

Technical Report (99-002)

## Weeks Bay Data Report

WB-1 to WB-38 Cruises  
(June 1990 – August 1992)

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## **Purpose of Study**

This research was designed to examine the effects of river discharge, suspended sediment dynamics and nutrient inputs on phytoplankton production in the Weeks Bay ecosystem. This report contains physical, chemical, and biological data collected during a two-year series of 38 surveys carried out in Weeks Bay between June 1990 and August 1992. Each survey consisted of up to 19 stations in Weeks Bay between the mouth of Fish River and each bay (see page 9 for a general map with all station locations).

## **Acknowledgements**

We would like to acknowledge the efforts of the Dauphin Island Sea Lab technical support staff, Alan Gunter and Mike Dardeau, as well as the boat crew, Rodney Collier and Russell Wilson. We would also like to acknowledge the support of the Dauphin Island Sea Lab and the NOAA-National Estuarine Research Reserve System (NERRS) in providing funding for this program (Grant# NA90AA-H-CZ698).

## **Station and Field Sampling Procedures**

Water samples were obtained from the 23-foot outboard research vessels Sea Ox and Robalo from the Dauphin Island Sea Lab. At each station, local time (CST or CDT), Loran C, and bottom depth were recorded. The measurements made at each station are outlined below.

### **Hydrographic Sampling**

Either a Hydrolab Surveyor II or a Sea-Bird Electronics SBE-25 CTD was used to collect hydrographic profiles of salinity, temperature, dissolved oxygen, and pH. These profiles were taken at discrete sampling depths and stored to memory until being downloaded upon return to the laboratory. In addition to the CTD profiles, the underwater light regime was quantified using a LiCor Quantum Irradiance Meter fitted with a 3  $\pi$  spherical deck and underwater sensors or on a few occasions a 20 cm secchi disk. LiCor profiles were carried out at 10 cm increments through the photic zone and the diffuse attenuation coefficient for PAR ( $k$ ;  $m^{-1}$ ) was calculated for each station via regression of  $\ln$  irradiance vs. depth for the entire subsurface profile after correction of irradiance for instantaneous variations in surface irradiance. Secchi measurements were estimated to the nearest 5 cm.

### **Discrete Water Sampling**

5-liter PVC Niskin bottles were deployed to collect water samples at the surface. Bottom samples were collected using a horizontally mounted Niskin bottle 20 cm above the sediment surface.

Upon sampling, 1 liter of water was collected into an acid washed, deionized water and sample rinsed 1-liter HDPE bottle. Samples were maintained in the dark on ice until return to the laboratory. Also, 1 liter of water for phytoplankton production experiments was collected in

the laboratory. Also, 1 liter of water for phytoplankton production experiments was collected in polycarbonate bottles and held at ambient temperature in the dark until processing. In addition, samples for dissolved inorganic carbon (DIC) were collected in glass scintillation vials, capped without air contamination, and returned to the laboratory for immediate analysis. Finally, 20 ml samples for phytoplankton taxonomy were collected and fixed with 2 drops of Lugol's Solution. Upon completion of water collection, temperature and salinity were measured in all discrete samples using an Orion temperature/conductivity probe with a resolution of 0.1 °C and 0.1 ppt. These latter discrete measurements are reported in this data set.

## **Laboratory Methods**

In the laboratory, samples were split into dissolved and particulate fractions using Whatman GF/C glass fiber filters that had been muffled (450 °C for 2 hours) to remove organic contamination. These filters have a nominal pore size of 1.2 µm. Specific processing, storage and analytical procedures are detailed below.

### **Dissolved Matter**

#### Dissolved Inorganic Carbon (DIC)

DIC was determined from samples for analysis using a Shimadzu TOC-5000 fitted with a non-dispersive IR detector. This instrument has a precision of  $\pm 10$  µM at a concentration of 1500 µM.

#### Dissolved Inorganic Nutrients

Dissolved nutrients were measured in sample water filtered through a Whatman GF/C filter. Phosphate, ammonium, nitrate, nitrite, and silicate were analyzed by standard colorimetric methods (Strickland and Parsons, 1972) adapted for use on an Alpkem RFA/2 Autoanalyzer. Detection limits are 0.01 µM ( $\text{NO}_3$ ,  $\text{NO}_2$ ,  $\text{PO}_4$ ), 0.02 µM ( $\text{NH}_4$ ), and 0.05 µM ( $\text{SiO}_2$ ). Standard error for all measurements ranges from 2-3%.

#### Dissolved Organic Carbon (DOC)

DOC was determined in filtered (GF/C) sample water which was sealed in muffled glass scintillation vials and frozen until analysis using a Shimadzu TOC-5000. For analysis, the sample was acidified and sparged with zero-grade air to remove inorganic carbon and then analyzed to obtain the total organic carbon concentration. This method has a detection limit of 10 µM and standard error of  $\pm 5\%$  at 300 µM.

### Dissolved Organic Nitrogen (DON)

Total dissolved nitrogen (TDN) was analyzed on GF/C filtered samples following the persulfate oxidation method of D'Elia (1977). Inorganic N ( $\text{NO}_3^- + \text{NO}_2^- + \text{NH}_4^+$ ) was subtracted from TDN to give DON. This method has a detection limit of  $0.6 \mu\text{M} \pm 1\%$ .

### Dissolved Organic Phosphorus (DOP)

Total dissolved phosphate (TDP) was determined by the high temperature combustion method of Solorzano and Sharp (1980). Inorganic  $\text{PO}_4$  was subtracted from TDP to give DOP. This method has a standard error of  $\pm 5\%$ .

## **Particulate Matter**

### Suspended Sediments

Total suspended sediments (inorganic sediment plus living and dead organic matter) was determined by passing a known volume of water through a pre-washed and pre-weighed 47 mm GF/C filter. After filtration, each filter was rinsed with deionized water to remove salts, dried at  $50^\circ\text{C}$ , cooled and re-weighed following the methods of Strickland and Parsons (1972). This method has a detection limit of  $0.1 \text{ mg l}^{-1}$  with a standard error of  $\pm 5\%$ .

### Particulate Carbon and Nitrogen (PC/PN)

PC and PN were measured on particulate matter collected on a 25mm GF/C filter via high temperature combustion (Sharp, 1974) using a Carlo-Erba NA 1500 Carbon-Nitrogen-Sulfur (CNS) analyzer fitted with a thermal conductivity detector. This method has a detection limit of  $1.0 \mu\text{M}$  with a standard error of  $\pm 5\%$ .

### Particulate Phosphorous (PP)

PP was determined by conversion of particulate phosphorous to dissolved inorganic phosphorous by high temperature combustion according to the method of Solorzano and Sharp (1980). This method has a detection limit of  $1.0 \mu\text{M}$  with a standard error of  $\pm 1\%$ .

## **Phytoplankton Biomass and Production**

### Chlorophyll-a

Chlorophyll a was extracted on Whatman GF/C filters for 24 hours in cold 90% acetone and measured by fluorometry (Strickland and Parsons, 1972) to account for the presence of phaeopigments. The Turner Designs Model 10 fluorometer was calibrated with spectrophotometric measurements of pure chlorophyll a (Sigma Chemical). This method has a detection limit of  $0.01 \mu\text{g l}^{-1}$  with a standard error of  $\pm 5\%$ .

## Phytoplankton Production

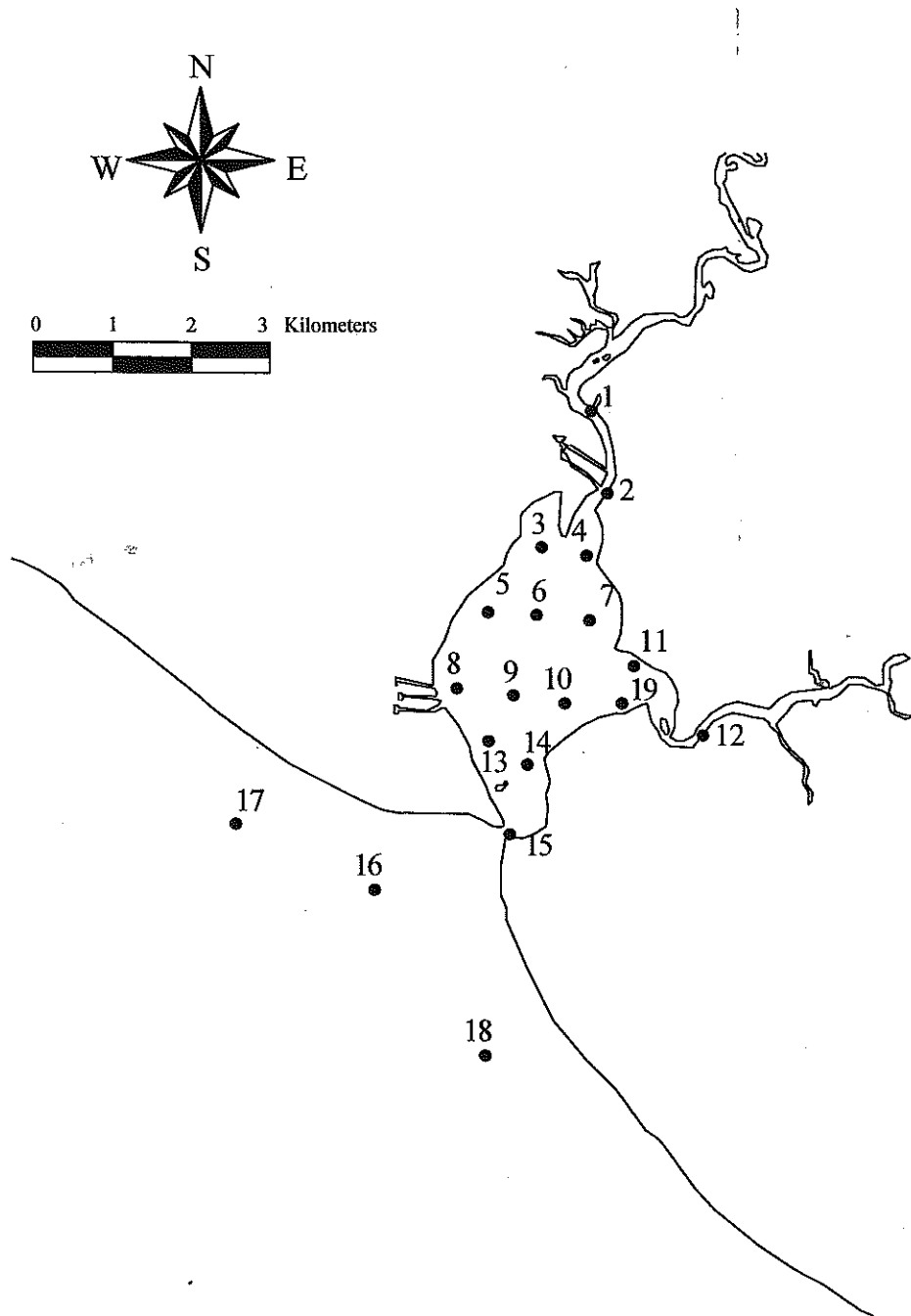
Phytoplankton production was measured by the incorporation of  $\text{NaH}^{14}\text{CO}_3$  into particulate matter over 24-hour incubations at six light intensities (100, 57, 26, 9, 5, 1% ambient) using neutral density screen bags in a flow-through deck incubator (Pennock and Sharp, 1986). Incubations were terminated by filtering the particulate matter onto Whatman GF/C filters and rinsing with filtered ambient water. Filters were placed immediately into scintillation vials filled with 5 ml of Beckman Ready-Safe scintillation fluor and counted on a Packard Tri-Carb liquid scintillation counter.

Maximum production per unit volume ( $\text{mg C l}^{-1} \text{ d}^{-1}$ ) was determined using the maximum rate obtained from the 6 point light series. Areal production was determined by integrating the values obtained at each of the light levels by the light profile described by the diffuse attenuation coefficient, following the methods of Pennock and Sharp (1986).

## **References**

- D'Elia, C.F., P.A. Steudler, and N. Corwin. 1977. Determination of total nitrogen in aqueous samples using persulfate digestion. *Limnol. Oceanogr.* 22:760-764.
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- Shimadzu Corp. 1991. Total organic carbon analyzer instrument manual. Columbia, MD.
- Solorzano, L. and J.H. Sharp. 1980. Determination of total phosphorous and particulate phosphorous in natural water. *Limnol. Oceanogr.* 25:754-760.
- Strickland, J.D.H. and T.R. Parsons. 1972. A Practical Handbook for Seawater Analysis. Fisheries Research Board of Canada pp. 121-125; 201-203.

# Map of Weeks Bay



## *Weeks Bay Cruise Report*

*WB-1*

21, 22 June 1990

***Vessel:***

R/V Sea Ox

***Operation Area:***

Weeks Bay: From Fish River to the mouth of the bay

***Scientific party:***

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber

***Supporting Agency:***

DISL

***Research Objectives:***

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 19 surface and bottom stations (all 19 of those including bottom water casts). Samples were taken for PC/PN and  $^{14}\text{C}$  productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

***Cruise Summary:***

Departed DISL 0835 CDT (GMT-7 hours).  
Deadheaded to station 1. Began sampling 0900.  
Stations were continued going upbay to Fish River.  
Returned to DISL 1445.

# Weeks Bay Cruise WB: 1

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
6/21/90	01-S	0.3		1257			30	:		:	6.4	31.3	6.8		8.1	
6/21/90	01-B	0.3		1140			30	:		:	6.7	29.4	5.7			
6/21/90	02-S	0.3		2020			30	:		:	4.5	31.7	8.4		8.4	
6/21/90	02-B	0.3		1145			30	:		:	6.7	29.2	6.1		8.4	
6/21/90	03-S	0.3		2026			30	:		:	3.5	31.6	7.8		8.4	
6/21/90	03-B	0.3		1140			30	:		:	5.8	29.5	5.9			
6/21/90	04-S	0.3		1325			30	:		:	5.5	32.1	8.9		8.2	
6/21/90	04-B	0.3		957			30	:		:	4.8	29.1	6.3		7.8	
6/21/90	05-S	0.3		1910			30	:		:	5.2	32.3	8.2		8.5	
6/21/90	05-B	0.3		1006			30	:		:	6.6	29.7	5.9		7.7	
6/21/90	06-S	0.3		1238			30	:		:	6.2	31.5	7.6		8.2	
6/21/90	06-B	0.3		1150			30	:		:	4.6	29.2	6.4			
6/21/90	07-S	0.3		1847			30	:		:	2.8	31.7	8.3		8.4	
6/21/90	07-B	0.3		949			30	:		:	3.1	28.8	6.7		7.6	
6/21/90	08-S	0.3		1811			30	:		:	1.7	30.5	7.2		7.6	
6/21/90	08-B	0.3		941			30	:		:	3.3	28.8	6.8		7.8	
6/21/90	09-S	0.3		1837			30	:		:	1.9	30.4	7.2		7.5	
6/21/90	09-B	0.3		934			30	:		:	4.7	28.9	6.8		7.8	
6/21/90	10-S	0.3		1922			30	:		:	1.8	30.9	7.5		7.6	
6/21/90	10-B	0.3		1103			30	:		:	4.8	58.9	6.6			
6/21/90	11-S	0.3		1951			30	:		:	3.5	32.2	8.5		8.5	
6/21/90	11-B	0.3		1109			30	:		:	4.8	29.3	4.8			
6/21/90	12-S	0.3		1225			30	:		:	3.8	31.5	7.8		8.3	
6/21/90	12-B	0.3		1954			30	:		:	3.4	28.8	6.6			
6/21/90	13-S	0.3		1822			30	:		:	3.2	31.9	8.2		8.4	
6/21/90	13-B	0.3		919			30	:		:	2.8	28.6	6.7		7.0	
6/21/90	14-S	0.3		1830			30	:		:	1.1	30.1	6.9		7.3	
6/21/90	14-B	0.3		926			30	:		:	2.9	28.5	6.7		7.6	
6/21/90	15-S	0.3		1927			30	:		:	1.3	30.0	7.0		7.2	
6/21/90	15-B	0.3		1056			30	:		:	4.6	29.0	6.6			
6/21/90	16-S	0.3		1210			30	:		:	2.3	30.7	7.1		7.8	
6/21/90	16-B	0.3		1100			30	:		:	4.0	28.9	6.7			
6/21/90	BS-S	0.3		1255			30	:		:	7.3	31.8	7.5		8.2	
6/21/90	BS-B	0.3		1135			30	:		:	5.6	31.8	7.5		8.4	
6/21/90	FR-S	0.3		1939			30	:		:	0.2	29.5	6.5		6.7	
6/21/90	FR-B	0.3		1040			30	:		:	4.0	29.1	6.2			
6/21/90	MR-S	0.3		1958			30	:		:	1.9	31.2	9.9		7.6	
6/21/90	MR-B	0.3		1118			30	:		:	2.2	28.5	6.4			

Weeks Bay Cruise WB: 1

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
6/21/90	01-S	0.3				0.06					0.38		24.13		0.03	45	16.01		
6/21/90	01-B	0.3				0.06					0.17		77.80		0.06		21.34		
6/21/90	02-S	0.3				0.05					0.16		45.32		0.03		18.25		
6/21/90	02-B	0.3				0.06					0.13		77.66		0.04		15.49		
6/21/90	03-S	0.3				0.08					0.12		46.74		0.04		18.07		
6/21/90	03-B	0.3				0.04					0.13		47.94		0.03		19.45		
6/21/90	04-S	0.3				0.09					0.09		90.09		0.03	50	17.56		
6/21/90	04-B	0.3				0.09					0.11		82.94		0.03		20.91		
6/21/90	05-S	0.3				0.07					0.08		84.82		0.04		16.27		
6/21/90	05-B	0.3				0.09					0.13		84.82		0.03		18.33		
6/21/90	06-S	0.3				0.08					0.09		88.39		0.02	60	20.91		
6/21/90	06-B	0.3				0.06					0.14		32.20		0.01		22.03		
6/21/90	07-S	0.3				0.07					0.09		94.95		0.03		17.43		
6/21/90	07-B	0.3				0.13					0.06		93.58		0.01		20.66		
6/21/90	08-S	0.3				0.07					0.09		95.69		0.03		15.49		
6/21/90	08-B	0.3				0.15					0.07		92.75		0.02		22.21		
6/21/90	09-S	0.3				0.27					0.12		94.82		0.03		14.85		
6/21/90	09-B	0.3				0.09					0.14		87.16		0.01		17.21		
6/21/90	10-S	0.3				0.06					0.09		72.57		0.02		15.23		
6/21/90	10-B	0.3				0.09					0.08		89.77		0.02				
6/21/90	11-S	0.3				0.09					0.07		94.54		0.02		22.72		
6/21/90	11-B	0.3				0.09					0.09		88.03		0.02		25.13		
6/21/90	12-S	0.3				0.10					0.10		92.61		0.04	65	17.43		
6/21/90	12-B	0.3				0.07					0.13		34.04		0.00		24.96		
6/21/90	13-S	0.3				0.09					0.12		95.18		0.03		16.78		
6/21/90	13-B	0.3				0.06					0.10		30.87		0.02		28.27		
6/21/90	14-S	0.3				0.38					0.08		97.11		0.02		14.20		
6/21/90	14-B	0.3				0.07					0.12		21.65		0.02		22.72		
6/21/90	15-S	0.3				0.05					0.06		39.08		0.03		11.88		
6/21/90	15-B	0.3				0.09					0.08		87.66		0.02		22.89		
6/21/90	16-S	0.3				0.20					0.05		101.79		0.02	65	11.88		
6/21/90	16-B	0.3				0.10					0.06		89.86		0.01				
6/21/90	BS-S	0.3				0.07					0.26		83.03		0.04	75	18.33		
6/21/90	BS-B	0.3				0.07					0.44		73.12		0.05		17.21		
6/21/90	FR-S	0.3				0.08					0.06		12.84		0.00		5.81		
6/21/90	FR-B	0.3				0.08					0.06		70.55		0.02		27.54		
6/21/90	MR-S	0.3				0.11					0.06		94.04		0.01		2.32		
6/21/90	MR-B	0.3				0.05					0.08		73.99		0.02		27.71		

Weeks Bay Cruise Report

WB-2  
24 July 1990

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 19 surface stations. Samples were taken for PC/PN and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a SBE-25 at all stations.
Cruise Summary:	Departed DISL 0835 CDT (GMT-7 hours). Deadheaded to station FR. Began sampling 0900. Stations were continued going downbay to to Bon Secour Bay. Returned to DISL 1345.



# Weeks Bay Cruise WB: 2

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
7/24/90	01-S	0.3		1203	12892.3	47122.8	30	22.3	87	50.3						
7/24/90	02-S	0.3		1153	12094.1	47124.9	30	28.8	89	6.5						
7/24/90	03-S	0.3		1146	12891.7	47125.8	30	23.0	87	50.4						
7/24/90	04-S	0.3		1135	12890.1	47127.9	30	23.5	87	50.6						
7/24/90	05-S	0.3		1126	12894.0	47127.0	30	23.3	87	50.2						
7/24/90	06-S	0.3		1117	12896.7	47126.6	30	23.2	87	49.9						
7/24/90	07-S	0.3		1010	12893.5	47129.9	30	30.0	87	50.3						
7/24/90	08-S	0.3		1019	12896.0	47129.6	30	23.9	87	50.0						
7/24/90	09-S	0.3		1028	12898.1	47129.2	30	23.8	87	49.8						
7/24/90	10-S	0.3		1037	12899.2	47128.9	30	23.7	87	49.6						
7/24/90	11-S	0.3		1047	12904.0	47127.9	30	23.4	87	49.2						
7/24/90	12-S	0.3		1054	12905.4	47126.0	30	23.0	87	49.1						
7/24/90	13-S	0.3		1000	12894.8	47130.5	30	24.1	87	50.2						
7/24/90	14-S	0.3		936	12897.7	47130.2	30	24.0	87	49.9						
7/24/90	15-S	0.3		922	12900.8	47130.1	30	24.0	87	49.6						
7/24/90	16-S	0.3		912	12901.5	47132.0	30	24.4	87	49.6						
7/24/90	BS	0.3		1216	12882.0	47121.2	30	22.0	87	51.2						
7/24/90	FR	0.3		900	12902.4	47133.1	30	24.7	87	49.5						
7/24/90	MR	0.3		1102	12908.0	47125.8	30	22.9	87	48.8						

Weeks Bay Cruise WB: 2

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -/(m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
7/24/90	01-S	0.3												0.02	60	44.75			
7/24/90	02-S	0.3												0.02	55	30.12			
7/24/90	03-S	0.3												0.02	50	27.37			
7/24/90	04-S	0.3												0.05	40	32.71			
7/24/90	05-S	0.3												0.08	50	27.54			
7/24/90	06-S	0.3												0.05	60	22.38			
7/24/90	07-S	0.3												0.03	45	28.40			
7/24/90	08-S	0.3												0.02	45	28.57			
7/24/90	09-S	0.3												0.02	50	25.13			
7/24/90	10-S	0.3												0.02	55	25.99			
7/24/90	11-S	0.3												0.02	50	37.01			
7/24/90	12-S	0.3												0.03	40	33.57			
7/24/90	13-S	0.3												0.01	55	34.43			
7/24/90	14-S	0.3												0.02	50	24.10			
7/24/90	15-S	0.3												0.01	50	20.83			
7/24/90	16-S	0.3												0.01	70	18.07			
7/24/90	BS	0.3												0.03	35	18.93			
7/24/90	FR	0.3												0.01	80	22.03			
7/24/90	MR	0.3												0.02	55	39.59			

Weeks Bay Cruise Report

WB-3  
12 October 1990

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (10 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a SBE-25 at all stations.
Cruise Summary:	Departed DISL 0835 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0900. Stations were continued going upbay to Fish River. Returned to DISL 1445.

# Weeks Bay Cruise WB: 3

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
10/12/90	01-S	0.3		900	12902.8	47134.9	30	25.5	87	49.6	7.7	22.1				
10/12/90	02-S	0.3		928	12902.2	47133.1	30	24.9	87	49.5	8.5	21.9				
10/12/90	02-B				12902.2	47133.1	30	24.9	87	49.5	16.9	22.0				
10/12/90	03-S	0.3		1059	12896.6	47131.4	30	24.5	87	50.0	14.8	22.7				
10/12/90	04-S	0.3		952	12900.9	47130.9	30	24.5	87	49.6	16.6	22.2				
10/12/90	04-B				12900.9	47130.9	30	24.5	87	49.6	18.9	22.7				
10/12/90	05-S	0.3		1036	12894.5	47130.2	30	24.1	87	50.4	12.7	22.5				
10/12/90	05-B				12894.5	47130.2	30	24.1	87	50.4	16.9	22.5				
10/12/90	06-S	0.3		1053	12897.1	47129.7	30	24.1	87	50.0	16.7	22.5				
10/12/90	07-S	0.3		1013	12900.2	47129.1	30	24.0	87	49.6	13.7	22.2				
10/12/90	07-B				12900.2	47129.1	30	24.0	87	49.6	20.0	22.5				
10/12/90	08-S	0.3		1229	12889.3	47128.2	30	23.6	87	50.6	14.5	23.4				
10/12/90	08-B				12889.3	47128.2	30	23.6	87	50.6	17.0	22.8				
10/12/90	09-S	0.3		1239	12893.3	47127.2	30	23.5	87	50.2	14.9	24.0				
10/12/90	10-S	0.3		1215	12897.7	47126.8	30	23.5	87	49.8	15.1	22.5				
10/12/90	10-B				12897.7	47126.8	30	23.5	87	49.8	17.7	22.5				
10/12/90	11-S	0.3		1158	12903.7	47127.9	30	23.7	87	49.2	14.0	23.1				
10/12/90	12-S	0.3		1140	12907.9	47125.7	30	23.2	87	48.7	12.0	23.5				
10/12/90	12-B				12907.9	47125.7	30	23.2	87	48.7	14.7	22.8				
10/12/90	13-S	0.3		1249	12890.4	47125.4	30	23.2	87	50.4	14.0	23.8				
10/12/90	14-S	0.3		1300	12894.5	47125.0	30	23.0	87	50.1	15.4	23.0				
10/12/90	14-B				12894.5	47125.0	30	23.0	87	50.1	19.3	22.6				
10/12/90	15-S	0.3		1312	12892.4	47122.8	30	22.5	87	50.2	15.9	22.6				
10/12/90	15-B				12892.4	47122.8	30	22.5	87	50.2	18.3	21.7				
10/12/90	16-S	0.3		1338	12880.8	47120.9	30	22.2	87	51.3	20.9	23.1				
10/12/90	16-B				12880.8	47120.9	30	22.2	87	51.3	21.6	23.7				
10/12/90	17-S	0.3		1405	12868.1	47121.9	30	22.6	87	52.4	22.1	23.2				
10/12/90	18-S	0.3		1418	12887.5	47119.5	30	20.7	87	50.4	21.3	23.4				

Weeks Bay Cruise WB: 3

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mg C/l/d)	APROD (gC/m2/d)
10/12/90	01-S	0.3			16.31	0.21					2.79		0.21	1.76	26.80	100	10.07		
10/12/90	02-S	0.3	152.79		14.11	0.17		24.82			2.45		0.14	2.02	33.25	100	5.29		
10/12/90	02-B				0.46	0.03					2.04		0.22				8.52		
10/12/90	03-S	0.3	217.40		2.67	0.05		33.16			1.43		0.19	1.80		80	15.36		
10/12/90	04-S	0.3	179.79		0.00	0.03		28.58			1.57		0.31		68.35	70	16.78		
10/12/90	04-B				0.00	0.05					1.36		0.30				30.60		
10/12/90	05-S	0.3	182.60		5.45	0.08		29.09			1.16		0.15	1.75	48.45	80	18.20		
10/12/90	05-B				1.59	0.07					1.22		0.28				15.10		
10/12/90	06-S	0.3			1.23	0.08					1.16		0.18		51.65	75	18.20		
10/12/90	07-S	0.3	187.99		3.03	0.06		31.53			1.16		0.14		42.85	75	14.85		
10/12/90	07-B				0.15	0.06					1.16		0.35				31.37		
10/12/90	08-S	0.3	249.47		2.02	0.06		42.04			1.02		0.15	1.56	42.65	90	14.72		
10/12/90	08-B				0.53	0.08					1.29		0.22				13.17		
10/12/90	09-S	0.3			2.04	0.05					1.02		0.15	1.58	50.30	90	15.75		
10/12/90	10-S	0.3	224.42		0.07	0.05		34.75			1.09		0.18	3.39		70	22.08		
10/12/90	10-B				0.12	0.05					1.16		0.22				18.59		
10/12/90	11-S	0.3			3.78	0.06					0.82		0.14	2.31	50.10	70	18.46		
10/12/90	12-S	0.3	214.11		14.66	0.07		34.43			1.16		0.12	2.03	37.45	90	12.39		
10/12/90	12-B				1.50	0.06					1.70		0.19				28.92		
10/12/90	13-S	0.3			2.20	0.05					1.63		0.14	1.67	46.75	90	15.23		
10/12/90	14-S	0.3	274.30		0.21	0.04		42.02			1.57		0.15	1.96	43.90	80	17.94		
10/12/90	14-B				0.31	0.05					1.70		0.25				16.65		
10/12/90	15-S	0.3	273.59		0.19	0.04		39.42			1.36		0.15	1.51		80	17.69		
10/12/90	15-B				0.20	0.05					1.63		0.23				16.78		
10/12/90	16-S	0.3	223.05		0.05	0.05		29.90			1.63		0.21	1.60	65.95	80	13.30		
10/12/90	16-B				0.00	0.06					1.57		0.41						
10/12/90	17-S	0.3			0.15	0.09					1.63		0.44	1.41	66.75	90	17.56		
10/12/90	18-S	0.3			0.41	0.06					1.84		0.27	2.91	73.08	80	14.07		

Weeks Bay Cruise Report

WB-4  
24 October 1990

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a SBE-25 at all stations.
Cruise Summary:	Departed DISL 0900 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0920. Stations were continued going upbay and ending at Fish River. Returned to DISL 1520.

