.922	2,282	2,462	—	—	2,263	2,462	5.97	0.242	0.261
2029	2,549	2,682	0.917	2,337	2,459	—	—	2,334	2,459	5.99	0.248	0.262
2030	2,618	2,710	0.913	2,390	2,474	—	—	2,390	2,474	6.07	0.255	0.265
2031	2,672	2,738	0.909	2,429	2,489	—	—	2,429	2,489	6.15	0.261	0.268
2032	2,709	2,761	0.904	2,449	2,496	—	—	2,449	2,496	6.21	0.266	0.271
2033	2,733	2,778	0.900	2,460	2,500	—	—	2,460	2,500	6.26	0.269	0.273
2034	2,749	2,789	0.896	2,463	2,499	—	—	2,463	2,499	6.30	0.271	0.275
2035	—	2,798	0.892	—	2,496	—	—	—	2,496	6.32	—	0.276
2036	—	2,807	0.887	—	2,490	—	—	—	2,490	6.34	—	0.277

Table 2: Original 2023 projection and alternative catch-only projection in which the 2026 assumed catches are set to 92% of the ACLs ($2290 = 0.92 * 2489$) rather than fixed at the values calculated by the GMT based on the current harvest specifications. See caption of table above for additional details.

Year	OFL (2023)	OFL	Buffer	ABC (2023)	ABC	Actual & Assumed Removals (2023)	Actual & Assumed Removals	ACL (2023)	ACL	Spawning Output	Stock Status (2023)	Stock Status
2023	—	—	—	—	—	3,485	2,902	—	—	7.69	0.336	0.336
2024	—	—	—	—	—	3,285	2,927	—	—	6.98	0.293	0.305
2025	2,518	—	—	2,354	—	—	2,157	2,354	—	6.29	0.255	0.275
2026	2,424	2,676	0.930	2,255	2,489	—	2,290	2,238	2,489	6.09	0.243	0.266
2027	2,422	2,645	0.926	2,242	2,449	—	—	2,217	2,449	5.95	0.239	0.260
2028	2,475	2,628	0.922	2,282	2,423	—	—	2,263	2,423	5.88	0.242	0.257
2029	2,549	2,651	0.917	2,337	2,431	—	—	2,334	2,431	5.93	0.248	0.259
2030	2,618	2,688	0.913	2,390	2,454	—	—	2,390	2,454	6.02	0.255	0.263
2031	2,672	2,723	0.909	2,429	2,475	—	—	2,429	2,475	6.11	0.261	0.267
2032	2,709	2,750	0.904	2,449	2,486	—	—	2,449	2,486	6.19	0.266	0.270
2033	2,733	2,769	0.900	2,460	2,492	—	—	2,460	2,492	6.24	0.269	0.273
2034	2,749	2,782	0.896	2,463	2,493	—	—	2,463	2,493	6.28	0.271	0.274
2035	—	2,792	0.892	—	2,491	—	—	—	2,491	6.31	—	0.275
2036	—	2,801	0.887	—	2,484	—	—	—	2,484	6.33	—	0.276