Supplemental ODFW Report C.11.a
October 1995

✓THE 1995 PACIFIC WHITING SHORESIDE OBSERVATION PROGRAM

INTRODUCTION

In 1995, the fourth consecutive year of the Shoreside Pacific Whiting Observation Program was completed. The program was initially established in 1992 to provide information for determining the impacts of directed whiting fishing by mid-water trawlers on species caught as bycatch and to determine the results of catch restrictions (such as time and area closures) implemented to protect salmon and other prohibited or sensitive species. Reasons for continuing the program include providing an accurate accounting of all catch from targeted whiting trips and accommodating the landing of non-sorted catches from these trips. In 1995, a secondary goal was to collect biological samples on Pacific whiting and selected bycatch species.

The program has been a cooperative effort between the fishing industry and government agencies to provide observations on directed Pacific whiting trips delivered to shoreside processing plants. Participants in this cooperative program are mid-water trawlers delivering whiting to shoreside processors located in Washington, Oregon and California; shoreside processing plants receiving Pacific whiting; Pacific Fishery Management Council (PFMC); National Marine Fisheries Service (NMFS); Pacific States Marine Fisheries Commission (PSMFC); Oregon Department of Fish and Wildlife (ODFW); Washington Department of Fish and Wildlife (WDFW); and California Department of Fish and Game (CDFG).

This report summarizes some of the results of the 1995 shoreside observation program, briefly describes plans for an observation program in 1996, and provides discussion and recommendation for program improvement.

Results of The 1995 Shoreside Whiting Observation Program

In 1995, Pacific whiting catch and landings were observed in the Westport, Ilwaco, Astoria, Newport, Crescent City and Eureka areas. Most of the mid-water trawlers targeting whiting and delivering their fish shoreside and most of the shoreside plants processing whiting participated in the observation program. We achieved our overall goal of observing 10% of the shoreside landings (Tables 1 and 2).

The observation rate was generally low and spotty during April. This was unfortunate, since the bycatch rate of salmon was high in April (Table 3.). Observations did not begin until the end of the first week of fishing in Newport and Ilwaco and the middle of the third week of fishing in the Astoria area. Observations began in California and Westport on the first day of Pacific whiting landings in those areas, which was May 11 in Crescent City, June 5 in Eureka and June 8 in Westport.

During the 1995 coastwide Pacific whiting season, thirty-five mid-water trawlers targeted on Pacific whiting and subsequently delivered about 74,000 mt of Pacific whiting to shoreside processors (Table 4). This compares to 33 vessels and about 72,000 mt of whiting in 1994. Overall 14% of the trips targeting whiting were observed shoreside in 1995 compared to 26% observed shoreside and an additional 18% observed at-sea in 1994. The cumulative salmon bycatch rate was 0.032 salmon per mt of whiting in 1995 compared to 0.008 salmon per mt of Pacific whiting in 1994. The salmon bycatch rate was highest for fish delivered to California ports at 0.062 (Table 5-8). The highest bycatch rates were for mackerel, yellowtail rockfish and widow rockfish. Most of the bycatch of mackerel and widow rockfish was landed in Newport while a majority of the yellowtail rockfish bycatch was landed at Astoria.

Shoreside landings of Pacific whiting were moderate until mid-May (Table 9). Shoreside landings increased much faster than in past years; the big increase in production coincided with the time that the at-sea processing ceased. Production was high for the remainder of the season. Poor weather and spotty fish availability did not affect landings for most ports as it did in 1994. Pacific whiting were generally of good size and quality off Oregon and Washington throughout the season.

Throughout the season, staff received reports from shrimpers and whiting trawlers that there were large schools of eight to ten inch whiting off Oregon, Washington and California. While very few small Pacific whiting were observed in whiting landings, trawl fishermen reported they were avoiding schools of small fish. Large catches of small whiting were made by trawlers conducting shrimp trawl, fish excluder research off Oregon and Washington with ODFW.

Bycatch of Pacific mackerel and jack mackerel was moderate and was not observed in most areas until June (Figure 1). Most of the mackerel (356,500 pounds and 98% of the landings) was delivered into Newport, Oregon. Mackerel appeared in Newport landings in June and were quite common from mid June through July. Pacific mackerel comprised 57.6% of the total observed mackerel landed in Newport, and 81.5% and 22.9% of the observed mackerel in June and July respectively.