# Weeks Bay Cruise WB: 4

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
10/24/90	01-S	0.3		920	12902.8	47134.9	30	25.5	87	49.6	7.0	19.6				
10/24/90	02-S	0.3		949	12902.1	47133.0	30	24.9	87	49.5	7.9	20.6				
10/24/90	02-B			949	12902.1	47133.0	30	24.9	87	49.5	14.2	21.4				
10/24/90	03-S	0.3		1043	12896.8	47131.0	30	24.5	87	50.0	18.5	20.7				
10/24/90	03-B			1043	12896.8	47131.0	30	24.5	87	50.0	18.6	21.0				
10/24/90	04-S	0.3		1021	12901.0	47130.9	30	24.5	87	49.6	17.2	21.2				
10/24/90	04-B			1021	12901.0	47130.9	30	24.5	87	49.6	17.4	21.6				
10/24/90	05-S	0.3		1100	12894.6	47130.1	30	24.1	87	50.4	17.6	20.5				
10/24/90	05-B			1100	12894.6	47130.1	30	24.1	87	50.4	17.3	20.3				
10/24/90	06-S	0.3		1115	12896.8	47129.6	30	24.1	87	50.0	13.3	21.1				
10/24/90	07-S	0.3		1126	12900.2	47129.1	30	24.0	87	49.6	16.8	21.5				
10/24/90	07-B			1126	12900.2	47129.1	30	24.0	87	49.6	16.9	21.4				
10/24/90	08-S	0.3		1252	12889.6	47128.1	30	23.6	87	50.6	16.2	20.6				
10/24/90	08-B			1252	12889.6	47128.1	30	23.6	87	50.6	16.2	20.8				
10/24/90	09-S	0.3		1237	12894.0	47127.5	30	23.5	87	50.2	15.7	21.1				
10/24/90	10-S	0.3		1221	12898.1	47127.1	30	23.5	87	49.8	15.7	21.5				
10/24/90	10-B			1221	12898.1	47127.1	30	23.5	87	49.8	15.7	21.4				
10/24/90	11-S	0.3		1210	12903.8	47127.9	30	23.7	87	49.2	14.8	22.4				
10/24/90	12-S	0.3		1146	12907.9	47125.8	30	23.2	87	48.7	9.7	20.9				
10/24/90	12-B			1146	12907.9	47125.8	30	23.2	87	48.7	13.5	22.3				
10/24/90	13-S	0.3		1300	12891.2	47125.7	30	23.2	87	50.4	15.7	21.6				
10/24/90	14-S	0.3		1315	12894.1	47124.9	30	23.0	87	50.1	15.9	21.7				
10/24/90	14-B			1315	12894.1	47124.9	30	23.0	87	50.1	15.9	21.7				
10/24/90	15-S	0.3		1333	12892.1	47122.7	30	22.5	87	50.2	15.9	21.4				
10/24/90	15-B			1333	12892.1	47122.7	30	22.5	87	50.2	18.3	21.1				
10/24/90	16-S	0.3		1357	12880.5	47120.8	30	22.2	87	51.3	20.8	20.9				
10/24/90	16-B			1357	12880.5	47120.8	30	22.2	87	51.3	20.9	21.2				
10/24/90	17-S	0.3		1419	12868.1	47121.9	30	22.6	87	52.4	21.1	21.1				
10/24/90	18-S	0.3		1449	12889.0	47116.6	30	20.7	87	50.4	19.7	21.3				

Weeks Bay Cruise WB: 4

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
10/24/90	01-S	0.3			0.28	0.60					0.18		77.53	1.88	4.70	113	4.39		
10/24/90	02-S	0.3		118.89	0.32	0.60		17.69			0.13		64.56	1.98	22.12	110	6.71		
10/24/90	02-B				0.15	0.36					0.19		38.03		36.84	110	19.24		
10/24/90	03-S	0.3		176.99	0.04	0.18		27.29			0.17		19.94	2.20	13.64	68	13.43		
10/24/90	03-B				0.04	0.10					0.15		19.31			68	13.94		
10/24/90	04-S	0.3		218.16	0.03	0.08		34.80			0.15		23.88	2.23	44.48	68	21.82		
10/24/90	04-B				0.05	0.10					0.08		19.19			68	24.10		
10/24/90	05-S	0.3		235.93	0.05	0.08		36.43			0.06		21.47	2.01	9.08	85	13.94		
10/24/90	05-B				0.06	0.09					0.09		22.60			85	12.91		
10/24/90	06-S	0.3			0.09	0.25					0.06		44.28	1.57	8.56	50	11.49		
10/24/90	07-S	0.3		200.24	0.07	0.14		30.02			0.15		24.78	2.61	19.84	74	18.07		
10/24/90	07-B				0.05	0.09					0.14		22.95			74	21.04		
10/24/90	08-S	0.3		231.93	0.06	0.23		35.53			0.07		28.62	1.89	10.80	68	12.57		
10/24/90	08-B				0.07	0.14					0.08		28.21			68	11.88		
10/24/90	09-S	0.3			0.06	0.11					0.03		24.16	2.10	4.00	80	15.49		
10/24/90	10-S	0.3		163.04	0.06	0.13		25.20			0.08		29.61	2.06	12.05	60	12.57		
10/24/90	10-B				0.07	0.17					0.12		28.92			60	17.04		
10/24/90	11-S	0.3			0.07	0.21					0.07		34.73	2.53	12.85	70	19.24		
10/24/90	12-S	0.3		179.72	0.15	1.49		27.40			0.04		61.94	1.87	3.00	110	8.26		
10/24/90	12-B				0.28	2.18					0.32		40.19			110	20.40		
10/24/90	13-S	0.3			0.07	0.43					0.09		31.42	1.70	9.65	75	14.80		
10/24/90	14-S	0.3		218.85	0.05	0.08		32.61			0.11		29.59	1.97	14.90	65	15.84		
10/24/90	14-B				0.05	0.00					0.10		28.48			65	17.56		
10/24/90	15-S	0.3			0.06	0.23					0.13		30.17	1.92	9.45	75	17.56		
10/24/90	15-B				0.06	1.00					0.12		21.39			75	15.84		
10/24/90	16-S	0.3		233.01	0.05	1.15		27.20			0.33		8.73	3.65	8.00	63	2.57		
10/24/90	16-B				0.07	0.06					0.35		8.78			63	6.02		
10/24/90	17-S	0.3			0.05	0.09					0.40		10.35	1.39	12.55	68	8.61		
10/24/90	18-S	0.3			0.05	0.73					0.12		16.59	4.85	32.35	50	13.60		

Weeks Bay Cruise Report

WB-5  
7 November 1990

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber Elizabeth A. Gaza
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a SBE-25 at all stations.
Cruise Summary:	Departed DISL 0910 CST (GMT-6 hours). Deadheaded to station 1. Began sampling 0938. Stations were continued going upbay and ending at Fish River. Returned to DISL 1620.

# Weeks Bay Cruise WB: 5

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
11/7/90	01-S	0.3		938	12902.7	47134.9	30	25.5	87	49.6	7.6	17.0				
11/7/90	02-S	0.3		1002	12902.2	47133.1	30	24.9	87	49.5	8.6	17.4				
11/7/90	02-B			1002	12902.2	47133.1	30	24.9	87	49.5	16.4	20.0				
11/7/90	03-S	0.3		1135	12896.4	47131.3	30	24.5	87	50.0	18.4	18.5				
11/7/90	03-B			1135	12896.4	47131.3	30	24.5	87	50.0	18.3	18.3				
11/7/90	04-S	0.3		1018	12900.9	47130.8	30	24.5	87	49.6	18.4	18.4				
11/7/90	04-B			1018	12900.9	47130.8	30	24.5	87	49.6	18.5	18.5				
11/7/90	05-S	0.3		1106	12844.5	47130.1	30	24.1	87	50.4	18.4	18.4				
11/7/90	05-B			1106	12844.5	47130.1	30	24.1	87	50.4	18.6	18.3				
11/7/90	06-S	0.3		1050	12897.0	47129.4	30	24.1	87	50.0	15.7	19.7				
11/7/90	07-S	0.3		1034	12900.0	47129.0	30	24.0	87	49.6	20.0	19.4				
11/7/90	07-B			1034	12900.0	47129.0	30	24.0	87	49.6	20.0	19.2				
11/7/90	08-S	0.3		1158	12889.6	47128.1	30	23.6	87	50.6	19.2	19.1				
11/7/90	08-B			1158	12889.6	47128.1	30	23.6	87	50.6	19.1	19.5				
11/7/90	09-S	0.3		1218	12892.9	47127.2	30	23.5	87	50.2	17.4	20.3				
11/7/90	10-S	0.3		1234	12897.7	47126.8	30	23.5	87	49.8	19.3	20.8				
11/7/90	10-B			1234	12897.7	47126.8	30	23.5	87	49.8	19.1	21.1				
11/7/90	11-S	0.3		1250	12903.7	47128.0	30	23.7	87	49.2	18.2	20.9				
11/7/90	12-S	0.3		1306	12907.9	47125.7	30	23.2	87	48.7	11.7	19.6				
11/7/90	12-B			1306	12907.9	47125.7	30	23.2	87	48.7	14.7	20.4				
11/7/90	13-S	0.3		1408	12890.5	47125.4	30	23.2	87	50.4	18.7	21.1				
11/7/90	14-S	0.3		1424	12894.3	47124.9	30	23.0	87	50.1	18.6	21.1				
11/7/90	14-B			1424	12894.3	47124.9	30	23.0	87	50.1	19.0	20.6				
11/7/90	15-S	0.3		1445	12892.5	47122.9	30	22.5	87	50.2	19.0	20.7				
11/7/90	15-B			1445	12892.5	47122.9	30	22.5	87	50.2	19.1	19.9				
11/7/90	16-S	0.3		1505	12881.0	47120.9	30	22.1	87	51.3	21.8	19.3				
11/7/90	16-B			1505	12881.0	47120.9	30	22.1	87	51.3	21.1	19.1				
11/7/90	17-S	0.3		1525	12875.4	47122.0	30	22.6	87	52.4	22.1	19.0				
11/7/90	18-S	0.3		1547	12886.8	47119.1	30	20.7	87	50.4	20.8	18.7				

Weeks Bay Cruise WB: 5

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
11/7/90	01-S	0.3			0.21	0.55					0.43		77.12	1.67	19.20	149	3.87		
11/7/90	02-S	0.3	66.29		0.18	0.47		9.52			0.41		69.46	1.66	5.20	148	3.36		
11/7/90	02-B				0.08	0.32					0.33		23.76		51.60	148	20.48		
11/7/90	03-S	0.3	151.67		0.04	0.17		24.22			0.22		13.37	1.90	51.60	75	9.30		
11/7/90	03-B				0.04	0.18					0.22		13.34			75	10.20		
11/7/90	04-S	0.3	223.16		0.05	0.11		33.55			0.22		12.39	2.34	27.00	85	16.01		
11/7/90	04-B				0.06	0.21					0.24		11.72			85	15.10		
11/7/90	05-S	0.3	142.61		0.04	0.11		22.80			0.21		12.86	1.35	9.20	85	7.88		
11/7/90	05-B				0.06	0.18					0.21		12.63			85	9.17		
11/7/90	06-S	0.3			0.06	0.17					0.30		27.60	1.51	55.00	76	12.14		
11/7/90	07-S	0.3	201.63		0.03	0.14		30.87			0.20		5.95	1.68	19.00	85	15.62		
11/7/90	07-B				0.05	0.20					0.20		5.26			85	16.65		
11/7/90	08-S	0.3			0.04	0.12					0.20		10.09	1.16	64.50	85	8.78		
11/7/90	08-B				0.06	0.12					0.20		10.62			85	9.55		
11/7/90	09-S	0.3			0.04	0.13					0.28		21.49	1.54	11.00	90	10.20		
11/7/90	10-S	0.3	230.82		0.06	0.16		33.53			0.22		9.25	1.99	16.50	65	18.20		
11/7/90	10-B				0.09	0.17					0.24		8.44			65	17.82		
11/7/90	11-S	0.3			0.06	0.17					0.23		12.58	3.60	67.50	70	14.20		
11/7/90	12-S	0.3	91.22		0.17	0.35		13.88			0.42		52.67	1.30	9.60	125	3.36		
11/7/90	12-B				0.12	0.28					0.39		33.57		12.00	125	7.75		
11/7/90	13-S	0.3			0.07	0.15					0.24		13.61	1.97	13.00	75	10.33		
11/7/90	14-S	0.3	227.81		0.06	0.09		31.33			0.23		11.34	1.99	17.33	65	13.04		
11/7/90	14-B				0.08	0.16					0.23		9.76			65	13.81		
11/7/90	15-S	0.3	187.30		0.05	0.12		26.26			0.21		11.69	1.75	10.50	75	11.53		
11/7/90	15-B				0.05	0.12					0.19		10.48		11.50	75	9.98		
11/7/90	16-S	0.3	306.84		0.02	0.09		36.75			0.26		2.08	4.01	46.67	35	10.84		
11/7/90	16-B				0.03	0.13					0.26		1.06		23.33	35	9.12		
11/7/90	17-S	0.3			0.03	0.08					0.32		1.36	2.59	18.67	62	7.40		
11/7/90	18-S	0.3			0.05	0.15					0.19		4.99	2.64	27.00	45	9.12		

Weeks Bay Cruise Report

WB-6  
21 November 1990

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Elizabeth A. Gaza
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a SBE-25 at all stations.
Cruise Summary:	Departed DISL 0810 CST (GMT-6 hours). Deadheaded to station 1. Began sampling 0839. Stations were continued going upbay and ending at Fish River. Returned to DISL 1445.



# Weeks Bay Cruise WB: 6

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
11/20/90	01-S	0.3		839	12902.8	47134.9	30	25.5	87	49.6	6.3	15.8				
11/20/90	02-S	0.3		852	12902.2	47133.1	30	24.9	87	49.5	8.2	16.5				
11/20/90	02-B			852	12902.2	47133.1	30	24.9	87	49.5	15.1	18.6				
11/20/90	03-S	0.3		926	12896.6	47131.4	30	24.5	87	50.0	18.0	17.9				
11/20/90	03-B			926	12896.6	47131.4	30	24.5	87	50.0	18.3	18.2				
11/20/90	04-S	0.3		908	12900.9	47130.9	30	24.5	87	49.6	18.3	19.6				
11/20/90	04-B			908	12900.9	47130.9	30	24.5	87	49.6	18.7	19.8				
11/20/90	05-S	0.3		940	12894.5	47130.2	30	24.1	87	50.4	17.6	17.6				
11/20/90	05-B			940	12894.5	47130.2	30	24.1	87	50.4	18.2	18.0				
11/20/90	06-S	0.3		954	12897.1	47129.7	30	24.1	87	50.0	17.6	19.2				
11/20/90	07-S	0.3		1007	12900.2	47129.1	30	24.0	87	49.6	16.6	19.9				
11/20/90	07-B			1007	12900.2	47129.1	30	24.0	87	49.6	18.1	20.1				
11/20/90	08-S	0.3		1024	12889.3	47128.2	30	23.6	87	50.6	17.6	19.0				
11/20/90	08-B			1024	12889.3	47128.2	30	23.6	87	50.6	17.6	19.3				
11/20/90	09-S	0.3		1042	12893.3	47127.2	30	23.5	87	50.2	16.7	19.8				
11/20/90	10-S	0.3		1055	12897.7	47126.8	30	23.5	87	49.8	18.6	20.1				
11/20/90	10-B			1055	12897.7	47126.8	30	23.5	87	49.8	18.9	20.6				
11/20/90	11-S	0.3		1108	12903.7	47127.9	30	23.7	87	49.2	12.8	19.7				
11/20/90	12-S	0.3		1121	12907.9	47125.7	30	23.2	87	48.7	12.9	19.9				
11/20/90	12-B			1121	12907.9	47125.7	30	23.2	87	48.7	13.2	19.6				
11/20/90	13-S	0.3		1200	12890.4	47125.4	30	23.2	87	50.4	17.7	20.1				
11/20/90	14-S	0.3		1219	12894.5	47125.0	30	23.0	87	50.1	16.9	20.2				
11/20/90	14-B			1219	12894.5	47125.0	30	23.0	87	50.1	17.2	20.2				
11/20/90	15-S	0.3		1242	12892.4	47122.8	30	22.5	87	50.2	16.3	19.8				
11/20/90	15-B			1242	12892.4	47122.8	30	22.5	87	50.2	21.8	18.4				
11/20/90	16-S	0.3		1307	12880.8	47120.9	30	22.1	87	51.3	19.5	19.9				
11/20/90	16-B			1307	12880.8	47120.9	30	22.1	87	51.3	20.0	19.7				
11/20/90	17-S	0.3		1342	12875.4	47122.0	30	22.6	87	52.4	20.3	19.9				
11/20/90	18-S	0.3		1416	12887.5	47119.5	30	20.7	87	50.4	20.4	19.8				

Weeks Bay Cruise WB: 6

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
11/20/90	01-S	0.3				0.18	0.13						83.68	1.43	3.20	148	4.39		
11/20/90	02-S	0.3		79.54		0.14	0.10		10.94				73.80	1.57	9.25	150	4.26		
11/20/90	02-B					0.14	0.17						29.77			150	20.79		
11/20/90	03-S	0.3		164.35		0.05	0.06		25.54				13.71	2.02	16.40	80	10.33		
11/20/90	03-B					0.02	0.03						13.02			80	12.66		
11/20/90	04-S	0.3		201.73		0.04	0.08		32.19				12.06	2.59	15.20	85	16.52		
11/20/90	04-B					0.02	0.03						11.39			85	28.79		
11/20/90	05-S	0.3		144.34		0.02	0.06		23.22				15.14	1.52	13.20	95	8.00		
11/20/90	05-B					0.01	0.04						12.02			95	10.59		
11/20/90	06-S	0.3				0.08	0.03						18.97	1.56	43.60	70	13.17		
11/20/90	07-S	0.3		136.27		0.01	0.01		20.33				12.90	1.66	8.80	95	7.88		
11/20/90	07-B					0.05	0.03						18.20			95	9.94		
11/20/90	08-S	0.3		133.22		0.03	0.04		20.19				16.69	1.24	8.00	65	9.17		
11/20/90	08-B					0.06	0.04						20.68			65	16.14		
11/20/90	09-S	0.3				0.01	0.02						16.16	1.32	12.40	95	13.30		
11/20/90	10-S	0.3		167.99		0.02	0.03		24.98				11.74	2.34	21.20	65	9.94		
11/20/90	10-B					0.04	0.07						12.00			65	11.36		
11/20/90	11-S	0.3				0.09	0.07						47.93	2.67	29.60	75	3.49		
11/20/90	12-S	0.3		134.70		0.12	0.07		19.80				45.94	1.45	33.20	87	10.07		
11/20/90	12-B					0.11	0.06						45.59			87	7.88		
11/20/90	13-S	0.3				0.02	0.03						18.98	1.06	48.80	100	12.91		
11/20/90	14-S	0.3		150.00		0.00	0.02		21.97				21.48	1.40	45.60	118	8.00		
11/20/90	14-B					0.02	0.06						18.30			118	8.78		
11/20/90	15-S	0.3		148.10		0.03	0.03		22.18				14.23	1.07	55.60	123	8.78		
11/20/90	15-B					0.00	0.05						6.80			123	9.30		
11/20/90	16-S	0.3		119.76		0.05	0.01		17.44				10.66	1.54	47.60	110	6.71		
11/20/90	16-B					0.04	0.03						9.17			110	6.20		
11/20/90	17-S	0.3				0.00	0.01						7.54	1.12	49.20	175	5.16		
11/20/90	18-S	0.3				0.02	0.01						8.72	0.98	66.60	155	6.33		

Weeks Bay Cruise Report

WB-7  
5 December 1990

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (9 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a SBE-25 at all stations.
Cruise Summary:	Departed DISL 0830 CST (GMT-6 hours). Deadheaded to station 1. Began sampling 0900. Stations were continued going upbay and ending at Fish River. Returned to DISL 1435.

Weeks Bay Cruise WB: 7

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
12/5/90	01-S	0.3		900	12902.8	47134.9	30	25.5	87	49.6	5.8	13.1				
12/5/90	02-S	0.3		914	12902.2	47133.1	30	24.9	87	49.5	6.3	13.4				
12/5/90	02-B			914	12902.2	47133.1	30	24.9	87	49.5	18.6	14.2				
12/5/90	03-S	0.3		1005	12896.6	47131.4	30	24.5	87	50.0	20.4	12.1				
12/5/90	03-B			1005	12896.6	47131.4	30	24.5	87	50.0						
12/5/90	04-S	0.3		940	12900.9	47130.9	30	24.5	87	49.6	19.9	12.9				
12/5/90	04-B			940	12900.9	47130.9	30	24.5	87	49.6	18.7	13.1				
12/5/90	05-S	0.3		1021	12894.5	47130.2	30	24.1	87	50.4	14.6	13.0				
12/5/90	05-B			1021	12894.5	47130.2	30	24.1	87	50.4						
12/5/90	06-S	0.3		1022	12897.1	47129.7	30	24.1	87	50.0	11.8	14.7				
12/5/90	07-S	0.3		1056	12900.2	47129.1	30	24.0	87	49.6	20.6	13.1				
12/5/90	07-B			1056	12900.2	47129.1	30	24.0	87	49.6	20.7	13.3				
12/5/90	08-S	0.3		1230	12889.3	47128.2	30	23.6	87	50.6	18.3	12.6				
12/5/90	08-B			1230	12889.3	47128.2	30	23.6	87	50.6	18.2	12.2				
12/5/90	09-S	0.3		1215	12893.3	47127.2	30	23.5	87	50.2	15.8	14.4				
12/5/90	10-S	0.3		1157	12897.7	47126.8	30	23.5	87	49.8	16.4	13.6				
12/5/90	10-B			1157	12897.7	47126.8	30	23.5	87	49.8	16.5	13.9				
12/5/90	11-S	0.3		1117	12903.7	47127.9	30	23.7	87	49.2	15.0	14.1				
12/5/90	12-S	0.3		1136	12907.9	47125.7	30	23.2	87	48.7	11.4	14.7				
12/5/90	12-B			1136	12907.9	47125.7	30	23.2	87	48.7	19.2	14.4				
12/5/90	13-S	0.3		1248	12890.4	47125.4	30	23.2	87	50.4	15.5	14.5				
12/5/90	14-S	0.3		1255	12894.5	47125.0	30	23.0	87	50.1	17.1	13.6				
12/5/90	14-B			1255	12894.5	47125.0	30	23.0	87	50.1	17.2	13.5				
12/5/90	15-S	0.3		1314	12892.4	47122.8	30	22.5	87	50.2	17.2	13.8				
12/5/90	15-B			1333	12892.4	47122.8	30	22.5	87	50.2	17.6	12.9				
12/5/90	16-S	0.3		1333	12880.8	47120.9	30	22.2	87	51.3	18.1	12.9				
12/5/90	16-B			1333	12880.8	47120.9	30	22.2	87	51.3	19.7	12.8				
12/5/90	17-S	0.3		1356	12869.4	47122.7	30	22.6	87	52.4	22.7	12.8				
12/5/90	18-S	0.3		1405	12887.5	47119.5	30	20.7	87	50.4	20.8	12.7				

Weeks Bay Cruise WB: 7

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SEXTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	YPROD (mgC/l/d)	APROD (gC/m2/d)
12/5/90	01-S	0.3			0.40	0.40	6.52				1.06		85.45	1.17	3.33	135	2.07		
12/5/90	02-S	0.3		54.99		0.43	6.98		5.36		1.13		84.20	1.27	3.20	143	2.41		
12/5/90	02-B					0.06	1.39				0.58		17.10		0.00	143	21.86		
12/5/90	03-S	0.3		135.38		0.06	0.72		18.49		0.50		12.66		8.00	50	21.69		
12/5/90	03-B															50			
12/5/90	04-S	0.3		158.71		0.07	0.77		20.60		0.59		16.47	2.27	17.50	70	18.07		
12/5/90	04-B					0.11	0.00				0.65		19.00		0.00	70	15.49		
12/5/90	05-S	0.3		92.78		0.23	3.28		11.84		0.96		40.42	1.31	11.00	65	11.49		
12/5/90	05-B															65			
12/5/90	06-S	0.3				0.30	4.62				1.04		53.18	1.37	4.00	50	9.42		
12/5/90	07-S	0.3		165.20		0.06	0.51		22.46		0.57		11.13	2.01	10.50	85	22.98		
12/5/90	07-B					0.07	0.51				0.50		11.07		0.00	85	23.50		
12/5/90	08-S	0.3		97.81		0.12	0.56		11.53		0.61		20.22	1.04	63.50	60	10.97		
12/5/90	08-B					0.14	0.51				0.61		20.54		0.00	60	13.56		
12/5/90	09-S	0.3				0.19	1.54				0.85		30.80	1.17	6.00	74	15.62		
12/5/90	10-S	0.3		89.16		0.17	1.28		10.06		0.84		30.02	1.39	5.50	96	10.72		
12/5/90	10-B					0.24	1.80				0.83		29.28		0.00	96	11.49		
12/5/90	11-S	0.3				0.17	1.54				1.11		24.67	1.83	12.50	65	13.30		
12/5/90	12-S	0.3		112.27		0.30	4.05		13.16		0.62		55.78	1.26	2.50	150	5.81		
12/5/90	12-B					0.14	1.28				0.75		16.27		0.00	150	26.85		
12/5/90	13-S	0.3				0.00	2.82				0.68		26.40	1.12	7.50	85	12.78		
12/5/90	14-S	0.3		124.26		0.16	1.33		14.22		0.78		24.89	1.37	10.00	125	10.97		
12/5/90	14-B					0.19	1.28				0.79		23.69		0.00	125	13.56		
12/5/90	15-S	0.3		92.52		0.18	1.28		10.70		0.78		25.75		0.00	115	12.91		
12/5/90	15-B					0.18	1.03				0.70		24.75		0.00	115	12.91		
12/5/90	16-S	0.3				0.13	0.56				0.65		22.15	1.30	4.00	120	9.68		
12/5/90	16-B					0.09	0.51				0.42		18.43		0.00	120	7.62		
12/5/90	17-S	0.3				0.01	0.87				0.55		6.27	1.35	8.00	110	5.42		
12/5/90	18-S	0.3				0.10	1.03				0.15		12.83	1.11	8.50	110	6.71		

Weeks Bay Cruise Report

WB-8  
20 December 1990

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Thomas S. Hopkins Elizabeth A. Gaza
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a SBE-25 at all stations.
Cruise Summary:	Departed DISL 0800 CST (GMT-6 hours). Deadheaded to station 1. Began sampling 0820. Stations were continued going upbay and ending at Fish River. Returned to DISL 1520.

# Weeks Bay Cruise WB: 8

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
12/20/90	01-S	0.3			12902.8	47134.9	30	25.5	87	49.6	5.2	18.6				
12/20/90	02-S	0.3			12902.2	47133.1	30	24.9	87	49.5	6.3	18.6				
12/20/90	02-B				12902.2	47133.1	30	24.9	87	49.5	11.8	18.7				
12/20/90	03-S	0.3			12896.6	47131.4	30	24.5	87	50.0	11.2	19.3				
12/20/90	03-B				12896.6	47131.4	30	24.5	87	50.0	11.3	18.1				
12/20/90	04-S	0.3			12900.9	47130.9	30	24.5	87	49.6	14.6	18.9				
12/20/90	04-B				12900.9	47130.9	30	24.5	87	49.6	15.1	18.8				
12/20/90	05-S	0.3			12894.5	47130.2	30	24.1	87	50.4	11.0	19.4				
12/20/90	05-B				12894.5	47130.2	30	24.1	87	50.4	11.6	19.4				
12/20/90	06-S	0.3			12897.1	47129.7	30	24.1	87	50.0	10.8	19.6				
12/20/90	07-S	0.3			12900.2	47129.1	30	24.0	87	49.6	15.5	19.8				
12/20/90	07-B				12900.2	47129.1	30	24.0	87	49.6	15.6	19.7				
12/20/90	08-S	0.3			12889.3	47128.2	30	23.6	87	50.6	12.9	19.7				
12/20/90	08-B				12889.3	47128.2	30	23.6	87	50.6	13.1	19.8				
12/20/90	09-S	0.3			12893.3	47127.2	30	23.5	87	50.2	14.2	20.0				
12/20/90	10-S	0.3			12897.7	47126.8	30	23.5	87	49.8	16.0	20.1				
12/20/90	10-B				12897.7	47126.8	30	23.5	87	49.8	18.5	19.1				
12/20/90	11-S	0.3			12903.7	47127.9	30	23.7	87	49.2	15.5	19.9				
12/20/90	12-S	0.3			12907.9	47125.7	30	23.2	87	48.7	10.0	20.4				
12/20/90	12-B				12907.9	47125.7	30	23.2	87	48.7	14.5	19.3				
12/20/90	13-S	0.3			12890.4	47125.4	30	23.2	87	50.4	14.1	19.8				
12/20/90	14-S	0.3			12894.5	47125.0	30	23.0	87	50.1	15.5	20.3				
12/20/90	14-B				12894.5	47125.0	30	23.0	87	50.1	20.1	18.9				
12/20/90	15-S	0.3			12892.4	47122.8	30	22.5	87	50.2	17.8	20.7				
12/20/90	15-B				12892.4	47122.8	30	22.5	87	50.2	21.7	18.3				
12/20/90	16-S	0.3			12880.8	47120.9	30	22.2	87	51.3	20.2	19.0				
12/20/90	16-B				12880.8	47120.9	30	22.2	87	51.3	20.7	18.7				
12/20/90	17-S	0.3			12869.4	47122.7	30	22.6	87	52.4	20.2	19.0				
12/20/90	18-S	0.3			12887.5	47119.5	30	20.7	87	50.4	21.6	18.3				

Weeks Bay Cruise WB: 8

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgCl/d)	APROD (gC/m2/d)
12/20/90	01-S	0.3			0.28	3.09					0.05		80.30	1.60	2.80	150	4.73		
12/20/90	02-S	0.3		82.48	0.43	4.04		5.92			0.04	0.49	69.50	1.64	3.60	135	9.30		
12/20/90	02-B				0.26	2.58					0.07		42.73				14.63		
12/20/90	03-S	0.3		160.05	0.30	0.73		14.20			0.02	0.12	33.44	2.07	10.80	50	27.11		
12/20/90	03-B				0.33	1.07					0.05		33.57				26.98		
12/20/90	04-S	0.3			0.28	0.57					0.00	0.21	9.20	2.50	40.50	75	28.92		
12/20/90	04-B				0.28	0.88					0.03		8.38				35.50		
12/20/90	05-S	0.3		172.71	0.32	0.82		15.70			0.03	0.14	35.13	3.70	5.50	75	26.08		
12/20/90	05-B				0.31	0.71					0.02		31.32				28.66		
12/20/90	06-S	0.3			0.37	2.10					0.04		39.81	1.90	42.50		25.56		
12/20/90	07-S	0.3		220.41	0.24	0.42		22.54			0.01	0.31	10.97	2.02	82.67	80	36.15		
12/20/90	07-B				0.24	0.54					0.00		12.19				37.31		
12/20/90	08-S	0.3		203.75	0.38	0.66		17.18			0.00	0.17	17.34	2.42	7.33	75	27.11		
12/20/90	08-B				0.39	0.41					0.01		17.01				27.89		
12/20/90	09-S	0.3			0.28	0.46					0.00		14.57	1.04	6.50	75	34.73		
12/20/90	10-S	0.3		230.45	0.23	0.58		22.33			0.00	0.24	9.69	1.44	8.50	75	33.57		
12/20/90	10-B				0.13	0.51					0.02		6.17						
12/20/90	11-S	0.3			0.25	0.97					0.10		19.11	1.90	7.60	75	38.34		
12/20/90	12-S	0.3		120.29	0.40	0.25		11.89			0.02	0.16	38.46	1.72	38.50	90	16.87		
12/20/90	12-B				0.17	1.30					0.08		17.45				21.00		
12/20/90	13-S	0.3			0.34	1.82					0.05		15.27	1.79	7.50	90	31.76		
12/20/90	14-S	0.3		162.72	0.28	1.08		18.04			0.03	0.27	12.06	1.74	62.50	75	23.24		
12/20/90	14-B				0.13	0.39					0.02		5.59				24.53		
12/20/90	15-S	0.3		132.96	0.25	2.05		11.92			0.03	0.95	8.04	1.36	61.50	80	23.24		
12/20/90	15-B				0.07	0.42					0.00		12.17				28.40		
12/20/90	16-S	0.3		114.62	0.06	0.50		8.87			0.05	0.39	7.64	2.16	22.40	125	8.61		
12/20/90	16-B				0.05	0.53					0.02		4.74				9.21		
12/20/90	17-S	0.3			0.08	0.61					0.04		4.04		65.50	85	27.11		
12/20/90	18-S	0.3			0.04	0.61					0.02		1.75	1.27	16.50	100	13.60		

Weeks Bay Cruise Report

WB-9  
9 January 1991

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber Elizabeth A. Gaza
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0845 CST (GMT-6 hours). Deadheaded to station 1. Began sampling 0912. Stations were continued going upbay and ending at Fish River. Returned to DISL 1350.

