

State of California - The Resources Agency
Department of Fish and Game
Marine Resources Region
Long Beach, California

CRUISE REPORT 72-S-8 CRAB

Prepared by Ronald W. Warner

- Vessel: N. B. SCOFIELD
- Dates: Depart San Pedro: October 13, 1972
Return San Pedro: November 14, 1972
- Locality: Coastal waters off northern California from Eureka to the Oregon border.
- Purpose:
1. To assess the relative abundance of all segments of the market crab resource, *Cancer magister*.
 2. To determine the depth distribution of male and female market crabs by trawling and trapping.
 3. To obtain samples of ocean shrimp, *Pandalus jordani*.
 4. To collect fish for Pathology Investigations.
 5. To collect juvenile Dover sole for Bottomfish Investigation.
- Procedure: Trawling and trapping for crabs was conducted along parallel transects between Pelican Bay and the mouth of the Mad River. A total of 39 stations was occupied with trawling at 5 fathom intervals ranging from 10 to 80 fathoms and trapping at 5 fathom intervals ranging from 10 to 40 fathoms (Figure 1). One transect was omitted and another only partially completed due to loss of working time from mechanical breakdowns and rough seas.
- Fifteen minute tows were made at each of 36 trawl stations. Eight 40-inch crab pots were set at each of the 22 trapping stations. Soaking times ranged from 21 to 144 hours and averaged 71 hours. Squid and rockfish carcasses were used as bait.
- Results: Combined trapping and trawling at 39 stations yielded 10,877 crabs, of which 94.5% (10,281) were trawl caught juveniles. The remainder of the catch consisted of 422 legal males, 132 sublegal males and 42 females with 95.6% of these crabs caught in traps.
- Pelican Bay produced the majority of the juvenile crabs (78.2%) while the Klamath transect yielded the greatest number (66.7%) of legals and sublegals (Table 1 and 2).

Most crabs were caught between 10 and 35 fathoms with none found below 40 fathoms. Legal crabs were hard and well filled out.

Approximately the same relative numbers by area of juvenile, female, sublegal and legal crabs were caught in the trawl this cruise as during the fall 1971 crab cruise. Comparative data from previous cruises indicates a relatively poor 1972-73 commercial crab season.

Twelve tows were made to collect samples of ocean shrimp, *Pandalus jordani*. Samples obtained are being processed.

Samples of bottomfish were saved for Pathology and Bottomfish Investigations.

Personnel: A. Pascal, Vessel Captain
R. W. Warner, Biologist-in-charge
N. E. Nelson, Biologist
K. M. Greiner, Project Transition
P. C. Collier, Biologist (October 17, 1972)
E. Greenhood, Chief MRB (October 21, 1972)

