

# MEMORANDUM

# State of Alaska

DEPARTMENT OF FISH AND GAME

TO: Lowell Fair

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THRU: Troy Thynes

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SUBJECT 2022/23 SEAK Sea  
Cucumber Fishery

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The commercial harvest of sea cucumbers in Southeast Alaska began on October 3, 2022, with an overall guideline harvest level (GHL) of 1,962,300 pounds of sea cucumbers. The total Southeast Alaska harvest of 1,820,895 pounds was 5.4% under the GHL. Participation throughout the season varied, with maximum participation of 145 divers during the second opening, and a minimum of 1 diver for multiple openings towards the end of the season. Throughout the season 160 divers made 1,485 landings from 123 vessels registered to fish for miscellaneous shellfish in Southeast Alaska.

In the Ketchikan management area, ten harvest areas were open for a combined GHL of 1,169,800 pounds. A total of 1,080,406 pounds of sea cucumbers were harvested across 26 openings. The final harvest was 8% under the total GHL. Notably, half of the total GHL was harvested in the initial five openings, with an average effort of 85 divers harvesting an average of 1,498 pounds per week. Throughout the weeks when processors were purchasing, there was a seasonal average of 44 divers harvesting an average of 1,392 pounds of eviscerated sea cucumbers per week. Local processors ceased purchasing sea cucumbers after the statistical week (SW) 5 opening, and the remaining effort was comprised of direct marketers. The Ketchikan management area had at least three harvest areas open during every opening of the 2022/23 season.

In the Petersburg management area, the GHL was 269,500 pounds in two harvest areas. The total harvest of sea cucumbers was 274,711 pounds, harvested over 6 openings. The season harvest was 2% over the GHL. The average effort level was 27 divers per week with an average weekly harvest of 1,691 pounds per diver. Effort and harvest were greatest during the SW 44 when 33 divers harvested 55,206 pounds. The Petersburg management areas GHLs were harvested the quickest, and both areas were closed by SW 47.

In the Juneau management area, the GHL was 223,900 pounds located in four harvest areas. The total harvest of sea cucumbers was 189,980 pounds, harvested in 25 openings. No areas were open in Juneau during SW 8 due to a lack of processors. An average of 6 divers per week harvested an average of 1,544 pounds per diver. Statistical weeks 4 and 5 had the highest weekly harvest per diver regionally for the season with 2,423 and 2,372 pounds taken respectively. Harvest during SW 4 and 5 was focused in Freshwater Bay and Chatham Strait (112- 12, 13, and 50) which had an increased trip limit to 2,500 pounds of sea cucumbers during those weeks. The total harvest was 15% under the GHL.

In the Sitka management area, the GHL was 229,100 pounds located in three harvest areas. The total harvest of sea cucumbers was 289,132 pounds, harvested in 11 openings. An average of 15 divers harvested per week with an average weekly harvest of 1,622 pounds per diver. Weekly participation ranged from 3 to 25 divers. The Sitka management area could have potentially had more weekly openings if divers had expressed

interest, but with no processors and no divers Eastern Baranof Island (109-20) was closed from SW 8 through the end of the season. The Sitka management area harvest was 3% under the combined GHL.

The first two weeks of the season had the highest weekly harvests for the region, with the peak weekly harvest of 247,875 pounds taken during the second opening. After the fifth week, participation throughout Southeast began to drop substantially as many of the areas with larger GHLs closed. Participation decreased significantly between the seventh and eighth openings with a shift from 97 divers to 56 divers. Fishery participation remained low with 1 to 36 divers harvesting during the ninth through final opening at the end of March. There was no closure during the holiday season, and during the corresponding statistical weeks, SW 52 and SW 53, there was no harvest. The fishery closes by regulation March 31, and the last fishery occurred in SW 13. A total of 106,548 pounds of sea cucumber GHL was unharvested during the 2022/23 season.

The 2022/23 season unfolded in a distinct fashion compared to the last time the rotation was fished in 2019/20, when all areas were closed after the SW 4 opening in January. The 2019/20 season had greater regional participation that was sustained throughout the season which was driven by the record price of \$6.00 price per pound. The 2022/23 season witnessed fishery areas requiring more time and openings for harvest to reach GHLs. Management actions were taken to provide additional harvest opportunity which included extending fishery periods and increasing trip limits.

The Board of Fisheries met in Anchorage during March 2022 to discuss Southeast Finfish and Shellfish. The Southeast Regional Dive Fisheries Association (SARDFA) submitted two proposals to change parts of 5 AAC 38.140. Southeastern Alaska Sea Cucumber Management Plan. The first proposal was to change the regulatory wording from “October 1 through March 31” to “the first Monday in October through March 31”. This proposal passed and wording was changed to more clearly define when the fishery should begin and to reduce any confusion for years when October 1<sup>st</sup> fell later in the statistical week. The second proposal the Board deliberated on was to provide regulatory verbiage that would allow for the department to shift the fishing period during the weeks of the Christmas and New Years holidays. This proposal was adopted, and regulatory language was added to 5 AAC 38.140(c).