# Weeks Bay Cruise WB: 9

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
1/9/91	01-S	0.3	3.1	912	12902.8	47134.9	30	25.5	87	49.6	3.6	16.7	7.3		6.8	
1/9/91	02-S	0.3	3.3	926	12902.2	47133.1	30	24.9	87	49.5	4.8	16.8	6.6		5.4	
1/9/91	02-B	3.1	3.3		12902.2	47133.1	30	24.9	87	49.5	12.1	16.9	6.0		7.6	
1/9/91	03-S	0.3	0.6	1056	12896.6	47131.4	30	24.5	87	50.0	13.1	16.4	9.8		8.1	
1/9/91	03-B	0.4	0.6		12896.6	47131.4	30	24.5	87	50.0	13.5	16.4	9.7		8.2	
1/9/91	04-S	0.3	0.9	1002	12900.9	47130.9	30	24.5	87	49.6	14.4	16.5	8.7		8.0	
1/9/91	04-B	0.7	0.9		12900.9	47130.9	30	24.5	87	49.6	17.4	16.9	7.0		7.8	
1/9/91	05-S	0.3	0.7	1042	12894.5	47130.2	30	24.1	87	50.4	11.5	16.6	9.3		7.9	
1/9/91	05-B	0.5	0.7		12894.5	47130.2	30	24.1	87	50.4	11.5	16.5	9.5		8.0	
1/9/91	06-S	0.3	0.7	1032	12897.1	47129.7	30	24.1	87	50.0	12.6	16.6	9.4		7.9	
1/9/91	07-S	0.3	0.8	1017	12900.2	47129.1	30	24.0	87	49.6	13.3	16.5	9.6		8.0	
1/9/91	07-B	0.6	0.8		12900.2	47129.1	30	24.0	87	49.6	14.6	16.8	7.2		7.9	
1/9/91	08-S	0.3	0.7	1210	12889.3	47128.2	30	23.6	87	50.6	12.6	16.9	10.0		8.1	
1/9/91	08-B	0.5	0.7		12889.3	47128.2	30	23.6	87	50.6	12.5	16.9	9.9		8.2	
1/9/91	09-S	0.3	0.9	1203	12893.3	47127.2	30	23.5	87	50.2	12.7	17.0	9.7		8.1	
1/9/91	10-S	0.3	1.0	1150	12897.7	47126.8	30	23.5	87	49.8	14.2	17.0	10.4		8.2	
1/9/91	10-B	0.8	1.0		12897.7	47126.8	30	23.5	87	49.8	14.5	16.8	8.7		8.0	
1/9/91	11-S	0.3	0.9	1137	12903.7	47127.9	30	23.7	87	49.2	13.4	16.8	10.4		8.2	
1/9/91	12-S	0.3	2.2	1121	12907.9	47125.7	30	23.2	87	48.7	10.1	17.3	9.3		7.4	
1/9/91	12-B	2.0	2.2		12907.9	47125.7	30	23.2	87	48.7	14.8	16.8	6.7		7.8	
1/9/91	13-S	0.3	1.3	1223	12890.4	47125.4	30	23.2	87	50.4	13.0	17.2	9.8		8.1	
1/9/91	14-S	0.3	1.8	1233	12894.5	47125.0	30	23.0	87	50.1	17.0	17.1	9.9		8.2	
1/9/91	14-B	1.6	1.8		12894.5	47125.0	30	23.0	87	50.1	17.4	16.6	8.8		8.1	
1/9/91	15-S	0.3	8.0	1247	12892.4	47122.8	30	22.5	87	50.2	17.5	16.9	9.9		8.2	
1/9/91	15-B	7.8	8.0		12892.4	47122.8	30	22.5	87	50.2	18.6	16.8	8.9		8.1	
1/9/91	16-S	0.3	1.5	1304	12880.8	47120.9	30	22.2	87	51.3	0.0	16.6	9.7		8.2	
1/9/91	16-B	1.3	1.5		12880.8	47120.9	30	22.2	87	51.3	17.1	16.5	9.5		8.2	
1/9/91	17-S	0.3	1.5	1315			30	22.6	87	52.4	18.0	16.7	9.8		8.2	
1/9/91	18-S	0.3	1.0	1328	12887.5	47119.5	30	20.7	87	50.4	18.0	17.0	9.4		8.1	

Weeks Bay Cruise WB: 9

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SEXTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
1/9/91	01-S	0.3			0.39	8.18					0.11		82.20	1.73	11.00	53	4.57	0.000	0.000
1/9/91	02-S	0.3		111.81	0.38	5.86		9.23	15.21	0.17			76.49	1.76	9.00	75	18.00	0.151	0.078
1/9/91	02-B	3.1			0.27	7.77					0.01		49.19				14.53		
1/9/91	03-S	0.3		215.22	0.34	0.95		23.99	12.60	0.01			17.87	1.50	21.00	68	23.24	0.538	0.263
1/9/91	03-B	0.4			0.34	0.92					0.03		15.48				18.07		
1/9/91	04-S	0.3			0.28	1.47		20.39	0.08				18.29	2.18	18.50	75	32.28	0.660	0.282
1/9/91	04-B	0.7			0.23	2.03					0.08		21.08				24.27		
1/9/91	05-S	0.3			0.32	2.14		11.05	0.01				31.20	1.83	18.00	80	23.24	0.507	0.213
1/9/91	05-B	0.5			0.31	2.38					0.02		30.81				30.60		
1/9/91	06-S	0.3			0.32	2.28					0.03		24.37	2.85	16.00	75	25.95	0.000	0.000
1/9/91	07-S	0.3		197.87	0.32	1.33		17.55	9.50	0.06			19.00	1.63	8.50	88	27.63	0.531	0.311
1/9/91	07-B	0.6			0.24	0.93					0.05		15.59						
1/9/91	08-S	0.3		170.97	0.34	0.90		14.49	11.68	0.00			22.70	1.53	14.50	75	15.23	0.569	0.333
1/9/91	08-B	0.5			0.32	0.94					0.00		23.40				15.23		
1/9/91	09-S	0.3			0.32	1.04					0.01		22.35	1.81	15.60	90	18.07		
1/9/91	10-S	0.3			0.28	0.52			16.47	0.04			16.41	1.87	14.00	85	26.85	0.741	0.301
1/9/91	10-B	0.8			0.29	0.54					0.02		17.69				22.72		
1/9/91	11-S	0.3			0.32	0.60					0.00		15.47	1.60	16.00	90	19.36		
1/9/91	12-S	0.3		131.98	0.35	2.79		10.00	7.23	0.01			38.84	1.74	15.50	100	16.40	0.387	0.197
1/9/91	12-B	2.0			0.24	2.78					0.05		21.35				29.18		
1/9/91	13-S	0.3			0.30	0.82					0.04		22.55	1.46	11.60	80	21.82		
1/9/91	14-S	0.3		173.96	0.18	0.80		15.39	10.56	0.04			15.37	1.97	10.00	80	20.27	0.488	0.225
1/9/91	14-B	1.6			0.17	0.82					0.06		12.22				20.66		
1/9/91	15-S	0.3		139.69	0.17	0.73		10.67	12.35	0.07			11.64	1.35	51.60	80	16.78	0.526	0.323
1/9/91	15-B	7.8			0.07	0.45					0.06		10.27				19.24		
1/9/91	16-S	0.3		108.27	0.08	1.14		8.58			0.05		16.33	1.01	49.60	130	7.10	0.186	0.179
1/9/91	16-B	1.3			0.07	0.90					0.03		16.17				10.84		
1/9/91	17-S	0.3			0.14	0.77					0.06		11.22	1.38	50.40	85	11.96		
1/9/91	18-S	0.3			0.08	0.00					0.08		17.52	1.26	59.60	110	20.91		

Weeks Bay Cruise Report

WB-10  
17 January 1991

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Elizabeth A. Gaza
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a CTD at all stations.
Cruise Summary:	Departed DISL 0830 CST (GMT-6 hours). Deadheaded to station 1. Began sampling 0857. Stations were continued going upbay and ending at Fish River. Returned to DISL 1410.



# Weeks Bay Cruise WB: 10

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
1/17/91	01-S	0.3		857	12802.7	47134.5	30	25.5	87	49.6	2.3	13.1				
1/17/91	02-S	0.3		913	12802.1	47133.0	30	24.9	87	49.5	2.7	13.3				
1/17/91	02-B				12802.1	47133.0	30	24.9	87	49.5	6.4	14.3				
1/17/91	03-S	0.3		943	12897.2	47131.5	30	24.5	87	50.0	9.6	14.2				
1/17/91	03-B				12897.2	47131.5	30	24.5	87	50.0	9.6	14.2				
1/17/91	04-S	0.3		926	12901.0	47130.9	30	24.5	87	49.6	9.0	13.6				
1/17/91	04-B				12901.0	47130.9	30	24.5	87	49.6	9.5	14.0				
1/17/91	05-S	0.3		952	12894.8	47130.2	30	24.1	87	50.4	9.0	13.3				
1/17/91	05-B				12894.8	47130.2	30	24.1	87	50.4	9.2	13.7				
1/17/91	06-S	0.3		1015	12896.8	47129.7	30	24.1	87	50.0	6.1	14.5				
1/17/91	07-S	0.3		1023	12900.2	47129.0	30	24.0	87	49.6	8.5	13.5				
1/17/91	07-B				12900.2	47129.0	30	24.0	87	49.6	8.6	13.6				
1/17/91	08-S	0.3		1136	12889.1	47128.1	30	23.6	87	50.6	8.7	13.8				
1/17/91	08-B				12889.1	47128.1	30	23.6	87	50.6	8.7	14.0				
1/17/91	09-S	0.3		1127			30	23.5	87	50.2	7.5	14.8				
1/17/91	10-S	0.3		1107	12898.2	47127.1	30	23.5	87	49.8	8.6	14.4				
1/17/91	10-B				12898.2	47127.1	30	23.5	87	49.8	8.5	14.6				
1/17/91	11-S	0.3		1051	12903.6	47128.0	30	23.7	87	49.2	8.6	15.6				
1/17/91	12-S	0.3		1040	12907.8	47125.7	30	23.2	87	48.7	5.1	14.4				
1/17/91	12-B				12907.8	47125.7	30	23.2	87	48.7	6.8	14.8				
1/17/91	13-S	0.3		1156	12891.3	47125.8	30	23.2	87	50.4	8.2	14.2				
1/17/91	14-S	0.3		1209	12893.9	47124.7	30	23.0	87	50.1	8.5	14.1				
1/17/91	14-B				12893.9	47124.7	30	23.0	87	50.1	8.6	14.0				
1/17/91	15-S	0.3		1235	12893.0	47123.3	30	22.5	87	50.2	8.6	14.8				
1/17/91	15-B				12893.0	47123.3	30	22.5	87	50.2	15.4	14.3				
1/17/91	16-S	0.3		1300	12880.5	47120.8	30	22.1	87	51.3	10.4	15.2				
1/17/91	16-B				12880.5	47120.8	30	22.1	87	51.3	12.7	15.1				
1/17/91	17-S	0.3		1325	12869.4	47122.7	30	22.6	87	52.4	17.7	14.5				
1/17/91	18-S	0.3		1340	12887.0	47117.6	30	20.7	87	50.4	14.7					

Weeks Bay Cruise WB: 10

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (µM)	PC (µM)	NO3 (µM)	NO2 (µM)	NH4 (µM)	DON (µM)	PN (µM)	PP (µM)	PO4 (µM)	DOP (µM)	SI (µM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
1/17/91	01-S	0.3			0.00	0.08					0.06		0.53	2.95	6.50	73	2.25		
1/17/91	02-S	0.3	51.03		0.36	7.05		49.64		5.68	0.26		91.70	2.15	6.50	85	3.61	0.107	0.074
1/17/91	02-B				0.36	6.17					0.16		62.44				24.40		
1/17/91	03-S	0.3	243.48		0.36	0.86		31.81		12.21	0.16		32.90	2.16	20.50	55	44.15	1.520	0.804
1/17/91	03-B				0.34	0.67					0.13		41.06				44.15		
1/17/91	04-S	0.3	512.68		0.34	1.40		59.54		19.42	0.13		35.49	3.06	21.50	65	71.00	2.458	1.387
1/17/91	04-B				0.32	1.01					0.19		34.54				67.62		
1/17/91	05-S	0.3	143.70		0.37	0.71		18.19		6.74	0.07		37.03	1.85	16.00	65	38.73	1.137	0.693
1/17/91	05-B				0.38	1.93					0.07		35.93				25.17		
1/17/91	06-S	0.3			0.35	5.44					0.12		69.31	2.31	9.50	50	29.82		
1/17/91	07-S	0.3	234.02		0.42	0.80		30.26		15.45	0.07		38.61	2.11	11.50	85	37.44	1.396	0.946
1/17/91	07-B				0.43	3.12					0.07		37.11				25.95		
1/17/91	08-S	0.3	105.80		0.39	0.96		14.11		8.39	0.08		37.73	1.68	7.00	65	20.66	0.856	0.522
1/17/91	08-B				0.39	0.79					0.04		37.51				21.52		
1/17/91	09-S	0.3			0.36	2.19					0.08		50.27	2.65	11.00	70	44.15		
1/17/91	10-S	0.3	204.20		0.43	0.68		25.58		15.94	0.07		39.37	2.46	12.50	70	36.15	1.254	0.568
1/17/91	10-B				0.45	1.67					0.06		39.00				26.68		
1/17/91	11-S	0.3			0.47	1.95					0.06		42.27	1.53	13.00	65	33.44		
1/17/91	12-S	0.3	80.41		0.52	5.92		9.14		11.34	0.13		74.86	2.34	10.50	60	15.49	0.518	0.349
1/17/91	12-B				0.49	5.34					0.06		70.34				18.16		
1/17/91	13-S	0.3			0.38	1.20					0.02		41.93	2.08	10.00	80	30.85		
1/17/91	14-S	0.3	370.54		0.38	1.52		47.21		17.53	0.08		40.56	2.31	11.00	75	46.22	1.685	1.222
1/17/91	14-B				0.39	0.85					0.09		36.64				39.15		
1/17/91	15-S	0.3	320.85		0.37	3.77		37.57			0.11		38.69	1.89	10.00	75	41.18	1.352	1.228
1/17/91	15-B				0.24	1.29					0.08		25.60				29.26		
1/17/91	16-S	0.3			0.36	0.84				18.55	0.05		36.49	2.92	10.00	63	34.34	1.274	0.739
1/17/91	16-B				0.36	0.71					0.05		33.09				26.68		
1/17/91	17-S	0.3			0.47	3.38					0.08		29.32	2.14	18.50	63	18.20		
1/17/91	18-S	0.3			0.10	0.78					0.03		16.00	2.30	16.50	75	36.15		

Weeks Bay Cruise Report

WB-11  
7 February 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber

Supporting Agency:

NOAA-NERRS

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 15 surface stations (10 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a CTD at all stations.

Cruise Summary:

Departed DISL 0830 CST (GMT-6 hours). Deadheaded to station 1. Began sampling 0855. Stations were continued going upbay and ending at Fish River. Returned to DISL 1345.

# Weeks Bay Cruise WB: 11

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
2/11/91	01-S	0.3	2.9	855	12902.8	47134.9	30	25.5	87	49.6	1.0	16.1				
2/11/91	02-S	0.3	3.6	915	12902.2	47133.1	30	24.9	87	49.5	2.0	16.2				
2/11/91	02-B	3.4	3.6	915	12902.2	47133.1	30	24.9	87	49.5	10.5	16.7				
2/11/91	03-S	0.3	0.8	1003	12896.6	47131.4	30	24.5	87	50.0	12.9	17.2				
2/11/91	03-B	0.6	0.8	1003	12896.6	47131.4	30	24.5	87	50.0	12.9	17.1				
2/11/91	04-S	0.3	1.0	945	12900.9	47130.9	30	24.5	87	49.6	8.4	16.4				
2/11/91	04-B	0.8	1.0	945	12900.9	47130.9	30	24.5	87	49.6	9.7	16.4				
2/11/91	05-S	0.3	0.9	1018	12894.5	47130.2	30	24.1	87	50.4	6.0	16.6				
2/11/91	05-B	0.7	0.9	1018	12894.5	47130.2	30	24.1	87	50.4	7.8	16.7				
2/11/91	06-S	0.3	0.8	1032	12897.1	47129.7	30	24.1	87	50.0	7.4	16.5				
2/11/91	07-S	0.3	1.8	1044	12900.2	47129.1	30	24.0	87	49.6	6.5	16.8				
2/11/91	07-B	1.6	1.8	1044	12900.2	47129.1	30	24.0	87	49.6	8.1	16.8				
2/11/91	08-S	0.3	0.9	1151	12889.3	47128.2	30	23.6	87	50.6	7.2	17.3				
2/11/91	08-B	0.7	0.9	1151	12889.3	47128.2	30	23.6	87	50.6	7.5	17.1				
2/11/91	09-S	0.3	0.9	1142	12893.3	47127.2	30	23.5	87	50.2	8.2	17.3				
2/11/91	10-S	0.3	1.3	1132	12897.7	47126.8	30	23.5	87	49.8	7.6	17.1				
2/11/91	10-B	1.1	1.3	1132	12897.7	47126.8	30	23.5	87	49.8	8.9	17.0				
2/11/91	11-S	0.3	1.0	1116	12903.7	47127.9	30	23.7	87	49.2	5.1	16.9				
2/11/91	12-S	0.3	1.9	1104	12907.9	47125.7	30	23.2	87	48.7	5.1	16.9				
2/11/91	12-B	1.7	1.9	1104	12907.9	47125.7	30	23.2	87	48.7	6.9	16.8				
2/11/91	13-S	0.3	1.1	1213	12890.4	47125.4	30	23.2	87	50.4	9.0	17.4				
2/11/91	14-S	0.3	2.0	1220	12894.5	47125.0	30	23.0	87	50.1	11.2	17.3				
2/11/91	14-B	1.8	2.0	1220	12894.5	47125.0	30	23.0	87	50.1	15.9	16.2				
2/11/91	15-S	0.3	7.1	1315	12892.4	47122.8	30	22.5	87	50.2	15.4	17.5				
2/11/91	15-B	6.9	7.1	1315	12892.4	47122.8	30	22.5	87	50.2	17.1	16.8				

Weeks Bay Cruise WB: 11

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORA (ug/l)	YPROD (mgC/l/d)	APROD (gC/m2/d)
2/11/91	01-S	0.3			0.35	3.40					0.17		57.57	2.74	12.60	90	16.20		
2/11/91	02-S	0.3		74.45	0.28	5.29			7.86	8.19	0.24	0.69	93.24	1.92	5.80	105	10.20	0.292	0.320
2/11/91	02-B	3.4			0.30	13.31					0.16		55.56			0	23.88		
2/11/91	03-S	0.3		149.80	0.26	8.96			22.02	16.90	0.16	0.20	46.60	2.88	21.40	65	34.86	0.585	0.322
2/11/91	03-B	0.6			0.26	9.73					0.12		47.65			0	32.92		
2/11/91	04-S	0.3		94.20	0.34	7.39			13.03	10.90	0.10	0.32	56.39	4.17	16.60	70	20.14	0.384	0.195
2/11/91	04-B	0.8			0.32	11.50					0.08		54.13			0	20.66		
2/11/91	05-S	0.3		89.06	0.31	4.63			11.47	8.82	0.10	0.20	61.77	2.32	13.00	80	14.85	0.515	0.407
2/11/91	05-B	0.7			0.26	5.71					0.07		54.47			0	20.53		
2/11/91	06-S	0.3			0.33	4.38					0.08		52.30	5.33	13.80	75	23.24		
2/11/91	07-S	0.3		110.08	0.29	8.35			13.38	14.53	0.11	0.14	72.91	3.07	10.20	75	21.95	0.578	1.496
2/11/91	07-B	1.6			0.29	12.08					0.13		68.30			0	11.58		
2/11/91	08-S	0.3		129.91	0.34	6.78			16.43	11.73	0.09	0.44	58.81	2.43	18.20	60	20.53	0.527	0.412
2/11/91	08-B	0.7			0.36	7.79					0.10		60.96			0	11.36		
2/11/91	09-S	0.3			0.26	0.45					0.09		54.15	2.40	17.00	60	39.38		
2/11/91	10-S	0.3			0.30	8.56			26.03	11.34	0.09	0.39	66.18	2.93	10.60	80	16.78	0.418	0.290
2/11/91	10-B	1.1			0.24	6.29					0.09		59.32			0	11.53		
2/11/91	11-S	0.3			0.29	4.43					0.27		99.63	2.75	3.80	70			
2/11/91	12-S	0.3		113.32	0.36	1.37			13.69	28.42	0.10	0.83	62.35	2.99	13.00	70	20.79	0.197	1.539
2/11/91	12-B	1.7			0.33	4.71					0.09		54.81			0	13.77		
2/11/91	13-S	0.3			0.22	0.30					0.12		54.46	2.93	21.80	50			
2/11/91	14-S	0.3		386.15	0.20	0.39			46.99	10.27	0.11	0.34	47.89	4.43	23.40	55	55.77	0.960	1.038
2/11/91	14-B	1.8			0.12	0.82					0.10		41.78			0	80.04		
2/11/91	15-S	0.3		389.62	0.13	2.16			47.04	27.74	0.17	0.00	42.56	2.96	30.20	50	140.72	1.405	1.554
2/11/91	15-B	6.9			0.07	0.82					0.14		42.40			0	113.61		

Weeks Bay Cruise Report

WB-12  
13 February 1991

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0820 CST (GMT-6 hours). Deadheaded to station 18. Began sampling 0850. Stations were continued going upbay and ending at Fish River. Returned to DISL 1445.

# Weeks Bay Cruise WB: 12

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
2/13/91	01-S	0.3	3.8	1411	12902.7	47135.0	30	26.0	87	49.6	5.7	17.3	15.5		9.3	
2/13/91	02-S	0.3	3.3	1350	12902.2	47133.3	30	25.0	87	49.5	9.2	16.7	13.7		9.1	
2/13/91	02-B	3.0	3.3	1350	12902.2	47133.3	30	25.0	87	49.5	10.3	16.3	5.5		7.7	
2/13/91	03-S	0.3	0.8	1241	12897.2	47131.6	30	25.0	87	50.0	9.7	17.8	12.6		8.9	
2/13/91	03-B	0.6	0.8	1241	12897.2	47131.6	30	25.0	87	50.0	9.7	17.5	12.7		8.9	
2/13/91	04-S	0.3	1.2	1318	12901.0	47130.9	30	24.0	87	49.6	9.7	17.5	14.2		9.1	
2/13/91	04-B	1.0	1.2	1318	12901.0	47130.9	30	24.0	87	49.6	9.7	17.5	14.2		9.1	
2/13/91	05-S	0.3	0.8	1139	12894.6	47130.3	30	24.0	87	50.4	8.7	16.0	12.5		8.8	
2/13/91	05-B	0.6	0.8	1139	12894.6	47130.3	30	24.0	87	50.4	8.7	16.0	12.4		8.8	
2/13/91	06-S	0.3	0.8	1153	12897.6	47129.3	30	24.0	87	50.0	9.2	16.7	13.8		9.0	
2/13/91	07-S	0.3	1.3	1206	12900.1	47128.9	30	24.0	87	49.6	10.5	17.1	13.0		8.9	
2/13/91	07-B	1.1	1.3	1206	12900.1	47128.9	30	24.0	87	49.6	10.5	17.1	12.8		8.9	
2/13/91	08-S	0.3	0.8	1030	12899.5	47128.1	30	24.0	87	50.6	7.7	15.8	13.6		8.9	
2/13/91	08-B	0.6	0.8	1030	12899.5	47128.1	30	24.0	87	50.6	7.7	15.8	13.2		8.9	
2/13/91	09-S	0.3	0.9	1042	12894.0	47127.6	30	24.0	87	50.2	9.3	16.2	13.2		8.9	
2/13/91	10-S	0.3	1.0	1056	12898.2	47128.1	30	23.0	87	49.8	9.1	15.8	13.2		8.9	
2/13/91	10-B	0.8	1.0	1056	12898.2	47128.1	30	23.0	87	49.8	9.4	15.8	12.9		8.8	
2/13/91	11-S	0.3	0.9	1109	12903.8	47127.9	30	24.0	87	49.2	9.0	17.1	14.7		9.0	
2/13/91	12-S	0.3	2.4	1120	12908.0	47125.8	30	23.0	87	48.7	9.7	17.1	16.7		9.0	
2/13/91	12-B	2.2	2.4	1120	12908.0	47125.8	30	23.0	87	48.7	9.2	17.0	10.8		8.5	
2/13/91	13-S	0.3	0.9	1014	12891.5	47126.0	30	23.0	87	50.4	9.6	15.5	13.2		8.8	
2/13/91	14-S	0.3	1.5	1000	12893.8	47124.6	30	23.0	87	50.1	10.2	15.5	13.2		8.8	
2/13/91	14-B	1.3	1.5	1000	12893.8	47124.6	30	23.0	87	50.1	10.5	15.6	11.5		8.7	
2/13/91	15-S	0.3	5.0	933	12893.9	47123.3	30	23.0	87	50.2	8.7	15.0	12.7		8.8	
2/13/91	15-B	4.8	5.0	933	12893.9	47123.3	30	23.0	87	50.2	11.0	14.9	11.0		8.6	
2/13/91	16-S	0.3	1.4	915	12880.9	47120.8	30	22.0	87	51.3	11.7	14.9	12.0		8.7	
2/13/91	16-B	1.2	1.4	915	12880.9	47120.8	30	22.0	87	51.3	11.8	14.8	11.1		8.6	
2/13/91	17-S	0.3	2.5	904	12889.5	47122.1	30	23.0	87	52.4	12.1	14.4	12.9		8.4	
2/13/91	18-S	0.3	2.0	850	12887.5	47116.5	30	21.0	87	50.4	12.6	14.3	11.6		8.4	

Weeks Bay Cruise WB: 12

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -1/m	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
2/13/91	01-S	0.3				0.12	0.34				0.10		82.67	2.71	45.00	30			
2/13/91	02-S	0.3	389.55			0.17	0.93	53.34	12.84	0.13	0.33		63.57	2.66	32.33	60		1.006	0.918
2/13/91	02-B	3.0				0.20	1.19			0.28			60.00						
2/13/91	03-S	0.3	464.55			0.19	0.66	44.06	11.44	0.11	0.23		62.29	2.82	41.00	38		0.786	0.531
2/13/91	03-B	0.6				0.20	0.79			0.16			73.29						
2/13/91	04-S	0.3	803.56			0.16	0.84	80.38	16.37	0.10	0.06		60.02	4.56	45.67	35		1.262	0.715
2/13/91	04-B	1.0				0.15	0.83			0.18			59.37						
2/13/91	05-S	0.3	325.98			0.16	0.20	34.29	9.84	0.09	0.09		73.94	1.84	39.00	65		2.169	1.446
2/13/91	05-B	0.6				0.18	2.23			0.10			67.85						
2/13/91	06-S	0.3				0.16	0.80			0.12			60.10	4.13	21.00	50			
2/13/91	07-S	0.3	858.93			0.17	0.77	83.43	30.65	0.18			54.35	3.43	32.33	30		1.320	1.038
2/13/91	07-B	1.1				0.18	1.25			0.17			55.98						
2/13/91	08-S	0.3	302.67			0.18	0.30	34.01	19.47	0.11	0.11		70.53	2.03	11.67	70		2.066	1.354
2/13/91	08-B	0.6				0.20	0.81			0.09			72.37						
2/13/91	09-S	0.3				0.19	0.47			0.12			59.21	1.83	11.67	70			
2/13/91	10-S	0.3	212.21			0.21	0.75	25.89	13.52	0.10	0.27		58.78	1.92	29.67	65		1.235	0.974
2/13/91	10-B	0.8				0.17	0.26			0.09			58.39						
2/13/91	11-S	0.3				0.21	0.87			0.17			62.91	3.17	23.67	45			
2/13/91	12-S	0.3	743.66			0.20	1.47	98.99	26.15	0.22	0.36		56.54	4.77	65.50	25		2.612	1.554
2/13/91	12-B	2.2				0.18	1.11			0.20			58.54						
2/13/91	13-S	0.3				0.21	1.56			0.10			55.91	1.02	10.33	85			
2/13/91	14-S	0.3	244.42			0.20	0.65	27.74	15.69	0.12	0.20		52.84	1.90	8.33	70		1.814	2.108
2/13/91	14-B	1.3				0.18	0.86			0.11			50.18						
2/13/91	15-S	0.3	107.00			0.22	1.09	13.93	12.26	0.08	1.02		64.03	5.12	3.00	100		2.339	1.357
2/13/91	15-B	4.8				0.19	3.54			0.11			50.88						
2/13/91	16-S	0.3	195.05			0.17	1.03	23.11	18.31	0.08	0.45		45.85	1.68	13.67	75		3.107	3.923
2/13/91	16-B	1.2				0.17	1.25			0.11			43.87						
2/13/91	17-S	0.3				0.12	1.01			0.13			60.12	2.51	15.00	88			
2/13/91	18-S	0.3				0.12	1.19			0.10			44.62	1.52	16.20	100			

Weeks Bay Cruise Report

WB-13  
27 February 1991

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Secchi disk and Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0820 CST (GMT-6 hours). Deadheaded to station 1. Began sampling 0848. Stations were continued going upbay and ending at Fish River. Returned to DISL 1530.

