



NOAA Teacher at Sea Log:

Deborah Moraga

NOAA Ship: R/V Fulmar

Mission: ACCESS

Geographical Area: Offshore-Half Moon Bay

Date: Tuesday, June 27, 2010

Weather Data from the Bridge

Start Time: 0700 (7:00 am)

End Time: 1600 (4:00 pm)

Position:

Line 10 start on western end: Latitude =
 $37^{\circ} 20.6852$ N; Longitude = 122°
 56.5215 W

Line 10 end on eastern end: Latitude =
 $37^{\circ} 21.3466$ N; Longitude = 122°
 27.5634 W

Present Weather: Started with full
cloud cover and cleared to no cloud
cover by mid day

Visibility: greater than 10 nautical miles

Wind Speed: 5 knots

Wave Height: 0.5 meters

Sea Water Temp: 14.72 C

Air Temperature: Dry bulb = 14 C

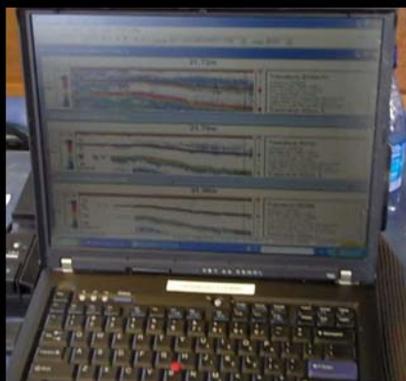
Barometric Pressure: 1013.2 mb

Science and Technology Log

We left Half Moon Bay at 0700 (7:00
am) to survey line 10. We traveled out
to about 30 miles offshore then
deployed the Tucker trawl.

When the team deploys the Tucker
trawl the goal is to collect krill. They are relying on the echo-sounder to determine where the krill
are located in the water column. The echo-sounder sends out sound waves that bounce off
objects in the water and works much like a sophisticated fish finder. Dolphins hunt for their prey
in much the same way. A computer connected to the eco-sounder is used to display the image of
the water column as the sound waves travel back to the boat. By reading the colors on the screen
the team can determine the depth of krill.

The scientists send weights (called messengers) down a cable that is attached to the Tucker trawl
as it is towed behind the boat. Once the messenger reaches the end of the line where the net is



located, it triggers one of the three nets to close. Triggering the nets this way allows for the researchers to sample zooplankton at three different depths.

When the cod-ends of the nets were brought onboard Jaime Jahncke (scientist for PRBO Conservation Science) examined the contents. Some of the organisms that were collected were...

- *Thysanoessa spinifera* – a species of krill
 - Crab megalopa larvae
- Euphausia pacifica* – a species of krill