There were five shore-based processors, three direct marketers, and two catcher sellers purchasing throughout Southeast Alaska. Ex-vessel value for Southeast Alaska was approximately \$5.72 million based on raw fish ticket data. The ex-vessel value for the Ketchikan area was \$3.4 million. Values were based on an average price of \$3.17 per pound. Prices varied by processor, whether the product was sold dockside or to a tender, and whether the product was poked or fully cut. The price per pound fluctuated through the season with an average of \$2.60 during the initial weeks of the fishery, the average raised to \$3.25 during the middle of the season, and then increased to \$3.75 per pound in the weeks following the winter holidays.

Port sampling for sea cucumbers was discontinued beginning in the 2006/07 season. GHLs were determined from sampling cucumbers during the preseason biomass survey.

Table 1. Registration Area A (Southeast Alaska) commercial sea cucumber harvest, effort, and value, 1986/87 through 2022/23 seasons.

Season <sup>a</sup>	Guideline Harvest Level (lb)	Total Harvest (lb)	Average Price / lb <sup>b</sup>	Estimated Exvessel Value <sup>b</sup>	Number of Divers	Number of Landings	Average lb / Diver	Average Earnings / Diver <sup>b</sup>
Data prior to 1986/1987 season is confidential.								
1986/87	34,043	34,043	\$0.21	\$7,149	7	44	4,863	\$1,021
1987/88	65,056	65,056	\$0.21	\$13,662	11	143	5,914	\$1,242
1988/89	801,405	801,405	\$0.21	\$169,096	57	922	14,060	\$2,967
1989/90	2,318,305	2,318,305	\$0.42	\$969,142	205	2,263	11,309	\$4,728
1990/91	704,491 <sup>c</sup>	804,184	\$0.59	\$472,386	143	890	5,624	\$3,303
1991/92	839,160 <sup>c</sup>	869,988	\$0.80	\$697,970	187	704	4,652	\$3,732
1992/93	1,100,440	1,249,621	\$0.79	\$988,628	240	1,003	5,207	\$4,119
1993/94	799,235	964,343	\$1.03	\$995,783	320	949	3,014	\$3,112
1994/95	1,351,000	1,322,219	\$1.79	\$2,361,541	261	1,379	5,066	\$9,048
1995/96	1,157,500	1,332,095	\$1.39	\$1,846,556	424	1,582	3,142	\$4,355
1996/97	939,300	909,789	\$1.29	\$1,169,612	294	1,234	3,095	\$3,978
1997/98	892,410	894,739	\$1.63	\$1,458,425	226	976	3,959	\$6,453
1998/99	1,026,345	1,055,572	\$1.55	\$1,636,137	219	971	4,820	\$7,471
1999/00	1,580,000	1,569,626	\$1.95	\$3,060,771	200	1,378	7,848	\$15,304
2000/01	1,122,500	1,158,385	\$2.23	\$2,583,199	220	913	5,265	\$11,742
2001/02	1,425,200	1,438,451	\$1.75	\$2,517,289	235	1,201	6,121	\$10,712
2002/03	1,576,700	1,639,440	\$1.26	\$2,042,882	201	1,313	8,156	\$10,164
2003/04	1,637,700	1,698,650	\$1.42	\$2,472,456	195	1,296	8,711	\$12,679
2004/05	1,381,200	1,374,532	\$2.12	\$2,769,116	194	1,139	7,085	\$14,274
2005/06	1,475,800	1,437,731	\$2.00	\$2,875,462	198	1,418	14,523	\$14,523
2006/07	1,598,700	1,597,457	\$1.97	\$3,146,990	175	1,237	17,983	\$17,983
2007/08 <sup>d</sup>	1,384,300	1,449,301	\$2.43	\$3,774,428	181	1,290	7,923	\$21,086
2008/09	1,122,100	1,102,637	\$2.30	\$2,536,065	176	1,072	6,301	\$13,078
2009/10	1,574,700	1,610,826	\$2.34	\$3,769,333	169	1,240	9,532	\$22,304
2010/11	1,262,800	1,274,541	\$2.52	\$3,211,843	180	1,109	7,081	\$17,841
2011/12	999,000	1,023,834	\$5.06	\$5,180,600	189	1,043	5,417	\$27,411
2012/13	1,476,000	1,512,895	\$4.05	\$6,127,225	199	1,369	7,602	\$30,790
2013/14	1,472,600	1,556,983	\$3.97	\$6,181,223	198	1,396	7,864	\$31,218
2014/15	1,084,800	1,073,554	\$4.00	\$4,294,216	171	1,022	6,278	\$25,083
2015/16	1,439,900	1,525,387	\$3.50	\$5,338,855	175	1,278	8,716	\$30,508
2016/17	1,243,200	1,319,798	\$3.93	\$5,279,192	169	1,206	7,809	\$31,238
2017/18	1,233,900	1,294,637	\$5.25	\$6,796,844	175	1,211	7,398	\$38,839
2018/19	1,757,600	1,768,104	\$5.37	\$9,510,249	184	1,606	9,625	\$51,686
2019/20	1,909,000	1,994,991	\$5.16	\$10,294,153	184	1,788	10,842	\$55,946
2020/21	1,745,300	1,721,185	\$3.58	\$6,043,721	159	1,412	10,825	\$38,010
2021/22	1,872,800	1,868,503	\$6.00	\$11,195,392	167	1,537	11,189	\$67,132
2022/23	1,962,300	1,820,895	\$3.17	\$5,723,539	160	1,485	11,381	\$35,772

