

Brookings

Fish Commission of Oregon
Groundfish and Shrimp Investigations
Report of Cruise 75-2, Shrimp

Vessel: M/V Orion, chartered trawler

Dates: March 27-30, 1975

- Objective:
1. To determine the biomass and number of shrimp (*Pandalus jordani*) within the survey area between the Coos and Siuslaw rivers.
 2. To determine age and sex composition of stocks as well as average size (number/pound) and length frequency.

Methods: The M/V Orion is a steel combination fishing vessel built in Ft. Bragg, California in 1967. She is 54 feet overall with a registered breadth of 16.9 feet. The vessel weighs 46 tons and has a hold capacity of 21 tons. She is powered by a 250 hp diesel engine. The boat uses 6' x 4' steel, China type doors.

We supplied a 52-41 foot (footrope-headrope) trawl (1¹/₈-inch mesh except for a 1¹/₂-inch codend with a 1/2-inch bobinette inner-liner). The vessel provided a 46-foot tickler chain. Nine balls and nine-foot bridles were used on the net.

We selected 28 sampling stations based on a systematic sampling plan using 4 x 4 nautical mile-square grids. Tows were approximately one nautical mile long. We recorded Loran (1LO) and depth (fathoms) at the start and end of each tow, as well as time and ocean-weather conditions.

We sorted the catch from each tow and estimated the weight of major non-shrimp species in the catch. The shrimp catch was weighed and recorded to the nearest pound for each tow. A randomly drawn 2-5 pound sample was retained and taken ashore for analysis. Samples were frozen ashore pending analysis.

Results: Twenty-seven stations were occupied. Shrimp were caught in 23 of 27 stations. Catch ranged from 0 to 1129 pounds. Table 1 summarizes unweighted catch data. Table 2 summarizes the cruise log.

Table 1. South-Central Area Catch and Composition Summary.

Total catch	5,028 lbs.		
Mean catch/tow (27 tows)	186 lbs.		
Catch range	0 - 1,129 lbs.		
Age composition, (%) / age.	<u>Age</u>	<u>No.</u>	<u>Wt.</u>
	1	39.9	16.1
	2	38.4	44.0
	3	21.7	39.9
Average size (N/lb).	146.8		

Personnel: Bill Barss, Party Chief
Roy Gunnari, Vessel Captain
Gerald Gunnari, Crewman
Ronald Schroeder, Crewman

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Management and Research Division
April 17, 1975

Table 2. Log of Fish Commission of Oregon Shrimp Cruise 75-2, South-Central Oregon, March 27-30, 1975, M/V Orion

Tow	Date	Time Start PDT	Tow		Loran (110)		Depth (fms)	Shrimp Catch (lbs)	Shrimp Grade (N/lb)	Grade (%)			Fish (lbs)
			Duration Min	Miles	Down	Haul				I	II	III	
1	3/27	0932	28	1.0	1394	1406	110	trace	-	-	-	-	10# slender sole, 6# rock
2	"	1038	30	1.1	1443	1456	120	10	84.5	0.5	25.5	74.0	20# slender
3	"	1202	33	1.1	1490	1503	144-145	trace	-	-	-	-	70# sole
4	"	1327	30	1.0	1538	1550	100	1129	273.3	85.0	14.0	1.0	9# rock, 5# slender, 5# smelt
5	"	1505	34	1.0	1532	1544	72	275	119.3	16.5	71.0	12.5	65# rex, 20# slender sole
6	"	1638	38	1.0	1585	1597	84-84½	271	180.2	53.5	40.5	6.0	28# rock, 10# smelt, 10# slender
7	"	1810	30	1.0	1592	1604	64½-64	71	113.2	26.5	48.0	25.5	12# rock, 10# smelt, 10# dabs
8	3/28	0755	31	1.1	1684	1696	98½-97½	1007	256.0	81.0	17.5	1.5	22# rock, 5# smelt
9	"	1002	28	1.1	1790	1803	122-112	0	-	-	-	-	200# rex, 50# rock, 50# slender
10	"	1105	25	1.0	1785	1797	95-93	857	164.3	49.5	49.0	1.5	90# smelt, 30# slender
11	"	1212	30	1.0	1834	1846	88-86	trace	-	-	-	-	130# rock, 100# rex
12	"	1343	32	1.0	1880	1892 ^{1/}	74-72½	60	313.0	99.0	1.0	0	155# rex, 30# slender
13	"	1515	32	1.0	1880	1892 ^{2/}	77-75	144	129.6	50.2	28.3	21.5	60# dabs, 240# rex, 24# slender
14	"	1735	35	1.0	1840	1852	55	2½	281.0	98.5	1.5	0	10# dabs, 10# shiners
15	3/29	0753	34	1.0	1384	1396	64-64½	75	90.9	3.5	60.0	36.5	25# smelt, 20# stickfish
16	"	0912	30	1.0	1435	1447	74	72	111.7	12.5	71.1	16.4	20# rex, 2# dabs, 2# smelt
17	"	1025	30	1.0	1485	1497	73	163	98.4	4.5	66.2	29.3	15# smelt, 8# dabs, 5# rex
18	"	1210	32	1.0	1388	1400	54-54½	205	78.3	0.5	48.3	51.2	10# shiners, 4# dabs
19	"	1330	30	1.0	1440	1452	58	174	100.6	15.5	58.5	26.0	20# dabs, 5# rex, 10# smelt
20	"	1445	30	1.1	1487	1500	60	256	118.7	29.7	53.1	17.2	15# smelt, 10# dabs, 3# slender
21	"	1627	29	1.0	1545	1557	56	60	162.5	59.2	31.3	9.5	30# ratfish, 20# smelt, 8# rex
22	"	1740	30	1.0	1595	1607	57-56	27	130.1	47.0	32.5	20.5	13# rex, 35# smelt, 8# eelpout
23	3/30	0925	31	1.1	1638	1650	65	1/3	79.4	2.3	32.6	65.1	10# smelt
24	"	1042	33	1.0	1643	1655	58	123	107.9	29.0	29.5	41.5	80# smelt, 26# dabs
25	"	1202	33	1.0	1677	1689	59	29	128.5	39.0	36.0	25.0	10# dabs, 7# smelt
26	"	1327	33	1.1	1695	1708	47-48	½	116.5	30.7	36.0	33.3	300# smelt, 100# tomcod
27	"	1505	30	1.0	1738	1750	59	15	138.5	48.0	26.5	25.5	30# smelt, 8# dabs

1/ 1L1 3365

2/ 1L1 3374