



Universidad de Concepción

DATA REPORT
CTD-0
FIORDO AYSÉN
Julio-2010

Winston Rojas
Ursula Cifuentes
Nadin Ramirez
Oscar Pizarro
Manuel Castillo
Susana Giglio

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Esta campaña de mediciones hidrográficas en el fiordo de Aysén se realizó entre el 20 y 25 de julio del 2010. Se hicieron 60 perfiles con un CTD Seabird 25 (SN: 0457), el que constaba con sensor de presión, temperatura, conductividad, oxígeno y fluorescencia (Tabla 1). La configuración del CTD se muestra en la Tabla 2. Además, con el fin de medir salinidad superficial, se tomaron muestras de agua en diferentes estaciones a lo largo del fiordo (Tabla 5).

Las mediciones incluyeron una transecta a lo largo del fiordo (19 estaciones), y 2 transectas perpendiculares al eje del fiordo de 3 estaciones cada una, realizada cerca de los ríos Cóndor y Cuervo (Tabla 1 y Figura 1). Estas últimas secciones corresponden a estaciones yo-yo.

Protocolo de medición

El protocolo utilizado para realizar los perfiles de CTD SBE 0437, fue el siguiente:

1. Se observaba la superficie del mar, para evitar contaminar la celda de conductividad con aceite u otra sustancia ajena al agua de mar.
2. El equipo se encendía en cubierta y se mantenía por aproximadamente 1 minuto a la espera que la bomba encendiera.
3. Se estabilizaba por un minuto en el agua, lo más cercano a la superficie y confirmando que el equipo quedara siempre bajo el agua.
4. Se procedía a realizar el perfil hasta la profundidad deseada virándolo inmediatamente una vez que se alcanzaba la profundidad.
5. Una vez en cubierta se apagaba inmediatamente.
6. La profundidad era estimada en base a marcas efectuadas en la cuerda.

Procesamiento de datos

El procesamiento de los datos se realizó en dos etapas, la primera, utilizando las rutinas propuestas por el fabricante de CTD SeaBird modelo 25, con el software SBE Data Processing de SeaBird, y en la segunda etapa, se usó el programa Matlab.

A continuación, se describen los módulos del primer programa utilizado:

DATA CONVERSION: Convierte los datos originales en formato hexadecimal a formato ASCII y en unidades de ingeniería. Las variables de salida fueron presión, temperatura, conductividad, concentración de oxígeno y fluorescencia (en Volts).

SECTION: Se seleccionaron los datos correspondientes a la bajada y subida del CTD, eliminando los datos correspondientes al periodo de estabilización de los sensores.

WILL EDIT: Marca como malos los datos escapados, en base a la desviación estándar de un bloque de 20 datos. Este módulo se aplicó tres veces para cada perfil y los datos marcados fueron eliminados.

FILTER: Este módulo es un filtro de paso bajo que se aplica sobre una o más columnas de datos, así cumple el rol de suavizar las altas frecuencias (cambios rápidos). Para producir cero desfase, el filtro es aplicado hacia adelante y hacia atrás a través de los datos, utilizando constantes de tiempo típicas recomendadas por el fabricante, de 0.5 s para la presión y 0.1 s para la temperatura y conductividad.

ALIGN CTD: Alinea en el tiempo las observaciones de los demás sensores respecto al sensor de presión, intentando que los datos obtenidos correspondan a la misma parcela de agua. En la campaña de primavera para medir el fiordo Aysén, se aplicó un rezago de 0.1 s para el sensor de conductividad, entre 5.0-6.0 s para el de fluorescencia, y 3.0-6.0 s para el sensor de oxígeno.

CELL THERMAL MASS: Remueve el efecto de la “masa termal de la celda” de las mediciones de conductividad. Esta corrige las pequeñas diferencias de conductividad producidos por fuertes cambios de temperatura. Los valores utilizados corresponden a los recomendados por el fabricante ($\text{Alpha}=0.004$ y $1/\text{beta}=8$).

Posteriormente se verificó que efectivamente se eliminaran estas variaciones graficando los perfiles de conductividad y temperatura, eliminando datos donde aún se presentaron valores de conductividad anómalos (spikes) en puntos de fuertes gradientes de temperatura.

WINDOW FILTER: Este módulo filtra los datos, el cual calcula un valor promedio, tomando en cuenta los valores de datos alrededor de un punto central. El tamaño de la ventana utilizado fue de 5 puntos. Se utilizó el filtro mediana.

DERIVE: Permite derivar distintas variables. En este caso se derivaron las variables de salinidad, Sigma-t y oxígeno disuelto (usando una ventana de 2 s para el cálculo de la concentración de oxígeno, valor por defecto).

BIN AVERAGE: Este programa permite promediar los datos a intervalos elegidos por el usuario en función de la presión. El valor utilizado en este caso fue de 1 dbar. Note que la escala total para el sensor de presión es 1000 m con una precisión de 0.1% (1m) y una resolución de 0.015% (0.15m).

SPLIT: Separa los datos de subida y bajada, en archivos diferentes.

En la segunda etapa del procesamiento, se utilizó el software Matlab donde se eliminaron las inversiones de densidad (valores menores a 0 kg m^{-3}). Además con este software se realizaron las graficas y se extrajeron algunos datos representativos de cada perfil (temperatura, salinidad, sigma-t, oxígeno y fluorescencia).

Tablas

Tabla 1. Números de serie y fecha de calibración en sensores de CTD (SBE 0457).

Sensores	Número de serie	Fecha de calibración
Temperatura	5047	26-11-2008
Conductividad	3489	07-11-2008
Presión	0664	16-12-2008
Oxígeno	1520	09-12-2008
Fluorómetro	1311	18-11-2008

Tabla 2. Configuración de CTD (SBE 0457).

Variable	Configuración
Scans por segundo	8
Frecuencia mínima de conductividad para el encendido de la bomba	0
Encendido de la bomba	45 s
Tipo de batería	Alcalinas
Voltajes externos	2

Tabla 3. Resumen de estaciones en Fiordo Aysén, campaña de invierno (Julio - 2010): nombre del archivo (perfil n°cast n°), L.C. (Longitud del Cable).

Est.	Archivo	Fecha			UTC		Latitud (S)		Longitud (W)		Profundidad (m)			N° Botella
		día	mes	año	hora	min	(°)	(min)	(°)	(min)	Eco	L.C.	Z-CTD	
C01	d01cast00	20	7	2010	15	43	45	25.493	72	50.164	121	100	100	1-2-3
C02	d02cast01	20	7	2010	16	20	45	26.157	72	51.890	115	100	97	4
C03	d03cast02	20	7	2010	17	10	45	23.880	72	50.721	145	110	94	5-6-7
C04	d04cast03	20	7	2010	17	38	45	25.254	72	52.239	157	140	134	8
C05	d05cast04	20	7	2010	18	5	45	25.850	72	52.088	170	160	116	9-12-15
C06	d06cast05	20	7	2010	18	26	45	26.658	72	54.050	180	180	97	-
C07	d07cast06	20	7	2010	18	50	45	26.658	72	54.050	187	170	138	11-13-14
C08	d08cast07	20	7	2010	19	17	45	26.510	72	53.962	200	190	148	16
C09	d09cast08	20	7	2010	19	45	45	24.986	72	59.821	200	190	126	17-18-19
C10	d10cast09	20	7	2010	20	10	45	23.733	73	2.126	200	190	111	20
C11	d11cast10	20	7	2010	20	40	45	22.474	73	3.909	215	200	147	21-22-23
C12	d12cast11	20	7	2010	21	1	45	21.672	73	4.957	220	210	157	24
C14	d13cast12	20	7	2010	22	6	45	19.025	73	7.686	330	310	208	25-26-27
C15	d14cast13	20	7	2010	23	57	45	17.860	73	9.383	342	310	150	28
C16	d15cast14	22	7	2010	12	49	45	16.635	73	12.463	140	100	103	29
C17	d16cast15	22	7	2010	13	37	45	17.154	73	16.062	249	220	228	30
C18	d17cast16	22	7	2010	14	15	45	18.650	73	18.269	226	200	195	31
C19	d18cast17	22	7	2010	14	49	45	20.122	73	20.719	153	120	124	32
C20	d19cast18	22	7	2010	15	26	45	21.517	73	23.621	272	250	260	33

Est.	Archivo	Fecha			UTC		Latitud (S)		Longitud (W)		Profundidad (m)			N° Botella
		día	mes	año	hora	min	(°)	(min)	(°)	(min)	Eco	L.C.	Z-CTD	
C21	d20cast19	22	7	2010	16	10	45	22.858	73	26.502	290	-	225	-
CUS	d21cast20	23	7	2010	1	21	45	22.955	73	6.388	193	150	137	-
CUC	d22cast21	23	7	2010	2	1	45	22.181	73	5.120	94	70	69	-
CUN	d23cast22	23	7	2010	2	33	45	21.218	73	3.597	133	120	121	-
CUN	d24cast23	23	7	2010	4	23	45	21.207	73	3.486	113	80	82	-
CUC	d25cast24	23	7	2010	4	56	45	22.042	73	4.955	130	60	47	-
CUS	d26cast25	23	7	2010	5	22	45	22.861	73	6.061	220	150	141	-
CUS	d27cast26	23	7	2010	7	16	45	22.791	73	6.183	205	150	152	-
CUC	d28cast27	23	7	2010	7	39	45	22.166	73	5.058	189	60	53	-
CUN	d29cast28	23	7	2010	8	5	45	21.300	73	3.627	113	80	84	-
CUN	d30cast29	23	7	2010	9	52	45	21.331	73	3.714	148	80	85	-
CUC	d31cast30	23	7	2010	10	23	45	21.956	73	5.079	160	60	43	-
CUS	d32cast31	23	7	2010	10	58	45	22.947	73	6.315	199	150	156	-
CUS	d33cast32	23	7	2010	13	18	45	22.918	73	6.225	206	150	153	-
CUC	d34cast33	23	7	2010	13	48	45	22.106	73	5.047	133	70	48	-
CUN	d35cast34	23	7	2010	14	20	45	21.240	73	3.583	124	70	72	-
CUN	d36cast35	23	7	2010	16	49	45	21.266	73	3.671	138	70	72	-
CUC	d37cast36	23	7	2010	17	13	45	22.085	73	5.093	141	70	58	-
CUS	d38cast37	23	7	2010	17	37	45	22.952	73	6.287	201	70	74	-
CUS	d39cast38	23	7	2010	19	33	45	23.073	73	6.137	203	70	75	-
CUC	d40cast39	23	7	2010	20	0	45	22.064	73	4.987	181	70	53	-
CUN	d41cast40	23	7	2010	20	25	45	21.290	73	3.654	136	70	75	-
CN	d42cast41	24	7	2010	15	49	45	25.665	72	54.635	70	50	52	-
CC	d43cast42	24	7	2010	16	9	45	26.588	72	54.732	176	100	101	-
CS	d44cast43	24	7	2010	16	27	45	27.437	72	54.839	156	100	105	-
CN	d45cast44	24	7	2010	18	21	45	25.615	72	54.632	98	50	53	-
CC	d46cast45	24	7	2010	18	39	45	26.576	72	54.773	175	100	104	-
CS	d47cast46	24	7	2010	18	57	45	27.406	72	54.860	158	100	105	-
CN	d48cast47	24	7	2010	20	52	45	25.653	72	54.626	80	50	52	-
CC	d49cast48	24	7	2010	21	10	45	26.573	72	54.750	175	100	103	-
CS	d50cast49	24	7	2010	21	30	45	27.430	72	54.842	156	100	105	-
CN	d51cast50	24	7	2010	23	3	45	25.652	72	54.666	78	50	51	-
CC	d52cast51	24	7	2010	23	31	45	26.569	72	54.819	172	100	104	-
CS	d53cast52	24	7	2010	23	52	45	27.370	72	54.831	157	100	103	-
CN	d54cast53	25	7	2010	1	24	45	25.658	72	54.636	73	50	53	-
CC	d55cast54	25	7	2010	1	44	45	26.594	72	54.769	175	100	105	-
CS	d56cast55	25	7	2010	2	24	45	27.406	72	54.862	156	100	103	-
CN	d57cast56	25	7	2010	3	55	45	25.676	72	54.562	46	30	32	-
CC	d58cast57	25	7	2010	4	14	45	26.577	72	54.762	176	100	104	-
CS	d59cast58	25	7	2010	4	32	45	27.428	72	54.864	156	100	103	-
CN	d60cast59	25	7	2010	14	53	45	25.646	72	54.612	84	-	53	-

