

# Summary of the 2010-11 Pacific Herring Commercial Fisheries in San Francisco Bay



DFG photo by Thomas Greiner

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*Preliminary Report*

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## **Review of the 2010-2011 San Francisco Bay Pacific Herring Fisheries**

### **QUOTAS**

The total fishery quota for San Francisco Bay was set at 1,920 short tons (tons) for the 2010-11 season. This quota was based on 5 percent of the 38,409 ton spawning biomass estimate from spawning ground surveys for the 2009-10 season, conducted from November 2009 through April 2010. The biomass estimate for the 2009-10 season showed significant improvement over the three previous season estimates of 10,935, 11,190, and 4,833 tons, respectively. Due to those low estimates, the Fish and Game Commission set a zero quota for the 2009-10 season. This resulted in a closed season (zero harvest), a first in the history of the roe fishery.

#### **Gill Net Fishery:**

The total quota for the gill net fishery was 1845 tons. This quota was split between the Odd and Even platoons based on the number of permits in each platoon, with the Odd receiving 927 tons and the Even 918 tons.

#### **Herring Eggs on Kelp (HEOK) Fishery:**

The total quota for the HEOK fishery was 14.3 tons of product, which was converted from 55 tons of whole fish from the total San Francisco Bay quota. All HEOK 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 HEOK fishery.

### **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. This season, the DH fishery was integrated into the Odd and Even platoons. 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 2, 2011, and the closing was set at noon on Friday, March 11, 2011. 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. Both platoons met their quotas for the 2010-11 season and were closed prior to their scheduled closing dates.

**HEOK FISHERY:** The herring eggs on kelp season ran from December 1, 2010, to March 31, 2011. The opening and closing dates for the herring-eggs-on-kelp fishery are not adjusted for holidays or weekends.

## **LANDINGS**

Approximately 94 percent of the San Francisco Bay gill net quota (1,727 tons) was landed by the combined platoons during the 2010-11 commercial herring season (Table 1), with both the Odd and Even platoons close to filling their group quotas. There was no fishing effort in the HEOK fishery.

TABLE 1. Herring quotas, landings, roe percentage, and fish count (per kilogram of fish), for San Francisco Bay, 2010-2011 Season.

FISHERY	QUOTA (tons)	LANDINGS (tons)	OVER QUOTA (+) UNDER QUOTA (-)	ROE (%)	FISH COUNT / kg
Odd gill net	927	859	-68 tons	17.1	102.7
Even gill net	918	867	-51 tons	16.3	104.3
TOTAL GILL NET	1,845	1,727	-118 (6% under quota)	16.6	103.6
HEOK (0 of 4 active)	14.3 (= 55.0 tons whole fish)	0.0	-14.3 tons product (100% under quota)	NA	NA
SF BAY TOTAL	1,900	1,727	-173 tons		

TABLE 2. Quotas and landings in tons for the herring ***gill net sac roe fisheries*** in San Francisco Bay, 1972-73 season through 2010-11 season.

Season	Quota (tons)	Landings (tons)	Season	Quota (tons)	Landings (tons)
1972-73*	1,500	436	1992-93	5,175	5,151
1973-74*	500	1,938	1993-94	1,996	2,302
1974-75*	600	514	1994-95	4,408	4,574
1975-76*	3,000	1,719	1995-96	5,524	6,165
1976-77*	4,000	4,201	1996-97	13,543	11,496
1977-78*	5,000	4,987	1997-98	9,793	1,981
1978-79*	5,000	4,115	1998-99	2,739	2,817
1979-80*	6,000	6,430	1999-2000	5,460	3,356
1980-81*	7,250	5,811	2000-01	2,499	2,991
1981-82*	10,000	10,415	2001-02	4,128	3,287
1982-83*	10,399	9,699	2002-03	3,262	2,097
1983-84*	10,399	2,828	2003-04	2,020	1,540
1984-85*	6,500	7,740	2004-05	3,169	145
1985-86*	7,530	7,278	2005-06	4,328	744
1986-87	7,470	8,098	2006-07	4,328	292
1987-88	8,432	8,741	2007-08	1,057	687
1988-89	9,238	9,736	2008-09	1,019	507
1989-90	9,057	8,962	2009-10	0	0
1990-91	8,858	7,741	2010-11	1,845	1,727
1991-92	7,134	7,417			
Average :				5,372	4,491

\* Quotas and landings prior to the 1985-86 season include HEOK and 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 2010-11 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	100.3	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	38.9	6.3	71.0	10
2004-05	55.7	<i>no landings</i>	0	10
2005-06	34	<i>no landings</i>	0	4
2006-07	34	3.9	11	4
2007-08	17	15.1	88.6	10
2008-09	17.6	3.3	18.9	10
2009-10*	0	-	-	-
2010-11	14.3	<i>no landings</i>	0	4
Average	78.2	41.9	52.3	9.3

\* A zero harvest quota was adopted for the 2009-10 season; therefore, landings averages do not include that season.

