

Appendix A

Appendix Table A Total catch, percent of total catch, and annual catch of fishes collected with the beach seine from 1980 to 1987. All months sampled are included (only August to December in 1980 and January in 1987).

Common Name	Total	%	Year							
			80	81	82	83	84	85	86	87
topsmelt	30210	31.76	3460	2261	3025	4408	6873	5677	4346	160
jacksmelt	13083	13.76	64	281	900	3388	1997	918	5503	32
northern anchovy	12995	13.66	287	3537	1990	4864	865	341	1108	3
Pacific herring	11335	11.92	0	21	1685	112	204	4663	4650	0
striped bass	5358	5.63	93	1299	169	2295	555	32	909	6
inland silverside	4811	5.06	216	642	262	270	2442	531	443	5
yellowfin goby	3778	3.97	128	182	276	136	221	44	2791	0
arrow goby	3395	3.57	53	1046	158	472	301	102	1260	3
Pacific staghorn sculpin	2783	2.93	22	327	615	117	577	771	272	82
shiner perch	1794	1.89	319	427	125	268	153	214	288	0
dwarf perch	1081	1.14	254	282	111	65	97	99	173	0
threespine stickleback	860	0.90	64	97	94	316	149	20	114	6
threadfin shad	634	0.67	8	10	13	573	18	1	10	1
chinook salmon	474	0.50	0	84	56	104	21	19	190	0
bay pipefish	454	0.48	62	105	25	29	66	37	130	0
surf smelt	290	0.30	4	29	150	19	36	48	4	0
walleye surfperch	269	0.28	50	35	10	95	7	12	60	0
splittail	255	0.27	0	5	77	120	9	3	41	0
English sole	214	0.22	15	26	50	1	27	7	87	1
delta smelt	115	0.12	8	11	3	75	12	0	6	0
longfin smelt	101	0.11	21	30	26	20	4	0	0	0
starry flounder	98	0.10	14	6	7	12	23	7	29	0
cheekspot goby	94	0.10	0	9	3	2	2	18	59	1
western mosquitofish	71	0.07	0	6	19	27	2	3	13	1
American shad	69	0.07	3	2	12	43	4	0	5	0
rainwater killifish	66	0.07	17	13	5	6	5	13	7	0
Sacramento squawfish	64	0.07	11	14	2	16	12	2	7	0
white croaker	62	0.07	0	0	2	3	3	22	32	0
bay goby	56	0.06	9	17	17	11	0	0	1	1
tule perch	49	0.05	2	29	1	2	1	13	1	0
barred surfperch	32	0.03	6	2	0	9	1	4	10	0
diamond turbot	23	0.02	1	3	1	3	4	6	5	0

Appendix Table A (Continued) Total catch, percent of total catch, and annual catch of fishes collected with the beach seine from 1980 to 1987. All months sampled are included (only August to December in 1980 and January in 1987).

<i>Common Name</i>	<i>Total</i>	<i>%</i>	<i>Year</i>							
			<i>80</i>	<i>81</i>	<i>82</i>	<i>83</i>	<i>84</i>	<i>85</i>	<i>86</i>	<i>87</i>
pile perch	19	0.02	2	2	0	4	6	4	1	0
chameleon goby	16	0.02	0	0	0	0	2	4	10	0
black perch	14	0.01	1	8	1	0	3	0	1	0
California halibut	11	0.01	0	0	0	0	6	4	1	0
plainfin midshipman	8	0.01	0	0	0	0	0	0	8	0
Pacific sand lance	6	0.01	0	0	0	0	0	6	0	0
bat ray	5	0.01	0	0	1	2	2	0	0	0
brown rockfish	5	0.01	1	1	3	0	0	0	0	0
night smelt	5	0.01	0	1	0	4	0	0	0	0
penpoint gunnel	5	0.01	0	5	0	0	0	0	0	0
steelhead trout	5	0.01	0	0	1	0	2	1	1	0
sand sole	4	>0.01	2	0	0	0	0	2	0	0
longjaw mudsucker	3	>0.01	0	0	0	2	1	0	0	0
prickly sculpin	3	>0.01	0	0	1	0	0	0	2	0
rubberlip seaperch	3	>0.01	1	0	0	0	0	0	2	0
speckled sanddab	3	>0.01	1	0	1	1	0	0	0	0
white seaperch	3	>0.01	0	1	0	0	0	2	0	0
common carp	2	>0.01	0	1	0	1	0	0	0	0
hitch	2	>0.01	0	0	0	2	0	0	0	0
saddleback gunnel	2	>0.01	0	0	0	0	0	0	2	0
striped kelpfish	2	>0.01	0	2	0	0	0	0	0	0
white catfish	2	>0.01	0	0	0	2	0	0	0	0
bigscale logperch	1	>0.01	0	0	0	0	0	0	1	0
bonehead sculpin	1	>0.01	1	0	0	0	0	0	0	0
channel catfish	1	>0.01	0	0	0	1	0	0	0	0
fluffy sculpin	1	>0.01	0	0	1	0	0	0	0	0
golden shiner	1	>0.01	0	0	0	0	0	0	1	0
largemouth bass	1	>0.01	0	0	0	1	0	0	0	0
Pacific sardine	1	>0.01	0	0	0	0	0	0	1	0
Sacramento blackfish	1	>0.01	0	0	0	1	0	0	0	0
shimofuri goby	1	>0.01	0	0	0	0	1	0	0	0
silver surfperch	1	>0.01	0	0	0	0	0	0	1	0
striped mullet	1	>0.01	0	0	0	1	0	0	0	0
unidentified sunfishes	1	>0.01	0	0	0	1	0	0	0	0
white crappie	1	>0.01	0	0	0	0	0	0	1	0
Total Catch	95114		5200	10859	9898	17904	14714	13650	22587	302

