



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
SOUTHWEST FISHERIES SCIENCE CENTER
P.O. BOX 271
LA JOLLA, CA 92038-0271

February 10, 2005

F/SWC1:DAG

CRUISE ANNOUNCEMENT

VESSEL: F/V *Frosti*, 0503-FR.

CRUISE DATES: March 2 - 21, 2005

PROJECT: Oregon - Washington Sardine Survey, Fisheries Resources Division.

ITINERARY: Depart Port Angeles, Washington after loading and rigging of trawl gear on March 2, 2005. Proceed to first station of the proposed survey track and occupy all 42 scheduled stations (see attached cruise track). As time permits, additional trawls will be conducted after the primary stations have been completed in areas of prior positive tows. The vessel will return to Port Angeles on March 21, 2005.

OBJECTIVES: 1. Collect fishery independent adult sardines for spawning biomass estimates.

2. Collect oceanographic data over a fixed cruise track which covers the region 42°N to 48°N out to 127° W.

3. Collect acoustic data continuously throughout the survey using the vessel's ES-60 Simrad sounder.

PROCEDURES: 1. Forty-two primary stations have been plotted on the survey track design with an approximate spacing of 30 nautical miles (please refer to attached diagram). At each station the following activities will be performed:

a. Deployment of a Seabird CTD down to 200 meters, bottom depth permitting. The self-contained CTD will collect depth, temperature, conductivity and chlorophyll data.

b. Standard meteorological data including SST, wind speed and direction, wave height and direction, cloud cover, relative humidity, air temperature and barometric pressure.

c. During all transit between stations continuous measurements will be made of acoustic targets using the ES-60. All acoustic targets will be recorded for reoccupation during the night portion of the survey.

d. A thirty minute surface tow using SWFSC's Nordic 264 surface trawl with 3.0 m² foam core doors will be performed during evening hours.

EQUIPMENT: 1. Supplied by scientific party:

- 37% Formalin (SWFSC)
- Sodium borate (SWFSC)
- 30 cc and 50 cc syringes (SWFSC)
- Canulas (SWFSC)



- Pint, 8 oz and 4 oz jars (SWFSC)
- Standard CalCOFI tool boxes (SWFSC)
- Bucket thermometers and holders (SWFSC)
- Weather observation sheets (SWFSC)
- Seabird CTD (SWFSC)
- Midwater trawls (SWFSC)
- Trawl doors (SWFSC)

2. Supplied by *F/V Frosti*:
- Winch monitoring system
 - Simrad EK-60 color sounder
 - Port and starboard side trawl winches
 - Hydraulic winch for CTD casts and paironet tows

MISCELLANEOUS:

1. The disposal of fish caught will be in accordance with NOAA Administrative order 202-735B dated January 25, 1989.
2. At the completion of the cruise an inspection will be made of scientific working and berthing spaces by the Master or his designated representative. The Scientific party is responsible for the condition and cleanliness of spaces assigned to the scientific party.
3. The Cruise Leader will hold a pre-cruise meeting aboard the vessel before departure.
4. The Cruise Leader will hold a post-cruise meeting upon termination of the cruise.
5. All dates and times recorded will be in Pacific Standard Time.
6. Additional samples of fish and squid will be collected and frozen in collaboration for pinniped forage studies being conducted by researchers from University of Alaska, Fairbanks and the SWFSC.

PERSONNEL: Dave Griffith, Cruise Leader SWFSC
 Bev Macewicz SWFSC
 Noelle Bowlin SWFSC

NOAA personnel authorized per diem at the rate of \$3.00 per day to be paid via the Imprest Fund at the termination of the cruise.

WATCH HOURS: 1800-0600 Charge to account #C8LAF40-P15

OVERTIME: 124 hours (Authorized total per NMFS personnel)
 NIGHT DIFF: 228 hours (Authorized total per NMFS personnel)

Date: _____ Prepared by: _____
 D.A. Griffith

Approved by: _____
 William W. Fox, Jr. Ph.D
 Science & Research Director
 Southwest Region

