OREGON DEPARTMENT OF FISH AND WILDLIFE
GROUNDFISH AND SHRIMP INVESTIGATIONS

Report of Cruise 76-2
Spring Shrimp Survey off Coos Bay, Oregon

Vessel: MV Faymar, chartered trawler

Dates: March 7, 8, 12-14, 1976

Objectives:

1. To determine biomass and number of shrimp (*Pandalus jordani*) within an offshore survey area between Coos Bay and the Siuslaw River in 50-145 fathoms.

2. To determine age and sex composition of this shrimp stock as well as their average size (number/pound) and carapace length frequency.

Methods: The MV Faymar is a wooden combination Pacific seiner-type fishing vessel. She is 50 feet long with a registered breadth of 14 feet. The vessel weighs 28 tons and is powered by a 165 hp diesel engine. The boat uses 6 x4 feet "V"-type steel otter boards (doors).

We supplied a 41-foot headrope Gulf semi-balloon trawl made of 1-1/8 inch stretched mesh with a codend of 1-1/2 inch mesh. An inner liner of 1/2-inch mesh was in the codend. Plastic rollers were attached to a 52-foot footrope. Four 8-inch metal floats were equally spaced on the headrope. The vessel supplied 9-foot bridles and a 46-foot, 3/8-inch tickler chain attached to the ends of the footrope.

We selected 28 sampling stations, based on a systematic sampling plan using 4.0 x 4.0 nautical mile-square grids, in the 440 square nautical mile survey area. Tows were 1.0 nautical mile long and made towing to as near true north (0°) as possible. We recorded Loran (1L0) 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 selected 4-6 pound sample was retained from each tow. This was placed in a plastic bag, iced, and subsequently frozen ashore pending analysis.

Results: We occupied all 28 stations in the survey area. Shrimp were caught at 25 of these stations. Catch ranged from 0 to 643 pounds. Snags were encountered on 2 tows, with no shrimp contained in the catch of one. Table 1 summarizes unweighted catch data. Figure 1 shows the approximate location of each tow made in the survey area. Table 2 summarizes the cruise log.

Personnel: Michael Hosie, Party Chief
Kim Baxter, Technician
Sherman Sappington, Vessel Captain
Michael Moreshead, Crewman
Joe Wick, Crewman

Michael J. Hosie
Marine Region
March 29, 1976

Table 1. Coos Bay Shrimp Catch and Composition Summary

Total catch		5,005 lbs.	
Average (28 tows)		179 lbs.	
Catch poundage range		0-643 lbs.	
Age composition (%/age)	Age	No.	Wt.
	1	49.0	15.4
	2	32.9	41.0
	3+	18.1	43.6
Average Size (N/lb)		170	