Appendix B

Appendix Table B Total catch, percent of total catch, and annual catch of fishes collected with the midwater trawl from 1980 to 1985. All months and stations sampled are included.

Common Name	Total	%	Year															
			80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
northern anchovy	1845740	89.35	54042	94925	129876	63335	171188	90565	117998	112775	88127	95334	79186	93201	246395	241672	69296	97825
Pacific herring	80988	3.92	9283	1576	17571	937	4929	6957	11319	3373	6103	6181	691	1188	1194	6679	667	2340
longfin smelt	54130	2.62	7177	2987	20153	8357	1996	1412	1559	1375	821	314	119	121	55	303	239	7142
striped bass	19850	0.96	819	1730	4063	3180	1914	371	2207	486	560	269	276	430	854	2174	84	433
white croaker	11665	0.56	470	70	27	163	379	127	687	394	2840	1593	827	509	826	2254	175	324
jacksmelt	10716	0.52	206	1046	486	505	1107	2746	702	673	757	498	483	517	283	303	107	297
shiner perch	8273	0.40	396	1147	790	302	320	825	725	639	1152	393	336	362	316	449	51	70
plainfin midshipman	6315	0.31	45	30	77	1036	72	171	361	993	1169	485	534	242	931	91	10	68
American shad	6258	0.30	161	323	1247	519	274	110	162	118	181	101	240	171	186	871	7	1587
topsmelt	4906	0.24	124	68	120	384	61	1689	89	1685	164	15	19	12	8	67	11	390
yellowfin goby	2528	0.12	175	37	171	36	195	11	320	91	36	41	14	4	87	1142	4	164
chinook salmon	1866	0.09	34	39	142	96	55	79	161	60	66	91	104	281	218	170	5	265
threadfin shad	1630	0.08	36	28	29	219	47	16	33	34	26	12	6	0	46	672	4	422
Pacific pompano	1604	0.08	10	97	52	20	2	0	4	75	93	76	174	183	427	191	40	160
delta smelt	1598	0.08	201	307	170	219	107	37	103	44	30	14	28	60	81	56	58	83
Pacific sardine	1521	0.07	0	0	0	0	1	0	1	1	12	1	2	2	0	111	225	1165
bay goby	1123	0.05	60	13	73	13	27	5	52	53	184	337	112	92	48	23	0	31
English sole	838	0.04	17	22	2	11	3	10	94	1	170	61	30	390	2	18	2	5
walleye surfperch	749	0.04	37	203	72	22	78	40	29	67	44	42	29	21	25	26	1	13
Pacific staghorn sculpin	547	0.03	20	22	55	23	21	16	74	7	81	107	18	31	18	23	2	29
splittail	434	0.02	9	15	49	35	33	9	65	26	9	6	7	7	4	32	0	128
starry flounder	402	0.02	106	29	61	48	37	8	18	12	25	11	7	4	3	13	0	20
bat ray	365	0.02	24	23	10	8	11	12	11	17	75	26	29	28	42	16	22	11
white sturgeon	204	0.01	16	9	13	23	41	11	10	22	18	7	11	9	7	4	0	3
brown smoothhound	198	0.01	2	4	0	1	4	1	7	14	80	22	22	15	16	5	4	1
night smelt	183	0.01	159	1	0	0	0	0	0	0	0	0	1	1	4	14	1	2
channel catfish	114	0.01	0	0	0	0	0	0	0	0	0	0	0	0	3	89	16	6
speckled sanddab	92	>0.01	4	0	2	1	0	0	5	2	23	28	1	7	6	7	0	6