Bycatch rate of yellowtail and widow rockfish was relatively high in the Astoria-Ilwaco area (14.7 lb and 7.1 lb/mt of whiting respectively), as was the widow rockfish rate in Newport (5.9 lb/mt of whiting). Astoria area and Ilwaco processors reported receiving about 440,000 pounds of yellowtail rockfish and 213,000 pounds of widow rockfish; Newport processors reported approximately 234,000 pounds of widow rockfish. Bycatch rate of yellowtail rockfish was much higher after the first of June (seventh week of the season, see Figure 1).

Bycatch of prohibited species was relatively high for Chinook salmon and low for other species. A total of 2,972 salmon (2,954 Chinook, 15 pink, 2 coho and 1 chum salmon) were turned over to the states from whiting landings; this included 327 salmon (all Chinook salmon) from observed trips. The salmon bycatch rate (number of salmon per metric ton of whiting) and number of fish was by far the highest at the beginning of the season (Figure 2 and Table 3). Readable coded wire tags were collected from 161 Chinook salmon from Oregon landings. Information on their location of release and brood year appeared in the August PFMC, Supplemental ODFW Report F.6.

Nine Pacific halibut were landed by mid-water trawlers targeting Pacific whiting. Four of these fish were found in observed trips.

Biological samples were collected from six species found in Oregon shoreside landings of Pacific whiting (yellowtail rockfish, widow rockfish, sablefish, jack mackerel, Pacific mackerel and Pacific whiting). Samples included individual length, weight,sex and otoliths (Table 10). Otoliths were collected for age determination. Length frequency samples were taken from Pacific whiting in Oregon; additional samples were also taken in California and Washington. The ODFW biological sampling goals were generally met except for sablefish which were relatively uncommon in Pacific whiting landings and for Pacific mackerel in the Astoria area. Biological sampling was accelerated in July when it became obvious that the shoreside allocation of Pacific whiting would be taken much earlier than origionally anticipated.

In 1995, the cost of the Oregon-Washington portion of the shoreside observation program was about $57,000 ($32,000 for fixed costs and $25,000 for observers). This compares to an estimated overall cost of $110,000 in 1994. Most program funding was provided by industry in 1995 where as in 1994, industry contributed $84,500 (approximately $43,000 for fixed costs and $41,500 for observers). Government costs for the program were relatively minor in 1995 and are not included in the above summary. Oregon industry hired six observers during the season to provide observation for six processors. Three of these observers worked for only short periods of time or part time. Washington Department of Fish and Wildlife and California Department of Fish and Game provided shoreside landing observations with existing staff.

The 1996 Pacific Whiting Shoreside Observation Program and Recommendation for Program Improvement

In 1996 we expect a continuation of the Pacific whiting Shoreside Observation Program with participating vessels fishing with experimental fishing permits (EFP's) issued by NMFS. The EFP's are expected to be similar to those issued in 1995, that is, requiring 10% shoreside observations on Pacific whiting landings, non-sorting at sea, and retention of prohibited species. Vessels fishing under EFP's will not be liable for trip limit overages when fishing under the provisions of their permits and when the overages are turned over to the state of landing.

For Oregon, we will plan for a 10% shoreside observation rate with observers provided by the fishing industry. Biological samples will be taken from Oregon mid-water trawl landings of vessels fishing under EFP's. Samples will be taken on Pacific whiting, yellowtail rockfish, widow rockfish, Pacific mackerel, jack mackerel and sablefish. During the open season for landing Pacific whiting shoreside, ODFW will provide a biologist to serve as a whiting coordinator and provide a data entry EBA. Program costs will be similar to those in 1995.

We recommend a delay in the start of the 1996 general Pacific whiting season. Salmon bycatch has generally been highest at the opening of the season and the rate usually decreases by mid May. Industry has shown that it now has the ability to catch and process the allocation within a few months. We believe that a delay would also allow time for increased Pacific whiting growth and improved flesh quality.

We suggest maintaining the low shoreside observation rate of 10%. This rate appears to provides adequate information on bycatch at a moderate cost to the fishing industry.

We suggest continuation of biological sampling on Pacific whiting and selected bycatch species. PFMC may wish to consider which agency should take the role of age determination from bycatch otoliths and of analyzing the biological data from bycatch samples.

