

Summary of the 2003-04 Pacific Herring Commercial Fisheries in San Francisco Bay



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REVIEW OF THE 2003-2004 SAN FRANCISCO BAY PACIFIC HERRING FISHERIES

QUOTAS

The total quota for San Francisco Bay was set at 2,200 tons for the 2003-2004 season. This quota is 'option 2' of the two quota options the Department provided the Fish and Game Commission for the 2003-04 season ('option 1' was a zero quota, or no fishery option). There was **no combined** biomass estimate for the 2003-04 season. The 2,200 ton quota was based on minimum fishery quotas during recent history that have supported a fishery. Within the San Francisco Bay quota, separate gill net (i.e., sac roe), fresh fish and herring eggs-on-kelp quotas have been established. The gill net quota is further divided among three platoons (i.e., fishing groups) in proportion to the number of permits assigned to each platoon (Table 1).

HEOK: The total quota for the herring eggs-on-kelp fishery was 35.2 tons of herring-eggs-on-kelp, which was converted from 160 tons of whole fish from the total San Francisco Bay quota. Ten permittees chose to fish the herring eggs-on-kelp fishery. All herring-eggs-on-kelp permittees must hold a herring permit (i.e., a regular gill net or a CH gill net), and each permittee's share of the herring quota (from the sac roe fishery) is transferred to the herring-eggs-on-kelp fishery. In 1994, the Fish and Game Commission decided that CH permittees who fish herring-eggs-on-kelp would be allocated a quota equal to the quota formerly received by round haul permittees (i.e., 0.79% of the sac roe quota). For each CH permit, therefore, 34.2 tons of whole fish were transferred to the herring-eggs-on-kelp fishery; this is equivalent to an individual quota of 3.8 tons herring eggs-on-kelp product for each CH permittee. Regular gill net permittees transferring to the herring-eggs-on-kelp fishery this season received a quota of 1.0 tons of herring-eggs-on-kelp, which is equivalent to 4.7 tons of whole fish. Nine CH permittees and one regular gill net permittee chose to fish herring-eggs-on-kelp this season.

SEASON DATES

GILL NET FISHERY: The opening and closing dates of the gill net seasons are adjusted each year to account for annual changes in the calendar. Approximately three weeks of fishing are provided for the DH fishery with a closing day before December 25. This season, the DH fishery began at noon on Monday, December 1, 2003 and the closing was set at noon on Tuesday, December 23, 2003. The Odd or Even gill net fisheries traditionally open on the second of January or at sunset on the first Sunday in January. This season, the opening was set at 5:00 p.m. on Sunday, January 4, 2004, and the closing was set at noon on Friday, February 13, 2004. The February 13 closure date is a departure from the mid-March closure date typically decided on by the DHAC committee. Given the Department's concerns regarding the health of the San Francisco Bay stock, the Commission chose to approve, as part of Option 2, a February 13 closure date as a conservative measure. Since 1974, the gill net fisheries have been closed each week from noon on Friday until 5:00 p.m. on Sunday. This weekend closure was instituted to reduce conflicts with recreational users of the bay.

HEOK FISHERY: The opening and closing dates for the herring-eggs-on-kelp fishery are not adjusted for holidays or weekends. The herring-eggs-on-kelp season ran from December 1, 2003 to March 31, 2004.

LANDINGS

Overall, 76% of the San Francisco Bay gillnet quota was landed, by the three platoons combined, during the 2003-04 commercial herring season (Table 1). The December fishery (DH platoon) caught 36% of their quota fishing during both December and after the January platoons had reached their quota. Both Odd and Even platoons were closed by the Department; the Even platoon landed 95% of their quota and the Odd platoon landed 93% of their quota. The three gill net fisheries landed a combined total of 1,540 tons of herring equivalent to 76 % of the total gillnet quota.

In comparison to previous seasons, the quotas were set at just at 34% of the average quota since the beginning of the fishery (and 38% of the 10-year average). Landings were also lower relative to average landings, at 38% of the 10-year average (Table 2). Ex-vessel value of landings from the gill net sac roe fishery is estimated at approximately \$1 million.

A total of 6.3 tons of herring-eggs-on-kelp product with an estimated ex-vessel value of approximately \$50,000 has been landed by five permittees.