Appendix Table B (Continued) Total catch, percent of total catch, and annual catch of fishes collected with the midwater trawl from 1980 to 1985. All months and stations sampled are included.

Common Name	Total	%	Year															
			80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
surf smelt	89	>0.01	7	12	19	9	2	1	2	0	1	2	18	4	12	0	0	0
whitebait smelt	80	>0.01	0	0	6	8	8	36	3	1	6	3	4	3	1	0	1	0
white catfish	76	>0.01	2	0	0	1	10	0	1	0	2	1	2	12	7	3	0	35
white seaperch	69	>0.01	10	23	3	3	1	1	1	13	6	6	1	0	1	0	0	0
threespine stickleback	65	>0.01	6	1	11	5	0	0	6	2	3	4	1	4	3	10	0	9
leopard shark	64	>0.01	1	3	2	1	1	1	2	3	19	11	5	4	6	1	3	1
shimofuri goby	60	>0.01	0	0	0	0	0	0	0	0	0	9	2	7	15	17	0	10
spiny dogfish	41	>0.01	2	1	0	1	2	1	1	1	7	6	4	11	2	2	0	0
common carp	33	>0.01	7	1	4	0	1	0	3	11	0	1	3	1	0	0	0	1
brown rockfish	28	>0.01	0	0	0	1	0	0	0	0	2	2	0	1	0	22	0	0
Pacific tomcod	27	>0.01	6	1	3	2	0	0	0	0	2	9	1	2	0	0	0	1
pile perch	27	>0.01	2	6	5	2	1	4	4	1	1	0	0	1	0	0	0	0
big skate	26	>0.01	0	6	0	0	0	0	0	1	13	1	0	1	0	2	2	0
steelhead trout	26	>0.01	4	0	2	2	0	1	1	0	0	2	0	1	3	6	1	3
lingcod	22	>0.01	1	0	2	1	2	3	1	2	8	2	0	0	0	0	0	0
California halibut	19	>0.01	1	1	0	0	0	0	0	0	1	0	0	0	0	7	3	6
bay pipefish	13	>0.01	1	2	0	1	0	1	2	2	1	2	0	0	0	1	0	0
chameleon goby	10	>0.01	0	0	0	1	0	1	0	0	3	2	0	1	1	0	0	1
Pacific lamprey	10	>0.01	1	1	2	2	0	1	2	0	0	1	0	0	0	0	0	0
California lizardfish	9	>0.01	0	0	0	2	0	0	0	0	1	0	0	0	6	0	0	0
diamond turbot	9	>0.01	1	1	3	0	0	0	0	0	1	0	0	0	1	1	1	0
green sturgeon	9	>0.01	1	1	4	0	0	0	0	0	0	1	0	1	0	1	0	0
river lamprey	8	>0.01	0	0	0	1	2	0	0	1	0	0	1	2	0	1	0	0
black rockfish	7	>0.01	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0
jack mackerel	6	>0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
rubberlip seaperch	6	>0.01	0	0	0	0	0	0	0	4	0	0	2	0	0	0	0	0
cheekspot goby	5	>0.01	0	0	0	0	0	0	0	0	1	0	1	1	1	1	0	0
queenfish	5	>0.01	0	0	0	0	0	0	0	1	0	0	1	1	1	0	1	0
sand sole	5	>0.01	1	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0
unidentified rockfish	5	>0.01	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
barred surfperch	4	>0.01	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0

Appendix Table B (Continued) Total catch, percent of total catch, and annual catch of fishes collected with the midwater trawl from 1980 to 1985. All months and stations sampled are included.