Tabla 4. Descripción de los datos.

Dato	Unidad	Descripción
Presión	dB	Decibares
Temperatura	°C	Centígrado
Salinidad		Practical salinity units (PSU)
Sigma-t	kg m ⁻³	kilógramo (metro cúbico -1000) ⁻¹
Oxígeno	mL L ⁻¹	mililitros litro ⁻¹
Fluorescencia		Voltaje
z-CTD	m	Máxima profundidad del instrumento
Hora	hh:mm	Hora:Minutos (UTC)
Fecha	dd\mm\aa	Día\ Mes\ Año (UTC)

Tabla 5. Salinidad obtenida desde muestras de agua superficial (botellas). Fiordo Aysén. Campaña de Invierno Julio-2010.

Estación	Botella	Profundidad (m)	9ª Lectura	10ª Lectura	Promedio	Desviación Estándar
C01	1	0	5.553	5.553	5.553	0.000
C01	2	0	5.569	5.569	5.569	0.000
C01	3	0	5.580	5.580	5.580	0.000
C02	4	0	11.900	11.901	11.901	0.000
C03	5	0	5.871	5.871	5.871	0.000
C03	6	0	5.876	5.876	5.876	0.000
C03	7	0	5.877	5.878	5.878	0.000
C04	8	0	8.372	8.371	8.371	0.000
C05	9	0	4.421	4.421	4.421	0.000
C05	12	0	4.421	4.420	4.420	0.001
C05	15	0	5.059	5.059	5.059	0.000
C07	11	0	22.757	22.757	22.757	0.000
C07	13	0	22.771	22.770	22.771	0.001
C07	14	0	22.775	22.774	22.775	0.001
C08	16	0	20.684	20.684	20.684	0.000
C09	17	0	11.975	11.974	11.975	0.000
C09	18	0	11.981	11.982	11.981	0.001
C09	19	0	11.877	11.877	11.877	0.000
C10	20	0	11.709	11.709	11.709	0.000
C11	21	0	16.156	16.156	16.156	0.000
C11	22	0	16.169	16.169	16.169	0.000
C11	23	0	16.188	16.187	16.188	0.000
C12	24	0	18.358	18.358	18.358	0.000
C14	25	0	22.359	22.359	22.359	0.000
C14	26	0	22.361	22.361	22.361	0.000
C14	27	0	22.365	22.365	22.365	0.000
C15	28	0	14.730	14.730	14.730	0.000
C16	29	0	22.107	22.108	22.107	0.001
C17	30	0	21.777	21.777	21.777	0.001
C18	31	0	22.778	22.777	22.778	0.000
C19	32	0	22.196	22.197	22.196	0.001
C20	33	0	21.899	21.899	21.899	0.000

Figuras

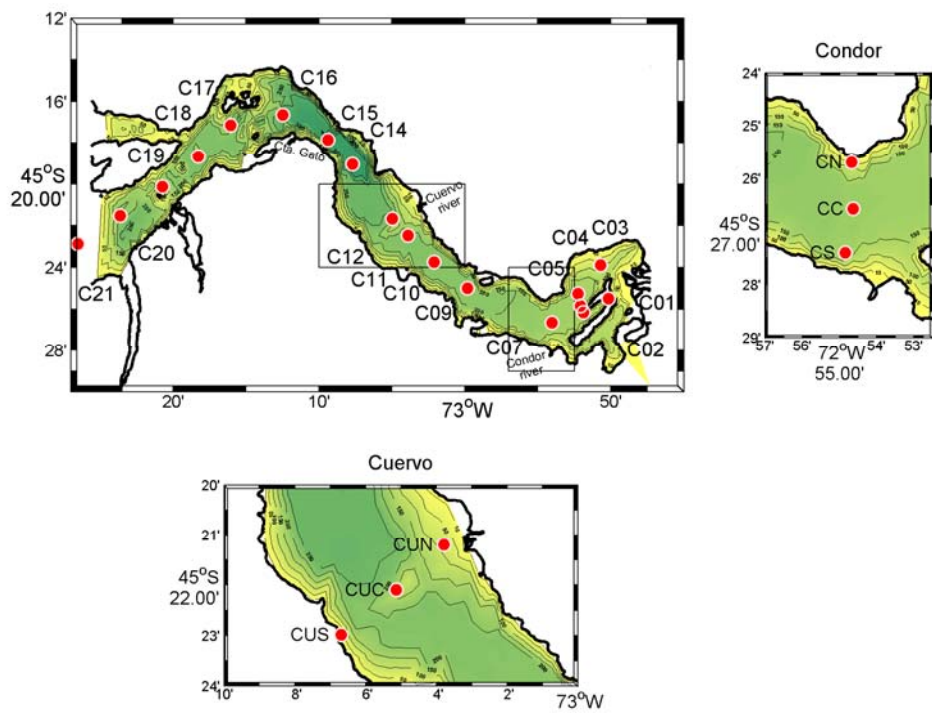


Figura 1. Posiciones de las estaciones de CTD en el fiordo Aysén. campaña de invierno Julio - 2010. Transectas a lo largo y transversal al eje del fiordo (Cónдор y Cuervo).

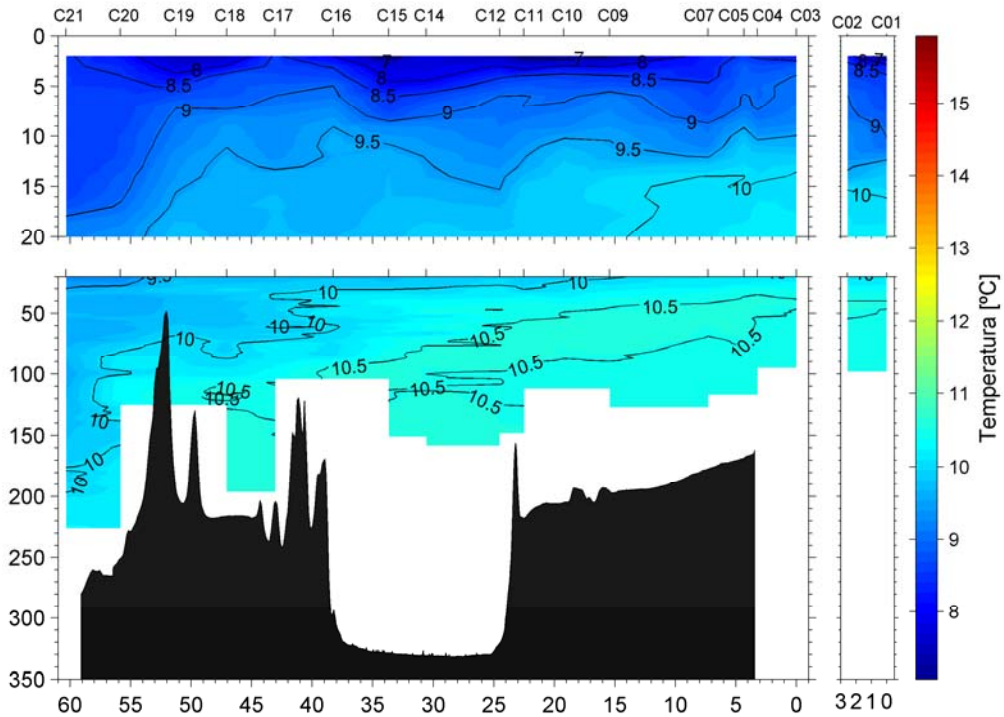


Figura 2. Transecta de temperatura a lo largo del fiordo. Fiordo Aysén julio-2010.