Overall, the industry did an excellent job in reporting weight of sorted bycatch by species. A good spirit of cooperation was evident for most program participants to make the observation program a success. However, we suggest that there is a need to have an improved mechanism to respond to the very few participating and non-participating processors who fail to sort and weigh bycatch from Pacific whiting landings or fail to provide prohibited species and trip limit overages for disposition by the state of landing. We do not want the poor cooperation by a few to jeopardize an important fishery and excellent record by the vast majority in the fishing industry.

The number of processors not participating in the observation program has been relatively small during the last few years, so inadequate

participation has not had a negative impact on the program. In 1995, only 12 out of a total of 1,362 landings (0.8%) were received by processors not participating in the observation program. Non-participating plants usually received few deliveries where Pacific whiting was the target species, and some of the landings were for bait. Catches for bait are usually sorted at sea.

The Pacific whiting shoreside observation program accomplished most of its objectives in 1995. In a spirit of cooperation, we conducted an observer program throughout the season which included participation by a majority of the fishing industry catching and processing Pacific whiting. Four years of observations have shown that bycatch is generally low during most of the coastwide season. Bycatch of Chinook salmon, yellowtail rockfish and widow rockfish is a problem only at certain times and usually only in certain areas. It appears that bycatch can be monitored successfully at a low level of observation, and most processors account for all bycatch and prohibited species.

TABLES AND FIGURES

Table 1. Percentage of Pacific whiting shoreside landings observed by state in 1995.

State	Total trips	Number observed	Percent observed
Washington	82	9	11%
Oregon	1,188	167	14%
California	92	11	12%

Table 2. Observation rates by processor and vessel for the shoreside whiting observation program, 1995. (**Bold** = NOT participating in Observation Program)

Processors					Vessels				
Plant Nbr	Port	Nbr Trips	Nbr Observed Trips	Shore Side Rate	Vessel Nbr	Main Port	Nbr Trips	Nbr Observed Trips	Shore Side Rate
1	WP, WA	8	2	25%	1	IL, WA	39	4	10%
2	IL, WA	74	7	9%	2	IL, WA	52	5	10%
3	Ast, OR	96	9	9%	3	IL, WA	1	0	0%
4	Ast, OR	127	13	10%	4	Ast, OR	21	3	14%
5	Ast, OR	236	24	10%	5	Ast, OR	1	0	0%
6	**Ast, OR**	**10**	**0**	**0%**	6	Ast, OR	50	5	10%
7	**Ast, OR**	**1**	**0**	**0%**	7	Ast, OR	51	5	10%
8	Npt, OR	205	33	16%	8	Ast, OR	3	1	33%
9	Npt, OR	384	73	19%	9	Ast, OR	31	3	10%
10	Npt, OR	128	15	12%	10	Ast, OR	26	2	8%
11	**Cha, OR**	**1**	**0**	**0%**	11	Ast, OR	21	2	10%
12	CC, CA	45	3	7%	**12**	**Ast, OR**	**10**	**0**	**0%**
13	CC, CA	40	4	10%	13	Ast, OR	53	5	9%
14	Eu, CA	7	4	57%	14	Ast, OR	62	7	11%
					15	Ast, OR	61	6	10%
	Ave.	1,362	187	14%	16	Ast, OR	59	6	10%
					17	**Ast, OR**	**1**	**0**	**0%**
					18	Npt, OR	68	13	19%
					19	Npt, OR	62	7	11%
					20	Npt, OR	75	13	17%
					21	Npt, OR	55	11	20%
					22	Npt, OR	55	10	18%
					23	Npt, OR	58	10	17%
					24	Npt, OR	57	12	21%
					25	Npt, OR	54	10	19%
					26	Npt, OR	78	11	14%
					27	Npt, OR	52	9	17%
					28	Npt, OR	52	11	21%
					29	**Cha, OR**	**1**	**0**	**0%**
					30	CC, CA	17	1	6%
					31	CC, CA	33	3	9%
					32	CC, CA	12	1	8%
					33	CC, CA	33	3	9%
					34	Eu, CA	6	3	50%
					35	Eu, CA	1	1	100%
					Ave.		1,362	187	14%

Table 3. Pacific whiting landings in metric tons by fishing week for the mid-water trawl shoreside fishery in 1995.