Common Name	Total	%	Year																
			80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	
brown bullhead	4	>0.01	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pacific electric ray	4	>0.01	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	
tule perch	4	>0.01	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1		
California tonguefish	3	>0.01	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0		
inland silverside	3	>0.01	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0		
Sacramento squawfish	3	>0.01	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1		
bluegill	2	>0.01	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0		
rainwater killifish	2	>0.01	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0		
silver surfperch	2	>0.01	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
unidentified sunfishes	2	>0.01	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0		
wakasagi	2	>0.01	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
arrow goby	1	>0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		
black bullhead	1	>0.01	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
black crappie	1	>0.01	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
black perch	1	>0.01	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
bonehead sculpin	1	>0.01	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
calico surfperch	1	>0.01	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0		
chub mackerel	1	>0.01	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
coho salmon	1	>0.01	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
dwarf perch	1	>0.01	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0		
goldfish	1	>0.01	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
kelp greenling	1	>0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		
largemouth bass	1	>0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Pacific barracuda	1	>0.01	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
Pacific sanddab	1	>0.01	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
prickly sculpin	1	>0.01	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
redtail surfperch	1	>0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Sacramento sucker	1	>0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		
showy snailfish	1	>0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		
thresher shark	1	>0.01	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
Total Catch	2065750		73696	104816	175380	79544	182936	105281	136828	123084	102938	106133	83353	97948	252149	257559	71043	113062	

Appendix C

Appendix Table C Total catch, percent of total catch, and annual catch of fishes collected with the otter trawl from 1980 to 1985. All months and stations sampled are included. Note: northern anchovy excluded.

Common Name	Total	%	Year															
			80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
longfin smelt	44759	15.81	8009	1250	16289	7189	2656	1336	840	510	454	115	42	36	40	258	202	5533
bay goby	40540	14.32	782	464	1349	2346	1085	341	1725	1788	2703	3508	4001	9607	2950	3309	2153	2429
white croaker	34171	12.07	2320	339	339	607	1297	1320	2403	1648	2039	1399	2105	1901	3011	9366	2837	1240
striped bass	29026	10.25	1046	2173	2291	6619	3243	1693	1284	1145	742	686	552	1075	1842	1544	1787	1304
English sole	21969	7.76	2045	1382	1140	949	2385	2330	1088	449	1477	1364	613	1904	962	2873	487	521
speckled sanddab	21936	7.75	2564	204	681	546	258	449	945	1042	1521	1555	637	1348	1672	2827	3239	2448
shiner perch	20986	7.41	1490	1929	3159	1629	987	1791	2725	1405	2120	699	835	548	464	362	297	546
Pacific staghorn sculpin	15790	5.58	1063	261	1515	693	937	1201	2069	785	1120	1507	582	956	547	1082	444	1028
plainfin midshipman	13797	4.87	170	312	326	457	305	254	1554	1649	1049	614	985	1237	1166	609	2641	469
yellowfin goby	12428	4.39	843	189	370	324	863	102	1504	737	267	322	145	49	744	3733	385	1851
Pacific herring	4135	1.46	585	241	1029	73	91	244	90	76	285	892	136	25	39	12	180	137
starry flounder	4002	1.41	986	259	598	644	392	200	217	145	137	38	60	89	35	34	54	114
California tonguefish	2123	0.75	110	12	102	404	147	52	15	40	201	41	8	44	78	468	372	29
cheekspot goby	1769	0.62	0	7	11	29	20	8	40	16	44	40	348	105	227	188	423	263
white catfish	1484	0.52	20	7	12	292	42	8	9	7	0	7	0	6	40	2	634	398
brown smoothhound	1440	0.51	47	47	79	73	38	37	130	101	212	181	157	99	78	43	71	47
chameleon goby	1284	0.45	0	10	3	8	21	44	47	54	108	118	79	71	85	322	227	87
channel catfish	1264	0.45	0	1	1	29	13	9	36	43	2	2	1	18	16	578	211	304
brown rockfish	1260	0.44	93	73	27	42	121	49	42	55	61	8	28	64	55	237	211	94
Pacific tomcod	988	0.35	90	75	168	53	1	0	0	1	19	61	16	30	23	8	2	441
California halibut	708	0.25	7	8	9	7	21	32	30	29	18	8	26	42	62	222	107	80
walleye surfperch	520	0.18	27	184	91	37	21	16	39	27	28	7	11	17	6	5	3	1

Appendix Table C (Continued) Total catch, percent of total catch, and annual catch of fishes collected with the otter trawl from 1980 to 1985. All months and stations sampled are included. Note: northern anchovy excluded.