# Weeks Bay Cruise WB: 13

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
2/27/91	01-S	0.3	3.0	848	12902.7	47134.5	30	25.5	87	49.6	1.6	14.7	8.1			6.7
2/27/91	02-S	0.3	2.7	905	12902.1	47133.0	30	24.9	87	49.5	2.5	14.9	1.9			6.6
2/27/91	02-B	2.5	2.7		12902.1	47133.0	30	24.9	87	49.5	12.3	15.7	6.6			7.4
2/27/91	03-S	0.3	0.5	940	12897.2	47131.5	30	24.5	87	50.0	10.4	14.4	12.0			8.2
2/27/91	03-B	0.3	0.5		12897.2	47131.5	30	24.5	87	50.0	10.8	13.8	11.8			8.2
2/27/91	04-S	0.3	0.9	920	12901.0	47130.9	30	24.5	87	49.6	10.6	13.6	11.3			8.0
2/27/91	04-B	0.8	0.9		12901.0	47130.9	30	24.5	87	49.6	11.0	14.1	11.3			8.0
2/27/91	05-S	0.3	0.7	959	12894.8	47130.2	30	24.1	87	50.4	9.4	14.1	11.2			8.1
2/27/91	05-B	0.5	0.7		12894.8	47130.2	30	24.1	87	50.4	8.3	12.9	11.9			8.1
2/27/91	06-S	0.3	0.5	1014	12896.8	47129.7	30	24.1	87	50.0	8.0	13.7	10.4			7.5
2/27/91	07-S	0.3	0.8	1032	12900.2	47129.0	30	24.0	87	49.6	10.0	16.4	10.2			8.0
2/27/91	07-B	0.6	0.8		12900.2	47129.0	30	24.0	87	49.6	11.1	15.7	10.3			8.0
2/27/91	08-S	0.3	0.8	1209	12889.1	47128.1	30	23.6	87	50.6	7.5	15.5	11.3			7.9
2/27/91	08-B	0.6	0.8		12889.1	47128.1	30	23.6	87	50.6	8.0	15.7	11.1			8.0
2/27/91	09-S	0.3	0.8	1156	12894.0	47127.6	30	23.5	87	50.2	9.8	16.3	11.3			7.7
2/27/91	10-S	0.3	1.0	1137	12898.2	47127.1	30	23.5	87	49.8	10.1	16.2	11.4			8.1
2/27/91	10-B	0.8	1.0		12898.2	47127.1	30	23.5	87	49.8	10.9	16.3	11.9			8.2
2/27/91	11-S	0.3	0.7	1118	12903.6	47128.0	30	23.7	87	49.2	14.5	17.0	11.5			8.1
2/27/91	12-S	0.3	2.1	1058	12907.8	47125.7	30	23.2	87	48.7	3.7	15.5	9.7			7.0
2/27/91	12-B	1.9	2.1		12907.8	47125.7	30	23.2	87	48.7	7.3	15.8	9.7			8.0
2/27/91	13-S	0.3	1.0	1230	12891.3	47125.8	30	23.2	87	50.4	11.1	16.0	12.7			8.3
2/27/91	14-S	0.3	1.9	1249	12893.9	47124.7	30	23.0	87	50.1	15.9	16.0	11.2			8.1
2/27/91	14-B	1.7	1.9		12893.9	47124.7	30	23.0	87	50.1	16.0	16.2	10.5			8.1
2/27/91	15-S	0.3	7.0	1334	12893.0	47123.3	30	22.5	87	50.2	13.6	16.7	12.2			8.3
2/27/91	15-B	6.8	7.0		12893.0	47123.3	30	22.5	87	50.2	15.9	16.0	10.9			8.0
2/27/91	16-S	0.3	1.5	1405	12880.5	47120.8	30	22.2	87	51.3	16.6	15.4	11.2			8.1
2/27/91	16-B	1.3	1.5		12880.5	47120.8	30	22.2	87	51.3	16.6	15.3	11.0			8.1
2/27/91	17-S	0.3	1.6	1426	12869.4	47122.7	30	22.6	87	52.4	15.4	15.4	12.2			8.3
2/27/91	18-S	0.3	1.1	1445	12887.0	47117.6	30	20.7	87	50.4	16.9	15.7	11.8			8.2

Weeks Bay Cruise WB: 13

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SECTON (mg/l)	SECCHI (cm)	CHLORa (mg/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
2/27/91	01-S	0.3			0.36	8.44					0.10		93.99	2.08	7.60	90			
2/27/91	02-S	0.3	117.85		0.15	1.94		18.33	23.63	0.11	0.69	0.11	44.38	2.35	16.40	75		0.125	0.131
2/27/91	02-B	2.5			0.38	4.92				0.09			94.89						
2/27/91	03-S	0.3	184.34		0.35	2.53		25.33	12.60	0.12	0.33	0.33	54.37		10.00	50		0.774	0.350
2/27/91	03-B	0.3																	
2/27/91	04-S	0.3	378.76		0.36	1.89		55.65	17.05	0.27	0.58	0.58	54.24	3.55	13.00	55		1.781	3.020
2/27/91	04-B	0.8			0.29	1.12				0.28			52.77						
2/27/91	05-S	0.3	395.63		0.37	1.43		24.52	12.21	0.15	0.41	0.41	58.13	1.74	14.44	65		0.650	0.415
2/27/91	05-B	0.5																	
2/27/91	06-S	0.3			0.36	2.23				0.12			66.86		13.71	50			
2/27/91	07-S	0.3	315.98		0.24	0.90		43.96	18.16	0.28	1.12	1.12	46.43	1.90	13.71	60		1.695	1.216
2/27/91	07-B	0.6			0.20	1.05				0.32			48.29						
2/27/91	08-S	0.3	423.03		0.38	1.85		52.15	17.34	0.13	0.86	0.86	69.17		22.00	65		0.852	0.614
2/27/91	08-B	0.6			0.36	0.91				0.19			64.13						
2/27/91	09-S	0.3			0.34	2.32				0.28			56.37	3.68	20.00	65			
2/27/91	10-S	0.3	314.67		0.38	1.70		41.97	19.08	0.29	1.27	1.27	54.66	1.09	15.20	60		1.407	1.272
2/27/91	10-B	0.8			0.33	3.84				0.16			51.65						
2/27/91	11-S	0.3			0.24	1.37				0.27			37.13		28.00	45			
2/27/91	12-S	0.3	161.15		0.47	5.08		17.23	21.69	0.05	1.07	1.07	97.46	1.33	6.29	80		0.786	1.155
2/27/91	12-B	1.9			0.33	3.40				0.09			72.15						
2/27/91	13-S	0.3			0.37	2.22				0.20			52.25	1.90	17.00	55			
2/27/91	14-S	0.3	371.57		0.10	0.83		56.43	25.37	0.21	0.97	0.97	28.14		17.00	50		1.551	1.981
2/27/91	14-B	1.7			0.12	1.33				0.18			28.02						
2/27/91	15-S	0.3	422.45		0.34	1.58		49.34	8.34	0.34	1.22	1.22	39.89	2.35	20.50	50		1.020	0.963
2/27/91	15-B	6.8			0.17	1.50				0.13			29.20						
2/27/91	16-S	0.3	304.84		0.11	1.91		32.64	15.98	0.14	0.71	0.71	26.12	2.29	22.67	65		0.604	0.742
2/27/91	16-B	1.3			0.14	2.29				0.11			26.42						
2/27/91	17-S	0.3			0.09	0.76				0.23			32.57	1.80	56.50	75			
2/27/91	18-S	0.3			0.09	1.08				0.22			21.15	1.79	87.33	60			

Weeks Bay Cruise Report

WB-14  
13 March 1991

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Ramona A. Schreiber Thomas S. Hopkins Elizabeth A. Gaza
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0800 CST (GMT-6 hours). Deadheaded to station 1. Began sampling 0824. Stations were continued going upbay and ending at Fish River. Returned to DISL 1430.



# Weeks Bay Cruise WB: 14

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
3/13/91	01-S	0.3	4.0	824	12902.7	47134.5	30	25.5	87	49.6	0.9	17.6	8.7		6.8	
3/13/91	02-S	0.3	4.1	839	12902.1	47133.0	30	24.9	87	49.5	1.0	17.4	9.1		6.8	
3/13/91	02-B	3.9	4.1		12902.1	47133.0	30	24.9	87	49.5	1.1	17.2	8.5		6.8	
3/13/91	03-S	0.3	1.0	914	12897.2	47131.5	30	24.5	87	50.0	1.8	17.8	10.6		8.4	
3/13/91	03-B	0.8	1.0		12897.2	47131.5	30	24.5	87	50.0	1.8	17.8	10.4		8.4	
3/13/91	04-S	0.3	1.3	900	12901.0	47130.9	30	24.5	87	49.6	1.9	17.6	10.4		8.3	
3/13/91	04-B	1.1	1.3		12901.0	47130.9	30	24.5	87	49.6	1.9	17.6	10.1		8.3	
3/13/91	05-S	0.3	1.1	937	12894.8	47130.2	30	24.1	87	50.4	1.9	18.0	10.6		8.4	
3/13/91	05-B	0.9	1.1		12894.8	47130.2	30	24.1	87	50.4	1.9	18.0	10.4		8.4	
3/13/91	06-S	0.3	0.8	952	12896.8	47129.7	30	24.1	87	50.0	2.2	17.8	10.4		8.4	
3/13/91	07-S	0.3	1.3	1012	12900.2	47129.0	30	24.0	87	49.6	2.7	18.3	10.5		8.7	
3/13/91	07-B	1.1	1.3		12900.2	47129.0	30	24.0	87	49.6	2.6	17.8	10.3		8.7	
3/13/91	08-S	0.3	1.2	1200	12889.1	47128.1	30	23.6	87	50.6	2.3	19.5	11.4		9.0	
3/13/91	08-B	1.0	1.2		12889.1	47128.1	30	23.6	87	50.6	2.3	19.4	11.2		9.0	
3/13/91	09-S	0.3	1.3	1147	12894.0	47127.6	30	23.5	87	50.2	1.7	18.4	10.9		8.6	
3/13/91	10-S	0.3	1.3	1129	12898.2	47127.1	30	23.5	87	49.8	2.3	18.9	11.3		9.0	
3/13/91	10-B	1.1	1.3		12898.2	47127.1	30	23.5	87	49.8	2.3	18.7	11.2		9.0	
3/13/91	11-S	0.3	1.1	1058	12903.6	47128.0	30	23.7	87	49.2	2.1	18.8	11.0		8.8	
3/13/91	12-S	0.3	2.8	1034	12907.8	47125.7	30	23.2	87	48.7	1.4	18.8	9.9		7.5	
3/13/91	12-B	2.5	2.8		12907.8	47125.7	30	23.2	87	48.7	1.4	18.2	8.8		7.2	
3/13/91	13-S	0.3	1.4	1219	12891.3	47125.8	30	23.2	87	50.4	2.2	18.9	11.5		8.9	
3/13/91	14-S	0.3	2.3	1257	12893.9	47124.7	30	23.0	87	50.1	1.8	18.6	10.8		8.6	
3/13/91	14-B	2.1	2.3		12893.9	47124.7	30	23.0	87	50.1	1.8	18.4	10.4			
3/13/91	15-S	0.3	7.0	1426	12893.0	47123.3	30	22.5	87	50.2	2.1	19.5	10.6		8.5	
3/13/91	15-B	6.8	7.0		12893.0	47123.3	30	22.5	87	50.2	2.5	18.9	9.9			
3/13/91	16-S	0.3	2.0	1402	12880.5	47120.8	30	22.2	87	51.3	1.3	18.1	10.0		8.2	
3/13/91	16-B	1.8	2.0		12880.5	47120.8	30	22.2	87	51.3	1.3	17.7	9.9			
3/13/91	19-S	0.3	1.1	1115	12901.7	47127.4	30	23.5	87	49.3	2.2	18.5				

Weeks Bay Cruise WB: 14

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
3/13/91	01-S	0.3			0.41	5.26					0.22		69.74	2.49	16.00	53			
3/13/91	02-S	0.3	120.67		0.44	3.25		16.66	15.08		0.19	0.89	68.16	2.75	19.00	53		0.717	0.561
3/13/91	02-B	3.9			0.43	3.69					0.16		67.30						
3/13/91	03-S	0.3	216.12		0.51	1.75		28.90	9.30		0.10	0.64	43.64	3.04	38.00	47		0.866	0.621
3/13/91	03-B	0.8			0.48	1.52					0.08		43.69						
3/13/91	04-S	0.3	344.04		0.52	1.51		53.23	13.85		0.08	1.62	41.34	4.35	53.00	35		0.879	0.485
3/13/91	04-B	1.1			0.51	1.60					0.07		41.25						
3/13/91	05-S	0.3	255.00		0.50	1.42		32.92	16.26		0.09	0.59	44.08	6.33	40.00	48		1.158	0.379
3/13/91	05-B	0.9			0.50	1.60					0.09		44.06						
3/13/91	06-S	0.3			0.29	1.56					0.11		63.45	7.85	91.25	15			
3/13/91	07-S	0.3	490.07		0.35	1.62		56.98	13.51		0.07	0.49	34.78	9.90	128.57	15		1.582	0.360
3/13/91	07-B	1.1			0.38	2.74					0.09		34.34						
3/13/91	08-S	0.3	323.26		0.48	1.71		38.29	13.51		0.09	0.59	29.26	4.50	48.75	40		1.068	0.616
3/13/91	08-B	1.0			0.48	2.23					0.08		28.04						
3/13/91	09-S	0.3			0.37	1.40					0.13		74.97	4.34	39.00	30			
3/13/91	10-S	0.3	293.77		0.53	1.64		37.72	14.64		0.09	0.89	38.17	4.13	46.00	35		0.878	0.523
3/13/91	10-B	1.1			0.53	1.94					0.09		37.52						
3/13/91	11-S	0.3			0.58	1.75					0.10		32.31	5.78	64.00	27			
3/13/91	12-S	0.3	205.63		0.74	2.84		25.16			0.15	1.28	63.15	3.53	23.00	60		1.028	0.728
3/13/91	12-B	2.5			0.72	7.09					0.18		62.09						
3/13/91	13-S	0.3			0.32	1.79					0.10		50.06	4.03	38.46	38		1.298	0.552
3/13/91	14-S	0.3	205.36		0.37	1.40		22.68	10.11		0.17	1.77	65.21	4.66	66.25	25			
3/13/91	14-B	2.1			0.37	1.71					0.19		62.81						
3/13/91	15-S	0.3	220.25		0.33	1.70		22.41	8.79		0.18	0.84	62.55	4.42	48.00	20		1.171	0.593
3/13/91	15-B	6.8			0.26	1.71					0.15		55.36						
3/13/91	16-S	0.3	069.77		0.39	1.76		151.94	9.77		0.26	1.18	81.96		147.50	12		1.603	
3/13/91	16-B	1.8			0.54	2.52					0.45		78.11						
3/13/91	19-S	0.3			0.36	1.47					0.12		53.07	5.33	42.50	30			

Weeks Bay Cruise Report

WB-15  
3 April 1991

Vessel:

R/V Robalo

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber

Supporting Agency:

NOAA-NERRS

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 11 surface stations (7 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0800 CST (GMT-6 hours).  
Deadheaded to station 18. Began sampling 0838.  
Stations were continued going downbay to station 7.  
Returned to DISL 1300.

# Weeks Bay Cruise WB: 15

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
4/3/91	07-S	0.3	1.4	1221	12900.2	47129.0	30	24.0	87	49.6	2.6	20.0				
4/3/91	07-B	1.2	1.4	1221	12900.2	47129.0	30	24.0	87	49.6	2.6	19.8				
4/3/91	08-S	0.3	1.1	1031	12889.1	47128.1	30	23.6	87	50.6	3.7	19.2				
4/3/91	08-B	0.9	1.1		12889.1	47128.1	30	23.6	87	50.6	3.7	19.2				
4/3/91	09-S	0.3	0.8	1054	12889.1	47128.1	30	23.5	87	50.2	5.3	19.5				
4/3/91	10-S	0.3	1.4	1103	12898.2	47127.1	30	23.5	87	49.8	5.4	19.9				
4/3/91	10-B	1.2	1.4		12898.2	47127.1	30	23.5	87	49.8	5.5	19.7				
4/3/91	11-S	0.3	1.4	1135	12903.6	47128.0	30	23.7	87	49.2	2.9	19.6				
4/3/91	12-S	0.3	3.5	1209	12907.8	47125.7	30	23.2	87	48.7	3.1	19.8				
4/3/91	12-B	3.3	3.5		12907.8	47125.7	30	23.2	87	48.7	3.3	19.6				
4/3/91	13-S	0.3	1.5	1020	12891.3	47125.8	30	23.2	87	50.4	5.2	19.2				
4/3/91	14-S	0.3	1.9	1005	12893.9	47124.7	30	23.0	87	50.1	5.5	19.6				
4/3/91	14-B	1.7	1.9		12893.9	47124.7	30	23.0	87	50.1	5.5	19.2				
4/3/91	15-S	0.3	5.3	957	12893.0	47123.3	30	22.5	87	50.2	5.6	19.5				
4/3/91	15-B	5.0	5.3		12893.0	47123.3	30	22.5	87	50.2	5.7	19.1				
4/3/91	16-S	0.3	2.0	923	12880.5	47120.8	30	22.2	87	51.3	5.7	19.6				
4/3/91	16-B	1.8	2.0		12880.5	47120.8	30	22.2	87	51.3	5.7	19.3				
4/3/91	18-S	0.3	1.3	838	12887.0	47117.6	30	20.7	87	50.4	6.7	19.2				
4/3/91	19-S	0.3	1.3	1125	12901.7	47127.4	30	23.5	87	49.3	4.8	20.1				

Weeks Bay Cruise WB: 15

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SECTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
4/ 3/91	07-S	0.3		263.01		0.74	2.66		36.54	13.41	0.03	0.84	70.20	3.82	36.00	45		1.247	0.550
4/ 3/91	07-B	1.2			0.46	1.28					0.04		69.18						
4/ 3/91	08-S	0.3		177.42		0.46	0.72		21.22	13.70	0.01	0.44	54.16	3.80	28.00	35		1.190	0.494
4/ 3/91	08-B	0.9			0.43	0.42					0.00		54.25						
4/ 3/91	09-S	0.3			0.08	0.49					0.01		48.27	4.45	57.60	35			
4/ 3/91	10-S	0.3		175.89		0.07	0.28		23.62	13.85	0.01	0.44	48.61	2.22	51.20	40		0.473	0.353
4/ 3/91	10-B	1.2			0.08	0.68					0.03		50.46						
4/ 3/91	11-S	0.3			0.06	0.62					0.01		71.06	3.07	28.00	50			
4/ 3/91	12-S	0.3		179.95		0.59	0.52		20.61	11.49	0.01	0.10	67.79		25.60	60		0.821	0.397
4/ 3/91	12-B	3.3			0.52	0.41					0.03		63.32						
4/ 3/91	13-S	0.3			0.50	0.30					0.02		48.06	4.05	39.20	50			
4/ 3/91	14-S	0.3		146.91		0.08	0.59		20.80	16.51	0.02	0.15	49.52	2.46	51.20	40		0.440	0.315
4/ 3/91	14-B	1.7			0.08	0.44					0.02		51.34						
4/ 3/91	15-S	0.3		179.33		0.08	0.48		20.78	12.97	0.01	0.10	49.00	2.11	35.20	50		0.455	0.327
4/ 3/91	15-B	5.0			0.10	1.28					0.02		51.68						
4/ 3/91	16-S	0.3		104.01		0.08	0.62		14.60	9.82	0.00	0.05	57.39	2.35	34.00	50		0.426	0.242
4/ 3/91	16-B	1.8			0.08	0.70					0.01		57.62						
4/ 3/91	18-S	0.3			0.07	0.66					0.00		49.99	2.11	35.33	65			
4/ 3/91	19-S	0.3			0.08	0.16					0.00		46.39	4.39	36.00	50			

Weeks Bay Cruise Report

WB-16  
10 April 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Elizabeth A. Gaza  
Ramona A. Schreiber

Supporting Agency:

NOAA-NERRS

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0830 CDT (GMT-7 hours).  
Deadheaded to station 1. Began sampling 0903.  
Stations were continued going upbay and ending at Fish River. Returned to DISL 1430.

# Weeks Bay Cruise WB: 16

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
4/10/91	01-S	0.3	3.0		12902.7	47134.5	30	25.5	87	49.6	0.3	21.6	7.9		6.7	
4/10/91	02-S	0.3	3.8	920	12902.1	47133.0	30	24.9	87	49.5	0.4	21.6	7.2		6.4	
4/10/91	02-B	3.6	3.8	920	12902.1	47133.0	30	24.9	87	49.5	0.4	21.6	6.7		6.4	
4/10/91	03-S	0.3	0.8		12897.2	47131.5	30	24.5	87	50.0	1.5	22.9	9.2		7.7	
4/10/91	03-B	0.6	0.8		12897.2	47131.5	30	24.5	87	50.0	1.6	22.7	9.1		7.9	
4/10/91	04-S	0.3	0.6		12901.0	47130.9	30	24.5	87	49.6	1.4	23.1	9.8		7.7	
4/10/91	04-B	0.4	0.6		12901.0	47130.9	30	24.5	87	49.6	1.3	22.6	9.6		7.9	
4/10/91	05-S	0.3	1.0		12894.8	47130.2	30	24.1	87	50.4	2.0	23.2	9.6		8.4	
4/10/91	05-B	0.8	1.0		12894.8	47130.2	30	24.1	87	50.4	2.0	22.9	9.5		8.6	
4/10/91	06-S	0.3	0.8		12896.8	47129.7	30	24.1	87	50.0	1.2	22.6	9.5		7.2	
4/10/91	07-S	0.3	1.1	1056	12900.2	47129.0	30	24.0	87	49.6	2.1	23.5	10.1		8.8	
4/10/91	07-B	0.9	1.1	1056	12900.2	47129.0	30	24.0	87	49.6	2.1	23.4	10.0		8.8	
4/10/91	08-S	0.3	0.9		12889.1	47128.1	30	23.6	87	50.6	2.8	24.3	10.8		9.1	
4/10/91	08-B	0.7	0.9		12889.1	47128.1	30	23.6	87	50.6	2.9	24.4	10.7		9.1	
4/10/91	09-S	0.3	1.1		12894.0	47127.6	30	23.5	87	50.2	3.4	24.0	10.5		9.1	
4/10/91	10-S	0.3	1.2	1145	12898.2	47127.1	30	23.5	87	49.8	3.4	24.0	10.9		9.1	
4/10/91	10-B	1.0	1.2	1145	12898.2	47127.1	30	23.5	87	49.8	3.4	24.2	10.8		9.2	
4/10/91	11-S	0.3	1.0		12903.6	47128.0	30	23.7	87	49.2	3.4	24.0	11.7		8.8	
4/10/91	12-S	0.3	2.6	1110	12907.8	47125.7	30	23.2	87	48.7	2.5	23.6	10.2		7.3	
4/10/91	12-B	2.4	2.6	1110	12907.8	47125.7	30	23.2	87	48.7	2.7	23.2	8.6		7.3	
4/10/91	13-S	0.3	1.3		12891.3	47125.8	30	23.2	87	50.4	3.6	24.1	10.9		9.1	
4/10/91	14-S	0.3	2.0	1231	12893.9	47124.7	30	23.0	87	50.1	4.0	24.3	10.8		9.0	
4/10/91	14-B	1.8	2.0	1231	12893.9	47124.7	30	23.0	87	50.1	4.0	24.2	10.2		9.0	
4/10/91	15-S	0.3	7.8		12893.0	47123.3	30	22.5	87	50.2	3.7	24.2	11.5		9.2	
4/10/91	15-B	7.6	7.8		12893.0	47123.3	30	22.5	87	50.2	4.3	23.7	9.6		8.8	
4/10/91	16-S	0.3	1.9		12880.5	47120.8	30	22.1	87	51.3	5.1	23.8	10.1		8.4	
4/10/91	16-B	1.7	1.9		12880.5	47120.8	30	22.1	87	51.3	5.2	23.1	9.6		8.4	
4/10/91	17-S	0.3	2.4		12869.4	47122.7	30	22.6	87	52.4	4.3	23.1	10.2		8.3	
4/10/91	18-S	0.3	2.3	1345	12887.0	47117.6	30	20.7	87	50.4	5.1	22.9	9.6		8.2	
4/10/91	19-S	0.3	1.1	1134	12901.7	47127.4	30	23.5	87	49.3	3.2	24.6	11.2		9.1	

Weeks Bay Cruise WB: 16

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
4/10/91	01-S	0.3			0.00	2.77			10.51	7.36	0.03	0.03	90.25		16.80	75			
4/10/91	02-S	0.3		76.09	0.00	2.55					0.01	1.53	89.27		10.40	80		0.311	0.210
4/10/91	02-B	3.6			0.00	3.04					0.03		91.13						
4/10/91	03-S	0.3		56.99	0.22	3.49			53.70	16.75	0.04	0.51	73.15	3.04	18.00	45		0.896	0.604
4/10/91	03-B	0.6			0.33	2.00					0.02		73.55						
4/10/91	04-S	0.3		83.83	0.31	0.25			52.76	13.66	0.01	0.56	73.54	1.99	15.50	80		0.839	0.425
4/10/91	04-B	0.4			0.23	0.26					0.02		78.48						
4/10/91	05-S	0.3		126.58	0.37	0.14			17.48	17.89	0.00	0.46	63.85	3.45	22.50	25		1.333	1.007
4/10/91	05-B	0.8			0.38	1.02					0.04		64.47						
4/10/91	06-S	0.3			0.13	0.50					0.03		81.27	2.74	15.50	45			
4/10/91	07-S	0.3		57.56	0.35	0.38			8.92	14.89	0.03	0.46	62.79	2.91	21.50	45		1.197	1.069
4/10/91	07-B	0.9			0.33	0.43					0.04		63.08						
4/10/91	08-S	0.3		162.37	0.14	0.29			18.99	17.25	0.01	0.51	53.06	3.85	26.50	25		1.283	0.906
4/10/91	08-B	0.7			0.07	0.25					0.01		50.49						
4/10/91	09-S	0.3			0.07	0.09					0.01		50.11	4.70	8.50	25			
4/10/91	10-S	0.3		212.96	0.07	0.31			31.17	21.03	0.03	0.46	49.01	2.99	28.50	25		1.292	0.908
4/10/91	10-B	1.0			0.09	0.85					0.03		49.56						
4/10/91	11-S	0.3			0.21	0.40					0.03		54.98	3.47	30.50	40			
4/10/91	12-S	0.3		221.20	0.32	0.43			33.34	8.98	0.01		66.86	2.33	13.00	60		1.008	1.085
4/10/91	12-B	2.4			0.40	0.94					0.03		65.73						
4/10/91	13-S	0.3			0.08	0.56					0.01		49.53	2.77	27.00	35			
4/10/91	14-S	0.3		163.53	0.09	0.41			38.88	12.52	0.00	0.61	45.21	2.19	21.00	25		0.964	1.278
4/10/91	14-B	1.8			0.08	0.21					0.00		44.64						
4/10/91	15-S	0.3		98.13	0.07	1.20			23.85	11.25	0.01	0.46	43.65	1.74	24.00	40		1.118	1.647
4/10/91	15-B	7.6			0.05	0.58					0.01		42.15						
4/10/91	16-S	0.3		153.50	0.09	0.32			24.71	8.15	0.01	0.36	52.41	2.28	29.50	55		1.166	1.583
4/10/91	16-B	1.7			0.08	0.52					0.01		51.76						
4/10/91	17-S	0.3			0.40	0.36					0.00		64.70	2.16	18.00	55			
4/10/91	18-S	0.3			0.40	0.41					0.01		60.98	2.01	28.00	50			
4/10/91	19-S	0.3			0.21	0.32					0.01	0.51	53.98		27.00	45			

Weeks Bay Cruise Report

WB-17  
24 April 1991

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0830 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0854. Stations were continued going upbay and ending at Fish River. Returned to DISL 1410.