Number of Week	Start of Week	End of Week	Number of trips	Number of observed trips	Metric tons of whiting	Number of salmon*	Number of observed salmon
1	4/15/95	4/22/95	25	3	1,204.736	83	2
2	4/23/95	4/29/95	29	1	1,569.175	625	0
3	4/30/95	5/6/95	34	8	1,704.794	719	48
4	5/7/95	5/13/95	60	13	3,681.449	65	1
5	5/14/95	5/20/95	95	9	5,116.926	212	49
6	5/21/95	5/27/95	110	15	6,032.335	238	47
7	5/28/95	6/3/95	114	20	6,515.185	121	47
8	6/4/95	6/10/95	114	15	6,124.703	66	19
9	6/11/95	6/17/95	114	14	5,881.964	23	4
10	6/18/95	6/24/95	122	14	5,966.567	47	14
11	6/25/95	7/1/95	132	19	6,844.196	218	27
12	7/2/95	7/8/95	116	18	6,193.314	81	15
13	7/9/95	7/15/95	147	21	8,047.053	281	29
14	7/16/95	7/22/95	123	17	7,151.926	173	25
15	7/23/95	7/29/95	31	0	1,843.608	20	0
Total			**1,366**	**187**	**73,877.931**	**2,972**	**327**

*Received from shoreside processors

Table 4. Observed and total fishery catch for Pacific whiting from shoreside landings with associated catch rates of selected bycatch species from mid-water trawl catches targeting Pacific whiting and delivering to shoreside processors in Washington, Oregon and California in 1995.

Cumulative Whiting Report
Washington, Oregon, California Shoreside Fishery, Midwater Trawl
(Best Available Data as of 8/2/95)

All Ports and Plants, 4/15/95- 7/25/95

	Observed Shoreside	Fishery Total
Whiting Harvest (mt)	10,180	73,937
Number of Deliveries	187	1,362
Number of Salmon	327	
Misc Rockfish (lb)	12,726	51,954
Yellowtail Rockfish (lb)	81,376	603,679
Widow Rockfish (lb)	35,382	470,142
Sablefish (lb)	16,132	93,218
Mackerel (lb)	81,709	602,545
Misc. Other Fish (lb)	17,076	57,177
Salmon Rate (no/mt)	0.032	
Rockfish Rate (lb/mt)	1.250	0.703
Yellowtail Rate (lb/mt)	7.994	8.165
Widow Rate (lb/mt)	3.476	6.359
Sablefish Rate (lb/mt)	1.585	1.261
Mackerel Rate (lb/mt)	8.026	8.149
Other Fish Rate (lb/mt)	1.677	0.773
% of Deliveries Observed	14	

Table 5. Observed bycatch rates (number or pounds per metric ton of Pacific whiting) by species and state for landings from the shoreside Pacific whiting fishery in 1995.

Species	State		
	Washington	Oregon	California
Salmon, nbr/mt	0.005	0.032	0.062
Misc. Rockfish, lb/mt	0.142	1.344	0.241
Yellowtail RF, lb/mt	39.987	6.785	0.931
Widow RF, lb/mt	3.477	2.535	26.320
Sablefish, lb/mt	0.761	1.689	0.000
Mackerel, lb/mt	0.003	8.689	1.254
Other Fish, lb/mt	0.491	1.802	0.016

Table 6. Observed and total fishery catch for Pacific whiting from shoreside landings with associated catch rates of selected bycatch species from mid-water trawl catches targeting Pacific whiting and delivering to shoreside processors in Washington in 1995.

Cumulative Whiting Report
Washington Shoreside Fishery, Midwater Trawl Only
(Best Available Data as of 8/2/95)

All Washington Ports and Plants, 4/15/95- 7/25/95

	Observed Shoreside	Fishery Total
Whiting Harvest (mt)	439	3,923
Number of Deliveries	9	82
Number of Salmon	2	
Misc Rockfish (lb)	62	957
Yellowtail Rockfish (lb)	17,543	68,113
Widow Rockfish (lb)	1,526	57,723
Sablefish (lb)	334	1,187
Mackerel (lb)	1	1,127
Misc. Other Fish (lb)	215	3,030
Salmon Rate (no/mt)	0.005	
Rockfish Rate (lb/mt)	0.142	0.244
Yellowtail Rate (lb/mt)	39.987	17.360
Widow Rate (lb/mt)	3.477	14.712
Sablefish Rate (lb/mt)	0.761	0.303
Mackerel Rate (lb/mt)	0.003	0.287
Other Fish Rate (lb/mt)	0.491	0.772
% of Deliveries Observed	11	

Table 7. Observed and total fishery catch for Pacific whiting from shoreside landings with associated catch rates of selected bycatch species from mid-water trawl catches targeting Pacific whiting and delivering to shoreside processors in Oregon in 1995.