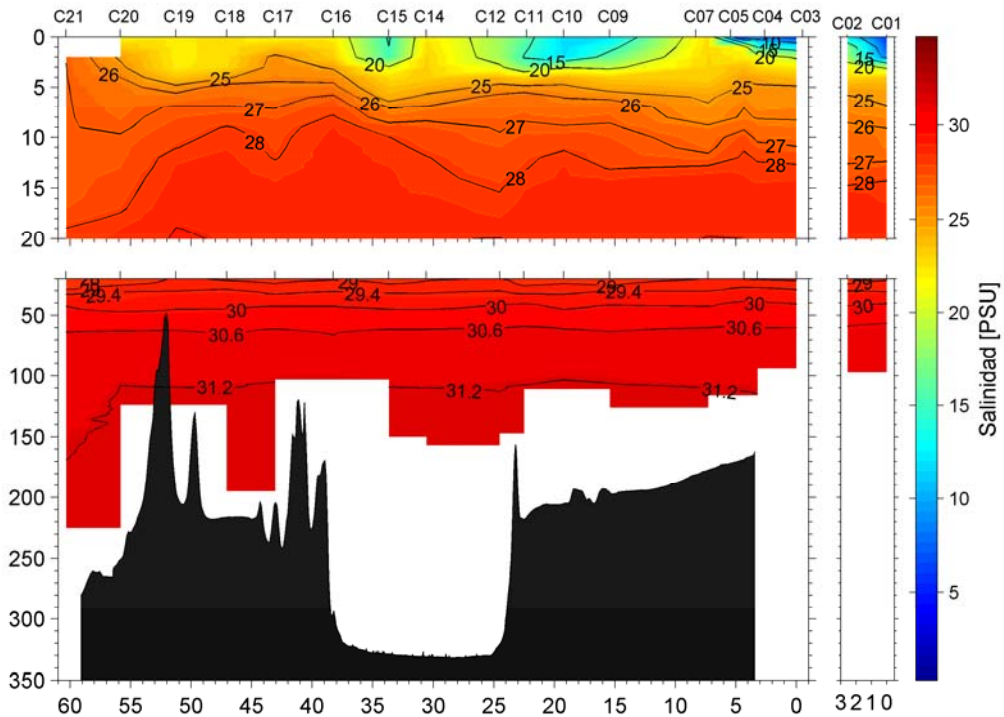


Figura 3. Transecta de salinidad a lo largo del fiordo. Se incluyen los valores medidos en superficie (botellas). Fiordo Aysén julio-2010.

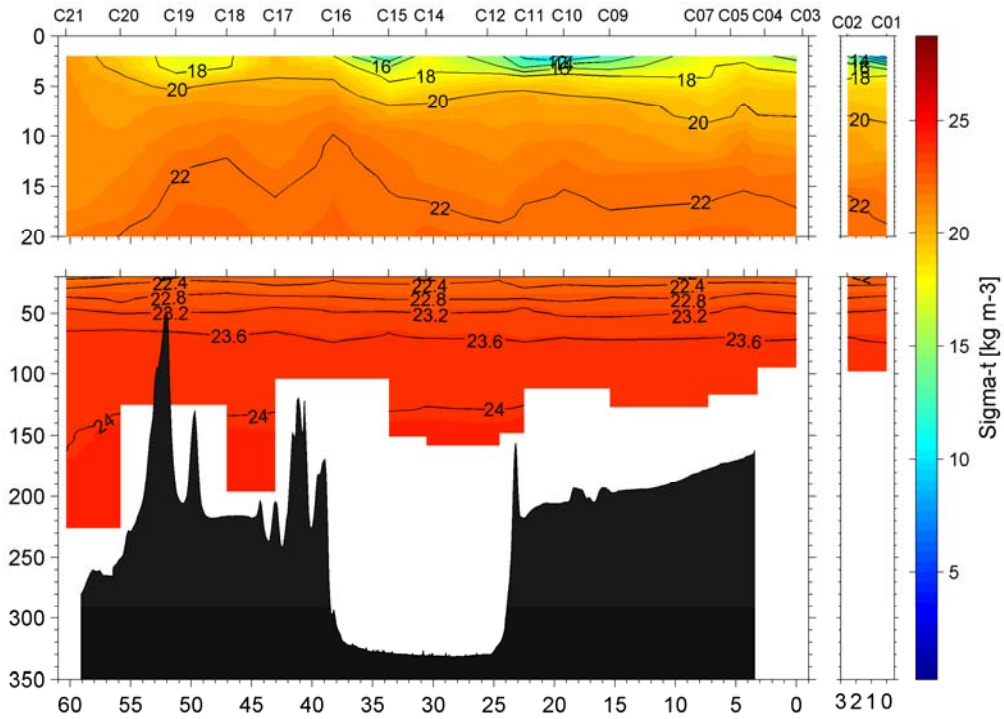


Figura 4. Transecta de sigma-t a lo largo del fiordo. Fiordo Aysén julio-2010.

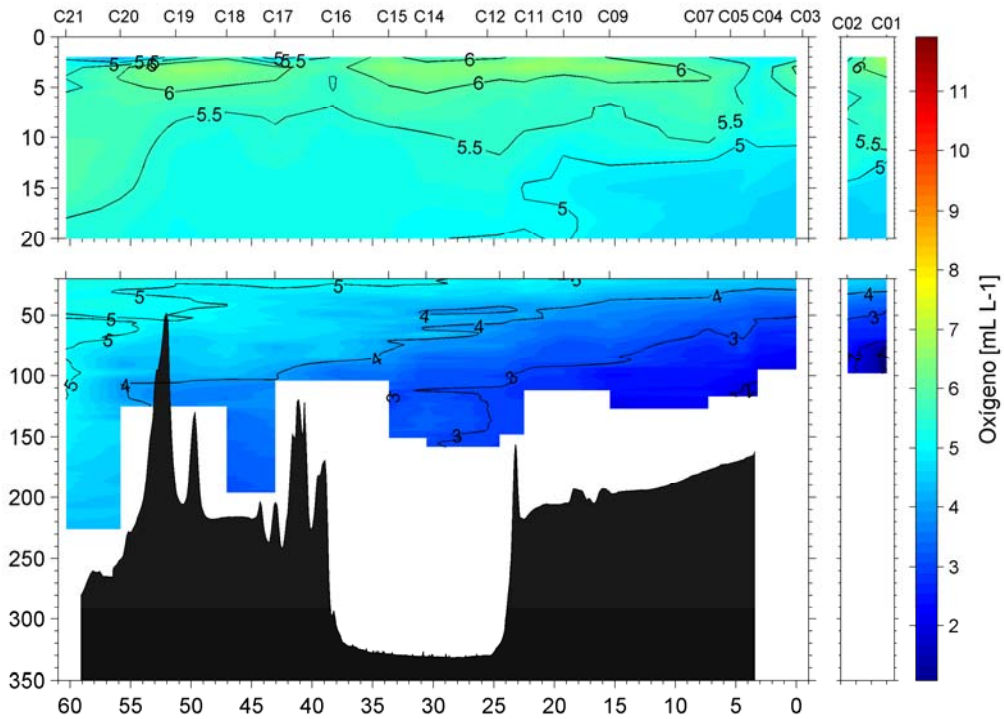


Figura 5. Transecta de oxígeno disuelto a lo largo del fiordo. Fiordo Aysén julio-2010.

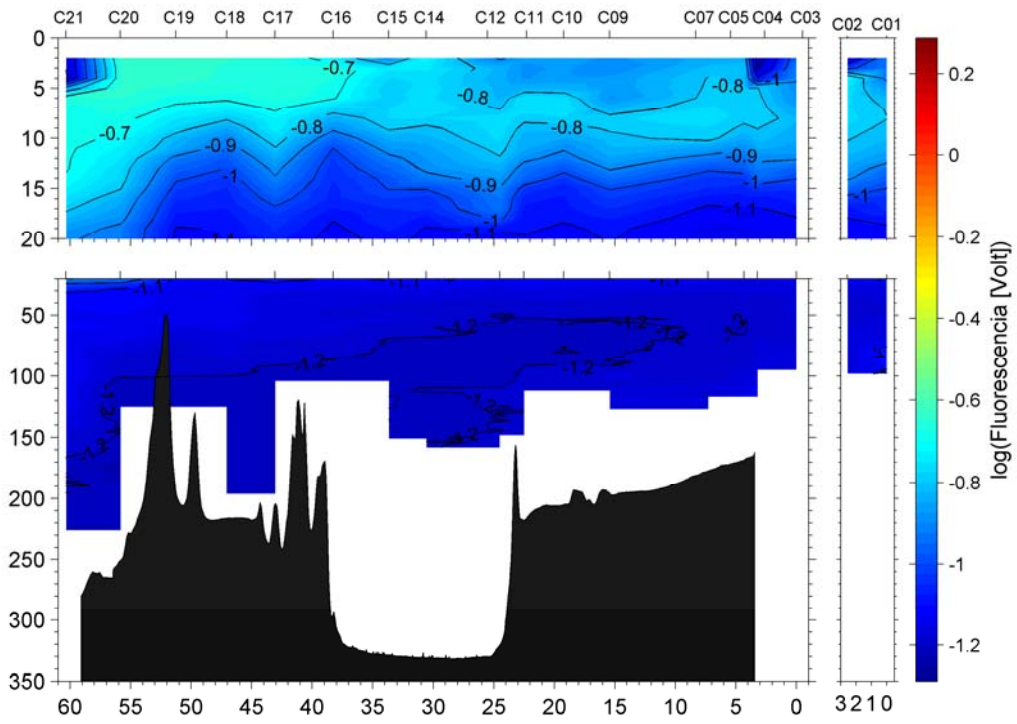


Figura 6. Transecta de fluorescencia a lo largo del fiordo. Fiordo Aysén julio-2010.

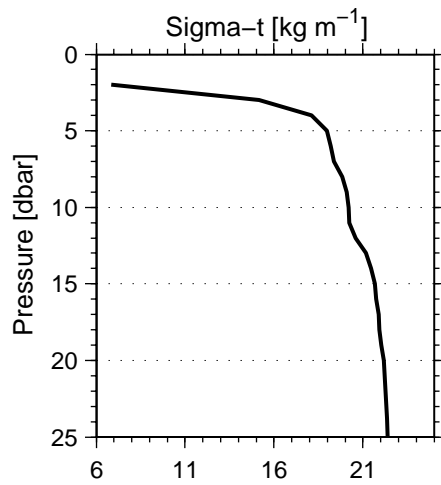
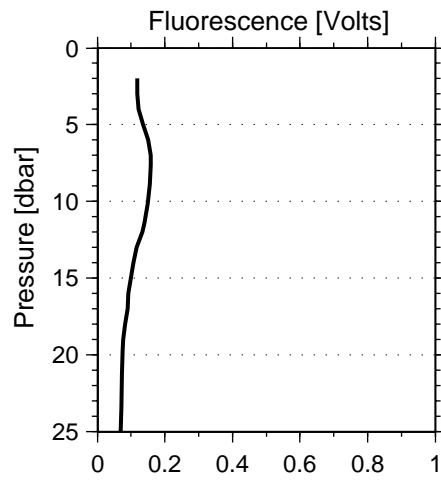
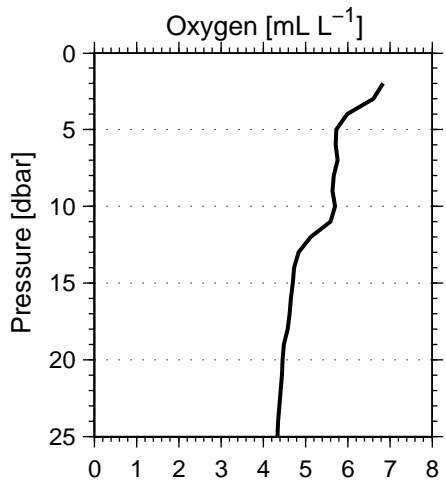
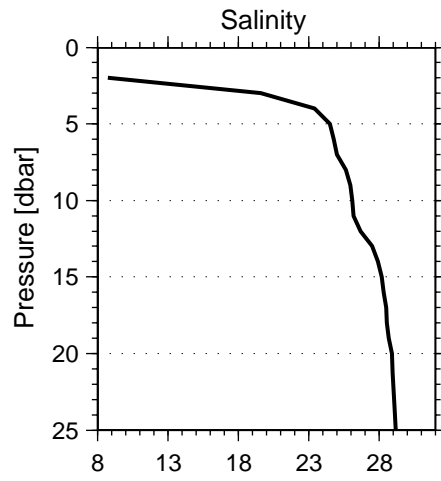
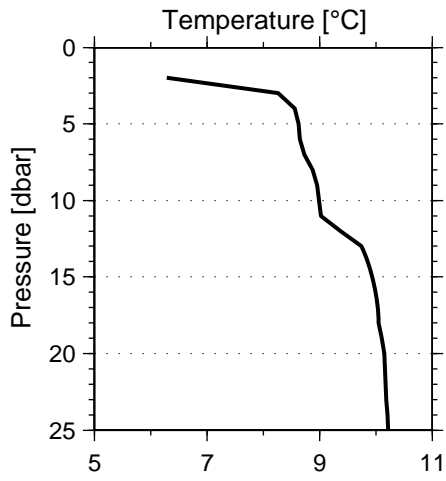
Tablas y Figuras