TABLE 1. Herring quotas and landings, and roe percentage and fish count (as percents of total weight), for San Francisco Bay, 2003-2004 Season.

FISHERY (# PERMITS ACTIVE / #PERMITS ASSIGNED)	QUOTA (TONS)	LANDINGS (TONS)	OVER QUOTA (+) UNDER QUOTA (-)	ROE (%)	FISH COUNT
DH GILL NET (58 OF 130 ACTIVE)	628	227	-401 TONS (64% UNDER QUOTA)	14.27	97
EVEN GILL NET (97 OF 143 ACTIVE)	691	659	-32 TONS (5% UNDER QUOTA)	14.53	95
ODD GILL NET (98 OF 145 ACTIVE)	701	654	-47 TONS (7% UNDER QUOTA)	11.95	95
TOTAL GILL NET	2,020	1,540	-480 (24% UNDER QUOTA)	13.57	96
HERRING-EGGS-ON- KELP (10 OF 10 ACTIVE)	35.2 (= 160 TONS IN WHOLE FISH)	6.3 (= 28 TONS IN WHOLE FISH)	-29 (82% UNDER QUOTA) (= -132 TONS IN WHOLE FISH)	NA	NA
FRESH FISH PERMITS (1)	20	0	-20	NA	NA
SF BAY TOTAL	2,200	1,568	-	NA	NA
SPECIAL EDUCATION* PERMITS (0 OF 1)	NA	NA	NA	NA	NA

* No SEP permits were issued for the 2003-04 season

TABLE 2. Quotas and landings in tons for the herring ***gill net sac roe fisheries*** in San Francisco Bay, 1972-73 season through 2003-04 season.

SEASON	QUOTA (TONS)	LANDINGS (TONS)	SEASON	QUOTA (TONS)	LANDINGS (TONS)
1972-73	1,500	436	1988-89*	9,238	9,736
1973-74	500	1,938	1989-90*	9,057	8,962
1974-75	600	514	1990-91*	8,858	7,741
1975-76	3,000	1,719	1991-92*	7,134	7,417
1976-77	4,000	4,201	1992-93*	5,175	5,151
1977-78	5,000	4,987	1993-94*	1,996	2,302
1978-79	5,000	4,115	1994-95*	4,408	4,574
1979-80	6,000	6,430	1995-96*	5,524	6,165
1980-81	7,250	5,811	1996-97*	13,543	11,496
1981-82	10,000	10,415	1997-98*	9,793	1,981
1982-83	10,399	9,699	1998-99*	2,739	2,817
1983-84	10,399	2,828	1999-2000*	5,460	3,356
1984-85	6,500	7,740	2000-01*	2,499	2,991
1985-86	7,530	7,278	2001-02*	4,128	3,287
1986-87*	7,470	8,098	2002-03*	3,262	2,097
1987-88*	8,432	8,741	2003-04*	2,020	1,540
THIRTY-TWO YEAR AVERAGE:				5,888	5,205
TEN YEAR AVERAGE:				5,338	4,030
FIVE YEAR AVERAGE:				3,474	2,654
* Quotas and landings after the 1985-86 season do <i>not</i> include HEOK or fresh fish allocation and landings					

TABLE 3. Quotas, landings and number of permits for the ***herring-eggs-on-kelp (HEOK)*** fishery in San Francisco Bay, 1989-90 season through 2003-04 season.

SEASON	QUOTA (TONS)	TOTAL LANDINGS (TONS)	PERCENT OF QUOTA LANDED	NUMBER OF PERMITS
1989-90	110.0	107.1	97.4	8
1990-91	144.0	47.0	32.6	10
1991-92	114.0	84.2	73.8	10
1992-93	84.5	47.4	56.1	10
1993-94	35.1	35.0	99.7	10
1994-95	85.0	13.1	15.4	10
1995-96	106.5	106.8	100+	10
1996-97	286.0	185.7	64.9	11
1997-98	209.0	36.4	17.4	11
1998-99	54.4	31.7	58.3	11
1999-2000	99.2	31	31.3	11
2000-01	49.3	27.2	55.2	11
2001-02	73.2	45.3	62.0	10
2002-03	57.6	53.3	92.5	10
2003-04	35.2	6.3	17.9	10
AVERAGE (15YRS)	102.9	57.2	58.3	10
AVERAGE (5 YRS)	62.9	32.6	51.8	10

