UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southwest Fisheries Science Center
8604 La Jolla Shores Drive
La Jolla, CA 92037

May 11, 2005 F/SWC1:DAG

CRUISE REPORT

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

CRUISE DATES: March 2 - 21, 2005

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

ITINERARY: Departed Port Angeles at 15:00 on March 2, 2005. Proceeded to first station of the proposed survey track and began occupying the 42 pre-determined stations. Once station work was complete, the ship returned to areas of observed high concentrations of fish schools and conducted an additional 7 trawls. The vessel returned to Bellingham, Washington 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 of the forty-two primary stations were occupied after dusk and prior to sunrise. At each night station the following activities were performed:

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

b. A standard Pairovet cast. The Pairovet net was fished from 70 meters to the surface (depth permitting) using paired 25 cm diameter 150 µm mesh nets. The technical requirements for the Pairovet tow was: Descent rate of 70 meters per minute, a terminal depth time of 10 seconds and an ascent rate of 70 meters per minute.

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

d. During all transit between stations continuous acoustic measurements were made using the ES-60.

e. A Nordic 264 mid-water trawl using 3.0 m^2 foam core doors was towed at the surface for 30 minutes traveling at approximately 3.5 knots. Every catch was sorted and sardines were sampled.

RESULTS:

Activity	Requested	Completed	Aborted
Pairovet tows	51	40	11
CTD casts	42	40	2
Weather	51	47	4
Surface Temp.	51	47	4

EK-60 (hours)	240	240	0
Trawls	51	49	2

Of the 49 trawls performed, a summary of the catch data is listed below:

Species	Total Weight (lbs.)
Sardinops sagax	1286
Engraulis mordax	676
Loligo opalescens	208
Oncorhyncus kisutch	2
Clupea pallasii	11
Myctophidae	36

DISPOSITION OF DATA: Pairovet tow data sheets and formalin preserved samples - Richard Charter, FRD (SWFSC).

Station activity logs, weather data and surface temperature data - Richard Charter, FRD (SWFSC).

CTD data - Dave Griffith, FRD (SWFSC).

EK-60 data - David Demer, FRD (SWFSC).

Trawl data and preserved samples - Beverly Macewicz, FRD (SWFSC).

INCIDENTS & MALFUNCTIONS: None.

COMMENDATIONS: The personnel of the *F/V Frosti* should be recognized and commended for their dedication and professional manner, ensuring the completion of the cruise.

PERSONNEL:

Dave Griffith	SWFSC
Noelle Bowlin	SWFSC
Bev Macewicz	SWFSC

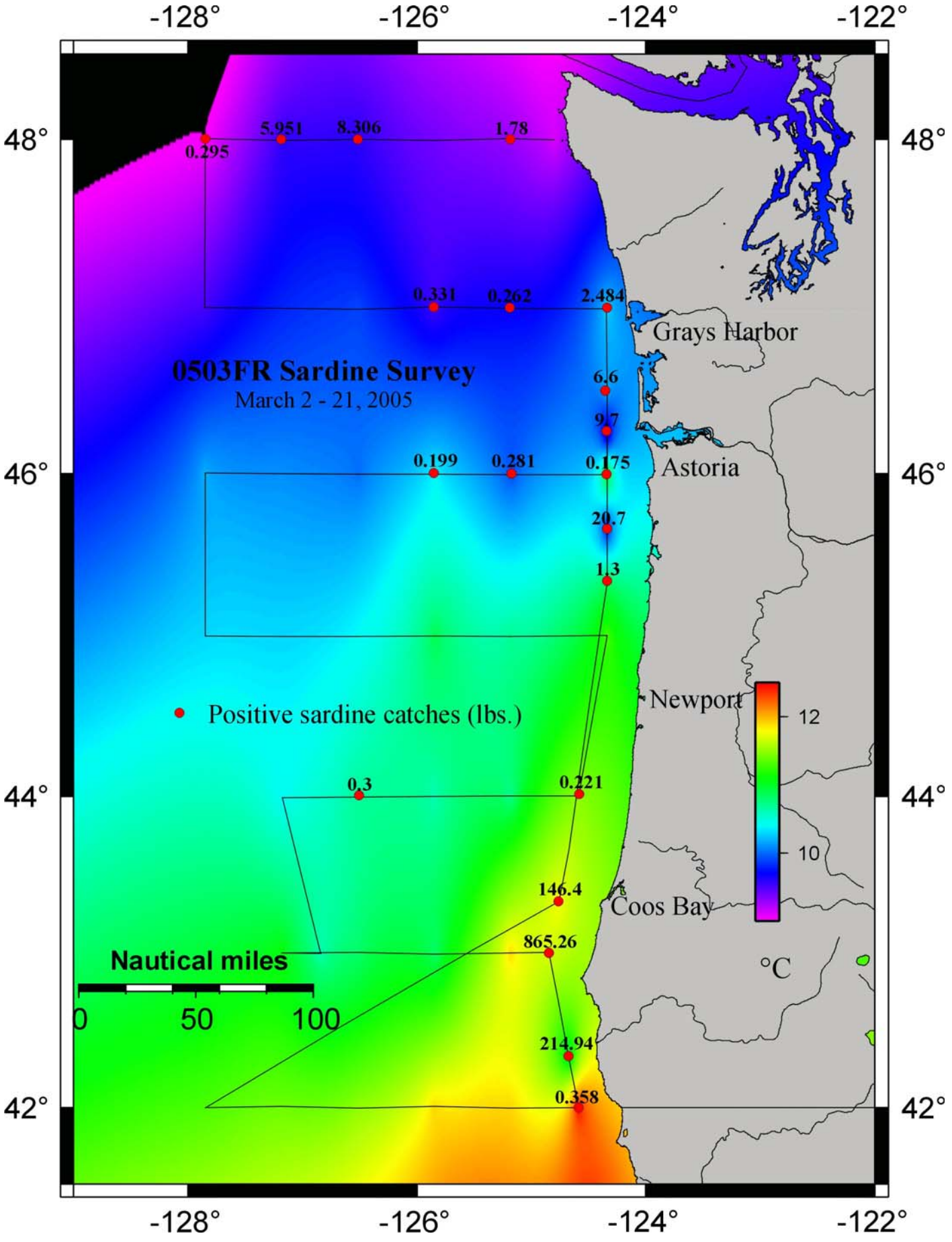
SWFSC personnel authorized per diem at the rate of $3.00 per day to be paid via the Imprest Fund at the termination of the cruise.

WATCH HOURS: 1800 - 0559
0600 - 1759

Date: _____ Prepared by: _____
David Griffith

Approved by: _____

William Fox, Ph.D.
Science & Research Director
Southwest Region


-128°
-126°
-124°
-122°
48°
46°
44°
42°
0.295
5.951
8.306
1.78
0.331
0.262
2.484
6.6
9.7
0.199
0.281
0.175
20.7
1.3
0.3
0.221
146.4
865.26
214.94
0.358
0503FR Sardine Survey
March 2 - 21, 2005
Positive sardine catches (lbs.)
Grays Harbor
Astoria
Newport
Coos Bay
12
10
°C
Nautical miles
0
50
100