# Weeks Bay Cruise WB: 17

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
4/24/91	01-S	0.3	2.8	854	12902.7	47134.5	30	25.5	87	49.6	0.1	22.6	7.8			6.9
4/24/91	02-S	0.3	3.1	909	12902.1	47133.0	30	24.9	87	49.5	0.3	22.8	8.1			6.9
4/24/91	02-B	2.9	3.1	909	12902.1	47133.0	30	24.9	87	49.5	1.2	22.9	8.1			8.3
4/24/91	03-S	0.3	1.0	950	12897.2	47131.5	30	24.5	87	50.0	2.7	23.7	9.5			8.8
4/24/91	03-B	0.8	1.0	950	12897.2	47131.5	30	24.5	87	50.0	2.7	23.6	9.4			8.8
4/24/91	04-S	0.3	1.4	936	12901.0	47130.9	30	24.5	87	49.6	1.8	23.7	10.3			9.0
4/24/91	04-B	1.2	1.4	936	12901.0	47130.9	30	24.5	87	49.6	1.6	23.7	9.4			8.9
4/24/91	05-S	0.3	1.1	1006	12894.8	47130.2	30	24.1	87	50.4	2.5	23.4	10.2			9.0
4/24/91	05-B	0.9	1.1	1006	12894.8	47130.2	30	24.1	87	50.4	2.5	23.5	10.0			9.0
4/24/91	06-S	0.3	1.0	1019	12896.8	47129.7	30	24.1	87	50.0	1.6	23.6	10.3			8.8
4/24/91	07-S	0.3	1.5	1032	12900.2	47129.0	30	24.0	87	49.6	1.8	23.9	10.6			9.1
4/24/91	07-B	1.3	1.5	1032	12900.2	47129.0	30	24.0	87	49.6	1.8	24.0	10.3			9.1
4/24/91	08-S	0.3	1.1	1141	12889.1	47128.1	30	23.6	87	50.6	2.5	24.5	10.6			9.1
4/24/91	08-B	0.9	1.1	1141	12889.1	47128.1	30	23.6	87	50.6	2.5	24.5	10.6			9.1
4/24/91	09-S	0.3	1.3	1133	12894.0	47127.6	30	23.5	87	50.2	2.0	24.0	9.8			8.7
4/24/91	10-S	0.3	1.3	1119	12898.2	47127.1	30	23.5	87	49.8	1.9	24.2	10.4			9.0
4/24/91	10-B	1.6	1.8	1119	12898.2	47127.1	30	23.5	87	49.8	1.9	24.2	10.1			9.0
4/24/91	11-S	0.3	1.1	1100	12903.6	47128.0	30	23.7	87	49.2	1.6	24.7	11.0			9.0
4/24/91	12-S	0.3	2.6	1046	12907.8	47125.7	30	23.2	87	48.7	1.0	24.0	9.9			7.6
4/24/91	12-B	3.1	3.3	1046	12907.8	47125.7	30	23.2	87	48.7	1.6	23.8	8.4			7.3
4/24/91	13-S	0.3	1.2	1155	12891.3	47125.8	30	23.2	87	50.4	2.3	25.1	10.4			9.0
4/24/91	14-S	0.3	2.0	1212	12893.9	47124.7	30	23.0	87	50.1	3.3	25.1	9.7			8.9
4/24/91	14-B	2.5	2.8	1212	12893.9	47124.7	30	23.0	87	50.1	3.4	25.2	6.8			8.2
4/24/91	15-S	0.3	7.5	1220	12893.0	47123.3	30	22.5	87	50.2	2.5	24.7	10.7			9.1
4/24/91	15-B	7.3	7.5	1220	12893.0	47123.3	30	22.5	87	50.2	3.7	24.3	8.2			
4/24/91	16-S	0.3	2.0	1238	12880.5	47120.8	30	22.1	87	51.3	5.0	25.1	9.1			8.4
4/24/91	16-B	1.8	2.0	1238	12880.5	47120.8	30	22.1	87	51.3	5.2	24.4	4.8			7.4
4/24/91	17-S	0.3	2.6	1320	12869.4	47122.7	30	22.6	87	52.4	4.8	24.5	9.9			8.5
4/24/91	18-S	0.3	1.9	1337	12887.0	47117.6	30	20.7	87	50.4	5.0	25.4	9.1			8.4
4/24/91	19-S	0.3	1.2	1107	12901.7	47127.4	30	23.5	87	49.3	2.2	24.3	10.5			9.1

Weeks Bay Cruise WB: 17

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (µM)	PC (µM)	NO3 (µM)	NO2 (µM)	NH4 (µM)	DON (µM)	PN (µM)	PP (µM)	PO4 (µM)	DOP (µM)	SI (µM)	ATTEN -(m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
4/24/91	01-S	0.3				0.03	0.70		27.33	5.20	0.12		84.31	2.33	6.50	75			
4/24/91	02-S	0.3	171.11		0.02	3.62					0.10	0.71	26.23	2.02	2.00	75		0.249	0.218
4/24/91	02-B	2.9			0.13	1.80					0.09		97.29						
4/24/91	03-S	0.3	313.46		0.05	0.56		58.01	58.01	8.15	0.04	0.36	85.24	3.04	13.33	50		0.471	0.229
4/24/91	03-B	0.8			0.04	0.26					0.03		49.89						
4/24/91	04-S	0.3	290.25		0.07	0.24		58.99	58.99	7.90	0.03		94.72	3.02	23.33	45		0.487	0.271
4/24/91	04-B	1.2			0.06	0.37					0.02		89.56						
4/24/91	05-S	0.3	302.83		0.04	0.52		78.55	78.55	8.25	0.04	0.46	51.13	2.73	15.33	50		0.381	0.199
4/24/91	05-B	0.9			0.05	0.32					0.01		82.38						
4/24/91	06-S	0.3			0.06	0.42					0.03		78.84	2.88	21.33	50			
4/24/91	07-S	0.3	320.79		0.05	0.56		69.44	69.44	9.77	0.03	0.36	93.86	2.83	20.00	50		0.765	0.373
4/24/91	07-B	1.3			0.05	0.45					0.04		28.04						
4/24/91	08-S	0.3	270.66		0.06	0.17		86.29	86.29	8.54	0.01	0.56	83.75	2.65	19.33	25		0.346	0.177
4/24/91	08-B	0.9			0.06	0.25					0.02		79.67						
4/24/91	09-S	0.3			0.08	0.36					0.02		93.50	3.00	23.33	35			
4/24/91	10-S	0.3	220.83		0.07	0.23		71.41	71.41	8.49	0.03	0.46	93.36	2.73	25.33	40		0.451	0.225
4/24/91	10-B	1.6			0.07	0.42					0.04		91.90						
4/24/91	11-S	0.3			0.06	0.25					0.02		94.24	2.42	23.33	50			
4/24/91	12-S	0.3	304.60		0.36	0.96		52.56	52.56	7.66	0.03	0.51	100.10	1.95	13.00	75		0.348	0.270
4/24/91	12-B	3.1			0.29	2.11					0.08		100.80						
4/24/91	13-S	0.3			0.05	0.50					0.03		87.41	2.68	29.33	30			
4/24/91	14-S	0.3	237.05		0.05	0.49		71.61	71.61	8.20	0.03	0.36	73.11	2.21	26.00	50		0.214	0.158
4/24/91	14-B	2.5			0.06	0.41					0.02		75.50						
4/24/91	15-S	0.3	206.38		0.06	0.30		63.53	63.53	8.34	0.01	0.31	81.06	1.87	27.33	30		0.390	0.349
4/24/91	15-B	7.3			0.08	2.72					0.07		72.83						
4/24/91	16-S	0.3	106.89		0.06	0.30		48.12	48.12	8.10	0.03	0.31	60.02	2.24	41.33	50		0.249	0.163
4/24/91	16-B	1.8			0.12	0.89					0.06		62.77						
4/24/91	17-S	0.3			0.05	0.32					0.01		60.76	2.01	36.00	60			
4/24/91	18-S	0.3			0.06	0.70					0.03		63.37	2.39	35.33	50			
4/24/91	19-S	0.3			0.09	0.42					0.03		87.88	2.67	28.00	50			

Weeks Bay Cruise Report

WB-18  
14 May 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Elizabeth A. Gaza  
Thomas S. Hopkins

Supporting Agency:

NOAA-NERRS

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Secchi disk and Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0800 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0845. Stations were continued going upbay and ending at Fish River. Returned to DISL 1400.



# Weeks Bay Cruise WB: 18

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
5/14/91	01-S	0.3	3.9	845	12902.7	47134.5	30	25.5	87	49.6	0.0	24.8				
5/14/91	02-S	0.3	4.8	904	12902.1	47133.0	30	24.9	87	49.5	0.0	25.4				
5/14/91	02-B	4.5	4.8	904	12902.1	47133.0	30	24.9	87	49.5	0.0	25.0				
5/14/91	03-S	0.3	1.5	935	12897.2	47131.5	30	24.5	87	50.0	0.0	25.8				
5/14/91	03-B	1.3	1.5	935	12897.2	47131.5	30	24.5	87	50.0	0.0	26.0				
5/14/91	04-S	0.3	2.5	920	12901.0	47130.9	30	24.5	87	49.6	0.0	25.8				
5/14/91	04-B	2.3	2.5	920	12901.0	47130.9	30	24.5	87	49.6	0.0	25.5				
5/14/91	05-S	0.3	1.6	957	12894.8	47130.2	30	24.1	87	50.4	0.1	26.2				
5/14/91	05-B	1.4	1.6	957	12894.8	47130.2	30	24.1	87	50.4	0.3	26.5				
5/14/91	06-S	0.3	1.4	1007	12896.8	47129.7	30	24.1	87	50.0	0.4	27.0				
5/14/91	07-S	0.3	1.6	1023	12900.2	47129.0	30	24.0	87	49.6	0.5	27.3				
5/14/91	07-B	1.4	1.6	1023	12900.2	47129.0	30	24.0	87	49.6	0.6	27.1				
5/14/91	08-S	0.3	1.5	1156	12889.1	47128.1	30	23.6	87	50.6	0.4	28.8				
5/14/91	08-B	1.3	1.5	1156	12889.1	47128.1	30	23.6	87	50.6	0.7	28.3				
5/14/91	09-S	0.3	1.6	1147	12894.0	47127.6	30	23.5	87	50.2	1.0	29.0				
5/14/91	10-S	0.3	1.8	1131	12898.2	47127.1	30	23.5	87	49.8	1.0	29.3				
5/14/91	10-B	1.6	1.8	1131	12898.2	47127.1	30	23.5	87	49.8	1.0	29.2				
5/14/91	11-S	0.3	1.7	1104	12903.6	47128.0	30	23.7	87	49.2	0.3	26.9				
5/14/91	12-S	0.3	3.3	1044	12907.8	47125.7	30	23.2	87	48.7	0.1	27.1				
5/14/91	12-B	3.1	3.3	1044	12907.8	47125.7	30	23.2	87	48.7	0.1	26.6				
5/14/91	13-S	0.3	1.8	1214	12891.3	47125.8	30	23.2	87	50.4	1.0	29.5				
5/14/91	14-S	0.3	2.8	1223	12893.9	47124.7	30	23.0	87	50.1	1.0	29.0				
5/14/91	14-B	2.5	2.8	1223	12893.9	47124.7	30	23.0	87	50.1	1.3	27.7				
5/14/91	15-S	0.3	7.5	1245	12893.0	47123.3	30	22.5	87	50.2	1.2	28.9				
5/14/91	15-B	7.3	7.5	1245	12893.0	47123.3	30	22.5	87	50.2	1.4	27.7				
5/14/91	16-S	0.3	2.3	1303	12880.5	47120.8	30	22.1	87	51.3	1.4	29.0				
5/14/91	16-B	2.0	2.3	1303	12880.5	47120.8	30	22.1	87	51.3	1.5	28.7				
5/14/91	17-S	0.3	2.5	1320	12869.4	47122.7	30	22.6	87	52.4	1.3	28.8				
5/14/91	18-S	0.3	1.8	1335	12887.0	47117.6	30	20.7	87	50.4	2.0	28.8				
5/14/91	19-S	0.3	1.5	1113	12901.7	47127.4	30	23.5	87	49.3	0.9	28.3				

Weeks Bay Cruise WB: 18

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -1/m	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
5/14/91	01-S	0.3			0.23	4.03					0.96		81.02	5.13	8.00	25			
5/14/91	02-S	0.3	174.76		0.15	4.25		28.64		7.90	1.06	2.29	13.81	5.34	7.00	25		1.194	0.452
5/14/91	02-B	4.5			0.13	4.36					1.09		4.94						
5/14/91	03-S	0.3	181.03		0.18	5.24		17.81		4.70	0.97	2.80	14.92	5.61	1.00	20		1.158	0.288
5/14/91	03-B	1.3			0.27	5.53					1.08		7.68						
5/14/91	04-S	0.3	156.21		0.14	4.20		45.12		5.84	1.08	2.54	7.00	6.67	10.00	25		1.134	0.321
5/14/91	04-B	2.3			0.16	4.65					1.03		19.28						
5/14/91	05-S	0.3	287.37		0.18	6.14		39.35		5.69	1.19	2.59	6.04	4.77	4.00	25		0.871	0.338
5/14/91	05-B	1.4			0.21	7.63					1.03		8.40						
5/14/91	06-S	0.3			0.20	6.58					0.97		14.10	4.99	10.00	25			
5/14/91	07-S	0.3	192.68		0.16	5.05		82.64		6.38	0.83	2.08	18.94	4.94	32.00	25		1.509	0.691
5/14/91	07-B	1.4			0.15	4.65					0.74		15.98						
5/14/91	08-S	0.3	239.70		0.15	6.67		63.36		4.31	1.02	2.19	7.03	4.89	6.00	30		1.478	0.669
5/14/91	08-B	1.3			0.18	6.77					0.63		23.60						
5/14/91	09-S	0.3			0.47	0.79					0.34		70.32	5.16	21.00	25			
5/14/91	10-S	0.3	172.30		0.54	0.66		108.10		8.30	0.37	1.22	74.61	5.57	31.00	20		2.058	0.678
5/14/91	10-B	1.6			0.17	0.82					0.36		43.50						
5/14/91	11-S	0.3			0.23	6.89					1.24		67.75	4.92	20.00	20			
5/14/91	12-S	0.3	234.85		0.16	6.30		67.00		8.10	1.88	3.51	13.58	5.30	13.33	20		1.550	0.427
5/14/91	12-B	3.1			0.18	6.39					1.93		9.48						
5/14/91	13-S	0.3			0.14	0.92					0.47		20.40	4.61	14.00	21			
5/14/91	14-S	0.3	253.28		0.10	0.73		90.57		9.48	0.46	1.32	9.56	5.06	18.67	25		2.119	0.705
5/14/91	14-B	2.5			0.50	2.93					0.45		75.81						
5/14/91	15-S	0.3	323.80		0.11	0.79		88.39		9.67	0.39	1.32	12.06	4.55	24.00	30		1.420	0.616
5/14/91	15-B	7.3			0.13	2.92					0.40		12.57						
5/14/91	16-S	0.3	177.25		0.09	0.46		112.10		9.08	0.33	0.97	16.03	3.82	25.33	30		1.086	0.718
5/14/91	16-B	2.0			0.23	0.92					0.34		75.58						
5/14/91	17-S	0.3			0.05	0.72					0.28		13.11	3.54	12.67	40			
5/14/91	18-S	0.3			0.05	2.08					0.31		17.35	3.53	14.67	40			
5/14/91	19-S	0.3			0.34	1.51					0.63		74.96	5.17	28.67	25			

Weeks Bay Cruise Report

WB-19  
5 June 1991

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Elizabeth A. Gaza Ramona A. Schreiber Thomas S. Hopkins
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 18 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0830 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0904. Stations were continued going upbay and ending at Fish River. Returned to DISL 1445.

# Weeks Bay Cruise WB: 19

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
6/5/91	01-S	0.3	3.4	904	12902.7	47134.5	30	25.5	87	49.6	0.0	28.2				
6/5/91	02-S	0.3	4.0	925	12902.1	47133.0	30	24.9	87	49.5	0.0	27.9				
6/5/91	02-B	3.8	4.0	925	12902.1	47133.0	30	24.9	87	49.5	0.0	27.3				
6/5/91	03-S	0.3	0.9	1005	12897.2	47131.5	30	24.5	87	50.0	0.2	28.9				
6/5/91	03-B	0.8	0.9	1005	12897.2	47131.5	30	24.5	87	50.0	0.2	28.5				
6/5/91	04-S	0.3	1.1	945	12901.0	47130.9	30	24.5	87	49.6	0.2	28.4				
6/5/91	04-B	0.9	1.1	945	12901.0	47130.9	30	24.5	87	49.6	0.2	28.3				
6/5/91	05-S	0.3	1.1	1025	12894.8	47130.2	30	24.1	87	50.4	0.2	29.3				
6/5/91	05-B	0.9	1.1	1025	12894.8	47130.2	30	24.1	87	50.4	0.2	29.0				
6/5/91	06-S	0.3	1.0	1051	12896.8	47129.7	30	24.1	87	50.0	0.2	29.4				
6/5/91	07-S	0.3	1.5	1100	12900.2	47129.0	30	24.0	87	49.6	0.2	30.0				
6/5/91	07-B	1.3	1.5	1100	12900.2	47129.0	30	24.0	87	49.6	0.2	29.4				
6/5/91	08-S	0.3	1.1	1215	12889.1	47128.1	30	23.6	87	50.6	0.3	32.0				
6/5/91	08-B	0.9	1.1	1215	12889.1	47128.1	30	23.6	87	50.6	0.3	31.8				
6/5/91	09-S	0.3	1.2	1215	12894.0	47127.6	30	23.5	87	50.2	0.3	32.9				
6/5/91	10-S	0.3	1.1	1157	12898.2	47127.1	30	23.5	87	49.8	0.4	31.5				
6/5/91	10-B	0.9	1.1	1157	12898.2	47127.1	30	23.5	87	49.8	0.5	31.2				
6/5/91	11-S	0.3	1.1	1130	12903.6	47128.0	30	23.7	87	49.2	0.2	30.9				
6/5/91	12-S	0.3	2.5	1115	12907.8	47125.7	30	23.2	87	48.7	0.1	29.5				
6/5/91	12-B	2.3	2.5	1115	12907.8	47125.7	30	23.2	87	48.7	0.1	27.9				
6/5/91	13-S	0.3	1.4	1240	12891.3	47125.8	30	23.2	87	50.4	0.9	33.6				
6/5/91	14-S	0.3	1.5	1253	12893.9	47124.7	30	23.0	87	50.1	0.7	31.7				
6/5/91	14-B	1.3	1.5	1253	12893.9	47124.7	30	23.0	87	50.1	0.7	32.5				
6/5/91	15-S	0.3	3.8	1320	12893.0	47123.3	30	22.5	87	50.2	1.0	31.8				
6/5/91	15-B	3.5	3.8	1320	12893.0	47123.3	30	22.5	87	50.2	1.0	30.6				
6/5/91	16-S	0.3	1.9	1350	12880.5	47120.8	30	22.2	87	51.3	0.9	31.1				
6/5/91	16-B	1.7	1.9	1350	12880.5	47120.8	30	22.2	87	51.3	1.0	30.1				
6/5/91	17-S	0.3	2.8	1405	12869.4	47122.7	30	22.6	87	52.4	0.8	31.5				
6/5/91	18-S	0.3	1.1	1415	12887.0	47117.6	30	20.7	87	50.4	0.9	31.0				
6/5/91	19-S	0.3	1.1	1145	12901.7	47127.4	30	23.5	87	49.3	0.4	31.4				

Weeks Bay Cruise WB: 19

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	YPROD (mgC/l/d)	APROD (gC/m2/d)
6/5/91	01-S	0.3				0.37	0.90				0.38		83.81	2.37	3.50	75			
6/5/91	02-S	0.3		79.29		0.40	0.94		94.84	15.20	0.41	0.48	77.05	2.41	4.38	70		1.498	1.092
6/5/91	02-B	3.8				0.41	1.48				0.46		9.68						
6/5/91	03-S	0.3		144.86		0.31	2.08		17.70	17.84	0.44	3.24	113.80		9.00	45		1.347	1.909
6/5/91	03-B	0.8				0.32	2.37				0.42		105.70						
6/5/91	04-S	0.3		436.65		0.41	3.48		161.33	13.75	0.43	0.67	96.60	4.28	12.00	45		1.727	0.702
6/5/91	04-B	0.9				0.43	3.43				0.51		100.10						
6/5/91	05-S	0.3		107.70		0.33	2.82		46.97	13.46	0.41	1.29	106.90	4.81	12.00	40		1.814	0.731
6/5/91	05-B	0.9				0.31	2.37				0.47		94.67						
6/5/91	06-S	0.3				0.35	2.20				0.45		102.90	3.29	11.50	50			
6/5/91	07-S	0.3		107.70		0.31	0.68		46.97	15.90	0.44	2.38	104.80		9.00	40		2.196	1.380
6/5/91	07-B	1.3				0.34	1.86				0.46		102.00						
6/5/91	08-S	0.3		105.44		0.29	2.38		25.88	18.54	0.45	0.71	110.30		15.00	30		0.000	0.000
6/5/91	08-B	0.9				0.31	10.40				0.45		102.10	3.85					
6/5/91	09-S	0.3				0.23	0.74				0.44		109.40		11.50	35			
6/5/91	10-S	0.3		138.94		0.23	3.72		22.39	16.69	0.50	1.10	108.50	2.98	11.00	40		1.733	1.156
6/5/91	10-B	0.9				0.22	3.69				0.44		114.10						
6/5/91	11-S	0.3				0.22	0.40				0.45		108.60	3.81	8.50	45			
6/5/91	12-S	0.3		154.86		0.37	0.56		22.74	20.33	0.46	1.14	115.50	3.52	6.50	75		1.231	0.684
6/5/91	12-B	2.3				0.40	1.96				0.46		118.00						
6/5/91	13-S	0.3				0.10	0.36				0.63		99.37	3.39	23.00	30			
6/5/91	14-S	0.3		96.78		0.11	0.26		13.67	14.40	0.44	1.24	97.42		12.00	25		1.598	1.094
6/5/91	14-B	1.3				0.23	1.89				0.48		110.10						
6/5/91	15-S	0.3		159.71		0.09	0.15		35.24	14.05	0.48	0.67	101.60	2.58	13.50	40		0.809	0.648
6/5/91	15-B	3.5				0.12	0.41				0.49		98.77						
6/5/91	16-S	0.3		143.46					56.57	16.15		1.19		2.58		30		0.525	0.472
6/5/91	16-B	1.7				0.11	0.40				0.55		99.90						
6/5/91	17-S	0.3				0.10	0.26				0.71		104.20	2.75	25.50	30			
6/5/91	18-S	0.3				0.10	0.34				0.64		102.10	3.58	21.50	35			
6/5/91	19-S	0.3				0.38	0.89				0.51		111.10		9.50	40			

Weeks Bay Cruise Report

WB-20  
20 June 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber

Supporting Agency:

NOAA-NERRS

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 17 surface stations (11 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a SBE-25 at all stations.

Cruise Summary:

Departed DISL 0840 CDT (GMT-7 hours).  
Deadheaded to station 1. Began sampling 0912.  
Stations were continued going upbay and ending at Fish River. Returned to DISL 1420.

# Weeks Bay Cruise WB: 20

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
6/20/91	01-S	0.3	3.8	912	12902.7	47134.5	30	25.5	87	49.6	0.1	27.7				
6/20/91	02-S	0.3	3.6	923	12902.1	47133.0	30	24.9	87	49.5	0.2	28.0				
6/20/91	02-B	3.4	3.6	923	12902.1	47133.0	30	24.9	87	49.5	0.1	27.4				
6/20/91	03-S	0.3	1.1	955	12897.2	47131.5	30	24.5	87	50.0	0.6	29.0				
6/20/91	03-B	0.9	1.1	955	12897.2	47131.5	30	24.5	87	50.0	0.2	28.6				
6/20/91	04-S	0.3	1.3	940	12901.0	47130.9	30	24.5	87	49.6	0.7	29.3				
6/20/91	04-B	1.1	1.3	940	12901.0	47130.9	30	24.5	87	49.6	1.2	28.9				
6/20/91	05-S	0.3	1.3	1021	12894.8	47130.2	30	24.1	87	50.4	1.0	29.4				
6/20/91	05-B	1.1	1.3	1021	12894.8	47130.2	30	24.1	87	50.4	1.3	29.1				
6/20/91	06-S	0.3		1037	12896.8	47129.7	30	24.1	87	50.0	0.2	29.2				
6/20/91	07-S	0.3	1.1	1052	12900.2	47129.0	30	24.0	87	49.6	1.8	29.3				
6/20/91	07-B	0.9	1.1	1052	12900.2	47129.0	30	24.0	87	49.6	1.8	29.3				
6/20/91	08-S	0.3	1.1	1238	12889.1	47128.1	30	23.6	87	50.6	1.3	30.9				
6/20/91	08-B	0.9	1.1	1238	12889.1	47128.1	30	23.6	87	50.6	1.3	30.7				
6/20/91	09-S	0.3	1.1	1224	12894.0	47127.6	30	23.5	87	50.2	1.4	30.5				
6/20/91	10-S	0.3	1.3	1221	12898.2	47127.1	30	23.5	87	49.8	1.9	30.8				
6/20/91	10-B	1.1	1.3	1221	12898.2	47127.1	30	23.5	87	49.8	1.9	30.7				
6/20/91	11-S	0.3	1.1	1124	12903.6	47128.0	30	23.7	87	49.2	1.5	29.9				
6/20/91	12-S	0.3	2.5	1110	12907.8	47125.7	30	23.2	87	48.7	0.5	28.8				
6/20/91	12-B	2.3	2.5	1110	12907.8	47125.7	30	23.2	87	48.7	0.5	28.0				
6/20/91	13-S	0.3	1.3	1308	12891.3	47125.8	30	23.2	87	50.4	1.3	30.1				
6/20/91	14-S	0.3	2.3	1313	12893.9	47124.7	30	23.0	87	50.1	1.4	31.1				
6/20/91	14-B	2.0	2.3	1313	12893.9	47124.7	30	23.0	87	50.1	1.5	30.8				
6/20/91	15-S	0.3	5.9	1341	12893.0	47123.3	30	22.5	87	50.2	1.8	30.8				
6/20/91	15-B	5.7	5.9	1341	12893.0	47123.3	30	22.5	87	50.2	1.8	29.9				
6/20/91	16-S	0.3	1.8	1347	12880.5	47120.8	30	22.2	87	51.3	2.6	30.7				
6/20/91	16-B	1.6	1.8	1347	12880.5	47120.8	30	22.2	87	51.3	2.6	30.8				
6/20/91	19-S	0.3	1.1	1136	12901.7	47127.4	30	23.5	87	49.3	1.7	30.5				

Weeks Bay Cruise WB: 20

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
6/20/91	01-S	0.3				0.40	2.44		39.92	10.56	0.37	0.10	112.60	2.36	11.33	75			
6/20/91	02-S	0.3	117.41		0.37	2.36					0.10	0.29	134.60	2.40	9.50	60		0.301	0.176
6/20/91	02-B	3.4			0.39	3.06					0.12		131.60						
6/20/91	03-S	0.3	204.69		0.26	2.78			51.04		0.20	0.52	138.30	3.56	24.21	45		0.438	0.171
6/20/91	03-B	0.9			0.23	2.69					0.11		136.40						
6/20/91	04-S	0.3	191.12		0.20	2.27			87.65	9.87	0.11	2.10	135.20	3.03	13.00	25		0.453	0.213
6/20/91	04-B	1.1			0.21	1.73					0.25		125.80						
6/20/91	05-S	0.3	190.43		0.18	1.08			47.06	10.02	0.31	0.95	135.30	2.90	9.00	25		0.921	0.337
6/20/91	05-B	1.1			0.30	0.76					0.15		134.40						
6/20/91	06-S	0.3			0.09	0.94					0.18		133.70	3.27	9.50				
6/20/91	07-S	0.3	159.66		0.08	0.90			44.49	12.43	0.06	0.95	118.40	3.46	11.00	20		0.919	0.480
6/20/91	07-B	0.9			0.10	0.55					0.16		135.90						
6/20/91	08-S	0.3	158.64		0.09	0.56			42.95	12.72	0.18	1.38	132.50	4.54	11.50	40		1.114	0.440
6/20/91	08-B	0.9			0.27	0.51					0.07		134.00						
6/20/91	09-S	0.3			0.22	0.90					0.06		131.50	2.05	9.44	50			
6/20/91	10-S	0.3	246.24		0.07	0.79			52.87	15.28	0.11	0.57	123.10	2.97	11.00	40		0.811	0.591
6/20/91	10-B	1.1			0.08	0.72					0.06		125.60						
6/20/91	11-S	0.3			0.18	1.00					0.15		128.40	2.94	11.50	20			
6/20/91	12-S	0.3	124.61		0.45	2.11			43.96	11.05	0.12	1.48	123.20	2.24	5.56			1.308	0.947
6/20/91	12-B	2.3			0.59	5.16					0.11		119.30			30			
6/20/91	13-S	0.3			0.13	1.09					0.10		134.90	3.32	18.89	40			
6/20/91	14-S	0.3	225.05		0.12	0.48			31.10	11.89	0.12	1.52	133.20	2.67	8.89	45		1.082	0.722
6/20/91	14-B	2.0			0.14	1.26					0.09		126.70						
6/20/91	15-S	0.3	289.26		0.11	0.53			92.05	12.13	0.15	1.19	130.80	2.78	11.50	40		1.176	0.743
6/20/91	15-B	5.7			0.14	1.12					0.19		122.40						
6/20/91	16-S	0.3	205.78		0.09	0.00			79.83	10.56	0.37	1.57	105.30	2.52	16.67	45		0.551	0.482
6/20/91	16-B	1.6			0.12	0.00					0.10		95.82						
6/20/91	19-S	0.3			0.07	0.08					0.10		130.60	2.89	11.11	25			

Weeks Bay Cruise Report

WB-21  
2 July 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber

Supporting Agency:

NOAA-NERRS

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 16 surface stations (10 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a SBE-25 at all stations.

Cruise Summary:

Departed DISL 0830 CDT (GMT-7 hours).  
Deadheaded to station 1. Began sampling 0909.  
Stations were continued going upbay and ending at Fish River. Returned to DISL 1430.

# Weeks Bay Cruise WB: 21

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
7/2/91	01-S	0.3	3.5	909	12902.7	47134.5	30	25.5	87	49.6	0.2	27.4				
7/2/91	02-S	0.3	3.5	918	12902.1	47133.0	30	24.9	87	49.5	0.3	27.3				
7/2/91	02-B	3.3	3.5	918	12902.1	47133.0	30	24.9	87	49.5	1.3	27.6				
7/2/91	03-S	0.3	1.1	1037	12897.2	47131.5	30	24.5	87	50.0	1.8	29.8				
7/2/91	03-B	0.9	1.1	1037	12897.2	47131.5	30	24.5	87	50.0	2.1	30.3				
7/2/91	04-S	0.3	1.6	1025	12901.0	47130.9	30	24.5	87	49.6	1.6	29.6				
7/2/91	04-B	1.4	1.6	1025	12901.0	47130.9	30	24.5	87	49.6	2.6	29.8				
7/2/91	05-S	0.3	1.3	1102	12894.8	47130.2	30	24.1	87	50.4	2.2	30.0				
7/2/91	05-B	1.1	1.3	1102	12894.8	47130.2	30	24.1	87	50.4	2.9	30.5				
7/2/91	06-S	0.3	1.3	1107	12896.8	47129.7	30	24.1	87	50.0	1.8	30.2				
7/2/91	07-S	0.3	1.6	1132	12900.2	47129.0	30	24.0	87	49.6	3.0	29.9				
7/2/91	07-B	1.4	1.6	1132	12900.2	47129.0	30	24.0	87	49.6	2.8	30.5				
7/2/91	08-S	0.3	1.3	1304	12889.1	47128.1	30	23.6	87	50.6	2.8	31.8				
7/2/91	08-B	1.1	1.3	1304	12889.1	47128.1	30	23.6	87	50.6	3.1	31.4				
7/2/91	09-S	0.3	1.4	1245	12894.0	47127.6	30	23.5	87	50.2	2.5	31.4				
7/2/91	10-S	0.3	1.3	1335	12898.2	47127.1	30	23.5	87	49.8	3.0	30.6				
7/2/91	10-B	1.1	1.3	1335	12898.2	47127.1	30	23.5	87	49.8	3.1	30.7				
7/2/91	11-S	0.3	1.3	1308	12903.6	47128.0	30	23.7	87	49.2	3.0	30.7				
7/2/91	12-S	0.3	2.5	1152	12907.8	47125.7	30	23.2	87	48.7	1.2	29.8				
7/2/91	12-B	2.3	2.5	1152	12907.8	47125.7	30	23.2	87	48.7	2.6	30.0				
7/2/91	13-S	0.3	1.5	1322	12891.3	47125.8	30	23.2	87	50.4	3.5	31.1				
7/2/91	14-S	0.3	1.8	1333	12893.9	47124.7	30	23.0	87	50.1	5.5	31.6				
7/2/91	14-B	1.6	1.8	1333	12893.9	47124.7	30	23.0	87	50.1	5.7	31.4				
7/2/91	15-S	0.3	7.0	1352	12893.0	47123.3	30	22.5	87	50.2	6.5	32.1				
7/2/91	15-B	6.8	7.0	1352	12893.0	47123.3	30	22.5	87	50.2	6.6	31.5				
7/2/91	19-S	0.3	1.3	1316	12901.7	47127.4	30	23.5	87	49.3						

Weeks Bay Cruise WB: 21

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/L/d)	APROD (gC/m2/d)
7/2/91	01-S	0.3				0.40	2.06				0.19		88.08	3.37	12.50	50			
7/2/91	02-S	0.3	186.12		0.44	5.80				8.89	0.45	0.52	97.82	3.36	10.00	35		0.296	0.148
7/2/91	02-B	3.3			0.39	7.71					0.40		122.10						
7/2/91	03-S	0.3	288.33		0.18	1.04				13.66	0.24	0.52	119.20	3.11	20.80	50		0.330	0.207
7/2/91	03-B	0.9			0.26	7.74					1.33		129.50						
7/2/91	04-S	0.3	318.44		0.28	1.36				13.07	0.21	0.52	123.20	4.10	22.00	40		2.559	1.314
7/2/91	04-B	1.4			0.37	7.77					0.38		131.00						
7/2/91	05-S	0.3	166.47		0.15	2.44				6.13	0.16	0.48	126.50	2.58	12.00	50		1.348	0.996
7/2/91	05-B	1.1			0.13	5.66					0.13		139.00						
7/2/91	06-S	0.3			0.23	2.21					0.24		123.60	2.64	9.33	50			
7/2/91	07-S	0.3	313.09		0.20	3.76				11.49	0.35	0.48	130.60	3.04	24.50	40		1.323	1.084
7/2/91	07-B	1.4			0.20	5.65					0.18		127.70						
7/2/91	08-S	0.3	287.60		0.15	1.67				7.31	0.25	0.57	127.90	3.20	16.00	45		1.258	1.031
7/2/91	08-B	1.1			0.14	1.67					0.12		126.70						
7/2/91	09-S	0.3			0.15	1.04					0.14		123.80	3.15		50			
7/2/91	10-S	0.3	212.37		0.13	2.87				8.79	0.21	0.57	130.80	3.23	16.67	50		2.124	1.060
7/2/91	10-B	1.1			0.12	1.26					0.11		127.60						
7/2/91	11-S	0.3			0.14	1.23					0.11		128.90	2.94	11.33	50			
7/2/91	12-S	0.3	280.07		0.54	8.12				7.11	0.17	0.71	121.40	2.80	5.33	75		2.186	1.103
7/2/91	12-B	2.3			0.34	9.70					0.24		132.50						
7/2/91	13-S	0.3			0.09	1.00					0.10		131.80	3.17	15.33	50			
7/2/91	14-S	0.3	300.97		0.12	2.16				8.39	0.30	0.48	127.30	2.51	16.00	40		0.913	0.741
7/2/91	14-B	1.6			0.11	1.27					0.10		123.90						
7/2/91	15-S	0.3	172.80		0.12	3.23				8.64	0.29	0.57	118.00	2.21	18.00	40			
7/2/91	15-B	6.8			0.13	3.35					0.13		120.20						
7/2/91	19-S	0.3			0.16	2.60				9.57	0.12		131.70	2.19	14.00	50			

Weeks Bay Cruise Report

WB-22  
18 July 1991

Vessel:

R/V Robalo

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Ramona A. Schreiber  
Elizabeth A. Gaza

Supporting Agency:

NOAA-NERRS

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 17 surface stations (11 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0630 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0842. Stations were continued going upbay and ending at Fish River. Returned to DISL 1315.