Common Name	Total	%	Year															
			80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
leopard shark	443	0.16	53	25	59	47	20	3	22	10	50	40	24	14	14	14	23	25
bat ray	421	0.15	13	34	22	12	17	9	35	8	36	21	47	43	32	13	60	19
shimofuri goby	413	0.15	0	0	0	0	0	0	1	0	2	10	17	44	110	121	42	66
bay pipefish	412	0.15	19	8	7	9	7	28	32	27	13	5	15	13	46	37	52	94
delta smelt	410	0.14	78	71	42	48	10	8	16	5	7	1	10	5	13	24	46	26
white sturgeon	385	0.14	5	1	70	62	88	19	15	11	14	9	7	5	2	25	5	47
big skate	327	0.12	18	18	32	31	16	17	23	41	36	22	20	22	14	4	7	6
splittail	327	0.12	7	1	23	45	34	36	23	14	13	9	3	15	13	16	8	67
American shad	287	0.10	22	11	20	43	11	22	3	5	9	6	9	6	4	10	68	38
diamond turbot	250	0.09	18	9	11	9	9	9	7	11	13	8	20	20	18	37	35	16
tule perch	243	0.09	10	2	3	1	1	6	0	1	5	2	1	19	26	31	81	54
pile perch	218	0.08	29	34	38	34	9	19	19	1	21	8	4	1	0	1	0	0
whitebait smelt	193	0.07	0	0	59	98	9	10	2	3	3	1	8	0	0	0	0	0
barred surfperch	178	0.06	19	29	16	48	18	6	0	7	3	8	9	4	3	1	2	5
dwarf perch	153	0.05	14	31	50	27	5	0	3	1	11	5	2	1	0	0	2	1
spotted cusk-eel	140	0.05	0	0	0	0	3	4	8	47	21	2	2	2	9	16	20	6
white seaperch	137	0.05	16	35	12	10	24	5	9	7	5	3	6	0	0	1	4	0
threadfin shad	135	0.05	7	6	6	14	20	20	3	8	12	2	0	0	0	4	10	23
curffin sole	122	0.04	1	1	3	6	3	7	1	2	1	2	3	3	14	34	21	20
river lamprey	119	0.04	0	0	0	10	10	8	10	5	13	12	7	4	7	8	5	20
prickly sculpin	111	0.04	2	0	8	23	8	0	8	0	0	0	0	0	4	15	7	36
jacksmelt	105	0.04	4	7	7	5	2	8	7	4	3	23	6	4	1	2	0	22
arrow goby	100	0.04	0	0	2	8	4	1	17	7	4	3	0	3	7	2	4	38
Pacific lamprey	98	0.03	7	38	8	9	4	1	13	1	3	3	0	0	0	0	5	6
showy snailfish	98	0.03	2	4	4	9	1	1	6	18	6	16	4	14	7	0	4	2
threespine stickleback	95	0.03	5	2	5	11	1	0	12	2	3	6	3	6	6	13	5	15
bigscale logperch	94	0.03	0	5	4	18	17	22	0	4	1	0	0	0	0	3	6	14
lingcod	89	0.03	11	9	1	1	37	13	0	1	3	1	0	5	0	6	0	1

Appendix Table C (Continued) Total catch, percent of total catch, and annual catch of fishes collected with the otter trawl from 1980 to 1985. All months and stations sampled are included. Note: northern anchovy excluded.