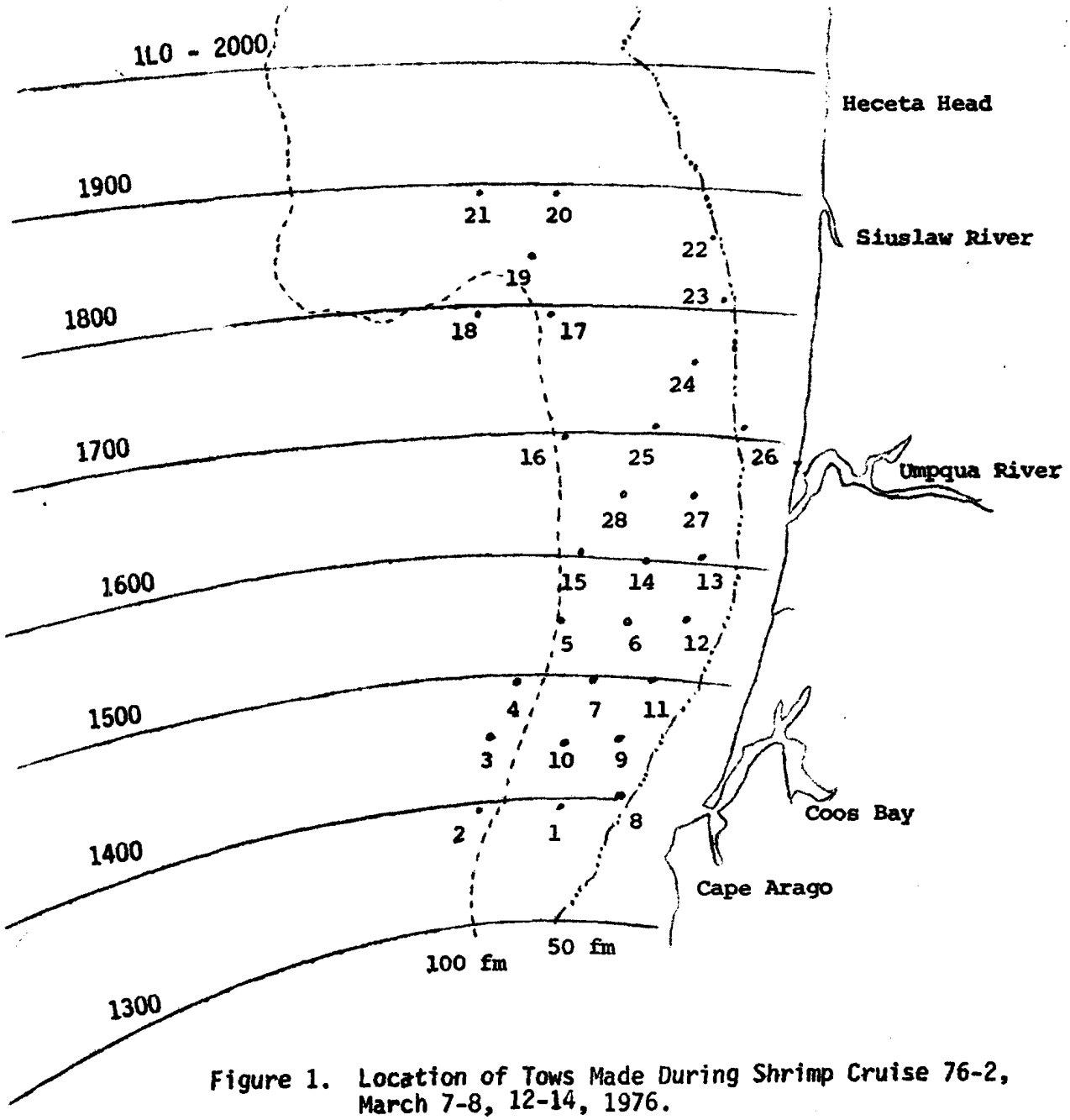

Figure 1. Location of Tows Made During Shrimp Cruise 76-2, March 7-8, 12-14, 1976.

Table 2. Log of Oregon Department of Fish and Wildlife Shrimp Cruise 76-2, Coos Bay Area, March 7, 8, 12-14, 1976.

Tow	Date	Time Start PST	Tow Duration Min	Tow Duration Miles	Loran (1LO) Down	Loran (1LO) Haul	Depth (fms)	Shrimp Catch (lbs)	Shrimp Grade (N/lb)	I	II	III	Most Common Fish (lbs)
1	3/7	0740	34	1.0	1390	1402	66-65	15	249	59.8	35.4	4.8	30# rex sole, 20# skate
2	3/7	0922	21	1.0	1392	1404	109-112	553	248	64.9	24.5	10.6	35# slender sole, 12# smelt
3	3/7	1035	30	1.0	1444	1456	120-119	643	194	48.5	39.0	12.5	103# slender sole, 39# skate
4	3/7	1145	40	1.0	1488	1500	144-145	158	174	23.5	65.7	10.8	156# small fish
5	3/7	1322	30	1.1	1542	1556	100-98	423	275	74.6	18.4	7.0	57# slender sole, 18# smelt
6	3/7	1455	30	1.0	1543	1555	71-71½	234	169	43.4	40.5	16.1	126# small fish
7	3/7	1624	20	1.0	1493	1505	72-72	187	230	58.0	32.0	10.0	35# small fish (1/2 smelt)
8	3/8	0730	28	1.0	1396	1408	54-56	trace	-	-	-	-	192# small fish (3/4 flatfish)
9	3/8	0845	26	1.0	1446	1458	58	16	496	97.5	2.0	0.5	196# small fish (3/4 flatfish)
10	3/8	1010	28	1.0	1435	1447	74-75	195	191	49.3	34.4	16.3	20# rex sole, 12# slender sole
11	3/8	1208	28	1.0	1498	1510	60-62	235	177	46.8	39.9	13.3	50# rex sole, 42# slender sole
12	3/8	1330	30	1.0	1547	1559	56-55	513	199	60.6	23.2	16.2	48# sanddabs, 24# rex sole
13	3/8	1503	30	1.0	1604	1616	57-56	465	215	65.3	27.2	7.5	266# small fish (3/4 flatfish)
14	3/8	1620	20	0.9	1596	1606	64½-64	278	219	65.7	18.6	15.7	186# small fish (3/4 flatfish)
15	3/12	0928	32	1.0	1599	1611	83½-78	44	392	92.0	4.5	3.5	266# small fish (2/3 flatfish)
16	3/12	1138	32	1.0	1691	1703	94	75	476	98.0	1.0	1.0	331# small fish (1/2 rockfish)
17[1]/	3/12	1330	35	1.0	1790	1802	92-91	trace	-	-	-	-	846# mixed flatfish, 70# skate
18[1]/	3/12	1520	35	1.0	1791	1803	120-108	363	103	6.5	62.0	31.5	193# small fish (1/2 smelt)
19	3/12	1648	32	1.1	1842	1855	84	21	173	40.1	51.1	8.8	394# small fish (3/4 flatfish)
20	3/13	0720	35	1.0	1886	1898[2]/	76	222	92	4.8	50.5	44.7	221# small fish (95% flatfish)
21	3/13	0829	29	1.0	1888	1900[3]/	77-76½	160	85	12.9	32.8	54.3	374# small fish (90% flatfish)
22	3/13	1055	30	1.0	1841	1855	55-49	0	-	-	-	-	40# small fish (1/2 flatfish)
23	3/13	1219	27	1.0	1795	1807	57-58	0	-	-	-	-	61# small fish (1/2 flatfish)
24	3/13	1347	33	1.0	1741	1753	59-57	20	81	0.5	45.7	53.8	66# small fish (1/2 flatfish)
25	3/13	1521	29	1.0	1690	1702	59-58	14	168	47.0	42.5	10.5	121# small fish (3/4 flatfish)
26	3/13	1628	20	1.0	1692	1704	45-36	0	-	-	-	-	71# small fish (3/4 roundfish)
27	3/14	1105	32	1.0	1647	1659	58-56	6	101	4.0	32.7	63.3	73# small fish (3/4 roundfish)
28	3/14	1234	34	1.1	1644	1657	65	165	245	60.0	37.0	3.0	10# smelt, 8# flatfish

1/ Snag
2/ 1L1 3364
3/ 1L1 3373