Perfiles de CTD

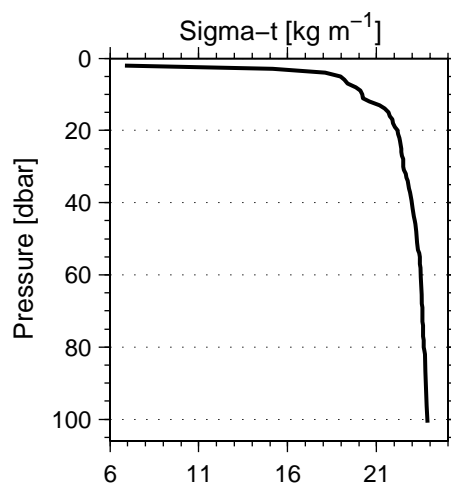
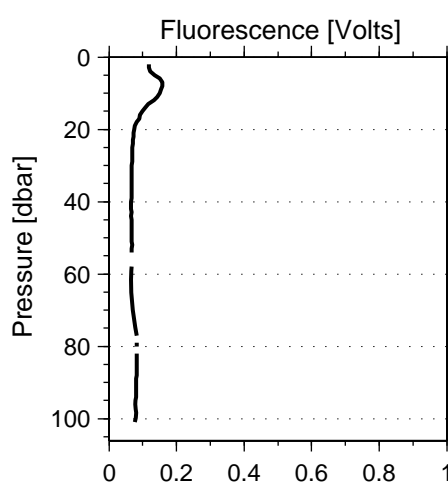
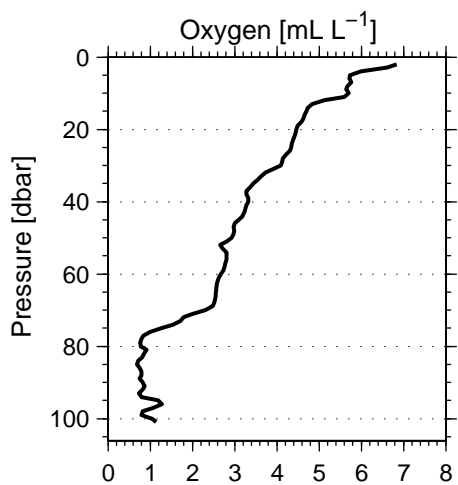
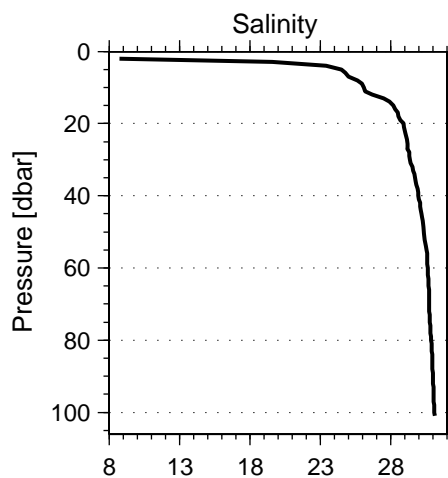
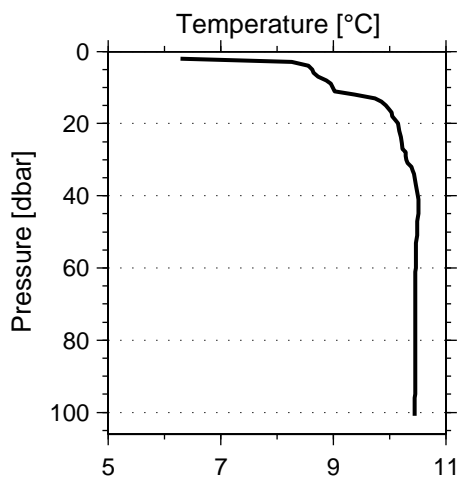
CRUISE : Aysen July 2010	STATION : C01	CAST : 0
DATE : 2010-07-20	LAT : 45°25.493	Z-CTD : 100 m
TIME : 15:43	LON : 72°50.164	DEPTH : 121 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	6.291	8.771	6.858	6.837	0.118	-
3	8.266	19.599	15.174	6.607	0.119	-
4	8.558	23.421	18.127	5.998	0.121	-
6	8.657	24.779	19.175	5.719	0.151	-
8	8.881	25.671	19.841	5.674	0.159	-
10	8.997	26.135	20.187	5.708	0.150	-
12	9.377	26.712	20.582	5.124	0.134	-
14	9.863	27.930	21.459	4.742	0.108	-
16	9.992	28.341	21.759	4.653	0.092	-
18	10.056	28.579	21.934	4.576	0.083	-
20	10.153	28.919	22.184	4.457	0.075	-
22	10.173	29.044	22.278	4.424	0.072	-
24	10.208	29.159	22.362	4.352	0.071	-
26	10.221	29.193	22.386	4.313	0.070	-
28	10.284	29.331	22.484	4.141	0.069	-
30	10.300	29.373	22.514	4.092	0.068	-
35	10.452	29.747	22.780	3.449	0.067	-
40	10.502	29.993	22.963	3.320	0.066	-
45	10.519	30.209	23.129	3.098	0.066	-
50	10.493	30.378	23.264	2.938	0.067	-
60	10.467	30.645	23.476	2.680	0.067	-
70	10.462	30.756	23.564	2.311	0.070	-
80	10.459	30.888	23.667	0.774	0.083	-
90	10.459	31.015	23.766	0.828	0.081	-
100	10.450	31.128	23.856	1.053	0.079	-

Aysen July 2010
Station C01 Cast 0



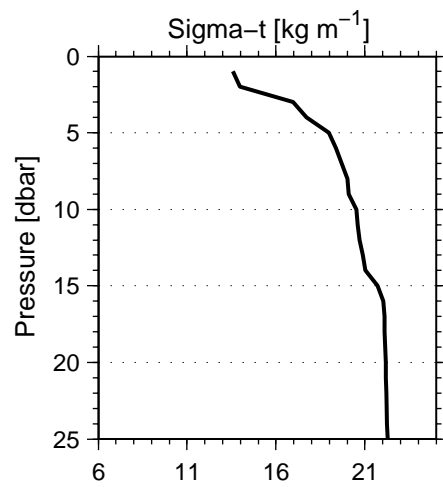
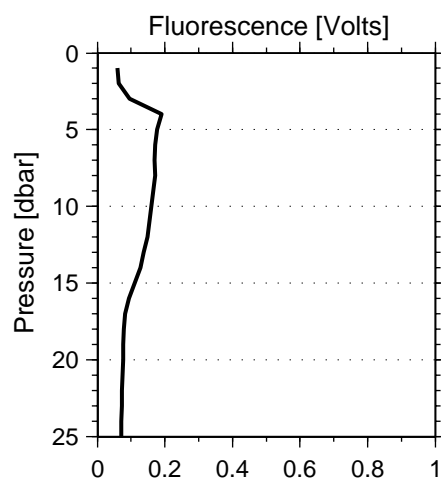
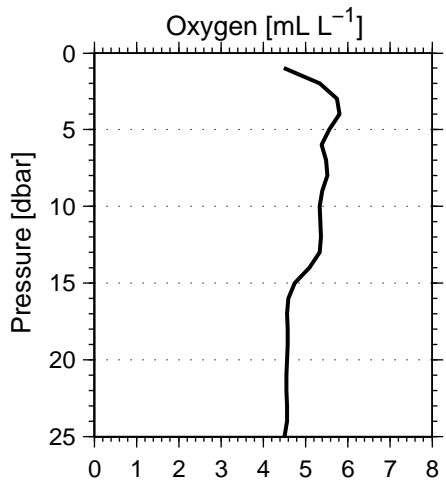
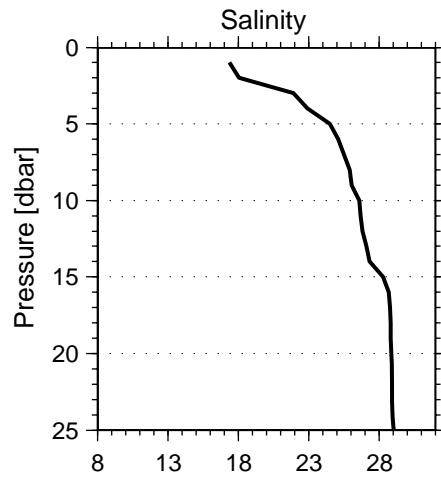
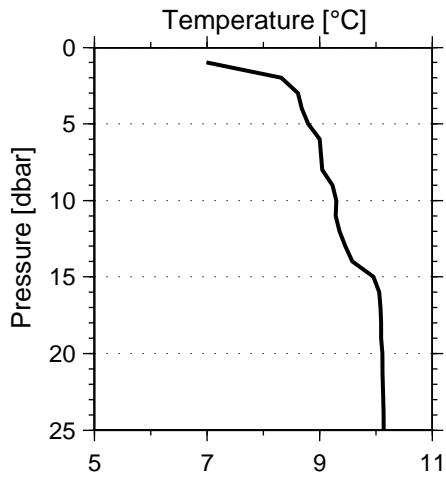
Aysen July 2010
Station C01 Cast 0