# Weeks Bay Cruise WB: 22

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
7/18/91	01-S	0.3	3.7	842	12902.7	47134.5	30	25.5	87	49.6	0.0	27.7	8.5	8.5	7.0	
7/18/91	02-S	0.3	4.0	856	12902.1	47133.0	30	24.9	87	49.5	0.0	27.5	7.2	7.2	6.4	
7/18/91	02-B	3.8	4.0	856	12902.1	47133.0	30	24.9	87	49.5	0.0	26.7	5.5	5.5	6.0	
7/18/91	03-S	0.3	1.0	935	12897.2	47131.5	30	24.5	87	50.0	0.3	29.5	8.0	8.0	6.8	
7/18/91	03-B	0.8	1.0	935	12897.2	47131.5	30	24.5	87	50.0	0.4	29.5	7.5	7.5	7.0	
7/18/91	04-S	0.3	1.5	912	12901.0	47130.9	30	24.5	87	49.6	0.1	28.0	6.4	6.4	6.3	
7/18/91	04-B	1.3	1.5	912	12901.0	47130.9	30	24.5	87	49.6	0.1	27.8	5.9	5.9	6.2	
7/18/91	05-S	0.3	1.1	950	12894.8	47130.2	30	24.1	87	50.4	0.6	29.7	8.5	8.5	7.1	
7/18/91	05-B	0.9	1.1	950	12894.8	47130.2	30	24.1	87	50.4	0.7	29.5	7.9	7.9	7.1	
7/18/91	06-S	0.3	0.9	1000	12896.8	47129.7	30	24.1	87	50.0	0.6	28.7	7.2	7.2	6.4	
7/18/91	07-S	0.3	1.3	1015	12900.2	47129.0	30	24.0	87	49.6	0.5	29.3	7.6	7.6	6.8	
7/18/91	07-B	1.1	1.3	1015	12900.2	47129.0	30	24.0	87	49.6	1.1	29.4	7.8	7.8	7.3	
7/18/91	08-S	0.3	1.1	1137	12889.1	47128.1	30	23.6	87	50.6	1.1	30.1	8.8	8.8	8.4	
7/18/91	08-B	0.9	1.1	1137	12889.1	47128.1	30	23.6	87	50.6	1.1	30.2	8.8	8.8	8.4	
7/18/91	09-S	0.3	1.1	1125	12894.0	47127.6	30	23.5	87	50.2	1.1	29.7	9.4	9.4	8.5	
7/18/91	10-S	0.3	1.2	1110	12898.2	47127.1	30	23.5	87	49.8	1.1	29.6	9.4	9.4	7.5	
7/18/91	10-B	1.0	1.2	1110	12898.2	47127.1	30	23.5	87	49.8	1.5	29.7	6.7	6.7	8.1	
7/18/91	11-S	0.3	1.1	1044	12903.6	47128.0	30	23.7	87	49.2	0.9	29.4	8.3	8.3	6.8	
7/18/91	12-S	0.3	2.6	1030	12907.8	47125.7	30	23.2	87	48.7	0.1	28.1	7.6	7.6	6.3	
7/18/91	12-B	2.4	2.6	1030	12907.8	47125.7	30	23.2	87	48.7	0.1	27.4	4.5	4.5	6.1	
7/18/91	13-S	0.3	1.3	1153	12891.3	47125.8	30	23.2	87	50.4	1.6	30.0	10.3	10.3	8.8	
7/18/91	14-S	0.3	2.3	1202	12893.9	47124.7	30	23.0	87	50.1	1.8	30.1	9.4	9.4	8.6	
7/18/91	14-B	2.1	2.3	1202	12893.9	47124.7	30	23.0	87	50.1	2.5	30.1	5.6	5.6	7.5	
7/18/91	15-S	0.3	6.0	1215	12893.0	47123.3	30	22.5	87	50.2	1.6	30.2	9.2	9.2	8.6	
7/18/91	15-B	5.8	6.0	1215	12893.0	47123.3	30	22.5	87	50.2	3.1	30.1	5.9	5.9	7.6	
7/18/91	16-S	0.3	1.8	1231	12880.5	47120.8	30	22.2	87	51.3	4.4	30.0	6.8	6.8	7.9	
7/18/91	16-B	1.6	1.8	1231	12880.5	47120.8	30	22.2	87	51.3	4.3	30.0	6.8	6.8	7.9	
7/18/91	19-S	0.3	1.1	1056	12901.7	47127.4	30	23.5	87	49.3	0.9	29.4	8.6	8.6	6.8	

Weeks Bay Cruise WB: 22

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	YPROD (mgC/l/d)	APROD (gC/m2/d)
7/18/91	01-S	0.3				0.46	2.02				0.10		169.60	2.65	11.60	75			
7/18/91	02-S	0.3	147.96			0.46	1.62			3.83	0.07	0.48	160.50	2.28	7.00	75		0.922	0.990
7/18/91	02-B	3.8				0.59	2.68				0.10		112.40						
7/18/91	03-S	0.3	174.01			0.36	0.62			9.30	0.08	6.67	151.70	3.86	11.50	50		1.033	0.650
7/18/91	03-B	0.8				0.31	0.49				0.09		138.70						
7/18/91	04-S	0.3	201.03			0.53	3.56			7.19	0.09	0.48	150.70	2.24	10.50	70		0.846	0.600
7/18/91	04-B	1.3				0.56	3.52				0.11		142.00						
7/18/91	05-S	0.3	243.12			0.14	0.57			10.78	0.10	0.48	149.50	3.75	14.00	50		1.398	0.990
7/18/91	05-B	0.9				0.15	0.56				0.11		143.10						
7/18/91	06-S	0.3				0.34	0.89				0.09		144.80	5.01	13.00	60			
7/18/91	07-S	0.3	423.57			0.12	2.02			6.42	0.14	0.52	26.72	3.91	16.67	40		1.270	0.920
7/18/91	07-B	1.1				0.23	0.51				0.13		134.10						
7/18/91	08-S	0.3	339.24			0.09	0.31			7.14	0.09	0.52	133.10	4.31	18.00	50		1.491	0.880
7/18/91	08-B	0.9				0.13	0.50				0.12		130.10						
7/18/91	09-S	0.3				0.11	0.38				0.10		134.60	4.08	15.33	35			
7/18/91	10-S	0.3	409.75			0.23	1.92			11.26	0.20	0.62	126.00	3.86	15.33	30		2.259	1.500
7/18/91	10-B	1.0				0.15	0.09				0.13		110.70						
7/18/91	11-S	0.3				0.26	0.34				0.18		115.10	4.13	20.00	25			
7/18/91	12-S	0.3	329.22			0.78	3.69			12.75	0.29	1.38	88.26	4.55	21.33	25		2.025	1.200
7/18/91	12-B	2.4				0.91	3.12				0.39		86.86						
7/18/91	13-S	0.3				0.15	0.39				0.11		118.20	4.81	9.33	40			
7/18/91	14-S	0.3	391.26			0.13	0.30			10.21	0.15	0.71	119.10	3.18	11.33	40		2.118	1.930
7/18/91	14-B	2.1				0.12	0.54				0.12		130.80						
7/18/91	15-S	0.3	444.44			0.12	0.21			15.14	0.09	0.95	132.70	3.36	24.67	45		1.761	0.940
7/18/91	15-B	5.8				0.10	1.01				0.10		125.90						
7/18/91	16-S	0.3	243.41			0.09	0.31			14.04	0.11	0.67	125.10	5.09	44.67	20		2.745	1.640
7/18/91	16-B	1.6				0.07	0.03				0.09		85.53						
7/18/91	19-S	0.3				0.22	0.22			12.60	0.18	0.57	105.10	4.33	26.67	25		2.163	0.940

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Weeks Bay Cruise Report

WB-23  
5 August 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber

Supporting Agency:

NOAA-NERRS

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 17 surface stations (11 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0745 CDT (GMT-7 hours).  
Deadheaded to station 1. Began sampling 0835.  
Stations were continued going upbay and ending at Fish River. Returned to DISL 1250.

# Weeks Bay Cruise WB: 23

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
8/5/91	01-S	0.3	3.4	835	12902.7	47134.5	30	25.5	87	49.6	2.5	29.0	6.5	7.2		
8/5/91	02-S	0.3	2.5	850	12902.1	47133.0	30	24.9	87	49.5	3.6	29.8	6.6	7.9		
8/5/91	02-B	2.3	2.5		12902.1	47133.0	30	24.9	87	49.5						
8/5/91	03-S	0.3	1.3	909	12897.2	47131.5	30	24.5	87	50.0	5.9	31.0	7.9	8.4		
8/5/91	03-B	1.1	1.3		12897.2	47131.5	30	24.5	87	50.0	6.5	31.1	6.3	8.1		
8/5/91	04-S	0.3	1.4	855	12901.0	47130.9	30	24.5	87	49.6	6.2	30.9	7.3	8.2		
8/5/91	04-B	1.2	1.4		12901.0	47130.9	30	24.5	87	49.6	5.5	30.7	6.0	7.8		
8/5/91	05-S	0.3	1.3	920	12894.8	47130.2	30	24.1	87	50.4	6.0	30.9	8.0	8.4		
8/5/91	05-B	1.1	1.3		12894.8	47130.2	30	24.1	87	50.4	6.5	30.9	5.0	7.8		
8/5/91	06-S	0.3	1.3	934	12896.8	47129.7	30	24.1	87	50.0	6.3	31.0	7.6	8.2		
8/5/91	07-S	0.3	1.3	944	12900.2	47129.0	30	24.0	87	49.6	7.5	31.1	7.2	8.2		
8/5/91	07-B	1.1	1.3		12900.2	47129.0	30	24.0	87	49.6	7.8	31.1	5.8	8.0		
8/5/91	08-S	0.3	1.4	1050	12889.1	47128.1	30	23.6	87	50.6	7.6	31.6	8.3	8.4		
8/5/91	08-B	1.2	1.4		12889.1	47128.1	30	23.6	87	50.6	9.0	30.9	6.2	8.1		
8/5/91	09-S	0.3	1.3	1042	12894.0	47127.6	30	23.5	87	50.2	6.8	31.6	8.2	8.3		
8/5/91	10-S	0.3	1.3	1031	12898.2	47127.1	30	23.5	87	49.8	6.6	32.0	8.3	8.4		
8/5/91	10-B	1.1	1.3		12898.2	47127.1	30	23.5	87	49.8	7.2	31.9	5.9	8.0		
8/5/91	11-S	0.3	1.3	1011	12903.6	47128.0	30	23.7	87	49.2	5.5	31.3	8.3	8.2		
8/5/91	12-S	0.3	2.8	1001	12907.8	47125.7	30	23.2	87	48.7	2.5	29.8	6.8	6.6		
8/5/91	12-B	2.6	2.8		12907.8	47125.7	30	23.2	87	48.7	3.7	30.3	6.3	7.2		
8/5/91	13-S	0.3	1.4	1103	12891.3	47125.8	30	23.2	87	50.4	6.3	31.9	8.9	8.5		
8/5/91	14-S	0.3	2.9	1111	12893.9	47124.7	30	23.0	87	50.1	7.1	31.9	8.0	8.3		
8/5/91	14-B	2.7	2.9		12893.9	47124.7	30	23.0	87	50.1	9.4	30.7	5.0	7.8		
8/5/91	15-S	0.3	3.0	1125	12893.0	47123.3	30	22.5	87	50.2	6.1	32.5	9.1	8.5		
8/5/91	15-B	2.8	3.0		12893.0	47123.3	30	22.5	87	50.2	7.8	31.4	7.6	8.3		
8/5/91	16-S	0.3	1.9	1140	12880.5	47120.8	30	22.2	87	51.3	9.7	31.3	7.1	8.2		
8/5/91	16-B	1.7	1.9		12880.5	47120.8	30	22.2	87	51.3	10.0	31.1	5.8	8.0		
8/5/91	19-S	0.3	1.3	1026	12901.7	47127.4	30	23.5	87	49.3	8.7	31.5	8.0	8.3		

Weeks Bay Cruise WB: 23

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
8/5/91	01-S	0.3				0.29	6.57				0.07		120.50			75			
8/5/91	02-S	0.3	270.76			0.16	1.48	43.43	14.20	14.20	0.06	0.67	134.70	2.98	16.00			1.497	0.988
8/5/91	02-B	2.3				0.20	2.38				0.08		128.90						
8/5/91	03-S	0.3	445.35			0.14	1.41	68.09	15.20	15.20	0.10	0.67	157.60	3.96	21.60	50		1.382	0.741
8/5/91	03-B	1.1				0.13	1.49				0.11		105.20						
8/5/91	04-S	0.3	368.89			0.18	2.24	62.57	16.15	16.15	0.07	0.71	148.30	3.38	23.50	50		2.583	1.179
8/5/91	04-B	1.2				0.12	2.07				0.05		101.70						
8/5/91	05-S	0.3	317.13			0.14	2.11	51.25			0.05	0.67	101.20	3.23	28.67	50		1.327	0.860
8/5/91	05-B	1.1				0.17	1.85				0.08		142.00						
8/5/91	06-S	0.3				0.16	1.99				0.10		239.80	3.38		45			
8/5/91	07-S	0.3	294.07			0.14	1.55	49.42	14.10	14.10	0.05	0.67	133.90	2.53	30.00	50		1.270	0.864
8/5/91	07-B	1.1				0.14	1.50				0.06		126.50						
8/5/91	08-S	0.3	101.73			0.15	2.48	12.90	10.86	10.86	0.09	0.76	83.43	3.14	19.20	60		1.011	0.752
8/5/91	08-B	1.2				0.09	0.78				0.10		184.60						
8/5/91	09-S	0.3				0.13	1.45				0.09		136.10	3.75		60			
8/5/91	10-S	0.3	283.04			0.12	1.64	42.70	11.36	11.36	0.05	0.52	104.90	2.09	25.00	50		1.257	1.229
8/5/91	10-B	1.1				0.12	1.41				0.08		109.30						
8/5/91	11-S	0.3				0.18	2.52				0.10		130.00	3.30	25.50	45			
8/5/91	12-S	0.3	160.16			0.33	9.52	22.08	7.67	7.67	0.08	0.52	125.10	2.84	17.00	60		1.041	0.522
8/5/91	12-B	2.6				0.26	6.96				0.08		131.20						
8/5/91	13-S	0.3				0.14	1.54				0.04		147.80	2.50	27.50	45			
8/5/91	14-S	0.3	263.96			0.14	1.88	39.05	13.85	13.85	0.09	0.00	126.40	1.95	23.20	50		1.328	1.354
8/5/91	14-B	2.7				0.12	2.36				0.12		86.51						
8/5/91	15-S	0.3	307.45			0.13	1.47	56.22	12.91	12.91	0.10	0.62	133.60	2.33	28.50	60		0.000	0.000
8/5/91	15-B	2.8				0.13	1.20				0.08		124.70						
8/5/91	16-S	0.3	222.49			0.12	1.05	33.24	11.11	11.11	0.04	0.62	118.60	2.39	25.50	70		1.043	0.932
8/5/91	16-B	1.7				0.14	1.61				0.18		127.40						
8/5/91	19-S	0.3				0.11	1.30				0.05		141.30	2.25	28.00	40		15.249	3.041

Weeks Bay Cruise Report

WB-24  
15 August 1991

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	NOAA-NERRS
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 17 surface stations (11 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0745 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0829. Stations were continued going upbay and ending at Fish River. Returned to DISL 1200.

# Weeks Bay Cruise WB: 24

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
8/15/91	01-S	0.3	3.5	829	12902.7	47134.5	30	25.5	87	49.6	0.2	26.6	7.4		6.1	
8/15/91	02-S	0.3	3.8	837	12902.1	47133.0	30	24.9	87	49.5	0.6	28.9	6.8		6.2	
8/15/91	02-B	3.5	3.8	837	12902.1	47133.0	30	24.9	87	49.5	4.1	27.2	6.7		7.8	
8/15/91	03-S	0.3	0.9	856	12897.2	47131.5	30	24.5	87	50.0	4.3	28.4	4.0		8.4	
8/15/91	03-B	0.8	0.9	856	12897.2	47131.5	30	24.5	87	50.0	4.3	28.5	4.5		8.1	
8/15/91	04-S	0.3	1.5	849	12901.0	47130.9	30	24.5	87	49.6	3.3	28.0	2.8		7.8	
8/15/91	04-B	1.3	1.5	849	12901.0	47130.9	30	24.5	87	49.6	4.5	28.6	7.4		7.5	
8/15/91	05-S	0.3	1.1	906	12894.8	47130.2	30	24.1	87	50.4	3.3	27.7	9.2		8.3	
8/15/91	05-B	0.9	1.1	906	12894.8	47130.2	30	24.1	87	50.4	3.8	28.0	5.5		7.7	
8/15/91	06-S	0.3	0.9	915	12896.8	47129.7	30	24.1	87	50.0	2.9	28.3	7.8		7.3	
8/15/91	07-S	0.3		926	12900.2	47129.0	30	24.0	87	49.6	4.7	28.7	8.9		8.4	
8/15/91	07-B			926	12900.2	47129.0	30	24.0	87	49.6	5.1	28.7	5.3		7.7	
8/15/91	08-S	0.3	0.9	1024	12889.1	47128.1	30	23.6	87	50.6	4.0	28.0	9.2		8.4	
8/15/91	08-B	0.7	0.9	1024	12889.1	47128.1	30	23.6	87	50.6	4.4	28.0	8.4		8.3	
8/15/91	09-S	0.3	1.1	1017	12894.0	47127.6	30	23.5	87	50.2	4.3	28.5	8.7		8.2	
8/15/91	10-S	0.3	1.0	1004	12898.2	47127.1	30	23.5	87	49.8	5.0	28.4	9.8		8.7	
8/15/91	10-B	0.8	1.0	1004	12898.2	47127.1	30	23.5	87	49.8	5.5	28.5	8.3		8.4	
8/15/91	11-S	0.3	1.1	947	12903.6	47128.0	30	23.7	87	49.2	2.7	28.3	11.0		8.3	
8/15/91	12-S	0.3	2.1	936	12907.8	47125.7	30	23.2	87	48.7	0.9	27.1	8.9		6.7	
8/15/91	12-B	1.9	2.1	936	12907.8	47125.7	30	23.2	87	48.7	1.7	27.5	4.4		7.5	
8/15/91	13-S	0.3	1.1	1034	12891.3	47125.8	30	23.2	87	50.4	4.6	28.3	9.4		8.5	
8/15/91	14-S	0.3	1.3	1042	12893.9	47124.7	30	23.0	87	50.1	7.0	28.8	10.0		8.6	
8/15/91	14-B	1.1	1.3	1042	12893.9	47124.7	30	23.0	87	50.1	6.4	28.9	7.1		8.2	
8/15/91	15-S	0.3	5.0	1051	12893.0	47123.3	30	22.5	87	50.2	4.8	28.0	9.9		8.7	
8/15/91	15-B	4.8	5.0	1051	12893.0	47123.3	30	22.5	87	50.2	7.7	28.4	5.8		7.8	
8/15/91	16-S	0.3	1.7	1104	12880.5	47120.8	30	22.2	87	51.3	8.8	28.2	8.5		8.3	
8/15/91	16-B	1.5	1.7	1104	12880.5	47120.8	30	22.2	87	51.3	11.3	28.5	3.5		7.4	
8/15/91	19-S	0.3	1.1	956	12901.7	47127.4	30	23.5	87	49.3	5.5	29.2	10.0		8.5	

Weeks Bay Cruise WB: 24

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
8/15/91	01-S	0.3			0.36	6.20					0.19		103.30	2.19	3.95	100			
8/15/91	02-S	0.3		103.21	0.38	5.49		12.80	5.68	0.24	0.48		102.70	2.17	9.29	75		1.204	1.197
8/15/91	02-B	3.5			0.12	3.31					0.24		102.10			75			
8/15/91	03-S	0.3		372.52	0.33	0.76		59.18	11.41	0.20	0.38		102.80	3.46	32.86	50		2.190	1.375
8/15/91	03-B	0.8			0.21	0.64					0.22		99.59			50			
8/15/91	04-S	0.3		267.74	15.69	0.61		43.15	10.12	0.19	0.38		101.80	3.20	20.71	50		1.503	1.003
8/15/91	04-B	1.3			9.21	1.15					0.19		109.70			50			
8/15/91	05-S	0.3		266.89	12.50	0.51		43.35	9.07	0.24	0.67		103.20	2.53	22.14	55		0.914	0.690
8/15/91	05-B	0.9			9.70	1.42					0.21		100.30			55			
8/15/91	06-S	0.3			0.14	1.00					0.22		100.90	2.80	23.57	50			6.897
8/15/91	07-S	0.3		259.57	0.08	0.32		43.50	12.26	0.23	0.48		99.70	2.53	24.67			0.000	
8/15/91	07-B				0.07	0.44					0.23		98.55						
8/15/91	08-S	0.3		259.87	0.08	0.45		43.49	10.32	0.24	0.48		104.80	2.38	24.67	47		2.069	1.349
8/15/91	08-B	0.7			0.07	0.33					0.22		97.67			47			
8/15/91	09-S	0.3			0.09	0.45					0.25		97.55	2.60	21.00	50			
8/15/91	10-S	0.3		291.93	0.09	0.79		44.41	12.01	0.29	0.48		96.13	2.67	21.50	50		2.069	1.372
8/15/91	10-B	0.8			0.07	0.85					0.28		95.09			50			
8/15/91	11-S	0.3			0.40	0.94					6.04		103.40	2.63	21.33	50			
8/15/91	12-S	0.3		102.35	0.35	1.15		14.13	4.93	0.15	0.48		108.20	2.33	14.00	55		0.759	0.557
8/15/91	12-B	1.9			0.10	1.16					0.05		106.40			55			
8/15/91	13-S	0.3			0.08	0.57					0.07		100.40	2.82	20.00	55			
8/15/91	14-S	0.3		333.36	0.08	0.62		56.02	13.21	0.09	0.48		89.78	2.69	40.00	50		2.385	1.660
8/15/91	14-B	1.1			0.07	0.82					0.08		88.58			45			
8/15/91	15-S	0.3		298.27	0.08	0.73		55.79	9.92	0.07	0.71		88.95	2.28	32.00	45		2.407	1.909
8/15/91	15-B	4.8			0.08	0.79					0.07		85.46			35			
8/15/91	16-S	0.3		256.27	0.06	0.56		47.03	13.95	0.03	0.48		67.98	1.62	29.33	35		1.988	2.812
8/15/91	16-B	1.5			0.07	1.28					0.06		68.84						
8/15/91	19-S	0.3			0.10	0.77					0.08		91.84	2.81		50		4.215	2.348

Weeks Bay Cruise Report

WB-25  
28 August 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Elizabeth A. Gaza  
Ramona A. Schreiber

Supporting Agency:

NOAA-NERRS

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 12 surface stations (9 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0800 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0856. Stations were continued going upbay and ending at Fish River. Returned to DISL 1215.

# Weeks Bay Cruise WB: 25

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
8/28/91	01-S	0.3	3.8	856	12902.7	47134.5	30	25.5	87	49.6	2.6	25.6	5.5	6.3		
8/28/91	02-S	0.3	3.9	907	12902.1	47133.0	30	24.9	87	49.5	3.1	25.9	5.3	6.4		
8/28/91	02-B	3.6	3.9		12902.1	47133.0	30	24.9	87	49.5	5.0	26.7	3.2	6.7		
8/28/91	03-S	0.3	1.0	928	12897.2	47131.5	30	24.5	87	50.0	6.7	27.3	8.3	8.1		
8/28/91	03-B	0.8	1.0		12897.2	47131.5	30	24.5	87	50.0	6.8	27.3	7.9	8.1		
8/28/91	04-S	0.3	1.4	918	12901.0	47130.9	30	24.5	87	49.6	5.8	27.1	6.6	7.0		
8/28/91	04-B	1.2	1.4		12901.0	47130.9	30	24.5	87	49.6	7.1	27.6	6.2	7.5		
8/28/91	05-S	0.3	1.1	945	12894.8	47130.2	30	24.1	87	50.4	6.1	27.6	7.0	7.1		
8/28/91	05-B	0.9	1.1		12894.8	47130.2	30	24.1	87	50.4	6.4	27.5	7.7	8.0		
8/28/91	06-S	0.3	0.9	955	12896.8	47129.7	30	24.1	87	50.0	6.4	27.9	6.7	7.2		
8/28/91	07-S	0.3	1.3	1008	12900.2	47129.0	30	24.0	87	49.6	8.2	28.6	7.2	7.8		
8/28/91	07-B	1.1	1.3		12900.2	47129.0	30	24.0	87	49.6	8.6	28.5	6.4	7.7		
8/28/91	08-S	0.3		1105	12889.1	47128.1	30	23.6	87	50.6	6.6	27.3				
8/28/91	08-B				12889.1	47128.1	30	23.6	87	50.6	6.6	27.8				
8/28/91	10-S	0.3	1.3	1050	12898.2	47127.1	30	23.5	87	49.8	7.3	28.5	7.6	7.5		
8/28/91	10-B	1.1	1.3		12898.2	47127.1	30	23.5	87	49.8	7.8	28.3	7.2	7.7		
8/28/91	12-S	0.3	3.6	1025	12907.8	47125.7	30	23.2	87	48.7	2.5	26.4	5.8	6.3		
8/28/91	12-B	3.4	3.6		12907.8	47125.7	30	23.2	87	48.7	5.4	27.1	2.0	6.6		
8/28/91	15-S	0.3	8.3	1125	12893.0	47123.3	30	22.5	87	50.2	8.3	27.9	8.0	7.9		
8/28/91	15-B	8.1	8.3		12893.0	47123.3	30	22.5	87	50.2	11.3	28.1	3.5	7.4		
8/28/91	19-S	0.3	1.1	1036	12901.7	47127.4	30	23.5	87	49.3	8.2	28.4	7.3	7.6		

# Weeks Bay Cruise WB: 25

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -1/m	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
8/28/91	01-S	0.3		137.47					18.59			0.64	98.88	3.39	23.85	90		0.877	0.484
8/28/91	02-S	0.3				0.17	9.39				0.17		95.30						
8/28/91	02-B	3.6				0.04	0.63		53.67		0.07	0.20	80.76	3.56	27.00	55		2.225	1.356
8/28/91	03-S	0.3		317.45		0.05	0.44				0.09		88.78						
8/28/91	03-B	0.8				0.07	2.81		40.91		0.06	0.20	92.81	2.94	17.50	60		1.903	1.542
8/28/91	04-S	0.3		253.73		0.06	1.77				0.06		98.92						
8/28/91	04-B	1.2				0.06	2.09		9.93		0.08	0.20	93.48	2.53	19.50	50		1.305	1.177
8/28/91	05-S	0.3		87.38		0.07	1.13				0.06		104.90						
8/28/91	05-B	0.9				0.07	0.30				0.06		102.00	4.13	31.00	50		2.242	1.363
8/28/91	06-S	0.3				0.06	0.07		55.44		0.06	0.34	85.00	4.06	34.67	50		2.508	1.341
8/28/91	07-S	0.3		332.07		0.06	0.18				0.06		84.00						
8/28/91	07-B	1.1				0.06	0.26		52.18		0.05	0.30	100.40	4.46	34.00			2.725	1.463
8/28/91	08-S	0.3		312.71		0.05	0.17				0.05		102.70						
8/28/91	08-B					0.08	0.54		48.33		0.06	0.39	75.82		40.00	25		1.517	
8/28/91	10-S	0.3		307.26		0.07	0.20				0.07		88.58						
8/28/91	10-B	1.1				0.50	4.69		30.90		1.12	1.03	54.02	4.93	46.36	15		2.314	0.706
8/28/91	12-S	0.3		252.35		0.32	9.91				0.56		68.35						
8/28/91	12-B	3.4				0.05	0.18		57.32		0.07	0.34	99.00		28.50	30		2.711	
8/28/91	15-S	0.3		325.63		0.06	2.76				0.11		90.62						
8/28/91	15-B	8.1				0.06	0.02				0.10		78.91	3.98		35		3.077	1.531
8/28/91	19-S	0.3																	

## Weeks Bay Cruise Report

WB-26  
11 September 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber

Supporting Agency:

NOAA-NERES

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 17 surface stations (11 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0800 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0853. Stations were continued going upbay and ending at Fish River. Returned to DISL 1245.