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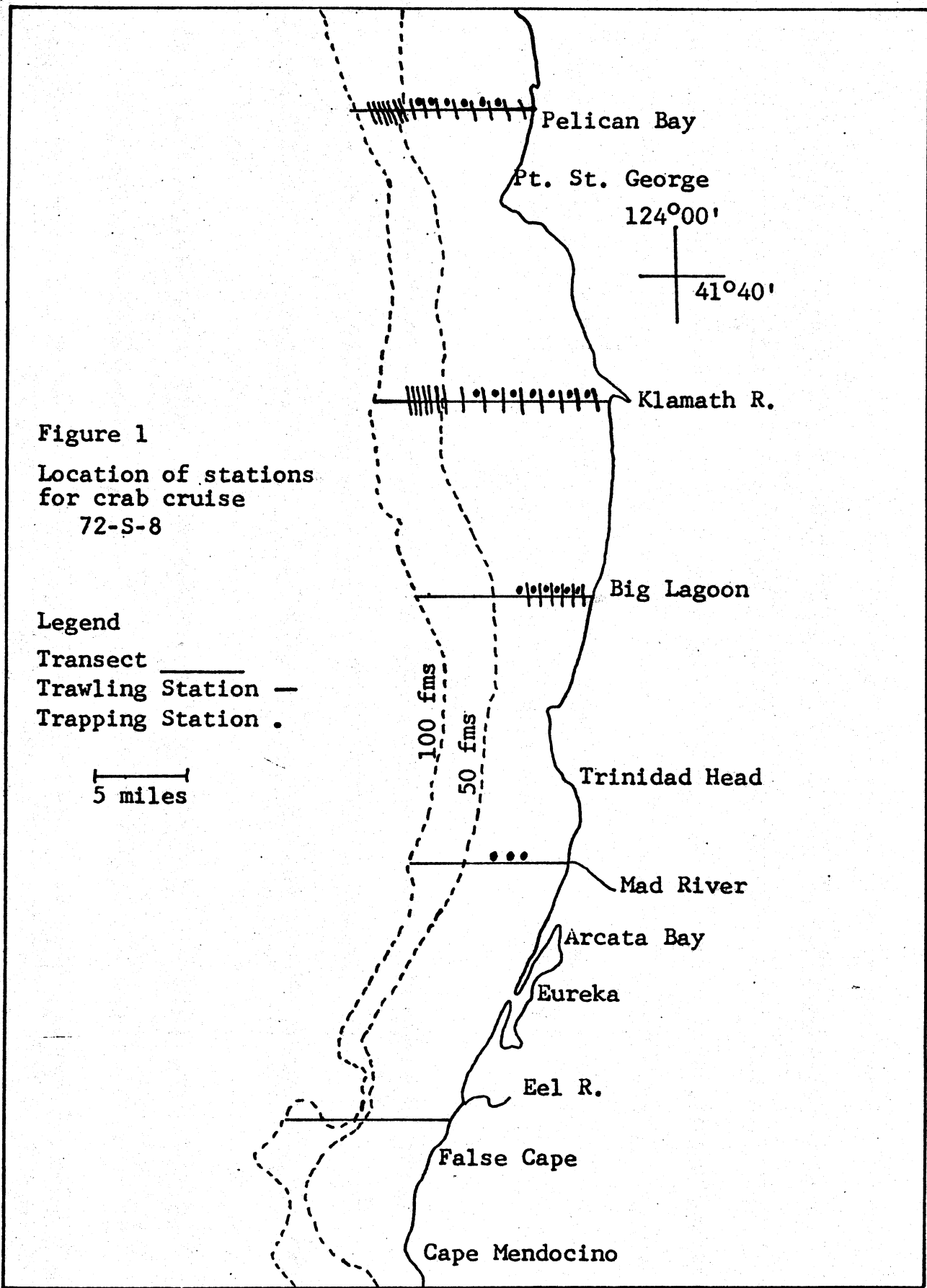


Figure 1
 Location of stations
 for crab cruise
 72-S-8

Legend

- Transect ———
- Trawling Station - - - -
- Trapping Station .

5 miles

TABLE 1. Trap Caught Crabs

Area	Total Numbers					Average Size (carapace width in mm)			Size Range (carapace width in mm)		
	Legal Males	Sublegal Males	Females	Juveniles	Total	Legal Males	Sublegal Males	Females	Legal Males	Sublegal Males	Females
Pelican Bay Transect	14	11	7	7	39	171.9	151.7	149.3	159-192	142-158	137-156
Klamath Transect	278	98	13	9	398	175.5	140.96	149.0	132-197	126-158	105-161
Big Lagoon Transect	63	6	8	3	80	178.9	120.1	154.1	160-192	130-152	143-167
Mad River Transect	56	5	10	0	71	184.3	147.8	154.6	147-198	129-156	145-164
Totals	411	120	38	19	588	177.7	140.1	151.8	132-198	126-158	105-164

TABLE 2. Trawl Caught Crabs

Area	Total Numbers					Average Size (carapace width in mm)			Size Range (carapace width in mm)		
	Legal Males	Sublegal Males	Females	Juveniles	Total	Legal Males	Sublegal Males	Females	Legal Males	Sublegal Males	Females
Pelican Bay Transect	0	9	4	8032	8045		87.7	73.0	---	67-108	64-85
Klamath Transect	7	1	0	133	141	171.3	153.0	----	161-180	153	----
Big Lagoon Transect	4	2	0	2097	2103	185.5	150.5	----	171-197	144-157	----
Totals	11	12	4	10262	10289	178.4	130.4	73.0	161-197	67-157	64-85