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- <sup>a</sup> Season = October 1 thru September 30. Experimental fishing program prior to 1990/1991 season.
- <sup>b</sup> Based on CFEC (annual) data prior to the 1998/1999 season, then based on ADF&G fish ticket data.
- <sup>c</sup> Quota originally calculated in numbers of sea cucumbers.
- <sup>d</sup> Does not include data for the Yakutat sea cucumber fishery.

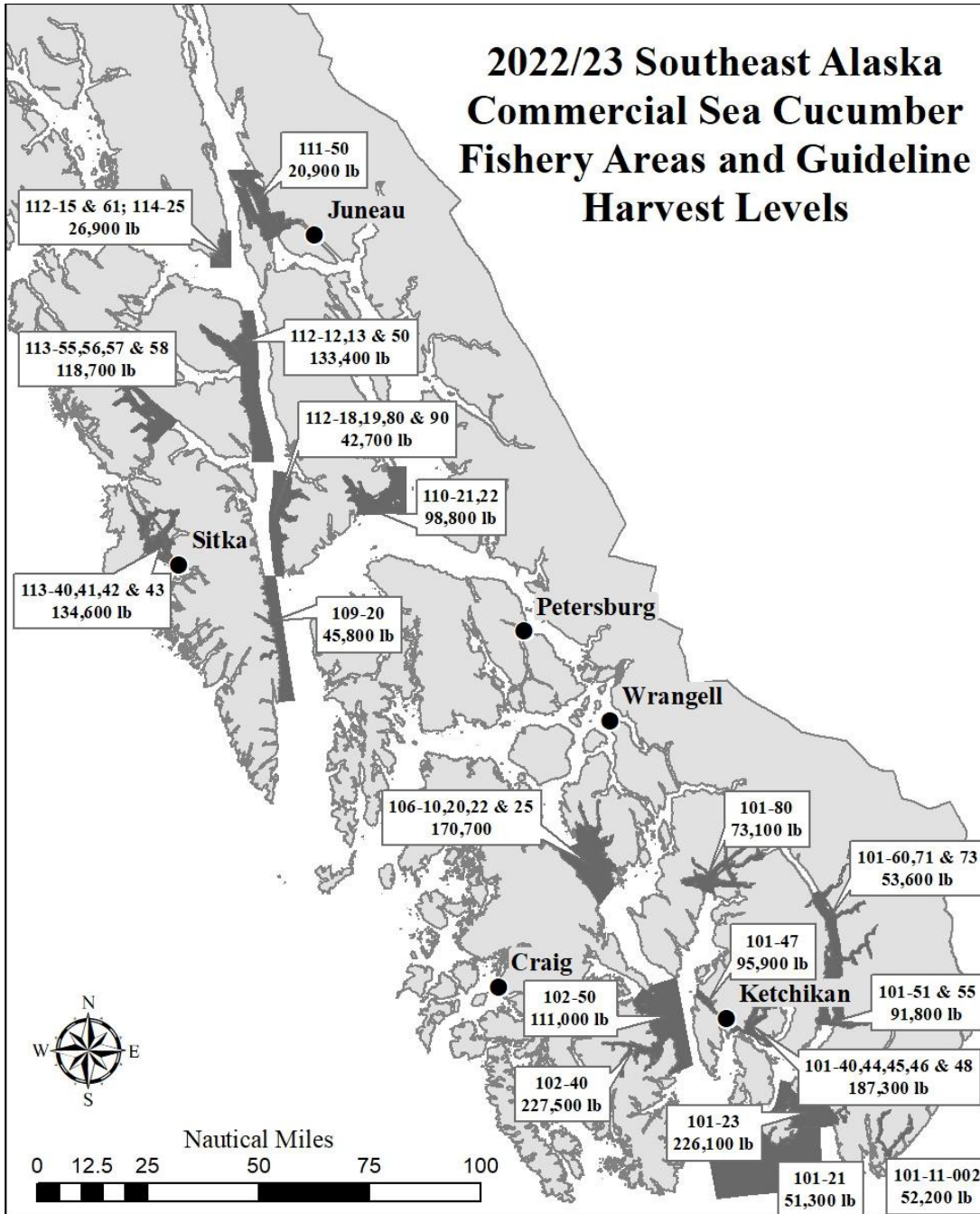


Figure 1. Map of open commercial sea cucumber fishery areas in the 2022/23 season.