Common Name	Total	%	Year															
			80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
bonehead sculpin	88	0.03	0	6	1	4	8	1	3	4	0	0	10	9	10	17	8	7
sand sole	73	0.03	3	1	2	7	6	5	6	8	2	2	1	3	7	11	3	6
black perch	69	0.02	0	13	2	4	12	4	1	1	5	5	3	1	4	4	7	3
chinook salmon	65	0.02	1	5	2	2	0	0	2	0	2	3	1	3	1	0	2	41
topsmelt	64	0.02	8	0	17	12	0	2	1	5	14	2	1	0	0	0	0	2
spiny dogfish	55	0.02	3	3	5	4	4	2	2	1	7	4	8	3	5	0	3	1
California lizardfish	43	0.02	0	0	0	12	1	0	0	0	4	0	0	0	25	1	0	0
green sturgeon	35	0.01	8	1	5	4	4	2	0	0	1	2	1	0	0	3	3	1
common carp	32	0.01	1	1	6	8	1	2	0	2	0	1	1	2	1	0	5	1
Pacific sanddab	25	0.01	3	0	1	11	1	3	0	0	3	1	0	0	0	2	0	0
night smelt	21	0.01	2	1	0	0	0	0	0	0	0	0	0	3	8	5	1	1
Pacific pompano	14	>0.01	1	0	0	0	0	0	0	0	1	1	1	1	8	1	0	0
unidentified rockfish	13	>0.01	4	4	0	0	1	0	0	0	3	0	0	0	1	0	0	0
surf smelt	12	>0.01	0	0	9	1	0	0	0	1	0	1	0	0	0	0	0	0
rubberlip seaperch	10	>0.01	1	3	1	0	2	0	0	0	1	1	0	0	0	0	0	1
pygmy poacher	7	>0.01	1	0	0	0	1	0	1	0	1	0	0	1	0	1	0	1
Pacific sand lance	5	>0.01	0	0	0	0	0	0	0	1	0	0	0	0	2	1	1	0
Sacramento squawfish	5	>0.01	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	1
saddleback gunnel	5	>0.01	2	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0
Pacific sardine	4	>0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0
silver surfperch	4	>0.01	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
black rockfish	3	>0.01	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0
bluegill	3	>0.01	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
brown Irish lord	3	>0.01	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
inland silverside	3	>0.01	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0
kelp greenling	3	>0.01	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1

Appendix Table C (Continued) Total catch, percent of total catch, and annual catch of fishes collected with the otter trawl from 1980 to 1985. All months and stations sampled are included. Note: northern anchovy excluded.

Common Name	Total	%	Year															
			80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
Pacific electric ray	3	>0.01	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0
redear sunfish	3	>0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Sacramento sucker	3	>0.01	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
rainbow seaperch	2	>0.01	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
rainwater killifish	2	>0.01	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
western mosquitofish	2	>0.01	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
black crappie	1	>0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
blue rockfish	1	>0.01	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
C-O sole	1	>0.01	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
goldfish	1	>0.01	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
homyhead turbot	1	>0.01	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
hybrid sole	1	>0.01	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
longjaw mudsucker	1	>0.01	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
onespot fringehead	1	>0.01	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
queenfish	1	>0.01	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
scalyhead sculpin	1	>0.01	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
sevengill shark	1	>0.01	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
spotfin surfperch	1	>0.01	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
tube-snout	1	>0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
unidentified flounders	1	>0.01	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
unidentified minnows	1	>0.01	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
unidentified snailfishes	1	>0.01	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
yellowtail rockfish	1	>0.01	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Total Catch	283178		22699	9847	30156	23762	15376	11827	17144	12032	14969	13425	11624	19554	14564	28568	17527	20104

Appendix D

Appendix Table D Total catch, percent of total catch, and annual catch of yolk sac and post-yolk sac larval fishes collected with the plankton net from 1980 to 1989. All months and stations sampled are included (only January to May in 1989).

Common Name	Total	%	Year									
			80	81	82	83	84	85	86	87	88	89
Pacific herring	484049	34.08	25815	54641	210898	32167	9498	53612	40148	38329	9570	9371
northern anchovy	449642	31.66	11826	9882	2699	14019	6755	19273	23788	21123	340141	136
yellowfin goby	170571	12.01	12	5513	11492	2385	21748	39352	13832	42926	21270	12041
longfin smelt	68949	4.85	5993	91	5818	4517	7149	9662	9980	14732	6962	4045
unidentified smelts	61076	4.30	762	11509	38357	1165	5264	2431	1585	3		
arrow goby/ cheekspot goby	58146	4.09		6098	4333	4742	5326	4349	10536	3764	14204	4794
goby type II	48838	3.44	31720	17118								
striped bass	25700	1.81	4736	3019	4736	2779	1503	1013	5747	594	131	1442
bay goby	10364	0.73	888	1444	802	607	693	516	400	1023	3546	445
prickly sculpin	10009	0.70	773	545	1991	3134	1138	421	1047	515	158	287
white croaker	7851	0.55	1119	421	351	893	489	1290	1629	518	572	569
Pacific staghorn sculpin	5906	0.42	276	604	480	229	369	1244	1148	469	394	693
chameleon goby	5295	0.37	2	182	91	249	249	728	452	371	2514	457
jacksmelt	4593	0.32	514	1996	612	269	343	76	96	73	554	60
arrow goby	3051	0.21	7	6	3036	1		1				
threadfin shad	1998	0.14	13	194	797	649	233	104		3	5	
unidentified rockfish	491	0.03	56	45	96	81	27	34	63	30	30	29
English sole	422	0.03	27	1	277	45		26	7		12	27
cheekspot goby	406	0.03			406							
delta smelt	378	0.03	33	27	126	163	24					5
common carp	303	0.02	31	29	226	5	1					11
diamond turbot	268	0.02	49	25	7	54	14	45	23	13	36	2
topsmelt	268	0.02	16	164	22	21	6	17	20	2		
starry flounder	266	0.02	59	8	31	14	13	34	39	27	38	3
longjaw mudsucker	265	0.02	3	31	24	19	17	11	10	13	123	14
cabezon	133	>0.01	15	22	18	4	14	22	14	11	4	9
unidentified minnows	132	>0.01				1		108	15		8	