REVIEW OF EACH FISHERY

DH GILL NET FISHERY (DECEMBER PLATOON):

The DH herring gill net fishery began on Monday, December 1, 2003 at noon. By the closure of the DH platoon at noon on Tuesday, December 22, just 7 tons had been landed (Table 4). Regulations provide an opportunity for the DH platoon to re-open after both January platoons have reached their quota. The DH platoon re-opened on January 29, 2004. Although the DH platoon did not reach their quota, an additional 219 tons were landed after the January re-opening. Most of the landings occurred during the last week of January when 170 tons were landed (Table 4). The DH platoon fished for 34 days during the 2003-04 season, and thirty-seven percent of the permits were not fished.

TABLE 4. Daily landings for the DH gill net platoon.

Week*	Date	Pounds	Tons	# Receipts	Tons/Receipt	Fish Count	Roe Count	Notes
3D	12/16/2003	239	0.12	1	0.12	91	12.70	☾ quarter moon
	12/19/2003	13,975	6.99	8	0.87	94	10.93	
9J	1/29/2004	21,566	10.78	8	1.35	98	13.40	☾ quarter moon
	1/30/2004	337,544	168.77	75	2.25	97	13.55	
10J	2/2/2004	690	0.35	2	0.17	97	15.40	
	2/4/2004	16,534	8.27	28	0.30	97	14.64	
	2/5/2004	51,956	25.98	62	0.42	97	15.02	
	2/6/2004	4,097	2.05	11	0.19	98	14.83	○ full moon
11J	2/9/2004	2,864	1.43	8	0.18	97	15.73	
	2/10/2004	2,560	1.28	2	0.64	95	16.30	
	2/12/2004	981	0.49	5	0.10	94	15.20	
Total		453,006	226.50	210	1.08	97	14.27	

DH Landings	Effort:
Quota: 628	44 Boats used in the DH Platoon
Catch: 227	82 Permits fished in the DH Platoon
Under Quota: 401	130 Permits assigned to the DH Platoon
	37% of the DH permits were not fished this season.

*Sequential numbering of weeks for all fisheries starting with the first week in December. Numbering includes last week of December. 'D': follows week numbers from December platoon; 'J': follows week numbers from the January platoons.

JANUARY PLATOONS

The January fishery is divided into two separate platoons grouped by permit numbers that are odd and even. Platoons rotate fishing weeks with the first platoon designated by whether the season year is odd or even, therefore for the 2003-04 season, the ODD platoon was designated to fish first.

ODD GILL NET FISHERY

The Odd platoon opened on Sunday January 4 at 5:00 p.m. and caught 18 percent of its quota (with roe counts in the 10 percent range) during its first week of fishing. The second week of fishing yielded 74 percent of the quota, and the Department closed the Odd platoon for a tally on Tuesday, January 20th, 2004 after nine days of fishing. The Odd platoon remained closed having landed 654 tons (93 percent of the quota) (Table 5). Roe counts for the 19th and 20th of January were in the 12 to 13 percent range, and the average roe count for all Odd platoon landings was 11.95 percent. Thirty-two percent of the permits assigned to this platoon were not used this season.

TABLE 5. Daily landings for the **Odd** gill net platoon.

<i>Week*</i>	<i>Date</i>	<i>Pounds</i>	<i>Tons</i>	<i># Receipts</i>	<i>Tons/Receipt</i>	<i>Fish Count</i>	<i>Roe Count</i>	<i>Notes</i>
6J	1/5/2004	259,029	129.51	87	1.49	95	10.91	
	1/6/2004	8,843	4.42	22	0.20	94	10.15	○ full moon (7 th)
8J	1/19/2004	293,526	146.76	71	2.07	95	13.30	
	1/20/2004	745,707	372.85	96	3.88	96	12.30	
Total		1,307,105	653.55	276	2.37	95	11.95	

Odd Landings	Effort:
Quota: 701	49 Boats used in the ODD Platoon
Catch: 654	98 Permits fished in the ODD Platoon
Under Quota: 47	145 Permits assigned to the ODD Platoon
	32% of the ODD permits were not fished this season.