# Weeks Bay Cruise WB: 26

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
9/11/91	01-S	0.3	3.8	853	12902.7	47134.5	30	25.5	87	49.6	3.5	26.7	6.4		6.4	
9/11/91	02-S	0.3	3.5	900	12902.1	47133.0	30	24.9	87	49.5	4.1	27.2	6.6		6.5	
9/11/91	02-B	3.3	3.5	900	12902.1	47133.0	30	24.9	87	49.5	8.8	28.7	3.1		7.2	
9/11/91	03-S	0.3	1.0	925	12897.2	47131.5	30	24.5	87	50.0	9.7	28.7	7.4		8.0	
9/11/91	03-B	0.8	1.0	925	12897.2	47131.5	30	24.5	87	50.0	10.3	28.8	6.4		7.9	
9/11/91	04-S	0.3		915	12901.0	47130.9	30	24.5	87	49.6	10.1	29.1	6.1		7.5	
9/11/91	04-B			915	12901.0	47130.9	30	24.5	87	49.6	11.7	29.4	6.6		8.0	
9/11/91	05-S	0.3	1.0	937	12894.8	47130.2	30	24.1	87	50.4	11.4	28.4	7.3		8.0	
9/11/91	05-B	0.8	1.0	937	12894.8	47130.2	30	24.1	87	50.4	11.5	28.6	7.0		8.0	
9/11/91	06-S	0.3	0.8	950	12896.8	47129.7	30	24.1	87	50.0	8.8	28.7	6.6		7.5	
9/11/91	07-S	0.3	1.0	1005	12900.2	47129.0	30	24.0	87	49.6	11.7	29.2	6.5		7.9	
9/11/91	07-B	0.8	1.0	1005	12900.2	47129.0	30	24.0	87	49.6	12.1	29.3	5.7		7.8	
9/11/91	08-S	0.3		1101	12889.1	47128.1	30	23.6	87	50.6	11.1	29.5	8.2		8.1	
9/11/91	08-B			1101	12889.1	47128.1	30	23.6	87	50.6	11.2	29.3	7.7		8.1	
9/11/91	09-S	0.3	1.1	1055	12894.0	47127.6	30	23.5	87	50.2	10.4	30.0	7.0		7.7	
9/11/91	10-S	0.3	1.0	1044	12898.2	47127.1	30	23.5	87	49.8	12.5	29.6	8.0		8.0	
9/11/91	10-B	0.8	1.0	1044	12898.2	47127.1	30	23.5	87	49.8	12.6	29.9	7.4		8.0	
9/11/91	11-S	0.3	1.1	1030	12903.6	47128.0	30	23.7	87	49.2	9.7	29.3	6.5		7.7	
9/11/91	12-S	0.3	2.5	1018	12907.8	47125.7	30	23.2	87	48.7	6.6	28.8	8.7		7.3	
9/11/91	12-B	2.3	2.5	1018	12907.8	47125.7	30	23.2	87	48.7	10.0	28.7	2.5		7.3	
9/11/91	13-S	0.3	1.2	1110	12891.3	47125.8	30	23.2	87	50.4	10.3	29.3	7.4		8.1	
9/11/91	14-S	0.3	2.1	1125	12893.9	47124.7	30	23.0	87	50.1	11.5	29.7	8.5		8.2	
9/11/91	14-B	2.0	2.1	1125	12893.9	47124.7	30	23.0	87	50.1	12.6	29.2	4.2		7.6	
9/11/91	15-S	0.3	6.5	1142	12893.0	47123.3	30	22.5	87	50.2	11.8	29.3	7.3		8.0	
9/11/91	15-B	6.3	6.5	1142	12893.0	47123.3	30	22.5	87	50.2	15.6	28.8	4.8		7.8	
9/11/91	16-S	0.3	2.5	1148	12880.5	47120.8	30	22.2	87	51.3	13.3	30.0	7.5		8.1	
9/11/91	16-B	2.3	2.5	1148	12880.5	47120.8	30	22.2	87	51.3	15.1	29.7	3.3		7.6	
9/11/91	19-S	0.3	1.0	1036	12901.7	47127.4	30	23.5	87	49.3	13.6	30.0	7.5		8.0	

Weeks Bay Cruise WB: 26

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
9/11/91	01-S	0.3	0.03	3.11							0.10		22.20	2.10	9.60	100			
9/11/91	02-S	0.3		148.66	0.22	2.90		23.38			0.12	0.69	98.53	2.39	12.40	100		1.183	1.034
9/11/91	02-B	3.3			0.10	2.99					0.17		82.74			100			
9/11/91	03-S	0.3		205.12	0.05	0.78		32.37			0.07	0.59	79.15	2.60	34.00	25		1.751	1.071
9/11/91	03-B	0.8			0.06	0.70					0.09		76.60			25			
9/11/91	04-S	0.3		421.43	0.06	0.77		68.59			0.09	0.89	75.20	3.07	69.00	35		2.498	1.516
9/11/91	04-B				0.05	0.62					0.13		64.95			35			
9/11/91	05-S	0.3		419.22	0.06	0.53		57.32			0.09	0.59	65.90	3.92	90.00	25		1.854	1.126
9/11/91	05-B	0.8			0.04	1.88					0.08		64.88			25			
9/11/91	06-S	0.3			0.09	0.81					0.08		79.62	3.40	30.00	49		2.802	1.706
9/11/91	07-S	0.3		389.91	0.06			48.13			0.12	0.59	63.99	3.27	49.33	30		1.539	1.077
9/11/91	07-B	0.8			0.05	0.18					0.10		65.51			30			
9/11/91	08-S	0.3		418.67	0.06	0.81		57.13			0.10	0.64	81.52	3.78	48.75			1.972	1.195
9/11/91	08-B				0.04	0.31					0.07		68.71						
9/11/91	09-S	0.3			0.09	0.45					0.06		72.56	3.66	46.00	50			
9/11/91	10-S	0.3		374.52	0.07	0.89		62.21			0.12	0.54	61.71	2.38	74.67	25		3.474	2.607
9/11/91	10-B	0.8			0.06	0.41					0.09		59.39			25			
9/11/91	11-S	0.3			0.05	0.24					0.08		70.83	3.61		45			
9/11/91	12-S	0.3		203.77	0.07	0.86		32.20			0.22	0.39	87.04	2.53	21.00	75		1.403	1.337
9/11/91	12-B	2.3			0.06	1.05					0.08		73.48			75			
9/11/91	13-S	0.3			0.05	0.40					0.08		73.26	3.33	52.67	50			
9/11/91	14-S	0.3		373.80	0.06	0.60		50.79			0.13	0.49	70.38	2.44	48.00	50		2.905	2.003
9/11/91	14-B	2.0			0.05	0.37					0.09		62.44			50			
9/11/91	15-S	0.3		381.05	0.05	0.35		56.21			0.09	0.64	67.68	3.01	58.67	50		3.325	2.003
9/11/91	15-B	6.3			0.04	0.53					0.14		47.59			50			
9/11/91	16-S	0.3		294.44	0.07	0.47		40.72			0.12	0.49	57.22	2.04	89.00			2.313	1.839
9/11/91	16-B	2.3			0.04	0.49					0.14		42.20						
9/11/91	19-S	0.3			0.04	0.48					0.14		59.34	3.01		49		10.307	7.548

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Weeks Bay Cruise Report

WB-27  
26 September 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber  
Elizabeth A. Gaza

Supporting Agency:

DISL

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 17 surface stations (11 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0800 CDT (GMT-7 hours).  
Deadheaded to station 1. Began sampling 0852.  
Stations were continued going upbay and ending at Fish River. Returned to DISL 1315.

# Weeks Bay Cruise WB: 27

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
9/26/91	01-S	0.3	2.9	900	12902.8	47134.9	30	25.5	87	49.6	5.5	23.3	5.6		6.6	
9/26/91	02-S	0.3	3.8	928	12902.2	47133.1	30	24.9	87	49.5	6.0	23.5	5.6		6.8	
9/26/91	03-S	0.3	0.8	1059	12896.6	47131.4	30	24.5	87	50.0	12.5	23.4	6.8		8.0	
9/26/91	04-S	0.3	1.3	962	12900.9	47130.9	30	24.5	87	49.6	10.1	23.8	7.0		7.9	
9/26/91	05-S	0.3	0.9	1036	12894.5	47130.2	30	24.1	87	50.4	12.6	22.6	7.2		8.1	
9/26/91	06-S	0.3	0.8	1053	12897.1	47129.7	30	24.1	87	50.0	9.5	23.5	7.0		7.8	
9/26/91	07-S	0.3	11.8	1013	12900.2	47129.1	30	24.0	87	49.6	23.6	7.4	7.4		8.1	
9/26/91	08-S	0.3	0.9	1229	12889.3	47128.2	30	23.6	87	50.6	12.2	23.5				
9/26/91	09-S	0.3	1.1	1239	12893.3	47127.2	30	23.5	87	50.2	10.9	24.7				
9/26/91	10-S	0.3	1.3	1215	12897.7	47126.8	30	23.5	87	49.8	10.6	24.4				
9/26/91	11-S	0.3	0.9	1158	12903.7	47127.9	30	23.7	87	49.2	9.4	24.1				
9/26/91	12-S	0.3	2.5	1140	12907.9	47125.7	30	23.2	87	48.7	6.3	22.7				
9/26/91	13-S	0.3	1.1	1249	12890.4	47125.4	30	23.2	87	50.4	10.8	24.3				
9/26/91	14-S	0.3	1.8	1300	12894.5	47125.0	30	23.0	87	50.1	12.1	23.7				
9/26/91	15-S	0.3	6.5	1312	12892.4	47122.8	30	22.5	87	50.2	12.7	23.5				
9/26/91	16-S	0.3	1.8	1338	12880.8	47120.9	30	22.2	87	51.3	17.7	24.6				
9/26/91	19-S	0.3	1.0	1418	12887.5	47119.5	30	23.5	87	49.3	11.3	23.8				

Weeks Bay Cruise WB: 27

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -1/m	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
9/26/91	01-S	0.3			0.38	7.25			31.12		0.10	0.22	96.73	2.19	14.40	80			
9/26/91	02-S	0.3		189.80	0.30	3.61					0.08	0.64	89.90	2.36	8.80	75		3.548	2.093
9/26/91	03-S	0.3		398.33	0.08	0.97			57.71		0.08	0.59	64.07	3.70	60.00	40		1.942	1.282
9/26/91	04-S	0.3		439.00	0.13	1.22			69.71		0.30	0.89	75.86	3.51	58.67	50		2.551	1.890
9/26/91	05-S	0.3		351.83	0.11	1.71			51.83		0.12	0.49	64.11	3.28	56.67	50		2.005	1.389
9/26/91	06-S	0.3			0.10	1.10					0.06		78.00	3.65	53.33	40		8.079	5.506
9/26/91	07-S	0.3		440.00	0.09	1.07			63.93		0.20	1.08	69.19	3.25	54.00	50			
9/26/91	08-S	0.3		355.67	0.08	0.69			47.61		0.05	0.93	79.07	1.94	56.00	70		2.626	2.193
9/26/91	09-S	0.3			0.08	0.61					0.15		74.24	3.35		50			
9/26/91	10-S	0.3		417.17	0.08	0.47			64.16		0.14	1.48	70.65	2.98	56.00	50		2.355	1.942
9/26/91	11-S	0.3			0.10	1.39					0.11		77.34	3.39	38.50	50			
9/26/91	12-S	0.3		184.10	0.13	2.94			28.81		0.02	16.08	87.58	2.70	25.33	45		1.226	1.179
9/26/91	13-S	0.3			0.09	1.46					0.10		75.42	2.48	47.33	60			
9/26/91	14-S	0.3		375.65	0.10	1.50			53.57		0.11	1.28	76.40	2.78	54.67	50		1.907	1.733
9/26/91	15-S	0.3		443.38	0.09	1.10			54.21		0.10	0.74	65.46	5.84	54.67	50		1.135	0.494
9/26/91	16-S	0.3		214.67	0.10	1.16			34.58		0.42	1.08	50.55	2.96	61.50	55			
9/26/91	19-S	0.3			0.12	1.22					0.12		70.91	2.61	40.00	50		2.726	2.405

Weeks Bay Cruise Report

WB-28  
10 October 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber  
Elizabeth A. Gaza

Supporting Agency:

DISL

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 17 surface stations (8 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0750 CDT (GMT-7 hours). Deadheaded to station 1. Began sampling 0841. Stations were continued going upbay and ending at Fish River. Returned to DISL 1245.

# Weeks Bay Cruise WB: 28

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
10/10/91	01-S	0.3	3.6	841	12902.7	47134.5	30	25.5	87	49.6	4.3	19.3	8.6		6.6	
10/10/91	02-S	0.3	3.6	855	12902.1	47133.0	30	24.9	87	49.5	6.2	19.9	8.7		7.0	
10/10/91	02-B	3.4	3.6		12902.1	47133.0	30	24.9	87	49.5	11.3	20.4	7.5		7.8	
10/10/91	03-S	0.3	0.8	922	12897.2	47131.5	30	24.5	87	50.0	13.6	20.7	12.8		8.4	
10/10/91	03-B	0.6	0.8		12897.2	47131.5	30	24.5	87	50.0	14.5	20.7	11.6		8.4	
10/10/91	04-S	0.3	1.2	908	12901.0	47130.9	30	24.5	87	49.6	14.1	20.0	11.7		8.3	
10/10/91	04-B	1.0	1.2		12901.0	47130.9	30	24.5	87	49.6	14.8	20.2	8.6		8.0	
10/10/91	05-S	0.3	0.9	934	12894.8	47130.2	30	24.1	87	50.4	12.5	20.3	11.1		8.3	
10/10/91	05-B	0.7	0.9		12894.8	47130.2	30	24.1	87	50.4	14.0	20.4	9.4		8.2	
10/10/91	06-S	0.3	0.8	944	12896.8	47129.7	30	24.1	87	50.0	10.8	21.1	10.6		8.2	
10/10/91	07-S	0.3	1.1	1015	12900.2	47129.0	30	24.0	87	49.6	14.6	20.7	11.5		8.3	
10/10/91	07-B	0.9	1.1		12900.2	47129.0	30	24.0	87	49.6	15.9	21.5	9.0		8.0	
10/10/91	08-S	0.3	0.8	1120	12889.1	47128.1	30	23.6	87	50.6	12.7	22.0	11.3		8.4	
10/10/91	08-B	0.6	0.8		12889.1	47128.1	30	23.6	87	50.6	13.0	21.8	11.6		8.5	
10/10/91	09-S	0.3	0.9	1111	12894.0	47127.6	30	23.5	87	50.2	12.4	20.8	11.6		8.5	
10/10/91	10-S	0.3	1.1	1058	12898.2	47127.1	30	23.5	87	49.8	13.2	23.3	10.8		8.0	
10/10/91	10-B	0.8	1.0		12898.2	47127.1	30	23.5	87	49.8	15.1	22.4	9.4		8.2	
10/10/91	11-S	0.3	1.0	1038	12903.6	47128.0	30	23.7	87	49.2	10.1	21.4	10.2		7.8	
10/10/91	12-S	0.3	2.4	1026	12907.8	47125.7	30	23.2	87	48.7	8.2	21.8	8.5		6.8	
10/10/91	12-B	2.2	2.4		12907.8	47125.7	30	23.2	87	48.7	14.6	21.4	8.0		7.9	
10/10/91	13-S	0.3	1.1	1135	12891.3	47125.8	30	23.2	87	50.4	12.1	22.5	11.3		8.4	
10/10/91	14-S	0.3	2.0	1143	12893.9	47124.7	30	23.0	87	50.1	13.1	23.6	11.9		8.4	
10/10/91	14-B	1.8	2.0		12893.9	47124.7	30	23.0	87	50.1	14.4	22.0	11.0		8.3	
10/10/91	15-S	0.3	6.5	1155	12893.0	47123.3	30	22.5	87	50.2	13.3	22.0	11.8		8.4	
10/10/91	15-B	6.3	6.5		12893.0	47123.3	30	22.5	87	50.2	19.5	20.5	10.6		7.7	
10/10/91	16-S	0.3	1.9	1210	12880.5	47120.8	30	22.2	87	51.3	16.4	21.6				
10/10/91	16-B	1.7	1.9		12880.5	47120.8	30	22.2	87	51.3	20.2	20.4				
10/10/91	19-S	0.3	0.9	1047	12901.7	47127.4	30	23.5	87	49.3	16.2	22.1	11.8		8.3	

Weeks Bay Cruise WB: 28

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
10/10/91	01-S	0.3			0.30	2.54					0.16		96.71	1.79	13.20	135			
10/10/91	02-S	0.3		123.05	0.24	2.09		16.68			0.12	0.25	83.14	2.04	6.40	100		0.690	0.840
10/10/91	02-B	3.4			0.19	0.85					0.26		46.69						
10/10/91	03-S	0.3		219.63	0.09	0.30		29.32			0.07	0.34	24.84	2.29	37.60	70		1.520	1.000
10/10/91	03-B	0.6			0.09	0.37					0.08		19.05						
10/10/91	04-S	0.3		215.98	0.11	0.57		28.01			0.06	0.25	20.33	2.09	13.20	75		1.520	1.440
10/10/91	04-B	1.0			0.12	0.45					0.07		17.41						
10/10/91	05-S	0.3		200.23	0.12	1.10		28.52			0.10	0.25	33.91	1.82	14.40	75		1.340	0.820
10/10/91	05-B	0.7			0.08	0.09					0.04		25.61						
10/10/91	06-S	0.3			0.09	0.84					0.02		47.23	1.81	11.60	70		2.480	2.350
10/10/91	07-S	0.3		268.17	0.11	1.02		32.94			0.07	0.39	20.57	2.45	10.80	75		1.680	1.540
10/10/91	07-B	0.9			0.16	0.66					0.19		16.90						
10/10/91	08-S	0.3		199.17	0.10	0.58		25.87			0.02	0.30	31.98	1.48	18.80	75		1.180	0.390
10/10/91	08-B	0.6			0.07	0.10					0.02		24.27						
10/10/91	09-S	0.3			0.09	0.21					0.00		37.96	1.62	12.40	70			
10/10/91	10-S	0.3		231.96	0.21	0.17		30.04			0.05	0.34	32.83	2.16	10.40	60		1.400	1.310
10/10/91	10-B	0.8			0.20	0.66					0.06		19.35						
10/10/91	11-S	0.3			0.21	0.00					0.01		58.76	2.01	12.00	75			
10/10/91	12-S	0.3		138.87	0.26	1.73		19.50			0.00	0.20	75.61	1.94	5.60	105		0.780	1.130
10/10/91	12-B	2.2			0.15	0.89					0.04		26.12						
10/10/91	13-S	0.3			0.08	0.04					0.01		36.65	1.90	17.60	80			
10/10/91	14-S	0.3		222.42	0.16	0.43		29.50			0.04	0.44	25.14	1.74	14.40	80		1.750	2.250
10/10/91	14-B	1.8			0.11	0.42					0.03		23.19						
10/10/91	15-S	0.3		273.80	0.17	0.67		34.83			0.06	0.44	30.58	1.74	18.40	75		1.580	2.510
10/10/91	15-B	6.3			0.13	0.83					0.22		12.54						
10/10/91	16-S	0.3		250.42	0.10	1.64		30.69			0.05	0.44	16.55	1.61	16.00	75		2.690	2.700
10/10/91	16-B	1.7			0.11	0.83					0.24		12.56						
10/10/91	19-S	0.3			0.14	0.74					0.05		10.18	1.70	14.40	75		1.660	1.320

Weeks Bay Cruise Report

WB-29  
19 November 1991

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber  
Elizabeth A. Gaza

Supporting Agency:

DISL

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 6 surface stations (6 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 1050 CST (GMT-6 hours). Deadheaded to station 2. Began sampling 1140. Stations were continued going upbay and ending at Fish River. Returned to DISL 1415.

# Weeks Bay Cruise WB: 29

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
11/19/91	02-S	0.3	3.3	1140	12902.2	47133.1	30	24.9	87	49.5	8.3	21.1	11.1			
11/19/91	02-B	3.0	3.3	1140	12902.2	47133.1	30	24.9	87	49.5	12.4	19.7	12.6			
11/19/91	03-S	0.3	1.2	1217	12896.6	47131.4	30	24.5	87	50.0	14.1	21.3	12.3			
11/19/91	03-B	1.0	1.2	1217	12896.6	47131.4	30	24.5	87	50.0	14.4	21.0	12.7			
11/19/91	04-S	0.3	0.8	1159	12900.9	47130.9	30	24.5	87	49.6	12.5	20.7	12.4			
11/19/91	04-B	0.6	0.8	1159	12900.9	47130.9	30	24.5	87	49.6	12.5	20.7	12.7			
11/19/91	06-S	0.3	1.1	1240	12897.1	47129.7	30	24.1	87	50.0	16.3	20.5	14.0			
11/19/91	06-B	0.9	1.1	1240	12897.1	47129.7	30	24.1	87	50.0						
11/19/91	08-S	0.3	1.2	1300	12889.3	47128.2	30	23.6	87	50.6	15.8	21.0	13.4			
11/19/91	08-B	1.0	1.2	1300	12889.3	47128.2	30	23.6	87	50.6	15.7	21.1	13.0			
10/10/91	10-S	0.3	1.0	1325	12897.7	47126.8	30	23.5	87	49.8	16.2	21.0	14.1			
10/10/91	10-B	0.8	1.0	1325	12897.7	47126.8	30	23.5	87	49.8	16.8	20.9	13.6			

Weeks Bay Cruise WB: 29

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
11/19/91	02-S	0.3		72.73		0.43	1.12		8.69		0.20		53.29	1.12	28.00	165		0.343	0.589
11/19/91	02-B	3.0				0.32	0.93				0.10		30.29						
11/19/91	03-S	0.3		232.86		0.36	0.08		23.97		0.05		14.11	1.94	53.60	90		0.681	0.608
11/19/91	03-B	1.0				0.40	0.06				0.05		14.91						
11/19/91	04-S	0.3		158.73		0.41	0.17		16.67		0.08		24.74	1.09	37.60	75		0.472	0.589
11/19/91	04-B	0.6				0.39	0.13				0.05		23.08						
11/19/91	06-S	0.3				0.33	0.07				0.05		8.03	1.95	53.20	75		1.006	1.039
11/19/91	06-B	0.9																	
11/19/91	08-S	0.3		269.30		0.35	0.05		28.12		0.05		4.52	2.69	48.00	75		1.272	0.925
11/19/91	08-B	1.0				0.36	0.04				0.05		5.10						
10/10/91	10-S	0.3		279.56		0.41	0.09		30.86		0.05		3.04	2.10	50.40	75		1.419	1.128
10/10/91	10-B	0.8				0.40	0.06				0.05		3.84						

Weeks Bay Cruise Report

WB-30  
6 December 1991

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	DISL
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 9 surface stations (5 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0800 CST (GMT-6 hours). Deadheaded to station 2. Began sampling 0856. Stations were continued going upbay and ending at Fish River. Returned to DISL 1315.



# Weeks Bay Cruise WB: 30

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
12/6/91	02-S	0.3	3.3	856	12902.2	47133.1	30	24.9	87	49.5	3.7	12.3	8.8		7.5	
12/6/91	02-B	3.1	3.3		12902.2	47133.1	30	24.9	87	49.5	9.5	13.6	8.7		8.0	
12/6/91	03-S	0.3	0.5	944	12896.6	47131.4	30	24.5	87	50.0	13.0	10.7	13.9		8.4	
12/6/91	04-S	0.3	0.8	920	12896.6	47131.4	30	24.5	87	50.0	13.6	12.2	12.2		8.4	
12/6/91	04-B	0.6	0.8		12900.9	47130.9	30	24.5	87	49.6	14.7	12.3	11.5		8.3	
12/6/91	06-S	0.3	0.4	1014	12900.9	47130.9	30	24.5	87	49.6	14.7	14.5	11.4		8.1	
12/6/91	08-S	0.3	0.5	1137	12897.1	47129.7	30	24.1	87	50.0	11.2	12.9	11.7		8.4	
12/6/91	10-S	0.3	0.8	1114	12889.3	47128.2	30	23.6	87	50.6	11.9	15.0	11.5		8.1	
12/6/91	10-B	0.6	0.8		12897.7	47126.8	30	23.5	87	49.8	13.3	14.8	13.6		8.4	
12/6/91	12-S	0.3	2.0	1044	12897.7	47126.8	30	23.5	87	49.8	6.0	13.8	9.8		7.7	
12/6/91	12-B	1.8	2.0		12907.9	47125.7	30	23.2	87	48.7	11.9	13.8	9.9		8.1	
12/6/91	15-S	0.3	6.8	1205	12907.9	47125.7	30	23.2	87	48.7	12.7	13.5	12.3		8.4	
12/6/91	15-B	6.6	6.8		12892.4	47122.8	30	22.5	87	50.2	15.4	13.7	11.1		8.3	

Weeks Bay Cruise WB: 30

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
12/ 6/91	02-S	0.3		78.16		0.47	12.85		67.31		0.11		88.95	1.76	5.50	110		0.143	0.194
12/ 6/91	02-B	3.1			0.34	17.64					0.16		41.45						
12/ 6/91	03-S	0.3		128.85		0.74	14.64		17.64		0.14		25.47	2.22	8.50			1.332	0.617
12/ 6/91	04-S	0.3		163.36		0.56	2.64		23.30		0.13		22.71	1.93	45.50	75		1.961	1.503
12/ 6/91	04-B	0.6			0.52	6.23					0.16		19.05						
12/ 6/91	06-S	0.3		258.38		0.19	1.51		33.17		0.32		22.14	1.92	15.00			2.407	1.826
12/ 6/91	08-S	0.3			0.39	25.47					0.11		42.49	1.70	18.00	50		1.897	0.519
12/ 6/91	10-S	0.3		166.54		0.50	0.57		22.67		0.13		31.95	1.48	16.00	75		1.643	0.986
12/ 6/91	10-B	0.6			0.31	2.13					0.17		21.46						
12/ 6/91	12-S	0.3		100.29		0.53	16.30		12.24		0.09		73.16	1.63	12.00	90		0.548	0.380
12/ 6/91	12-B	1.8			0.21	1.89					0.24		37.23						
12/ 6/91	15-S	0.3		177.47		0.43	5.75		22.35		0.14		31.86	1.62	18.50	100		1.820	3.052
12/ 6/91	15-B	6.6			0.29	0.40					0.26		21.32						

Weeks Bay Cruise Report

WB-31  
15 January 1992

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	DISL
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 9 surface stations (8 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0800 CST (GMT-6 hours). Deadheaded to station 2. Began sampling 0856. Stations were continued going upbay and ending at Fish River. Returned to DISL 1315.

# Weeks Bay Cruise WB: 31

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
1/15/92	02-S	0.3	3.5	909	12902.2	47133.1	30	24.9	87	49.5	0.1	13.4	6.9		6.2	
1/15/92	02-B	3.3	3.5		12902.2	47133.1	30	24.9	87	49.5	0.1	13.7	6.6		6.1	
1/15/92	03-S	0.3	0.8	1005	12896.6	47131.4	30	24.5	87	50.0	1.2	10.5	8.4		5.9	
1/15/92	04-S	0.3	1.0	945	12900.9	47130.9	30	24.5	87	49.6	0.5	10.6	7.7		6.1	
1/15/92	04-B	0.8	1.0		12900.9	47130.9	30	24.5	87	49.6	11.0	13.1	5.1		5.9	
1/15/92	06-S	0.3	1.0	1034	12897.1	47129.7	30	24.1	87	50.0	0.3	12.6	7.8		5.7	
1/15/92	06-B	0.8	1.0		12897.1	47129.7	30	24.1	87	50.0	11.6	13.7	4.3		5.6	
1/15/92	08-S	0.3	1.0	1210	12889.3	47128.2	30	23.6	87	50.6	1.6	12.1	8.2		5.9	
1/15/92	08-B	0.8	1.0		12889.3	47128.2	30	23.6	87	50.6	10.4	12.4	6.0		6.2	
1/15/92	10-S	0.3	1.3	1146	12897.7	47126.8	30	23.5	87	49.8	2.1	11.8	7.9		5.1	
1/15/92	10-B	1.1	1.3		12897.7	47126.8	30	23.5	87	49.8	13.0	11.5	7.1		6.3	
1/15/92	12-S	0.3	2.8	1103	12907.9	47125.7	30	23.2	87	48.7	0.2	12.1	7.5		5.7	
1/15/92	12-B	2.5	2.8		12907.9	47125.7	30	23.2	87	48.7	0.5	11.4	7.8		5.3	
1/15/92	15-S	0.3	4.3	1250	12892.4	47122.8	30	22.5	87	50.2	6.7	12.0	9.1		6.4	
1/15/92	15-B	4.0	4.3		12892.4	47122.8	30	22.5	87	50.2	15.7	11.9	8.9		7.4	
1/15/92	19-S	0.3	1.0	1125	12901.7	47127.4	30	23.5	87	49.3	0.5	12.4	7.8		5.4	
1/15/92	19-B	0.8	1.0		12901.7	47127.4	30	23.5	87	49.3	8.2	12.5	7.5		4.9	

Weeks Bay Cruise WB: 31

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
1/15/92	02-S	0.3		205.26		1.01	5.37		13.68		1.37		19.51	7.14	35.71	10		0.020	0.007
1/15/92	02-B	3.3				0.77	4.61				1.05		24.54						
1/15/92	03-S	0.3		284.24		0.73	9.47		84.45		0.58		40.87	7.93	53.57	5		0.138	0.032
1/15/92	04-S	0.3		314.13		1.26	10.95		29.10		1.38		31.00	10.34	72.57	10		0.035	0.011
1/15/92	04-B	0.8				0.52	3.33				1.07		25.82						
1/15/92	06-S	0.3		252.28		0.74	8.61		18.08		0.85		39.55	6.98	51.00	5		0.022	0.010
1/15/92	06-B	0.8				1.04	6.64				1.00		38.61						
1/15/92	08-S	0.3		275.34		0.57	5.95		22.62		0.47		42.35	6.18	58.00	10		0.106	0.052
1/15/92	08-B	0.8				1.51	10.02				1.62		32.19						
1/15/92	10-S	0.3		364.92		0.94	7.82		32.01		0.99		39.21	7.07	80.00	10		0.127	0.061
1/15/92	10-B	1.1				0.52	3.47				0.54		41.49						
1/15/92	12-S	0.3		249.98		1.61	8.51		18.23		2.36		24.33	9.27	59.17	5		0.021	0.007
1/15/92	12-B	2.5				1.77	9.13				2.32		27.59						
1/15/92	15-S	0.3		306.06		0.60	3.78		26.89		0.48		39.08	3.47		15		0.370	0.359
1/15/92	15-B	4.0				0.24	0.37				0.14		34.40						
1/15/92	19-S	0.3		219.20		1.12	4.44		15.71		1.09		33.64	7.65	53.33	10		0.057	0.022
1/15/92	19-B	0.8				1.01	4.57				1.01		29.90						

Weeks Bay Cruise Report

WB-32  
10 February 1992

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Ramona A. Schreiber
Supporting Agency:	DISL
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 9 surface stations (6 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0700 CST (GMT-6 hours). Deadheaded to station 2. Began sampling 0800. Stations were continued going upbay and ending at Fish River. Returned to DISL 1145.