Cumulative Whiting Report
Oregon Shoreside Fishery, Midwater Trawl Only
(Best Available Data as of 8/2/95)

All Oregon Ports and Plants, 4/15/95- 7/25/95

	Observed Shoreside	Fishery Total
Whiting Harvest (mt)	9,356	65,938
Number of Deliveries	167	1,188
Number of Salmon	301	
Misc Rockfish (lb)	12,571	49,199
Yellowtail Rockfish (lb)	63,474	534,368
Widow Rockfish (lb)	23,713	396,282
Sablefish (lb)	15,798	92,019
Mackerel (lb)	81,225	595,769
Misc. Other Fish (lb)	16,855	54,140
Salmon Rate (no/mt)	0.032	
Rockfish Rate (lb/mt)	1.344	0.746
Yellowtail Rate (lb/mt)	6.785	8.104
Widow Rate (lb/mt)	2.535	6.010
Sablefish Rate (lb/mt)	1.689	1.396
Mackerel Rate (lb/mt)	8.682	9.035
Other Fish Rate (lb/mt)	1.802	0.821
% of Deliveries Observed	14	

Table 8. Observed and total fishery catch for Pacific whiting from shoreside landings with associated catch rates of selected bycatch species from mid-water trawl catches targeting Pacific whiting and delivering to shoreside processors in California in 1995.

Cumulative Whiting Report
California Shoreside Fishery, Midwater Trawl Only
(Best Available Data as of 8/2/95)

All California Ports and Plants, 4/15/95- 7/25/95

	Observed Shoreside	Fishery Total
Whiting Harvest (mt)	385	4,075
Number of Deliveries	11	92
Number of Salmon	24	
Misc Rockfish (lb)	93	1,798
Yellowtail Rockfish (lb)	359	1,198
Widow Rockfish (lb)	10,144	16,137
Sablefish (lb)	0	12
Mackerel (lb)	484	5,649
Misc. Other Fish (lb)	6	7
Salmon Rate (no/mt)	0.062	
Rockfish Rate (lb/mt)	0.241	0.441
Yellowtail Rate (lb/mt)	0.931	0.294
Widow Rate (lb/mt)	26.320	3.960
Sablefish Rate (lb/mt)	0.000	0.003
Mackerel Rate (lb/mt)	1.254	1.386
Other Fish Rate (lb/mt)	0.016	0.002
% of Deliveries Observed	12	

Table 9. Coastwide, Pacific whiting landings (metric tons) by fishing week for the shoreside fishery.

Week		Year 1992*	1993	1994	1995
(April)	1	224	210	1,157	1,204.7
	2	474	584	646	1,569.2
(May)	3	784	1,126	551	1,704.8
	4	1,062	489	1,071	3,681.0
	5	644	758	2,818	5,116.8
	6	1,129	649	3,300	6,032.3
(June)	7	1,040	557	2,875	6,515.2
	8	1,616	2,315	3,414	6,124.7
	9	1,746	3,145	3,191	5,882.0
	10	1,654	3,288	3,316	5,966.6
(July)	11	1,245	1,979	2,113	6,844.2
	12	1,334	2,341	1,721	6,193.3
	13	1,368	3,249	2,874	8,106.9
	14	1,847	3,111	2,584	7,151.5
	15	2,045	3,196	4,163	1,843.6
(August)	16	2,360	2,731	3,974	
	17	1,682	2,730	3,847	
	18	1,824	3,053	3,418	
	19	2,425	2,597	4,489	
(September)	20	2,417	2,824	2,941	
	21	1,855	1,196	740	
	22	2,607		1,302	
	23	3,134		2,485	
	24	2,626		2,694	
(October)	25	2,509		2,097	
	26	2,692		1,728	
	27	1,697		2,270	
	28	1,845		1,568	
(November)	29	622		1,426	
	30			1,632	
	31			605	
	32			43	
Total		48,507	42,127	73,054	73,936.8

*Oregon landings only.