Appendix Table D (Continued) Total catch, percent of total catch, and annual catch of yolk sac and post-yolk sac larval fishes collected with the plankton net from 1980 to 1989. All months and stations sampled are included (only January to May in 1989).

Common Name	Total	%	Year									
			80	81	82	83	84	85	86	87	88	89
unidentified sunfishes	130	>0.01	4	2	1	24	3	39		3	48	6
unidentified gobies	93	>0.01				1	3	5	16	64	4	
bigscale logperch	84	>0.01	4	1	16	52	3	2	5	1		
California halibut	75	>0.01	2	1	1	44	8	7	6	1	5	
unidentified pricklebacks	75	>0.01	9	7	11	1	2	24	3	7	3	8
striped kelpfish	49	>0.01	21	18	6	3	1					
unidentified clinids	45	>0.01			2		8	14	4	10	4	3
unidentified sculpins	42	>0.01	8	4	3	3	8		2	4	3	7
American shad	37	>0.01			8	29						
unidentified fish	37	>0.01	6	5	3	5	1	4		2	4	7
bonehead sculpin	34	>0.01	15	12	4		1	1				1
unidentified flounders	30	>0.01	16	2	2			2		4		4
northern lampfish	25	>0.01	17		2	2		2	2			
splittail	25	>0.01	1		6	18						
lingcod	23	>0.01	3	2	9	6	1	1				1
sand sole	20	>0.01	3		7	2		4	1	1		2
onespot fringehead	15	>0.01	3		3	7	2					
kelp greenling	13	>0.01	2	4	1	3			2			1
threespine stickleback	13	>0.01	2		2	7				1	1	
Pacific tomcod	11	>0.01	9								1	1
unidentified clupeidae	10	>0.01	10									
bluegill	9	>0.01			9							
brown Irish lord	9	>0.01	9									
inland silverside	9	>0.01			4		3	2				
painted greenling	9	>0.01		1	5		1					2
red brotula	7	>0.01	3	1	2						1	

Appendix Table D (Continued) Total catch, percent of total catch, and annual catch of yolk sac and post-yolk sac larval fishes collected with the plankton net from 1980 to 1989. All months and stations sampled are included (only January to May in 1989).

Common Name	Total	%	Year											
			80	81	82	83	84	85	86	87	88	89		
unidentified snailfishes	7	>0.01			4	1								2
Sacramento sucker	6	>0.01				4	2							
Sacramento squawfish	5	>0.01			5									
white sturgeon	5	>0.01	1			3				1				
plainfin midshipman	4	>0.01									1	3		
tidepool sculpin	4	>0.01		1	3									
blue lanternfish	3	>0.01			1		1						1	
Pacific hake	3	>0.01								3				
unidentified atherinids	3	>0.01								2				1
blackeye goby	2	>0.01		1		1								
surf smelt	2	>0.01	1							1				
unidentified poachers	2	>0.01								2				
brown rockfish	1	>0.01												1
hornyhead turbot	1	>0.01									1			
northern clingfish	1	>0.01	1											
Pacific argentine	1	>0.01						1						
Pacific blacksmelt	1	>0.01			1									
unidentified Citharichthys	1	>0.01								1				
Total Catch	1420351		84895	113677	287847	68428	60922	134476	110630	124639	400350	34487		

