Weather Data from the Bridge
Wind speed: 10 knots
Wind direction: 355° from the north
Visibility: fog
Temperature: 11°C (dry bulb); 10°C (wet bulb)
Sea water temperature: 9.2°C
Wave height: 2 ft.
Swell direction: 310°
Swell height: 5 ft.

Science/Technology Log
Three fishing trawls were conducted today. We took biological samples from the hake collected. The following is a list of other fish retrieved:
- Octopus: 1
- Squid: 47
- Glass shrimp: 50
- Shrimp (another species): 3

Bird observations:
Many bird species are seen around the boat each time there is a fishing trawl net. They range in size and flying pattern. Here are a few of them.
- Black-footed Albatross (*Phoebastria nigripes*): Mostly dark in all plumage, or feathers; White undertail and white may be on belly; Range: Seen around the year off west coast in spring and summer; Winters in Hawaii.
While observing the albatross and fulmar fly, I noticed that they glide gracefully across the waves gently touching the tip of their wing into the water. During take off, the albatross uses his giant webbed feet to push off by “running” on the surface of the water. Similarly during landing; his feet appear to “run” on the water which seems to slow him down.

- Sooty Shearwater (*Puffinus griseus*): Whitish underwing contrasts with overall dark plumage; Range: breeds in southern hemisphere; Abundant off west coast, often seen from shore.

Above and below: Black-footed Albatross

Sooty Shearwater
Pink-footed Shearwater (*Puffinus creatopus*): Blackish-brown above; white wing underparts, a bit mottled; Range: spends summers in northern Pacific; winters in Chile.

Northern Fulmar (*Fulmarus glacialis*): Gull-sized seabird; rapid wingbeats alternating with gliding over waves; color is rather uniform with not strong contrasts; gray overall with whitish undersides; range: Northern Pacific Ocean and Northern Atlantic Ocean; Breeds: Aleutian Islands, Alaska

For fun on-line NOAA activities such as:
- Make your own Compass
- Tying Knots
- Learn about Nautical Charts
- Be a Shipwreck detective
- Make a tornado in a bottle

Go to: [http://celebrating200years.noaa.gov/edufun.html](http://celebrating200years.noaa.gov/edufun.html)
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Animals Seen Today

*Fish and other trawled animals:*
- Hake
- Octopi- cephalopod
- Squid- cephalopod
- Shrimp- crustacean

*Birds:*
- Fulmar
- Shearwater
- Albatross
- Gull