*Sequential numbering of weeks for all fisheries starting with the first week in December. Numbering includes last week of December. 'D': follows week numbers from December platoon; 'J': follows week numbers from the January platoons.

EVEN GILL NET FISHERY

The Even platoon opened on Sunday, January 11, 2004 at 5:00 p.m. and landed 10% of its quota during the first week of fishing. The platoon re-opened on Wednesday, January 21 after the Odd platoon reached their quota. Landings were slow for the remainder of this week. The majority of Even platoon landings for the season were made January 26 through 28 when 85% of the quota was landed and the Department closed the Even platoon closed on Wednesday January 28, and the platoon remained closed with a total of 659 tons landed for the season (Table 5). January roe counts ranged from 10 to 15.5%, with the highest counts during the last few days of fishing. Thirty-three percent of the permits assigned to this platoon were not used this season.

TABLE 6. Daily landings for the **Even** gill net platoon.

<i>Week*</i>	<i>Date</i>	<i>Pounds</i>	<i>Tons</i>	<i># Receipts</i>	<i>Tons/Receipt</i>	<i>Fish Count</i>	<i>Roe Count</i>	<i>Notes</i>
7J	1/13/2004	1,935	0.97	6	0.16	94	12.43	
	1/14/2004	38,790	19.40	56	0.35	95	14.16	
	1/15/2004	12,940	6.47	28	0.23	94	14.11	☾ quarter moon
	1/16/2004	87,806	43.90	48	0.91	96	13.28	
8J	1/21/2004	689	0.34	2	0.17	100	11.20	● new moon
	1/23/2004	916	0.46	2	0.23	88	10.00	
9J	1/26/2004	23,752	11.88	43	0.28	96	15.56	
	1/27/2004	292,657	146.33	36	4.06	95	15.41	
	1/28/2004	858,995	429.50	96	4.47	96	14.98	☾ quarter moon
Total		1,318,480	659.24	317	2.08	95	14.53	

Odd Landings	Effort:
Quota: 691	48 Boats used in the EVEN Platoon
Catch: 659	96 Permits fished in the EVEN Platoon
Under Quota: 32	143 Permits assigned to the EVEN Platoon
	33% of the EVEN permits were not fished this season.

*Sequential numbering of weeks for all fisheries starting with the first week in December. Numbering includes last week of December. 'D': follows week numbers from December platoon; 'J': follows week numbers from the January platoons.

**SUMMARY OF FISHING DAYS IN 2003-04
SAN FRANCISCO BAY COMMERCIAL PACIFIC HERRING FISHERY**

DH platoon 2003-04:

- Opened Dec 1 at 5 PM
- Fished Dec 1-23 and Jan 29-Feb 13 at noon
- There were **34** DH fishing days in 2003-04 season

EVEN platoon 2004:

- Opened Sunday, Jan 11 at 5 PM
- Fished Jan 11-16, Jan 21-23, Jan 25-28
- Closed on January 28 at 1330
- There were **13** Even fishing days in January

ODD platoon 2004:

- Opened Sunday, Jan 4 at 5 PM
- Fished Jan 4-9, 18-20,
- Closed on January 20 at 1700
- There were **9** Odd fishing days in January

TABLE 7. Average roe count (as percent of total weight) in the San Francisco Bay gill net fisheries, 1983-84 season through 2002-03 season.

SEASON	DECEMBER GILL NET PLATOON	1ST JANUARY GILL NET PLATOON	2ND JANUARY GILL NET PLATOON
1983-84	13.5	13.1 ODD	13.4 EVEN
1984-85	10.1	10.8 EVEN	13.4 ODD
1985-86	11.2	11.9 ODD	13.4 EVEN
1986-87	10.9	11.4 EVEN	12.7 ODD
1987-88	11.9	13.5 ODD	15.0 EVEN
1988-89	9.7	11.6 EVEN	13.1 ODD
1989-90	11.6	13.0 ODD	14.3 EVEN
1990-91	11.7	13.4 ODD	15.8 ODD
1991-92	11.7	11.7 EVEN	15.5 ODD
1992-93	9.7	14.0 EVEN	14.8 ODD
1993-94	10.2	11.5 ODD	13.3 EVEN
1994-95	11.1	13.8 EVEN	12.0 ODD
1995-96	12.0	14.4 ODD	14.6 EVEN
1996-97	10.3	14.1 EVEN	13.9 ODD
1997-98	14.1	14.9 ODD	NO LANDINGS
1998-99	13.4	14.8 EVEN	17.2 ODD
1999-2000	12.1	13.3 ODD	15.6 EVEN
2000-01	12.2	14.5 EVEN	13.6 ODD
2001-02	15.0	14.6 ODD	17.5 EVEN
2002-03	11.2	15.0 EVEN	15.8 ODD
2003-04	14.3	11.95 ODD	14.5 EVEN
AVERAGE	11.8 (21 YEARS)	13.2 (21 YEARS)	14.5 (21 YEARS)