Table 10. Observers and ODFW staff obtained the following biological samples from Oregon's shoreside whiting landings in 1995: (updated on 8/23/95)

	Astoria		Newport		Total	
Species	Nbr of spls	Nbr fish	Nbr of spls	Nbr fish	Nbr of spls	Nbr fish
Age Samples:						
Yellowtail RF	12	351	8	240	20	591
Widow RF	10	300	10	300	20	600
Sablefish	4	120	3	90	7	210
Jack Mackerel	12	360	11	330	23	690
Pacific Mackerel	4	120	4	120	8	240
Pacific Whiting	12	479	24	718	36	1197
Length Frequency Samples:						
Pacific Whiting	12	1228	8	866	20	2094

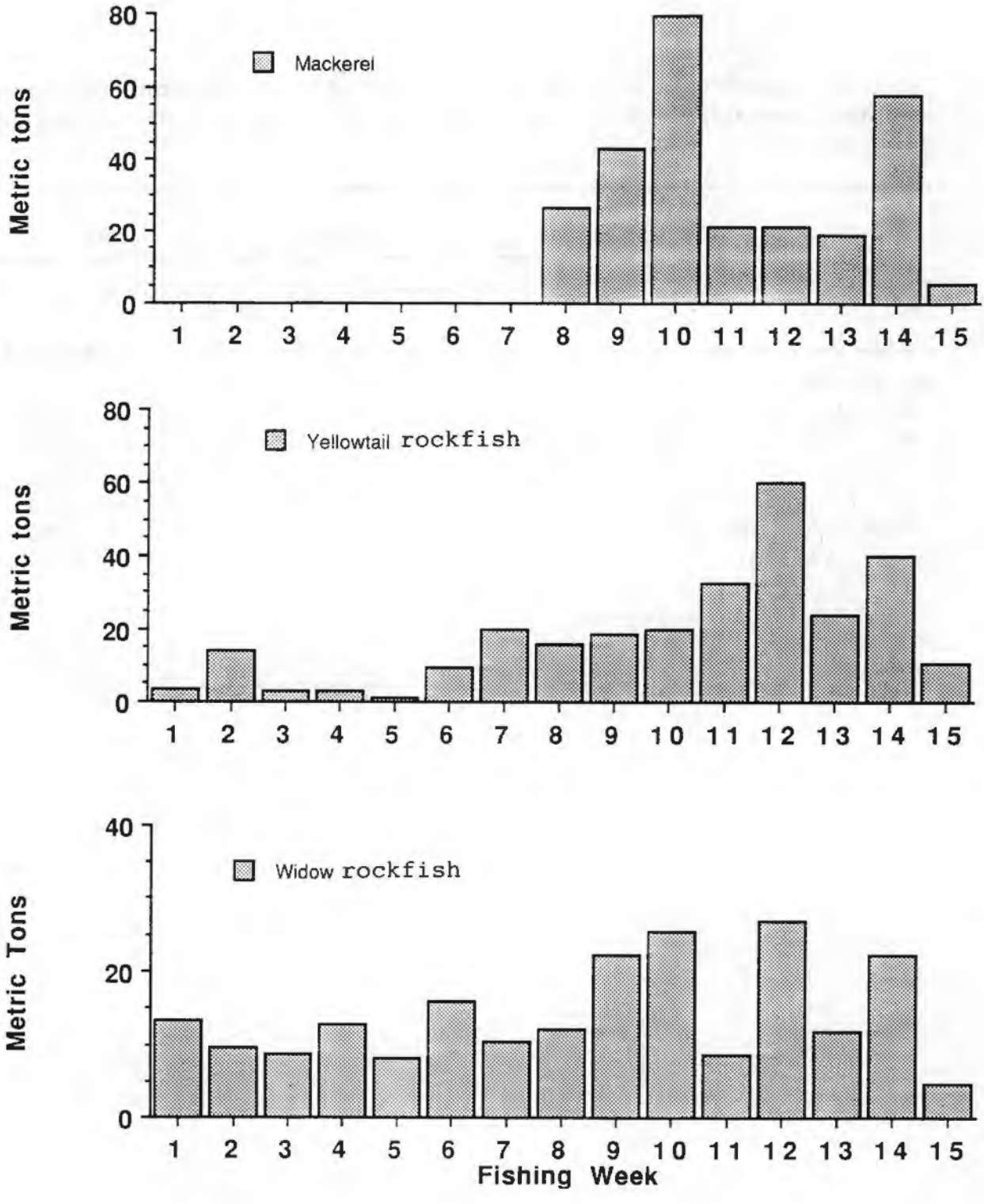

Figure 1. Bycatch of selected species from the Pacific whiting shoreside fishery as reported by the fishing industry in 1995.