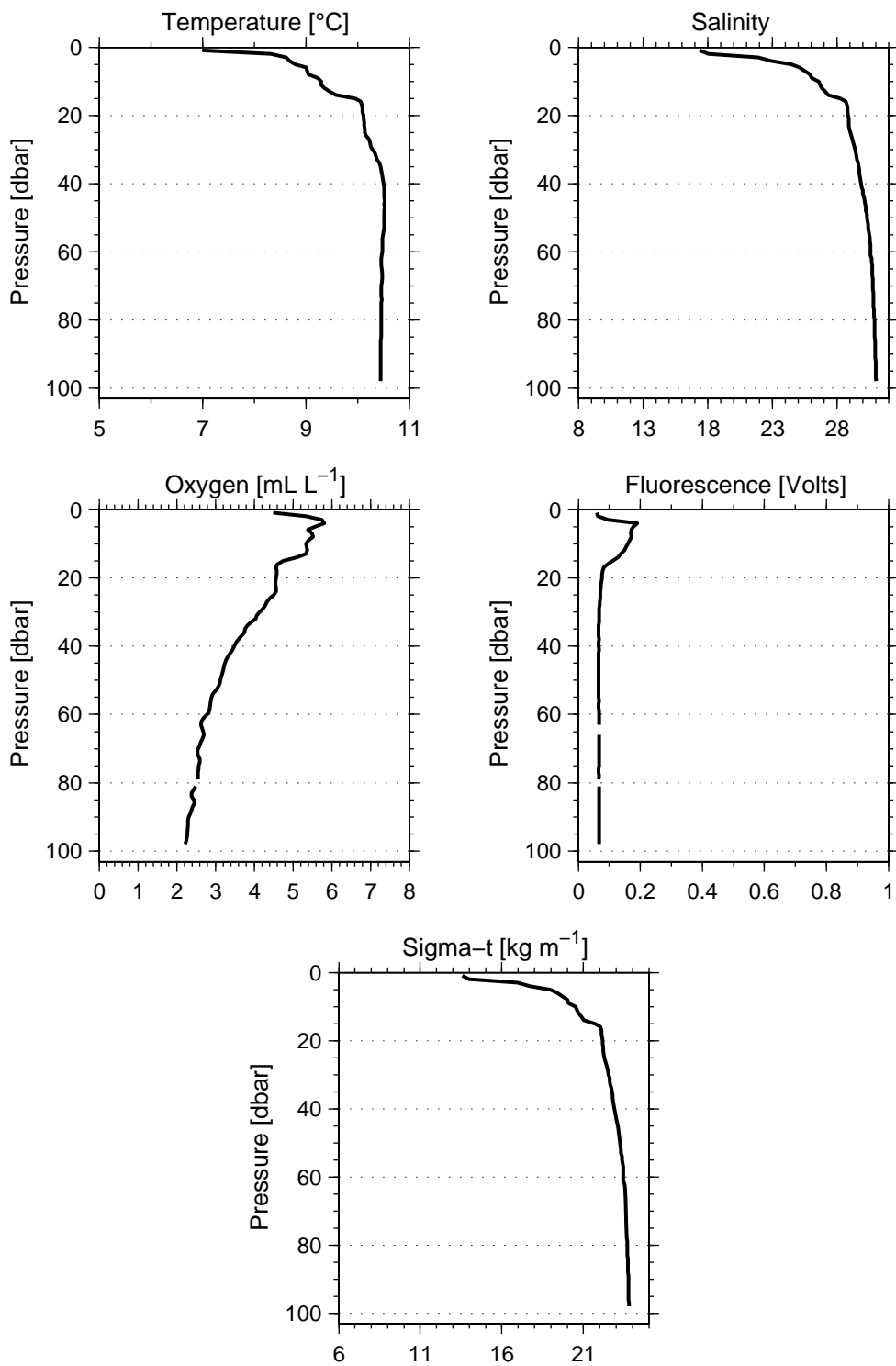
CRUISE	: Aysen July 2010	STATION	: C02	CAST	: 1
DATE	: 2010-07-20	LAT	: 45°26.157	Z-CTD	: 97 m
TIME	: 16:20	LON	: 72°51.890	DEPTH	: 115 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	6.997	17.371	13.574	4.493	0.059	-
2	8.320	18.067	13.973	5.336	0.064	-
3	8.615	21.916	16.944	5.749	0.095	-
4	8.688	22.913	17.713	5.812	0.191	-
6	9.010	25.110	19.385	5.382	0.171	-
8	9.050	25.926	20.016	5.518	0.172	-
10	9.298	26.617	20.520	5.338	0.160	-
12	9.357	26.852	20.695	5.377	0.148	-
14	9.580	27.319	21.026	5.102	0.128	-
16	10.067	28.701	22.028	4.594	0.095	-
18	10.097	28.820	22.116	4.588	0.079	-
20	10.114	28.879	22.159	4.563	0.076	-
22	10.130	28.930	22.196	4.554	0.073	-
24	10.140	28.992	22.243	4.564	0.071	-
26	10.161	29.113	22.334	4.407	0.070	-
28	10.243	29.277	22.448	4.291	0.069	-
30	10.285	29.417	22.551	4.138	0.067	-
35	10.453	29.722	22.761	3.772	0.066	-
40	10.503	29.899	22.890	3.498	0.066	-
45	10.523	30.181	23.107	3.247	0.066	-
50	10.521	30.352	23.239	3.127	0.065	-
60	10.479	30.604	23.443	2.796	0.067	-
70	10.464	30.814	23.609	2.555	0.067	-
80	10.459	30.922	23.693	NaN	NaN	-
90	10.452	30.986	23.745	2.315	0.067	-
97	10.449	31.032	23.781	2.243	0.068	-

Aysen July 2010
Station C02 Cast 1



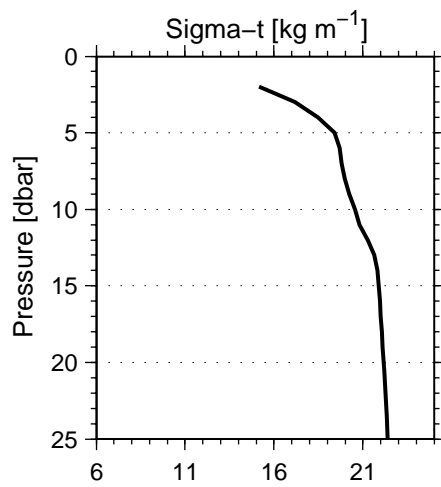
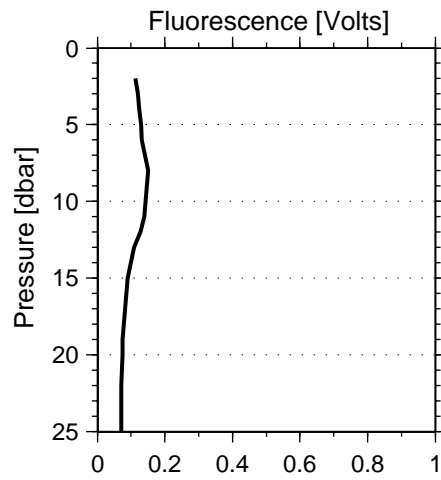
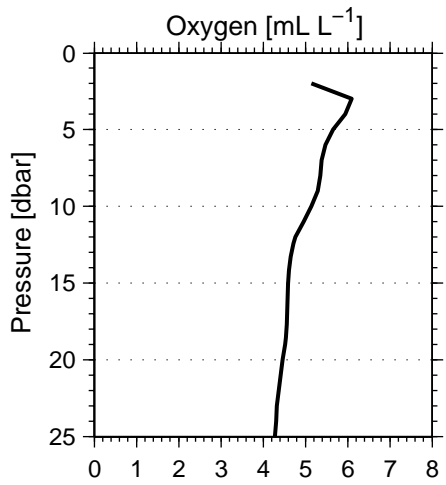
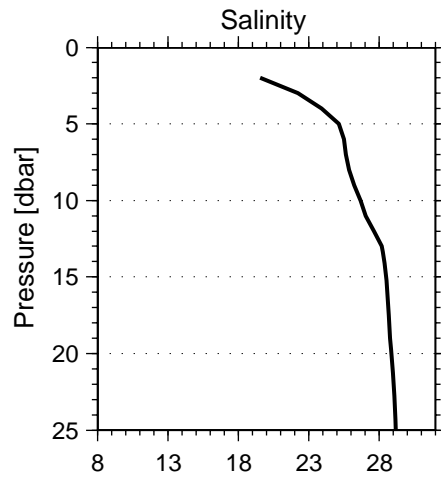
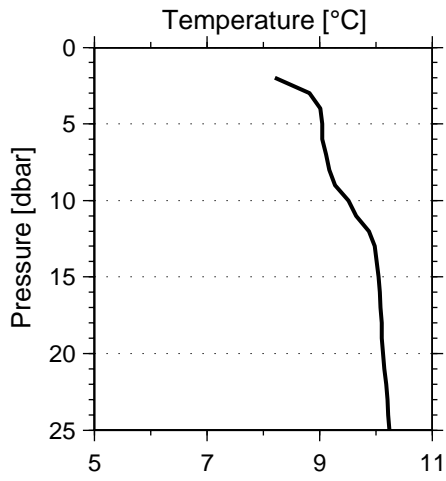
Aysen July 2010
Station C02 Cast 1