GILL NET MESH SIZE STUDY RESEARCH PARTICIPATION

The proposed gill net mesh size study was suspended due to funding uncertainty and decision to review existing data prior to initiation of another study year.

SPECIAL EDUCATION PERMITS

No Special Education Permit was issued to the City of Oakland Maritime Training Program for the 2003-04 season.

HERRING EGGS ON KELP (HEOK) FISHERY

Ten permittees renewed their herring eggs on kelp permits for the 2003-04 season. The season opened on December 1st, 2003 and will close on March 31st, 2004. All ten permittees suspended kelp this season, and five permittees have landed HEOK product.

TABLE 8. Dates of kelp suspension during the 2003-04 season.

DATE	NUMBER OF PERMITTEES REPORTING KELP SUSPENSION	NUMBER OF PERMITTEES REPORTING HARVEST
DECEMBER 21 ST – 28 TH , 2003	1	0
FEBRUARY 8 TH – 14 TH , 2004	7	0
FEBRUARY 15 TH – 21 ST , 2004	4	0
FEBRUARY 22 ND – 28 TH , 2004	1	4
FEBRUARY 29 TH – MARCH 6 TH , 2004	3	0
MARCH 7 TH – 13 TH , 2004	1	3
MARCH 14 TH – 20 TH , 2004		

Total landings to date for the 2003-04 Herring Eggs on Kelp fishery are 12,489 pounds/6.3 tons which is 18% of the total season quota (Table 3.)

TABLE 9. Herring eggs on kelp preliminary landings in San Francisco Bay during the 2003 – 04 season.

LANDING DATES	LANDING TOTALS		COMMENTS
	POUNDS	TONS	
FEBRUARY 22 ND – 28 TH , 2004	5,558	2.8	RICHARDSON BAY SPAWN
MARCH 7 TH – 13 TH , 2004	6,931	3.5	RICHARDSON BAY SPAWN
<u>TOTAL LANDINGS</u>	<u>12,489</u>	<u>6.3</u>	QUOTA: 35.2 TONS LANDED: 6.3 TONS UNDER QUOTA: 29 TONS (EQUIVALENT IN WHOLE FISH QUOTA = 28 TONS LANDED (6.3 TONS/0.2237))