# Weeks Bay Cruise WB: 32

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
2/10/92	02-S	0.3	3.4	800	12902.2	47133.1	30	24.9	87	49.5	2.2	10.9	6.9			
2/10/92	02-B	3.1	3.4		12902.2	47133.1	30	24.9	87	49.5	6.2	11.8	3.2			
2/10/92	03-S	0.3	0.7	840	12896.6	47131.4	30	24.5	87	50.0	11.0	10.8	10.9			
2/10/92	04-S	0.3	0.8	819	12900.9	47130.9	30	24.5	87	49.6	12.3	11.9	7.9			
2/10/92	04-B	0.6	0.8		12900.9	47130.9	30	24.5	87	49.6	11.6	11.9	7.5			
2/10/92	06-S	0.3	0.6	900	12897.1	47129.7	30	24.1	87	50.0	7.5	12.5	6.5			
2/10/92	08-S	0.3	0.8	1030	12889.3	47128.2	30	23.6	87	50.6	7.6	11.0	11.3			
2/10/92	08-B	0.6	0.8		12889.3	47128.2	30	23.6	87	50.6	7.5	11.3	10.9			
2/10/92	10-S	0.3	1.1	1003	12897.7	47126.8	30	23.5	87	49.8	7.1	11.0	10.3			
2/10/92	10-B	0.9	1.1		12897.7	47126.8	30	23.5	87	49.8	7.5	11.3	9.8			
2/10/92	12-S	0.3	2.3	925	12907.9	47125.7	30	23.2	87	48.7	2.3	11.3	7.6			
2/10/92	12-B	2.1	2.3		12907.9	47125.7	30	23.2	87	48.7	8.2	12.2	6.7			
2/10/92	15-S	0.3	5.2	1045	12892.4	47122.8	30	22.5	87	50.2	12.0	12.1	9.8			
2/10/92	15-B	5.0	5.2		12892.4	47122.8	30	22.5	87	50.2	13.5	12.3	8.4			
2/10/92	19-S	0.3	0.9	953	12901.7	47127.4	30	23.5	87	49.3	7.8	11.3	11.2			

Weeks Bay Cruise WB: 32

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -1/m	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
2/10/92	02-S	0.3		79.45	0.82	8.57	7.10				0.26		91.76	1.87	10.00	85		0.043	0.050
2/10/92	02-B	3.1			0.64	15.47					0.16		82.69					1.441	0.860
2/10/92	03-S	0.3		499.69	0.28	0.57	96.52				0.19		44.47	3.21	31.50	45		1.636	1.809
2/10/92	04-S	0.3		335.64	0.24	1.40	54.92				0.29		46.02	2.02	18.00	60			
2/10/92	04-B	0.6			0.24	2.26					0.21		50.71					1.104	0.610
2/10/92	06-S	0.3		515.33	0.53	9.02	28.31				0.16		75.86	2.60	19.00	60		1.439	1.192
2/10/92	08-S	0.3		376.36	0.36	1.37	62.02				0.10		69.40	2.42	32.50	65			
2/10/92	08-B	0.6			0.37	4.16					0.13		68.43					2.051	1.437
2/10/92	10-S	0.3		340.90	0.33	2.51	42.81				0.10		56.90	4.07	20.00	50		0.345	0.377
2/10/92	10-B	0.9			0.30	2.71	6.67				0.18		70.45	2.50		60			
2/10/92	12-S	0.3		72.76	0.71	7.40					0.07		47.87					1.766	1.941
2/10/92	12-B	2.1			0.33	5.68					0.25		55.16	2.71	57.65	65			
2/10/92	15-S	0.3		455.63	0.24	0.51	65.19				0.14		50.33					2.223	1.892
2/10/92	15-B	5.0			0.19	0.47					0.15		66.53	3.63	52.35	25			
2/10/92	19-S	0.3		574.21	0.29	0.44	75.77												

Weeks Bay Cruise Report

WB-33  
16 March 1992

**Vessel:** R/V Sea Ox

**Operation Area:** Weeks Bay: From Fish River to the mouth of the bay

**Scientific party:** Jonathan R. Pennock  
Ramona A. Schreiber  
Jean Cowan

**Supporting Agency:** DISL

**Research Objectives:** Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 9 surface stations (5 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

**Cruise Summary:** Departed DISL 0745 CST (GMT-6 hours). Deadheaded to station 2. Began sampling 0844. Stations were continued going upbay and ending at Fish River. Returned to DISL 1240.

# Weeks Bay Cruise WB: 33

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
3/16/92	02-S	0.3	3.6	844	12902.2	47133.1	30	24.9	87	49.5	0.1	15.5	6.9			
3/16/92	02-B	3.4	3.6		12902.2	47133.1	30	24.9	87	49.5	0.1	15.4	6.5			
3/16/92	03-S	0.3	0.5	930	12896.6	47131.4	30	24.5	87	50.0	0.2	15.9	7.5			
3/16/92	03-B	0.3	0.5		12896.6	47131.4	30	24.5	87	50.0	0.2	15.8	7.4			
3/16/92	04-S	0.3	0.7	915	12900.9	47130.9	30	24.5	87	49.6	0.4	16.1	7.0			
3/16/92	04-B	0.5	0.7		12900.9	47130.9	30	24.5	87	49.6	0.4	16.4	6.8			
3/16/92	06-S	0.3	0.5	1000	12897.1	47129.7	30	24.1	87	50.0	0.4	15.7	7.6			
3/16/92	08-S	0.3	0.8	1120	12889.3	47128.2	30	23.6	87	50.6	2.4	17.2	9.3			
3/16/92	08-B	0.6	0.8		12889.3	47128.2	30	23.6	87	50.6	2.0	16.7	9.0			
3/16/92	10-S	0.3	0.9	1103	12897.7	47126.8	30	23.5	87	49.8	2.5	17.3	8.7			
3/16/92	10-B	0.7	0.9		12897.7	47126.8	30	23.5	87	49.8	2.5	17.2	8.5			
3/16/92	12-S	0.3	2.5	1025	12907.9	47125.7	30	23.2	87	48.7	0.2	17.0	8.4			
3/16/92	12-B	2.3	2.5		12907.9	47125.7	30	23.2	87	48.7	0.8	17.0	8.1			
3/16/92	15-S	0.3	7.5	1140	12892.4	47122.8	30	22.5	87	50.2	3.3	17.6	9.5			
3/16/92	15-B	7.3	7.5		12892.4	47122.8	30	22.5	87	50.2	4.3	16.8	9.4			
3/16/92	19-S	0.3	0.8	1045	12901.7	47127.4	30	23.5	87	49.3	2.2	17.3	9.0			
3/16/92	19-B	0.6	0.8		12901.7	47127.4	30	23.5	87	49.3						

## *Weeks Bay Cruise Report*

**WB-34**  
**15 April 1992**

**Vessel:** R/V Robalo

**Operation Area:** Weeks Bay: From Fish River to the mouth of the bay

**Scientific party:** Jonathan R. Pennock  
Ramona A. Schreiber  
Jean Cowan

**Supporting Agency:** DISL

**Research Objectives:** Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 8 surface stations (all 8 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

**Cruise Summary:** Departed DISL 0745 CDT (GMT-7 hours). Deadheaded to station 2. Began sampling 0844. Stations were continued going upbay and ending at Fish River. Returned to DISL 1250.



# Weeks Bay Cruise WB: 34

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
4/15/92	02-S	0.3	4.1	844	12902.2	47133.1	30	24.9	87	49.5	0.4	22.4	8.6			
4/15/92	02-B	3.9	4.1		12902.2	47133.1	30	24.9	87	49.5	1.7	23.0	5.9			
4/15/92	03-S	0.3	1.1	924	12896.6	47131.4	30	24.5	87	50.0	3.3	23.5	7.2			
4/15/92	03-B	0.9	1.1		12896.6	47131.4	30	24.5	87	50.0	3.4	23.5	6.7			
4/15/92	04-S	0.3	1.5	906	12900.9	47130.9	30	24.5	87	49.6	3.8	24.3	6.1			
4/15/92	04-B	1.3	1.5		12900.9	47130.9	30	24.5	87	49.6	3.8	24.4	5.6			
4/15/92	06-S	0.3	1.1	942	12897.1	47129.7	30	24.1	87	50.0	2.5	23.5	7.8			
4/15/92	06-B	0.9	1.1		12897.1	47129.7	30	24.1	87	50.0	2.7	23.6	6.8			
4/15/92	08-S	0.3	1.1	1116	12889.3	47128.2	30	23.6	87	50.6	4.2	24.6	8.2			
4/15/92	08-B	0.9	1.1		12889.3	47128.2	30	23.6	87	50.6						
4/15/92	12-S	0.3	2.8	1040	12907.9	47125.7	30	23.2	87	48.7	2.2	24.1	11.0			
4/15/92	12-B	2.5	2.8		12907.9	47125.7	30	23.2	87	48.7	2.7	24.5	4.5			
4/15/92	15-S	0.3	7.0	1135	12892.4	47122.8	30	22.5	87	50.2	6.6	24.1	8.5			
4/15/92	15-B	6.8	7.0		12892.4	47122.8	30	22.5	87	50.2	8.5	23.2	7.3			
4/15/92	19-S	0.3	1.1	1056	12901.7	47127.4	30	23.5	87	49.3	3.8	24.2	9.6			
4/15/92	19-B	0.9	1.1		12901.7	47127.4	30	23.5	87	49.3	4.2	24.5	7.5			

Weeks Bay Cruise WB: 34

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
4/15/92	02-S	0.3	112.83		0.00	3.92		13.80			0.15		91.58	2.63	5.71	95		0.498	0.355
4/15/92	02-B	3.9			0.08	8.29					0.15		93.97						
4/15/92	03-S	0.3	330.61		0.06	8.65		54.73			0.10		76.89	3.66	22.67	40		1.524	0.842
4/15/92	03-B	0.9			0.06	22.85					0.20		92.81						
4/15/92	04-S	0.3	566.01		0.07	10.97		92.82			0.60		92.66	4.69	29.00	25		3.264	1.550
4/15/92	04-B	1.3			0.08	5.79					0.60		95.26						
4/15/92	06-S	0.3	221.02		0.15	5.22		27.30			0.00		95.80	4.56	14.67	50		1.259	0.545
4/15/92	06-B	0.9			0.15	4.88					0.00		95.37						
4/15/92	08-S	0.3	267.17		1.00	2.17		36.03			0.00		93.40	3.40	20.67	25		1.426	0.858
4/15/92	08-B	0.9			0.04								92.71						
4/15/92	12-S	0.3	213.66		0.06	28.52		32.09			0.10		97.18	2.25	8.00	75		0.885	0.791
4/15/92	12-B	2.5			0.16	17.94					0.07		79.47						
4/15/92	15-S	0.3	250.88		0.05	8.71		34.36			0.12		83.30	2.08	14.50	60		1.756	1.842
4/15/92	15-B	6.8			0.00	6.45					0.02		74.67						
4/15/92	19-S	0.3	259.00		0.14	3.98		36.97			0.10		91.88	4.43	8.00	60		1.442	0.557
4/15/92	19-B	0.9			0.07	3.23					0.10		90.78						

Weeks Bay Cruise Report

WB-35  
13 May 1992

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Ramona A. Schreiber
Supporting Agency:	DISL
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 9 surface stations (all 9 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station.
Cruise Summary:	Departed DISL 0745 CDT (GMT-7 hours). Deadheaded to station 2. Began sampling 0840. Stations were continued going upbay and ending at Fish River. Returned to DISL 1200.

# Weeks Bay Cruise WB: 35

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
5/13/92	02-S	0.3	4.0	840	12902.2	47133.1	30	24.9	87	49.5	3.0	23.6				
5/13/92	02-B	3.8	4.0		12902.2	47133.1	30	24.9	87	49.5	1.5	23.4				
5/13/92	03-S	0.3	1.1	917	12896.6	47131.4	30	24.5	87	50.0	4.4	24.3				
5/13/92	03-B	0.9	1.1		12896.6	47131.4	30	24.5	87	50.0	4.5	24.1				
5/13/92	04-S	0.3	1.5	902	12900.9	47130.9	30	24.5	87	49.6	4.1	24.3				
5/13/92	04-B	1.3	1.5		12900.9	47130.9	30	24.5	87	49.6	4.7	24.3				
5/13/92	06-S	0.3	1.0	936	12897.1	47129.7	30	24.1	87	50.0	5.2	24.9				
5/13/92	06-B	0.8	1.0		12897.1	47129.7	30	24.1	87	50.0	5.2	24.6				
5/13/92	08-S	0.3	1.1	1040	12889.3	47128.2	30	23.6	87	50.6	6.2	25.6				
5/13/92	08-B	0.9	1.1		12889.3	47128.2	30	23.6	87	50.6	6.2	25.2				
5/13/92	10-S	0.3	1.3	1025	12897.7	47126.8	30	23.5	87	49.8	5.5	24.6				
5/13/92	10-B	1.1	1.3		12897.7	47126.8	30	23.5	87	49.8	5.5	24.5				
5/13/92	12-S	0.3	4.5	955	12907.9	47125.7	30	23.2	87	48.7	4.6	25.2				
5/13/92	12-B	4.3	4.5		12907.9	47125.7	30	23.2	87	48.7	3.9	25.1				
5/13/92	15-S	0.3	6.5	1054	12892.4	47122.8	30	22.5	87	50.2	7.7	24.7				
5/13/92	15-B	6.3	6.5		12892.4	47122.8	30	22.5	87	50.2	9.1	24.1				
5/13/92	19-S	0.3	1.3	1010	12901.7	47127.4	30	23.5	87	49.3	6.0	24.8				
5/13/92	19-B	1.1	1.3		12901.7	47127.4	30	23.5	87	49.3	6.0	24.5				

Weeks Bay Cruise WB: 35

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SEXTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/d)	APROD (gC/m2/d)
5/13/92	02-S	0.3		139.89		0.49	4.55		17.48		0.02		74.26		4.40	90		0.954	
5/13/92	02-B	3.8				0.25	4.91				0.00		99.55						
5/13/92	03-S	0.3		321.85		0.34	3.89		46.20		0.30		57.57	3.29	30.00	50		2.483	1.460
5/13/92	03-B	0.9				0.11	4.04				0.00		56.52						
5/13/92	04-S	0.3		320.19		0.21	4.16		43.54		0.02		57.40	2.64	25.20	50		2.275	2.132
5/13/92	04-B	1.3				0.15	4.40				0.02		55.95						
5/13/92	06-S	0.3		280.80		0.02	8.89		35.22		0.05		54.57	2.76	16.00	50		1.745	1.306
5/13/92	06-B	0.8				0.08	7.96				0.15		54.39						
5/13/92	08-S	0.3		232.71		0.10	6.33		36.25		0.07		51.66	1.92	15.33	60		1.802	1.735
5/13/92	08-B	0.9				0.08	7.45				0.00		44.06						
5/13/92	10-S	0.3		275.11		0.09	5.31		35.34		0.05		54.84	2.87	18.00	50		2.045	1.651
5/13/92	10-B	1.1				0.09	6.18				0.10		57.82						
5/13/92	12-S	0.3		211.30		0.33	10.52		28.50		0.17		67.64	2.12	15.00	50		1.454	1.607
5/13/92	12-B	4.3				0.22	6.81				0.02		70.54						
5/13/92	15-S	0.3		220.69		0.00	4.01		31.32		0.00		51.37	1.99	16.67	55		1.184	1.219
5/13/92	15-B	6.3				0.01	4.58				0.07		49.40						
5/13/92	19-S	0.3		278.95		0.12	5.34		37.33		0.05		53.18	2.97	29.33	40		2.232	1.821
5/13/92	19-B	1.1				0.13	5.04				0.05		53.69						

Weeks Bay Cruise Report

WB-36  
17 June 1992

Vessel:

R/V Sea Ox

Operation Area:

Weeks Bay: From Fish River to the mouth of the bay

Scientific party:

Jonathan R. Pennock  
Thomas S. Hopkins  
Ramona A. Schreiber

Supporting Agency:

DISL

Research Objectives:

Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 9 surface stations (all 9 of those including bottom water casts). Samples were taken for TCO<sub>2</sub>, DOC, DON, DOP, POP, PC/PN, and <sup>14</sup>C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.

Cruise Summary:

Departed DISL 0630 CDT (GMT-7 hours). Deadheaded to station 2. Began sampling 0730. Stations were continued going upbay and ending at Fish River. Returned to DISL 1115.

# Weeks Bay Cruise WB: 36

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LONG DEG	LONG MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
6/17/92	02-S	0.3	2.8	730	12902.2	47133.1	30	24.0	87	49.5	4.4	25.4	5.5			
6/17/92	02-B	2.5	2.8		12902.2	47133.1	30	24.9	87	49.5	4.9	26.7	3.8			
6/17/92	03-S	0.3	1.2	819	12896.6	47131.4	30	24.5	87	50.0	6.8	27.8	4.6			
6/17/92	03-B	1.0	1.2		12896.6	47131.4	30	24.5	87	50.0	7.7	28.0	5.2			
6/17/92	04-S	0.3	1.5	800	12900.9	47130.9	30	24.5	87	49.6	7.5	27.1	6.9			
6/17/92	04-B	1.3	1.5		12900.9	47130.9	30	24.5	87	49.6	5.5	27.4	3.8			
6/17/92	06-S	0.3	1.1	845	12897.1	47129.7	30	24.1	87	50.0	7.5	28.6	5.0			
6/17/92	06-B	0.9	1.1		12897.1	47129.7	30	24.1	87	50.0	6.8	28.1	5.1			
6/17/92	08-S	0.3	1.3	944	12889.3	47128.2	30	23.6	87	50.6	7.9	28.5	5.9			
6/17/92	08-B	1.1	1.3		12889.3	47128.2	30	23.6	87	50.6	8.4	28.5	5.8			
6/17/92	10-S	0.3	1.5	930	12897.7	47126.8	30	23.5	87	49.8	9.9	28.6	6.2			
6/17/92	10-B	1.3	1.5		12897.7	47126.8	30	23.5	87	49.8	7.1	29.0	4.9			
6/17/92	12-S	0.3		859	12907.9	47125.7	30	23.2	87	48.7	8.3	27.8	5.6			
6/17/92	12-B				12907.9	47125.7	30	23.2	87	48.7	6.9	28.5	5.0			
6/17/92	15-S	0.3	6.4	1006	12892.4	47122.8	30	22.5	87	50.2	9.0	29.9	6.1			
6/17/92	15-B	6.2	6.4		12892.4	47122.8	30	22.5	87	50.2	8.5	29.4	5.4			
6/17/92	19-S	0.3	1.3	915	12901.7	47127.4	30	23.5	87	49.3	8.7	28.7	6.0			
6/17/92	19-B	1.1	1.3		12901.7	47127.4	30	23.5	87	49.3	8.4	28.8	5.6			

Weeks Bay Cruise WB: 36

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (µM)	PC (µM)	NO3 (µM)	NO2 (µM)	NH4 (µM)	DON (µM)	PN (µM)	PP (µM)	PO4 (µM)	DOP (µM)	SI (µM)	ATTEN -1/m	SESTON (mg/l)	SECCHI (cm)	CHLORa (µg/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
6/17/92	02-S	0.3		82.80		0.51	10.14		8.14		0.25			2.30	5.20	100		0.572	0.569
6/17/92	02-B	2.5			0.43	5.99					0.28								
6/17/92	03-S	0.3		144.00		0.33	3.08		20.44		0.06			2.97	21.20	65		1.060	0.956
6/17/92	03-B	1.0				0.26	2.22				0.53								
6/17/92	04-S	0.3		152.52		0.33	3.16		19.52		0.11			2.78	11.20			0.748	0.822
6/17/92	04-B	1.3				0.33	4.23				0.17								
6/17/92	06-S	0.3		139.96		0.80	4.66		21.23		0.22			2.90	22.80	75		1.124	1.027
6/17/92	06-B	0.9				0.16	1.96				0.11								
6/17/92	08-S	0.3		166.52		0.23	1.50		25.05		0.17			3.61	13.20	55		0.823	0.558
6/17/92	08-B	1.1				0.24	2.00				0.22								
6/17/92	10-S	0.3		142.42		0.12	1.12		20.52		0.11			2.88	7.20	75		0.859	0.767
6/17/92	10-B	1.3				0.13	1.84				0.19								
6/17/92	12-S	0.3		111.42		0.33	1.25		16.07		0.17			2.07	8.80			0.614	0.678
6/17/92	12-B					0.26	3.00				0.22								
6/17/92	15-S	0.3		159.80		0.09	1.05		21.03		0.17			1.62	12.80	75		1.484	2.225
6/17/92	15-B	6.2				0.10	1.60				0.25								
6/17/92	19-S	0.3		170.35		0.11	1.74		24.43		0.17			3.25	15.20	50		0.524	0.408
6/17/92	19-B	1.1				0.43	2.50				0.64								

Weeks Bay Cruise Report

WB-37  
13 July 1992

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Leah Gregory Carol LaRosa Jean Cowan
Supporting Agency:	DISL
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 9 surface stations (all 9 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0730 CDT (GMT-7 hours). Deadheaded to station 2. Began sampling 0835. Stations were continued going upbay and ending at Fish River. Returned to DISL 1215.

# Weeks Bay Cruise WB: 37

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LON DEG	LON MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
7/13/92	02-S	0.3	2.5	835	12902.2	47133.1	30	24.9	87	49.5	3.2	29.3	4.7			
7/13/92	02-B	2.3	2.5		12902.2	47133.1	30	24.9	87	49.5	3.6	29.4	4.8			
7/13/92	03-S	0.3	1.3	908	12896.6	47131.4	30	24.5	87	50.0	5.3	30.0	5.3			
7/13/92	03-B	1.1	1.3		12896.6	47131.4	30	24.5	87	50.0	6.1	30.1	5.3			
7/13/92	04-S	0.3	1.5	847	12900.9	47130.9	30	24.5	87	49.6	4.1	29.7	5.1			
7/13/92	04-B	1.3	1.5		12900.9	47130.9	30	24.5	87	49.6	5.1	29.8	4.6			
7/13/92	06-S	0.3	1.3	935	12897.1	47129.7	30	24.1	87	50.0	8.0	30.4	6.3			
7/13/92	06-B	1.1	1.3		12897.1	47129.7	30	24.1	87	50.0	8.0	30.6	6.5			
7/13/92	08-S	0.3	1.3	1055	12889.3	47128.2	30	23.6	87	50.6	8.3	30.7	4.7			
7/13/92	08-B	1.1	1.3		12889.3	47128.2	30	23.6	87	50.6	8.5	30.5	4.3			
7/13/92	10-S	0.3	1.6	1025	12897.7	47126.8	30	23.5	87	49.8	8.4	31.0	6.4			
7/13/92	10-B	1.4	1.6		12897.7	47126.8	30	23.5	87	49.8	10.2	31.0	4.9			
7/13/92	12-S	0.3	2.0	950	12907.9	47125.7	30	23.2	87	48.7	5.3	30.6	5.0			
7/13/92	12-B	1.8	2.0		12907.9	47125.7	30	23.2	87	48.7	6.1	30.8	3.3			
7/13/92	15-S	0.3	8.5	1114	12892.4	47122.8	30	22.5	87	50.2	12.5	30.9	5.2			
7/13/92	15-B	8.3	8.5		12892.4	47122.8	30	22.5	87	50.2	12.7	30.5	5.0			
7/13/92	19-S	0.3	1.4	1006	12901.7	47127.4	30	23.5	87	49.3	9.2	31.2	6.0			
7/13/92	19-B	1.2	1.4		12901.7	47127.4	30	23.5	87	49.3	10.5	30.9	4.6			

Weeks Bay Cruise WB: 37

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	PO4 (uM)	DOP (uM)	SI (uM)	ATTN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORA (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
7/13/92	02-S	0.3	158.27		0.36	11.03		23.37			0.13		108.70	3.30	14.95	25		0.787	0.456
7/13/92	02-B	2.3			0.29	7.49					0.08		107.80						
7/13/92	03-S	0.3			0.15	1.32					0.08		108.80	3.89	20.50	25		1.007	0.542
7/13/92	03-B	1.1			0.14	5.92					0.08		108.90						
7/13/92	04-S	0.3	224.91		0.17	2.08		40.82			0.06		109.40	3.41	15.95	20		0.637	0.345
7/13/92	04-B	1.3			0.06	1.15					0.08		98.61						
7/13/92	06-S	0.3	314.97		0.08	0.84		37.96			0.08		93.96	4.76	28.78	20		0.755	0.425
7/13/92	06-B	1.1			0.16	1.77					0.33		92.76						
7/13/92	08-S	0.3	278.94		0.11	1.54		35.45			0.08		91.33	6.24	42.90	25		1.381	0.436
7/13/92	08-B	1.1			0.08	1.93					0.11		91.63						
7/13/92	10-S	0.3	218.31		0.09	1.58		31.66			0.08		87.39	3.20	13.95	30		0.910	0.602
7/13/92	10-B	1.4			0.15	0.60					0.16		75.78						
7/13/92	12-S	0.3	288.64		0.18	0.54		41.40			0.11		108.20	3.74	19.10	25		2.206	1.196
7/13/92	12-B	1.8			0.17	2.26					0.08		103.50						
7/13/92	15-S	0.3	166.54		0.13	0.88		21.97			0.08		56.88	3.78	19.45	40		1.008	0.539
7/13/92	15-B	8.3			0.18	0.69					0.33		58.12						
7/13/92	19-S	0.3	263.54		0.12	0.58		33.81			0.13		79.37	4.01	21.69	30		2.025	1.167
7/13/92	19-B	1.2			0.12	0.20					0.08		73.58						

Weeks Bay Cruise Report  
WB-38  
19 August 1992

Vessel:	R/V Sea Ox
Operation Area:	Weeks Bay: From Fish River to the mouth of the bay
Scientific party:	Jonathan R. Pennock Thomas S. Hopkins Ramona A. Schreiber
Supporting Agency:	DISL
Research Objectives:	Niskin bottle hydrocast samples were obtained for nutrients, chlorophyll and suspended sediments at 9 surface stations (all 9 of those including bottom water casts). Samples were taken for TCO <sub>2</sub> , DOC, DON, DOP, POP, PC/PN, and <sup>14</sup> C productivity studies at all surface stations. Surface and bottom salinity and temperature were obtained using a conductivity meter at all stations. Licor light attenuation measurements were made at each station. Hydrographic profiles (sal, temp, DO, and pH) were obtained with a Hydrolab at all stations.
Cruise Summary:	Departed DISL 0645 CDT (GMT-7 hours). Deadheaded to station 2. Began sampling 0742. Stations were continued going upbay and ending at Fish River. Returned to DISL 1115.



# Weeks Bay Cruise WB: 38

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	BOTTOM DEPTH (m)	LOCAL TIME	LORAN X	LORAN Y	LAT DEG	LAT MIN	LOX DEG	LOX MIN	SALINITY (ppt)	TEMP (C)	O2 (ppm)	OSAT (%)	pH	TCO2 (uM)
8/19/92	02-S	0.3	1.3	742	12902.2	47133.1	30	24.9	87	49.5	4.2	27.3	6.8			
8/19/92	02-B	1.1	1.3		12902.2	47133.1	30	24.9	87	49.5	5.6	27.8	5.0			
8/19/92	03-S	0.3	1.1	823	12896.6	47131.4	30	24.5	87	50.0	8.3	28.2	7.8			
8/19/92	03-B	0.9	1.1		12896.6	47131.4	30	24.5	87	50.0	8.4	28.3	7.0			
8/19/92	04-S	0.3	1.5	807	12900.9	47130.9	30	24.5	87	49.6	7.6	28.3	5.8			
8/19/92	04-B	1.3	1.5		12900.9	47130.9	30	24.5	87	49.6	7.7	28.4	5.8			
8/19/92	06-S	0.3	0.8	846	12897.1	47129.7	30	24.1	87	50.0	7.9	28.5	6.0			
8/19/92	06-B	0.6	0.8		12897.1	47129.7	30	24.1	87	50.0	8.4	28.5	5.3			
8/19/92	08-S	0.3	0.8	958	12889.3	47128.2	30	23.6	87	50.6	8.7	28.3	7.7			
8/19/92	08-B	0.6	0.8		12889.3	47128.2	30	23.6	87	50.6	8.6	28.2	7.6			
8/19/92	10-S	0.3	1.3	945	12897.7	47126.8	30	23.5	87	49.8	11.8	29.4	6.5			
8/19/92	10-B	1.1	1.3		12897.7	47126.8	30	23.5	87	49.8	12.5	28.2	6.0			
8/19/92	12-S	0.3	2.8	911	12907.9	47125.7	30	23.2	87	48.7	6.1	28.3	7.8			
8/19/92	12-B	2.5	2.8		12907.9	47125.7	30	23.2	87	48.7	8.0	28.7	4.7			
8/19/92	15-S	0.3	5.5	1018	12892.4	47122.8	30	22.5	87	50.2	11.4	28.5	6.9			
8/19/92	15-B	5.3	5.5		12892.4	47122.8	30	22.5	87	50.2	14.0	28.5	4.7			
8/19/92	19-S	0.3	1.0	927	12901.7	47127.4	30	23.5	87	49.3	11.4	29.3	6.6			
8/19/92	19-B	0.8	1.0		12901.7	47127.4	30	23.5	87	49.3	12.5	29.0	5.2			

# Weeks Bay Cruise WB: 38

DATE (mm/dd/yy)	STATION	SAMPLE DEPTH (m)	DOC (uM)	PC (uM)	NO3 (uM)	NO2 (uM)	NH4 (uM)	DON (uM)	PN (uM)	PP (uM)	P04 (uM)	DOP (uM)	SI (uM)	ATTEN -(/m)	SESTON (mg/l)	SECCHI (cm)	CHLORa (ug/l)	VPROD (mgC/l/d)	APROD (gC/m2/d)
8/19/92	02-S	0.3		191.07	0.56	4.41		28.23			0.16		91.18	3.62	7.50	60		6.495	1.787
8/19/92	02-B	1.1			0.34	3.99					0.25		75.64						
8/19/92	03-S	0.3			0.10	0.35					0.11		86.16	3.92	19.50	25		3.203	1.727
8/19/92	03-B	0.9			0.11	6.41					0.16		84.70						
8/19/92	04-S	0.3		430.26	0.22	1.27		23.83			0.33		83.96	5.00	18.67	40		5.083	2.026
8/19/92	04-B	1.3			0.24	1.63					0.18		83.18						
8/19/92	06-S	0.3		448.49	0.22	0.67		33.66			0.13		83.39	4.31	21.33	25		4.163	1.649
8/19/92	06-B	0.6			0.16	0.71					0.33		80.83						
8/19/92	08-S	0.3		549.77	0.13	0.51		71.04			0.16		85.00	6.54	43.48	20		3.107	0.922
8/19/92	08-B	0.6			0.11	0.35					0.08		80.37						
8/19/92	10-S	0.3			0.12	0.00					0.08		74.55	6.36	43.33	25		2.837	0.765
8/19/92	10-B	1.1			0.12	4.01					0.30		75.93						
8/19/92	12-S	0.3		270.46	0.12	1.51		17.37			0.13		90.84	3.25	11.00	40		2.984	1.562
8/19/92	12-B	2.5			0.15	1.01					0.13		83.01						
8/19/92	15-S	0.3			0.11	1.07					0.13		72.68	5.83	31.88	25		2.170	0.743
8/19/92	15-B	5.3			0.13	1.77					0.18		66.01						
8/19/92	19-S	0.3			0.09	0.48					0.08		74.51	3.58	24.37	25		2.566	1.330
8/19/92	19-B	0.8			0.16	1.28					0.23		72.53						