

State of California - The Resources Agency
Department of Fish and Game
Marine Resources Operations
California State Fisheries Laboratory
Terminal Island, California

CRUISE REPORT 69-S-1
Bottomfish Program

Prepared by J. Gary Smith

- Vessel: N. B. SCOFIELD
- Dates: Departed San Pedro, January 23, 1969
Returned San Pedro, March 3, 1969
- Locality: Coastal waters from Cape Mendocino, California to Cape Blanco, Oregon.
- Objectives: To obtain population parameter estimates of the Dover sole, *Microstomus pacificus*, stock in the Eureka area by:
- A tagging study, following a systematic random sampling scheme, to obtain fishing mortality estimates.
 - The collection of age composition data from pre-fishery recruits to obtain estimates of natural mortality.
 - The collection of age-length and age-weight data for von Bertalanffy growth estimates.
- To collect marine organisms requested by other research projects and cooperating agencies.
- Gear: Fishing was conducted using a commercial otter trawl (Italian style) constructed of 4½ inch meshes. A ½-inch mesh net liner was placed in the cod-end. Metal "V" doors and 25 fathoms mud lines were also used.
- Operations: Trawling stations were selected randomly along seven transects (Figure 1) at 20-minute latitude lines between Cape Mendocino and Cape Blanco from shore to 1000 fathoms. Within this area, 81 trawling stations were established to delineate the offshore stock limit. Tows were ½ hour in duration.
- Dover sole fully vulnerable to the commercial fishery were tagged with spaghetti tags.
- Representative samples of all fishes and invertebrates were collected from all tows.
- Results: This was the first of 4 Dover sole cruises to be conducted in the Eureka area.
- Only six tows were completed along the Cape Mendocino transect (Figure 1) since inclement weather prevailed throughout the cruise. Trawls were completed in 20, 80, 160, 380, 520 and 830 fathoms. Twenty-six Dover sole were tagged from the 380 and 520 fathom tows. The fish tagged at these depths were released in good condition.
- Despite the limited working conditions during the cruise, considerable knowledge was gained about deep sea trawling. On the three subsequent cruises, much time will be saved in locating stations and in handling gear on deep sea stations.
- Personnel: R.B. Mitchell-Vessel Captain (Jan. 24-31)
M. Mazarovich-Vessel Captain (Feb. 1-13, Feb. 25-Mar. 3)
P. Petrich-Vessel Captain (Feb. 13-24)
G. Smith-Biologist-in-charge R. Nitsos-Biologist (Feb. 5-27)
P. Gregory-Biologist (Jan. 23-Feb. 5) D. Hendricks-Seasonal Aid

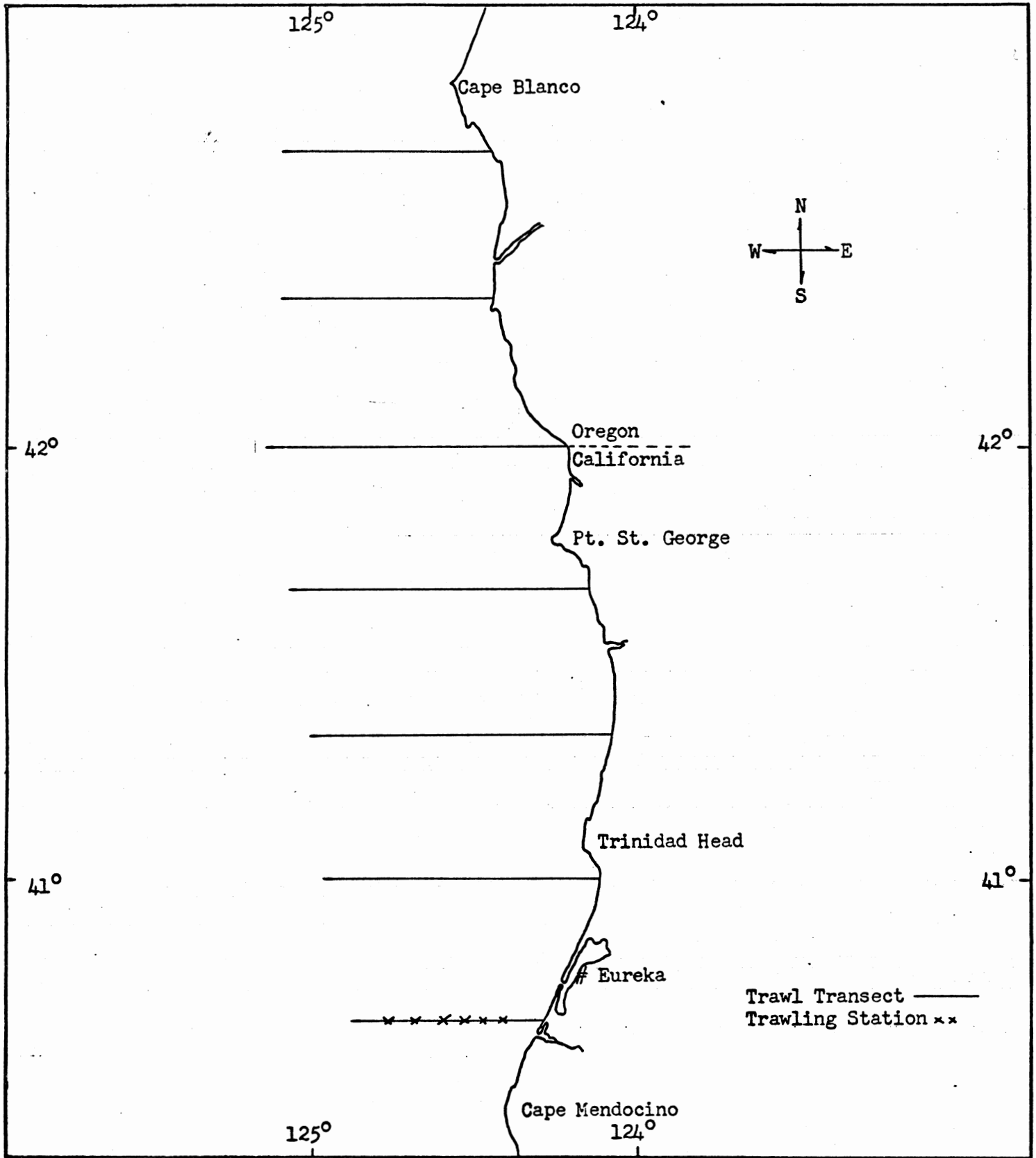


Figure 1