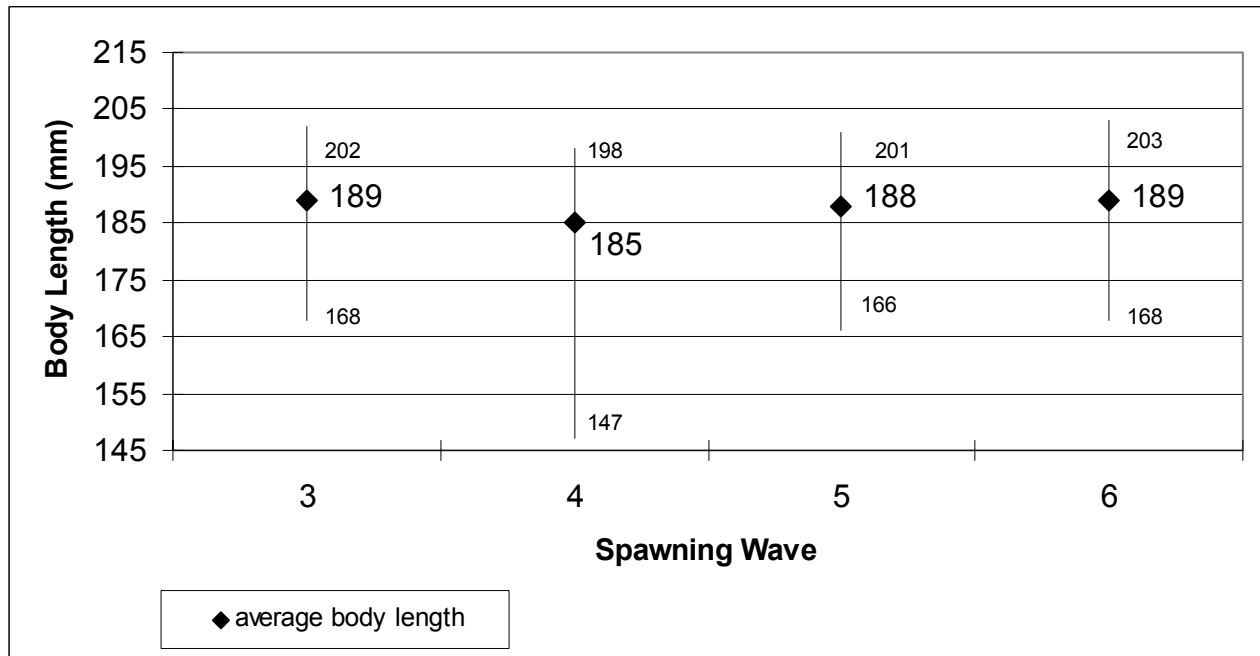
COMMERCIAL GILL NET COMPOSITION:

TABLE 10. Mean Length and Sex Ratio of commercial gill net catch samples*, San Francisco Bay, 2003-04.

LANDING DATE	MEAN BODY LENGTH (MM)	SEX RATIO (% MALE : FEMALE)
5 January 2004	189.4	55:45
13 January 2004	183.0	46:54
14 January 2004	187.6	55:45
15 January 2004	186.5	30:70
16 January 2004	184.9	60:40
27 January 2004	187.7	45:55
10 February 2004	189.1	40:60
12 February 2004	188.8	30:70
SEASON AVG.	187.4	

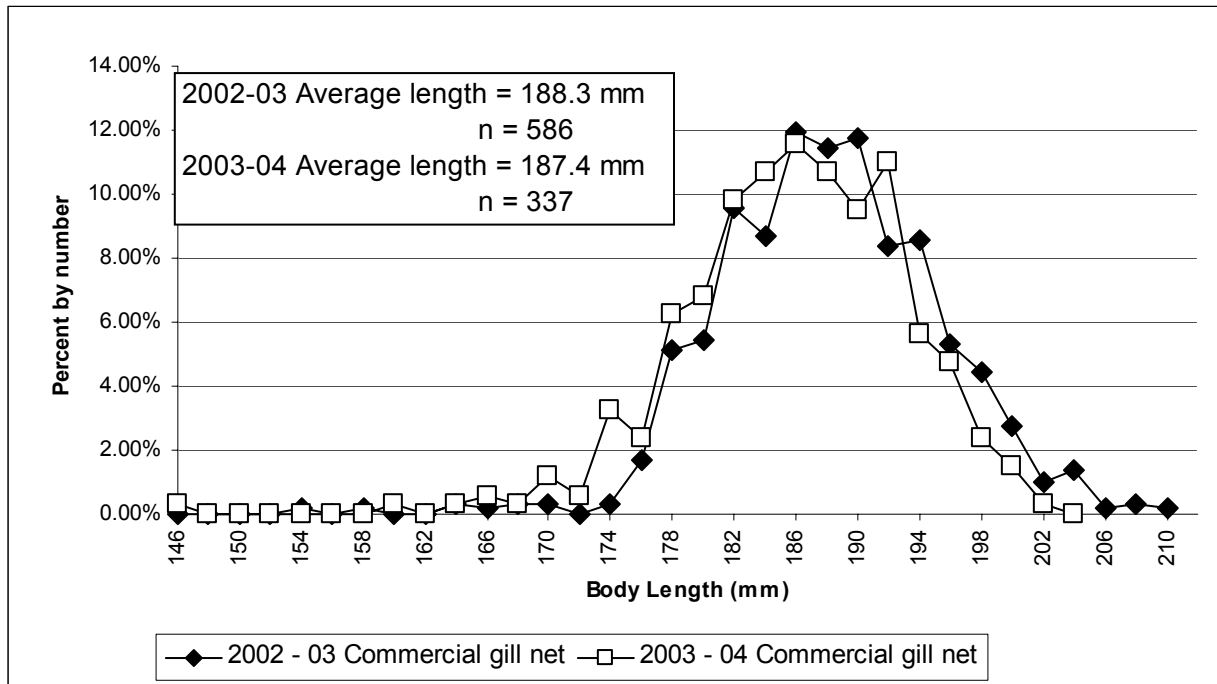
*(n=337)