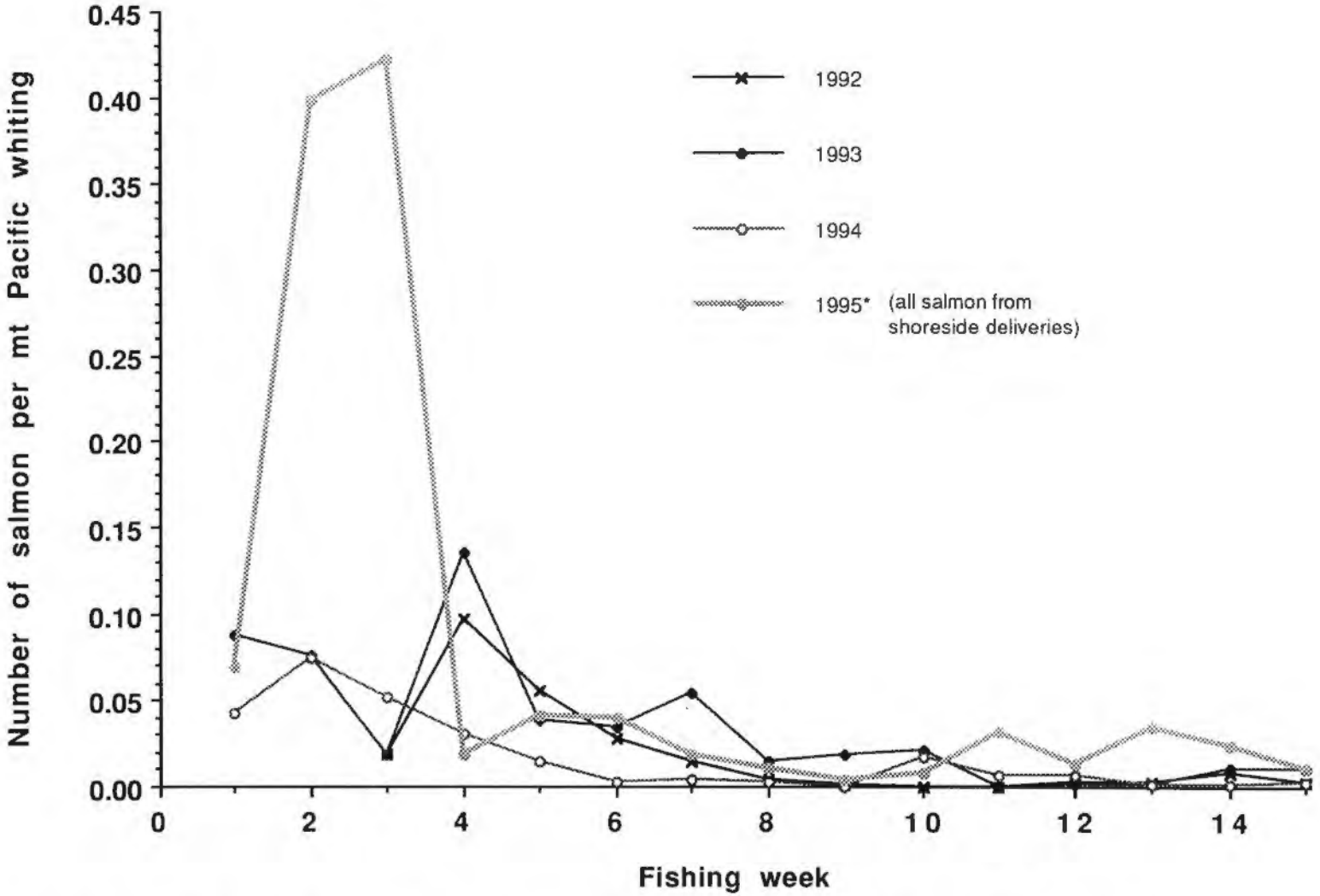

Figure 2. Salmon bycatch rate (number of salmon per metric ton of whiting) in observed shoreside Pacific whiting landings by year and fishing week.