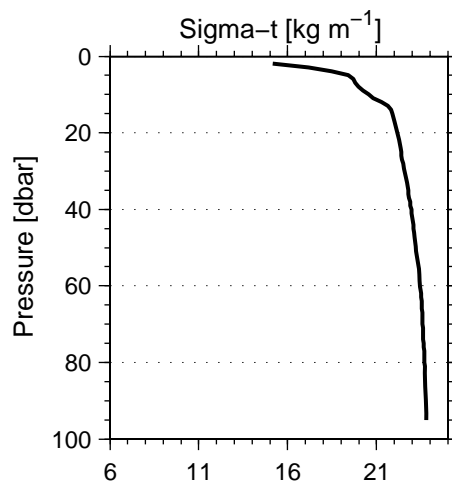
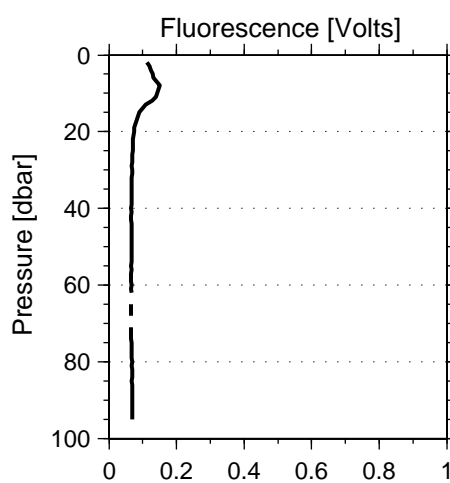
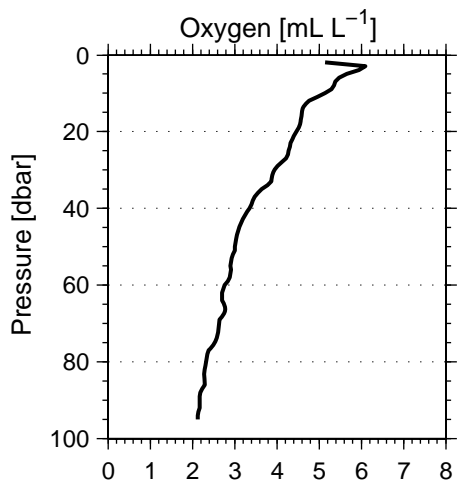
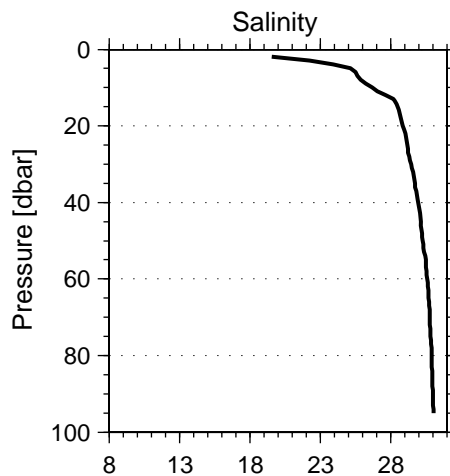
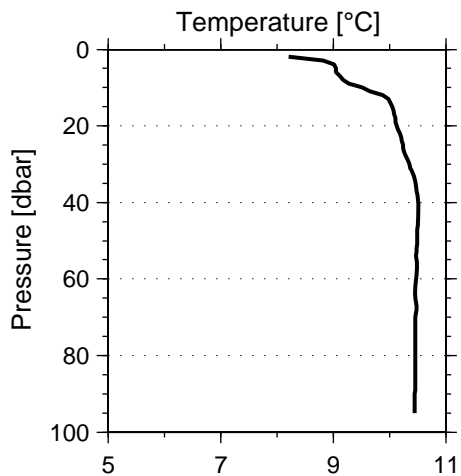
CRUISE : Aysen July 2010	STATION : C03	CAST : 2
DATE : 2010-07-20	LAT : 45°23.880	Z-CTD : 94 m
TIME : 17:10	LON : 72°50.721	DEPTH : 145 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.215	19.561	15.152	5.140	0.113	-
3	8.826	22.232	17.164	6.105	0.121	-
4	9.017	23.950	18.479	5.943	0.124	-
6	9.054	25.515	19.695	5.472	0.132	-
8	9.176	25.903	19.980	5.356	0.151	-
10	9.520	26.695	20.549	5.148	0.142	-
12	9.879	27.677	21.259	4.771	0.128	-
14	10.015	28.397	21.800	4.614	0.100	-
16	10.068	28.616	21.961	4.579	0.086	-
18	10.104	28.739	22.052	4.558	0.079	-
20	10.135	28.890	22.165	4.466	0.074	-
22	10.193	29.068	22.294	4.370	0.072	-
24	10.220	29.147	22.351	4.304	0.071	-
26	10.250	29.227	22.409	4.265	0.070	-
28	10.297	29.348	22.495	4.113	0.069	-
30	10.353	29.476	22.585	3.947	0.069	-
35	10.466	29.743	22.775	3.647	0.067	-
40	10.518	29.980	22.950	3.350	0.066	-
45	10.507	30.149	23.084	3.116	0.067	-
50	10.492	30.298	23.202	3.015	0.067	-
60	10.476	30.608	23.446	2.770	0.067	-
70	10.460	30.788	23.589	2.624	NaN	-
80	10.455	30.926	23.698	2.332	0.068	-
90	10.453	31.024	23.775	2.174	0.069	-
94	10.452	31.052	23.797	2.126	0.069	-

Aysen July 2010
Station C03 Cast 2



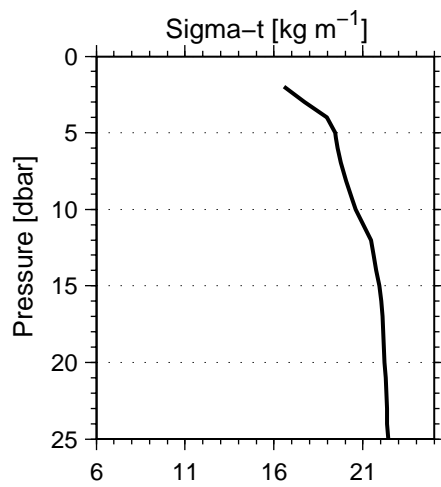
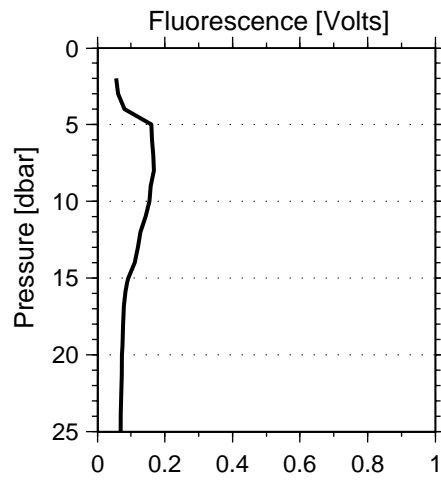
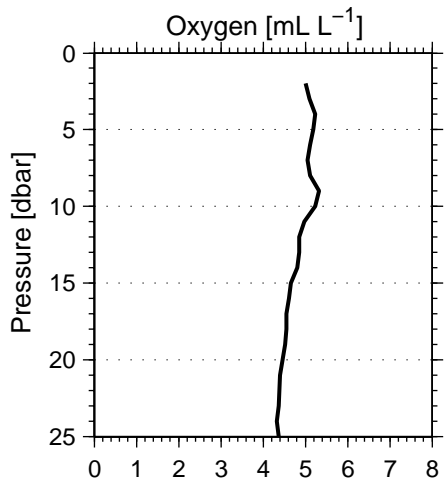
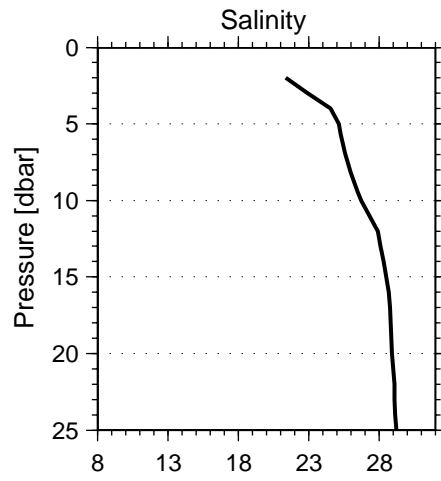
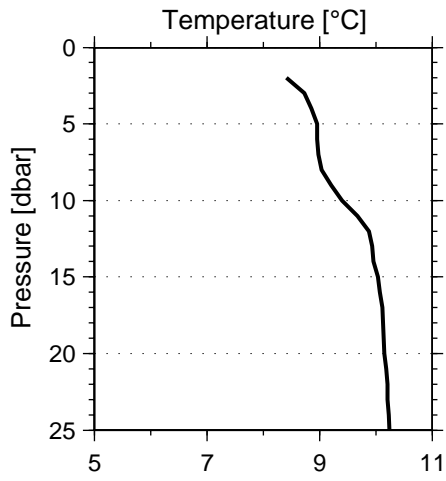
Aysen July 2010
Station C03 Cast 2