FIGURE 1. Range and mean length of commercial gill net samples by spawning wave, San Francisco Bay 2003-04.



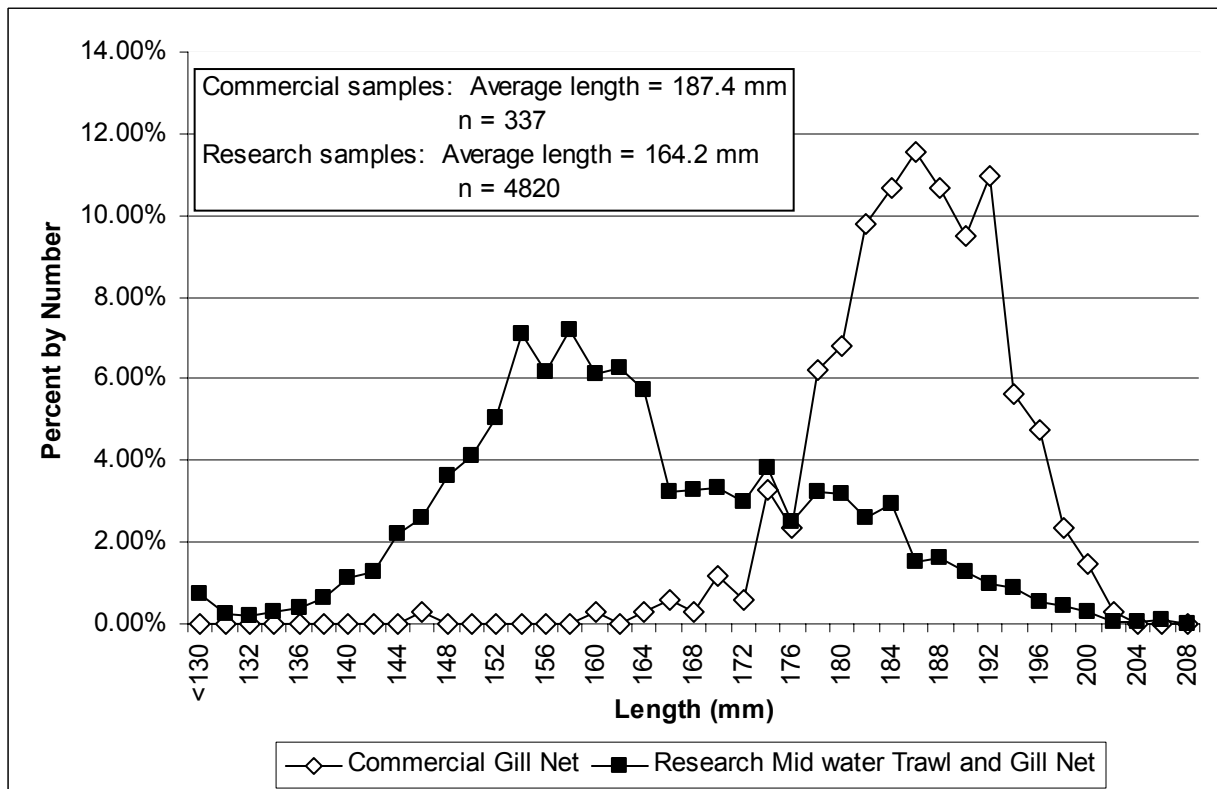
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FIGURE 2. San Francisco Bay Gill Net Catch Comparison: 2002-03 versus 2003-04 seasons.