## REVIEW OF EACH FISHERY

### **DH (December) Gill Net Platoon:**

The DH herring gill net fishery was integrated into the Odd and Even fisheries, with odd numbered DH permits fishing with the Odd platoon and even numbered DH permits fishing with the Even platoon.

### **Odd and Even Gill Net Platoons:**

The Odd and Even fishery is divided into two separate platoons grouped by permit numbers that are odd and even. Platoons rotate fishing weeks with the first platoon to fish designated by whether the season year is odd or even, thus the Odd platoon was designated to fish first for the 2010-11 season..

### **ODD Gill Net Fishery**

The Odd platoon fishery opened on Sunday January 2, 2011, at 5:00 p.m.. The Odd platoon made all of its landings during the third and fourth weeks of the season. This platoon was reopened at 4:00 a.m., Thursday January 27; 12 hours after the Even platoon reached its quota and was closed. To avoid catching more than the 927 ton Odd gill net quota, the herring buyers told the permittees not to exceed a 5 ton individual vessel maximum. The Odd quota was reached and the platoon was closed on Friday, January 28 at 12:00 noon. The average roe count for all Odd platoon landings was 17.1 percent. Forty-four percent of the permits assigned to this platoon did not make landings this season.

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

Date	Pounds	Tons	# Receipts	Tons/Receipt	Fish Count	Roe Count
1/17/2011	272,885	136.44	46	2.97	101	17.4
1/18/2011	613,551	306.78	41	7.48	103	17.8
1/19/2011	452,064	226.03	38	5.95	102	17.0
1/20/2011	154,336	77.17	26	2.97	103	16.0
1/27/2011	145,303	72.65	28	2.59	105	16.9
1/28/2011	80,804	40.40	18	2.24	102	16.2
<b>Totals and averages</b>	<b>1,718,943</b>	<b>859.47</b>	<b>197</b>	<b>4.36</b>	<b>103*</b>	<b>17.1*</b>

\* Fish count and roe count averages of all receipts, therefore they may not equal the sum of daily averages.

<b>Odd Landings (tons)</b>	<b>Effort: (based on boats active)</b>
<b>Quota: 927</b>	<b>27 Boats</b> used in the Odd Platoon
<b>Catch: 859</b>	<b>52 Permits</b> fished in the Odd Platoon
<b>Under Quota: 68</b>	<b>93* Permits</b> assigned to the Odd Platoon
	<b>44%</b> of the Odd permits were not fished this season.

\* Permit count based on permits renewed as of November 09, 2010, and includes odd numbered DH permits.

### Even Gill Net Fishery

The Even platoon fishery opened on Sunday, January 9, 2011, at 5:00 p.m. and made all of their landings during the second and fourth fishing weeks of January when the quota was reached and the platoon was closed on Wednesday, January 26, at 4:00 p.m.. Average roe percentage for the Even platoon landings was 16.3 percent. Forty-three percent of the permits assigned to this platoon were not used this season.

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

Date	Pounds	Tons	# Receipts	Tons/Receipt	Fish Count	Roe Count
1/10/2011	175,087	87.54	40	2.19	105	16.9
1/11/2011	240,567	120.28	50	2.41	105	16.9
1/12/2011	29,665	14.83	48	0.31	102	15.8
1/13/2011	26,269	13.13	12	1.09	N/A	14.7
1/14/2011	20,731	10.37	14	0.74	N/A	15.3
1/24/2011	117,597	58.80	30	1.96	107	15.2
1/25/2011	473,983	236.99	61	3.89	105	16.9
1/26/2011	584,874.5	292.44	48	6.09	102	16.3
1/27/2011	65,383	32.69	8	4.09	N/A	16.1
<b>Totals and averages</b>	<b>1,734,156.5</b>	<b>867.08</b>	<b>311</b>	<b>2.79</b>	<b>104</b>	<b>16.3</b>

• Fish count and roe count averages of all receipts, therefore they may not equal the sum of daily averages.