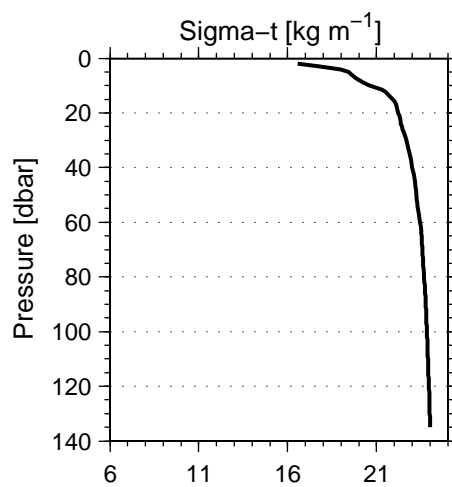
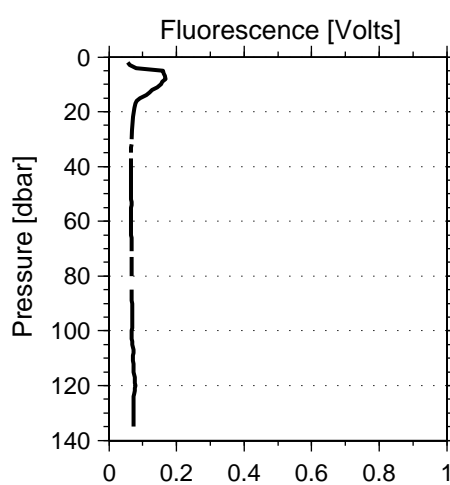
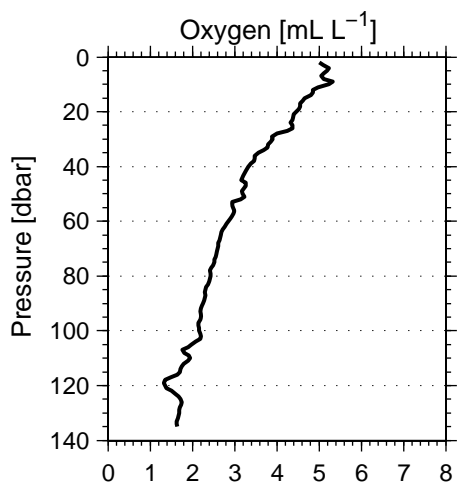
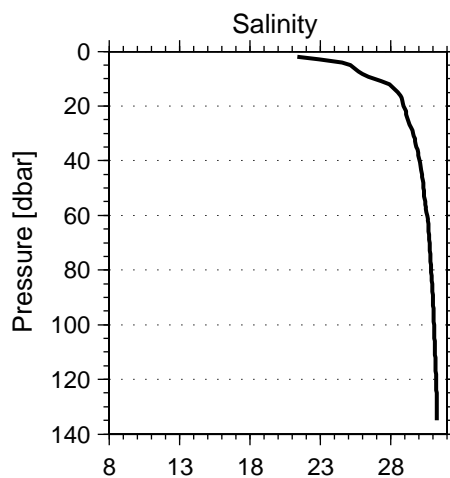
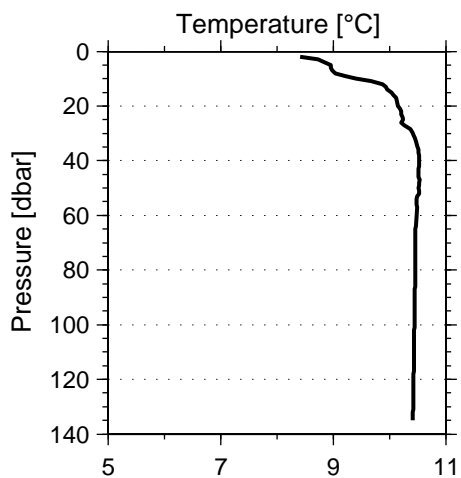
CRUISE : Aysen July 2010	STATION : C04	CAST : 3
DATE : 2010-07-20	LAT : 45°25.254	Z-CTD : 134 m
TIME : 17:38	LON : 72°52.239	DEPTH : 157 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.415	21.401	16.566	5.003	0.056	-
3	8.736	22.915	17.708	5.106	0.061	-
4	8.854	24.558	18.975	5.240	0.081	-
6	8.958	25.368	19.594	5.117	0.163	-
8	9.041	25.932	20.022	5.115	0.168	-
10	9.402	26.743	20.603	5.240	0.154	-
12	9.879	27.911	21.442	4.862	0.129	-
14	9.959	28.327	21.754	4.812	0.112	-
16	10.078	28.691	22.019	4.608	0.082	-
18	10.127	28.846	22.131	4.553	0.077	-
20	10.157	28.938	22.198	4.457	0.073	-
22	10.205	29.099	22.316	4.385	0.071	-
24	10.229	29.169	22.366	4.333	0.069	-
26	10.215	29.280	22.455	4.378	0.069	-
28	10.332	29.463	22.579	4.010	0.067	-
30	10.411	29.624	22.692	3.909	0.067	-
35	10.503	29.855	22.856	3.563	0.066	-
40	10.525	30.064	23.015	3.325	0.065	-
45	10.512	30.244	23.157	3.163	0.065	-
50	10.517	30.353	23.241	3.183	0.064	-
60	10.484	30.599	23.438	2.859	0.066	-
70	10.459	30.778	23.581	2.598	0.067	-
80	10.456	30.889	23.668	2.439	0.067	-
90	10.453	31.011	23.764	2.257	0.068	-
100	10.446	31.099	23.834	2.166	0.068	-
125	10.423	31.275	23.974	1.720	0.073	-
134	10.420	31.314	24.006	1.635	0.073	-

Aysen July 2010
Station C04 Cast 3



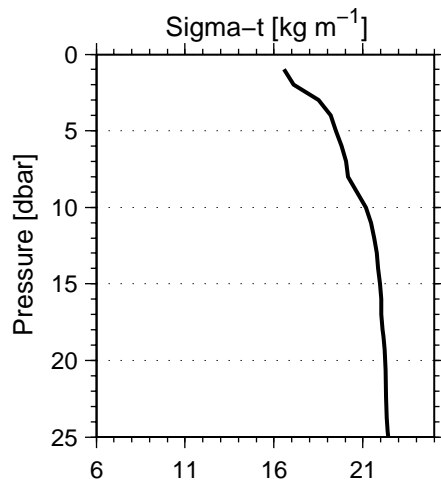
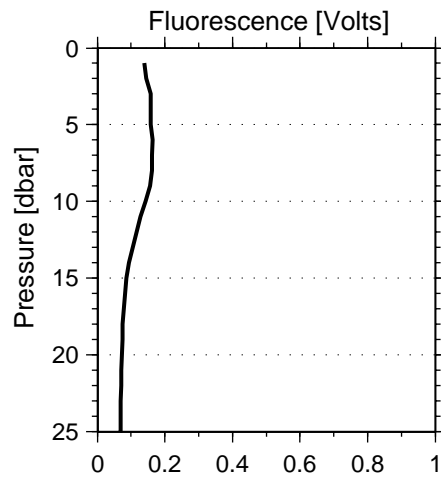
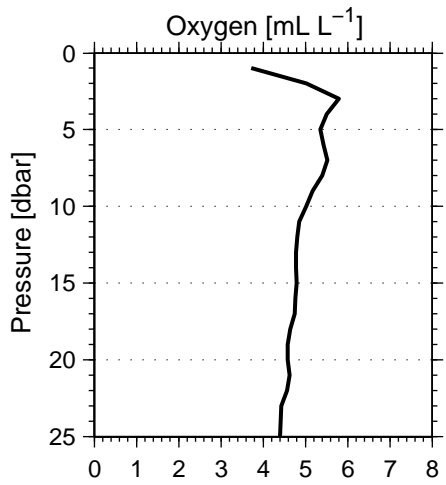
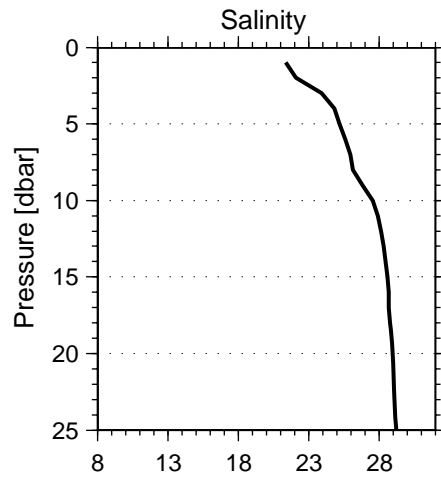
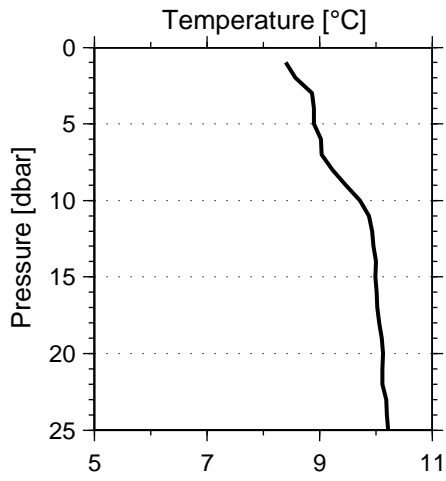
Aysen July 2010
Station C04 Cast 3



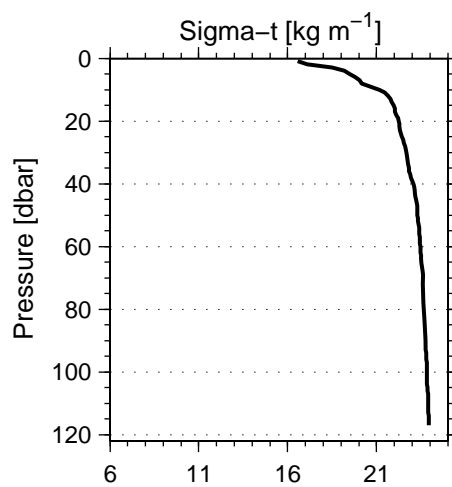
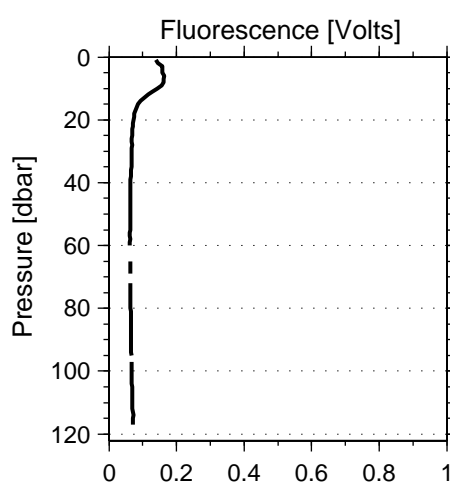
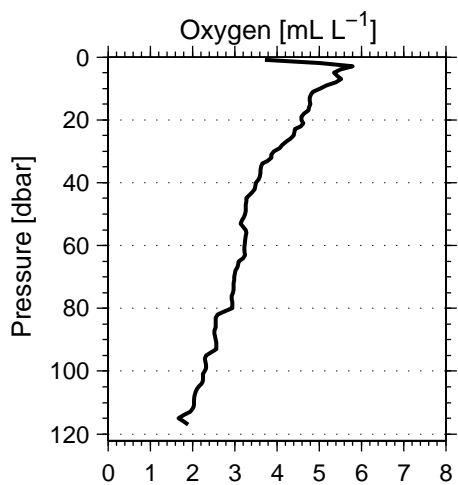
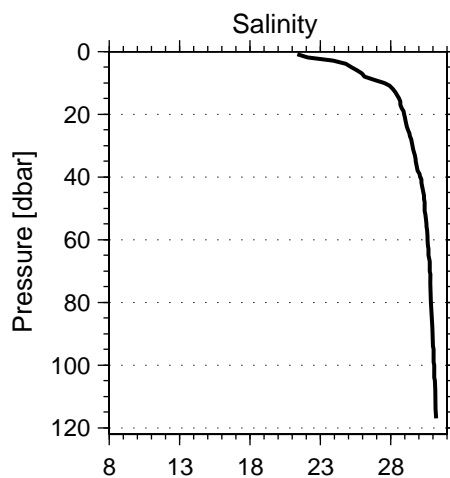
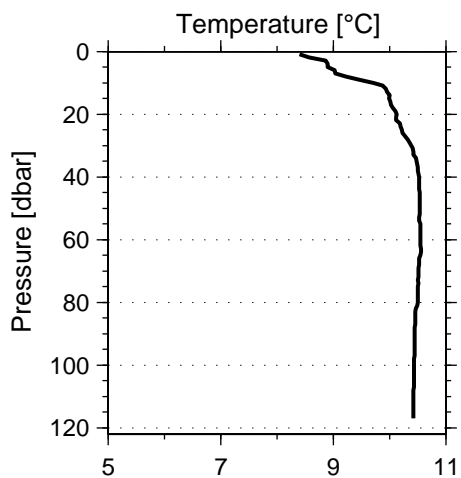
CRUISE	: Aysen July 2010	STATION	: C05	CAST	: 4
DATE	: 2010-07-20	LAT	: 45°25.850	Z-CTD	: 116 m
TIME	: 18:05	LON	: 72°52.088	DEPTH	: 170 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	8.399	21.396	16.565	3.718	0.139	-
2	8.579	22.127	17.113	5.017	0.145	-
3	8.866	23.945	18.496	5.794	0.158	-
4	8.902	24.832	19.183	5.511	0.157	-
6	9.030	25.626	19.785	5.426	0.163	-
8	9.233	26.150	20.165	5.403	0.162	-
10	9.726	27.546	21.181	5.025	0.143	-
12	9.938	28.156	21.624	4.807	0.117	-
14	10.002	28.471	21.859	4.777	0.094	-
16	10.012	28.704	22.039	4.770	0.082	-
18	10.064	28.806	22.110	4.643	0.076	-
20	10.133	28.999	22.249	4.581	0.072	-
22	10.116	29.049	22.291	4.564	0.071	-
24	10.197	29.152	22.358	4.418	0.070	-
26	10.234	29.330	22.491	4.329	0.067	-
28	10.328	29.494	22.603	4.123	0.068	-
30	10.393	29.584	22.663	3.930	0.067	-
35	10.484	29.796	22.813	3.630	0.066	-
40	10.530	30.135	23.069	3.510	0.064	-
45	10.534	30.338	23.227	3.286	0.064	-
50	10.541	30.443	23.307	3.253	0.064	-
60	10.556	30.638	23.456	3.240	0.062	-
70	10.516	30.817	23.602	2.997	NaN	-
80	10.506	30.874	23.648	2.941	0.064	-
90	10.451	30.991	23.749	2.547	0.065	-
100	10.440	31.102	23.837	2.294	0.067	-
116	10.430	31.230	23.938	1.799	0.071	-