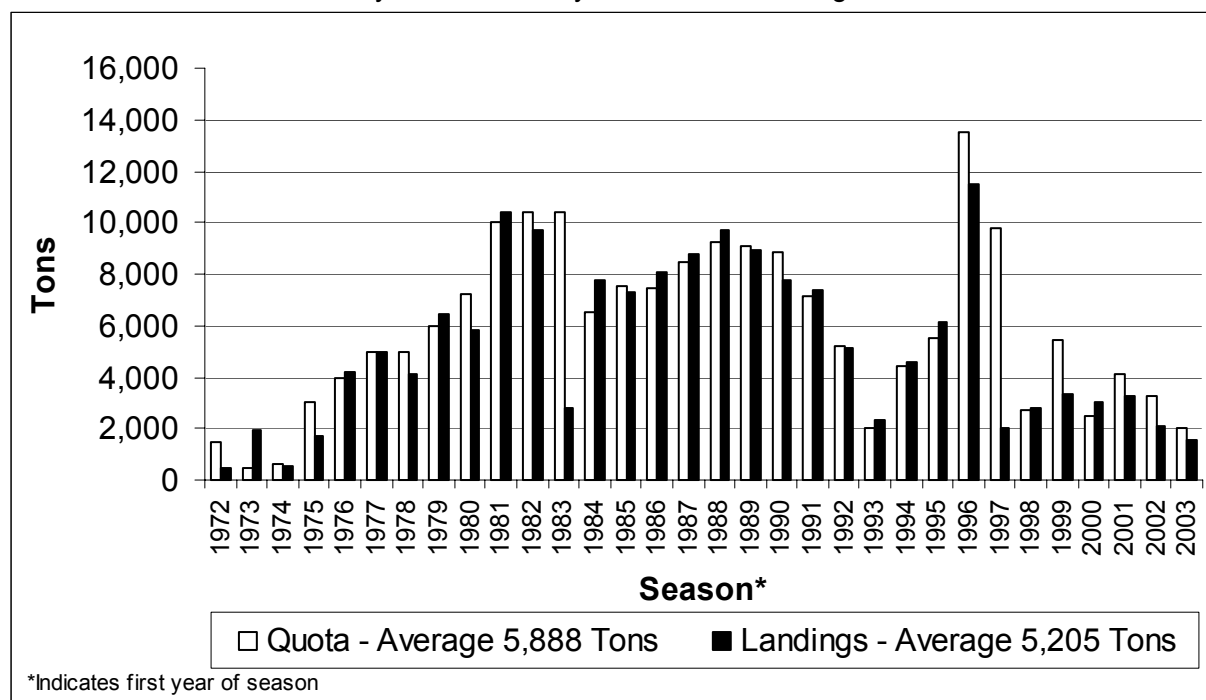
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FIGURE 3. San Francisco Bay Length Frequency Comparison: Commercial vs. Research Samples, 2003-04 Season.



my documents/herring/population info 2004/hrsmpl.1.length frequency workup.xls

FIGURE 4. San Francisco Bay Gill Net Fishery Quotas and Landings, 1972-73 to 2003-04 seasons.



my documents/herring/gillnet historical data/quotas and landings 1972.present.xls

PROPOSED OPENING AND CLOSING DATES AND TIMES FOR THE 2004-05 HERRING SEASON
DISCUSSED BY DHAC MEMBERS, MARCH 25, 2004

2003-04 FISHERY		OPENING		CLOSURE	
LOCATION	MONTH/FISHERY	DATE	TIME	DATE	TIME
SAN FRANCISCO	DECEMBER 2004 GILL NET PLATOON (DH PLATOON)	December 5 th	5 p.m.	23 rd	Noon
	JANUARY 2005 1 ST GILL NET PLATOON (EVEN PLATOON)	January 2 nd	5 p.m.	X	X
	JANUARY 2005 2 ND GILL NET PLATOON (ODD PLATOON)	January 9 th	5 p.m.	X	X
	ALL GILL NET PLATOONS	N/A	N/A	March 31 st	Noon
	HERRING EGGS ON KELP FISHERY 2004-05 (DOES NOT CHANGE)	DEC 1, 2003	---	MAR 31, 2005	---
TOMALES BAY	GILL NET FISHERY 2004-05	December 26 th	5 p.m.	December 31 st	Noon
		January 2 nd	5 p.m.	February 25 th	Noon