

## PACIFIC REGION CCG VESSEL -POST CRUISE REPORT

#### NAME OF SHIP/PLATFORM: S.W. Laurier

**DATE:** FROM: 18 April 2006 TO: 24 April 2006

SCIENCE CRUISE NUMBER: IOS2006-016

SHIP'S PATROL NUMBER:

**<u>CHIEF SCIENTIST[S]</u>**: Steve Romaine

<u>AREAS OF OPERATION</u> West coast of Vancouver Island, from Juan de Fuca Strait to north of Triangle Island and Strait of Georgia.

#### **CRUISE OBJECTIVE/OBJECTIVES:**

Biological oceanography time series (CTD, zooplankton net tows), West Coast Vancouver Island, Cape Scott, Strait of Georgia.

#### DAYS ALLOCATED:7DAYS OF OPERATION:7

DAYS LOST DUE TO WEATHER:

No time lost to weather

#### RESULTS:

Our physical observations show that the upper water column (top 50m) to be well mixed with an average temperature of 9°C. Minor phytoplankton population blooms were noted on the northern lines off Brooks Peninsula and Cape Scott, whereas there was no trace of blooms on the southern lines. The Strait of Georgia samples were thick with phytoplankton. Zooplankton populations on the southern lines were thin, with primarily a mix of euphausiids, ctenophores, *paracalanus, centropages*, and *pseudocalanus*. The LG and LBP lines noted few euphausiids, average amounts of *Neocalanus cristatus*, and an abundant population of *Limacina*. *Vellella* was noted on both LG and LBP lines as well and in some locations small 'oil slicks' of Vellella were noted. Most *Vellella* were small in size (<4 cm diameter). The Strait of Georgia samples did not appear to contain any adult *Neocalanus cristatus* and fewer than average stage 5 *N. plumchrus* on a 400m net sample.

#### **RADIOISOTOPE USE:**

N/A

#### PROBLEMS [SCIENTIFIC GEAR AND OPERATIONS]:

A short A-frame made lifting the bongo net assembly difficult. After the first few casts the nets were modified to have most of the weights suspended directly below the bongo hoops rather than under the socks. This modification, similar to what has been used on the Ricker, greatly improved deployment and recovery of the nets.

Salinity sensor on the CTD gave unreliable readings on two of the casts >500m.



## SUCCESSES [SCIENTIFIC]:

Departing a day earlier than previously scheduled allowed additional scientific work to be completed. Despite never having used the Laurier for this program before and being unfamiliar with its operations, scientific sampling went very smoothly. This was thanks in large part to the excellent skills of the scientists on board and cooperation from the officers and crew.

Overall we completed 62 stations (see Figure 1), including 62 CTD casts, 43 plankton tows (bongo nets), and we took 10 calibration salinity samples.

**Figure 1.** Completed stations on 2006-016. Red triangles: CTD casts. Green triangles: CTD casts and plankton net hauls.



### PROBLEMS [SHIP'S EQUIPMENT]

No major problems.

### **OPERATIONS/PLATFORM SUITABILITY] & SUCCESSES [SHIP]:**

Outstanding cooperation from the officers and crew in addition to the fair to good weather experienced made this scientific mission a success. Many thanks to Captain Thomas and the rest of the Laurier's officers and crew for making this a successful mission. Also thanks for the excellent hospitality of a BBQ arranged after completing our West Coast work on Saturday the 22<sup>nd</sup>.



### **DELAYS [OTHER THAN WEATHER]:**

Different hose sizes between the winch and ship delayed departure on Monday night.

#### SAFETY CONCERNS:

The location of the winch to the A-frame and the deployment of relatively light equipment (bongo frames plus weight was about 80 Kg) required the winch operator to deploy equipment slowly and carefully to maintain tension on the line. In rougher seas, additional weights would need to be added to the bongo frames to allow deployment while minimizing the snapping of the line across the deck.

### HAZARDOUS OCCURRENCES:

None

#### **EVENT LOG:**

**18 April:** scientific gear loaded starting at 13.00. Sailed at 21.00

### **19 April:**

C2	CTD/Bongo
C1	CTD/Bongo
C3	CTD/Bongo
LB07	CTD/Bongo
B8	CTD/Bongo
B7	CTD/Bongo
LB08	CTD/Bongo
LB09	CTD
LB10	CTD
LB11	CTD/Bongo
LB12	CTD
LB13	CTD
LB14	CTD/Bongo
LB15	CTD
LB16	CTD

## 20 April:

LC12/A4	CTD/Bongo/Salinity
LC11	CTD
LC10	CTD/Bongo/Salinity
LC09/A3	CTD/Bongo
A2	CTD/Bongo
LC08/A1	CTD/Bongo
LC07	CTD
LC06/B6	CTD/Bongo
LC05/B5	CTD/Bongo
LC04	CTD
LC03	CTD



LC02	CTD
LC01	CTD
D1	CTD/Bongo
D2	CTD/Bongo
LG01	CTD
LG02	CTD/Bongo
LG03	CTD
LG04	CTD/Bongo

# 21 April:

LG05	CTD
LG06	CTD
LG07	CTD/Bongo
LG08	CTD
LG09	CTD/Bongo/Salinity
LBP01	CTD
LBP02	CTD/Bongo
LBP03	CTD/Bongo
LBP04	CTD
LBP05	CTD/Bongo
LBP06	CTD
LBP07	CTD/Bongo
LBP08	CTD

# 22 April:

CS01	CTD/Bongo/Salinity
CS02	CTD/Bongo
JI22	CTD/Bongo
CS03	CTD/Bongo
CS04	CTD/Bongo
CS3B	CTD/Bongo
CS05	CTD/Bongo
CS06	CTD/Bongo
CS07	CTD/Bongo
CS08	CTD/Bongo
CS09*	CTD/Bongo
CS10*	CTD/Bongo
CPE1	CTD/Bongo

# 23 April:

CPF2	CTD/Bongo
CPF1	CTD/Bongo
GEO1	CTD/Bongo X2/Salinity



Docked at CG base, 20.00

**24 April:** Unloading at CG base, Victoria

MEZX

Steve Romaine

24 April 2006