Even Landings (tons)	Effort: (based on boats active)
<b>Quota: 918</b>	<b>27 Boats</b> used in the Even Platoon
<b>Catch: 867</b>	<b>52 Permits</b> fished in the Even Platoon
<b>Under Quota: 51</b>	<b>92* Permits</b> assigned to the Even Platoon
	<b>43%</b> of the Even permits were not fished this season.

\* Permit count based on permits renewed as of November 09, 2010, and includes even numbered DH permits.

### HERRING EGGS ON KELP (HEOK) FISHERY

The season opened on December 1, 2010, and closed on March 31, 2011. Four permits were renewed this season but there was no fishing effort, thus zero tons of HEOK product were landed.

HEOK Landings (tons)	Effort: (based on active boats)
<b>Quota: 14.3</b>	<b>0 Boats</b> was used in the HEOK Platoon
<b>Catch: 0</b>	<b>0 Permits</b> landed fished in the HEOK Platoon
<b>Under Quota: 14.3</b>	

### SPECIAL EDUCATION PERMITS

No Special Education Permits were issued for the 2010-11 season.

## APENDICES

### APPENDIX 1. Average Roe Count in the San Francisco Bay Gill Net Fisheries from 1983-84 through 2010-11 Seasons.

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	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	<i>no landings</i>
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	11.9 Odd	14.5 Even
2004-05	<i>no landings</i>	15.8 Even	16.8 Odd
2005-06	<i>no landings</i>	14.2 Odd	13.9 Even
2006-07	10.8	15.7 Even	16.1 Odd
2007-08	<i>no landings</i>	13.1 Odd	16.3 Even
2008-09	13.3	13.2 Even	14.4 Odd
2009-10	<i>zero quota</i>	<i>zero quota</i>	<i>zero quota</i>
2010-11	*	17.1 Odd	16.3 Even
<b>Average</b>	<b>11.83</b>	<b>13.43</b>	<b>14.67</b>

\* The December gill net platoon was integrated into the Odd and Even fisheries for the 2010-11 season, with odd numbered DH permits fishing with the Odd platoon and even numbered DH permits fishing with the Even platoon.



APPENDIX 2. 2010-11 San Francisco Bay Herring Commercial Catch Data.

Date	Mean Length (mm BL)*	Shortest (mm BL)	Longest (mm BL)	n
10-Jan-11	171	159	191	60
11-Jan-11	176	163	192	42
18-Jan-11	172	157	187	58
20-Jan-11	172	158	184	20
26-Jan-11	172	157	187	40
27-Jan-11	172	157	187	100
Date	Mean Weight (g)	Lightest (g)	Heaviest (g)	n
10-Jan-11	87.7	74.3	111.8	60
11-Jan-11	88.2	64.1	123.7	42
18-Jan-11	86.9	68.5	106.8	58
20-Jan-11	82.2	68.0	94.9	20
26-Jan-11	84.1	70.9	119.0	40
27-Jan-11	85.3	68.8	110.5	100

\* All length measurements in body length (BL).

APPENDIX 3. San Francisco Bay Historic Commercial Gill Net Sample Data

Season	Mean Length (mm BL)*	Length Range (mm BL)
1976-77	212	192-236
1977-78	211	178-236
1978-79	203	164-234
1979-80	208	184-230
1980-81	205	170-236
1981-82	201	160-228
1982-83	203	170-230
1983-84	205	182-232
1984-85	196	158-238
1985-86	196	166-226
1986-87	194	168-222
1987-88	195	160-230
1988-89	195	164-226
1989-90	196	172-226
1990-91	192	162-226
1991-92	189	168-220
1992-93	192	162-220
1993-94	188	152-212
1994-95	196	172-235
1995-96	193	158-231
1996-97	194	166-226
1997-98	200	176-224
1998-99	190	156-220
1999-2000	187	155-210
2000-01	185	155-209
2001-02	183	160-207
2002-03	188	156-211
2003-04	187	147-203
2004-05	191	146-209
2005-06	188	169-207
2006-07	186	166-209
2007-08	186	169-211
2008-09	183	164-203
2009-10	<i>zero quota</i>	<i>zero quota</i>
2010-11	172	157-192
Overall Mean Body Length	<b>194</b>	<b>146-238</b>

\* All length measurements in body length.