Aysen July 2010
Station C05 Cast 4



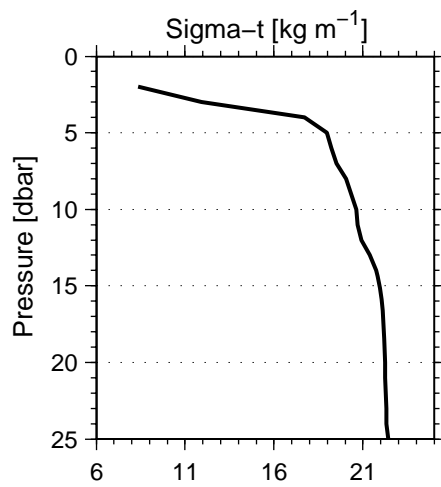
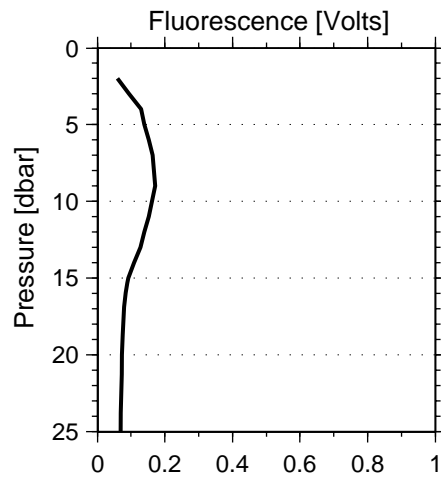
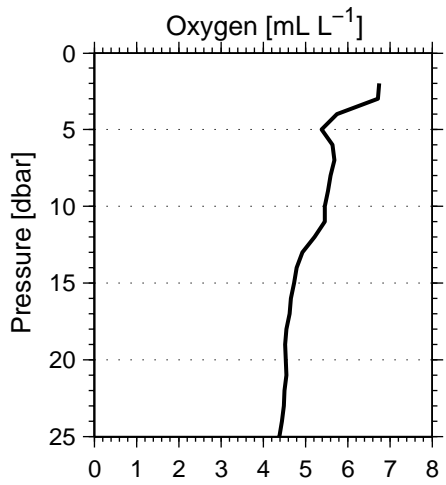
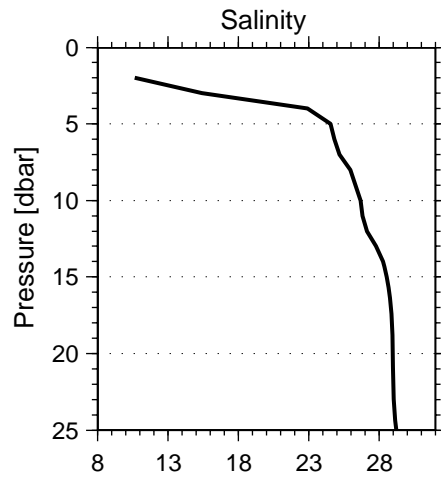
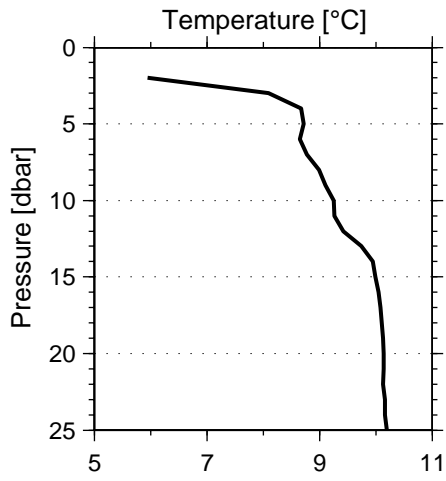
Aysen July 2010
Station C05 Cast 4



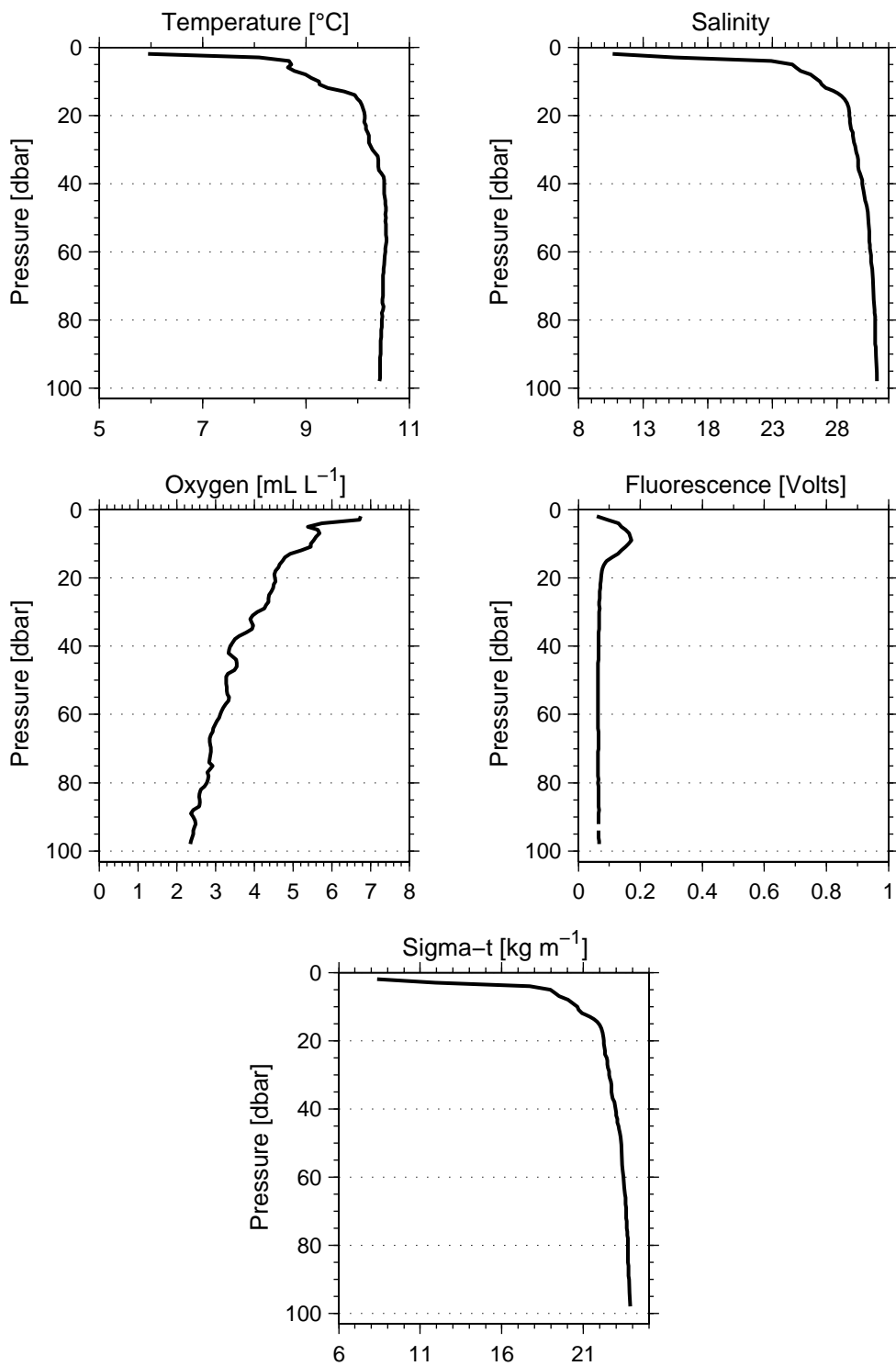
CRUISE : Aysen July 2010	STATION : C06	CAST : 5
DATE : 2010-07-20	LAT : 45°26.658	Z-CTD : 97 m
TIME : 18:26	LON : 72°54.050	DEPTH : 180 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	5.944	10.642	8.365	6.753	0.060	-
3	8.094	15.424	11.929	6.715	0.094	-
4	8.674	22.926	17.724	5.746	0.130	-
6	8.658	24.821	19.207	5.650	0.153	-
8	8.997	25.975	20.062	5.597	0.168	-
10	9.254	26.726	20.612	5.456	0.162	-
12	9.432	27.155	20.920	5.213	0.140	-
14	9.946	28.316	21.747	4.802	0.108	-
16	10.046	28.735	22.057	4.664	0.084	-
18	10.109	28.916	22.189	4.552	0.076	-
20	10.144	28.999	22.248	4.537	0.074	-
22	10.134	29.033	22.276	4.514	0.071	-
24	10.169	29.109	22.329	4.454	0.070	-
26	10.223	29.270	22.446	4.369	0.069	-
28	10.223	29.358	22.515	4.317	0.067	-
30	10.293	29.462	22.585	4.079	0.067	-
35	10.404	29.676	22.733	3.941	0.066	-
40	10.518	29.995	22.963	3.390	0.065	-
45	10.536	30.221	23.135	3.556	0.064	-
50	10.546	30.451	23.312	3.276	0.063	-
60	10.538	30.615	23.442	3.124	0.063	-
70	10.495	30.818	23.607	2.885	0.064	-
80	10.476	30.961	23.722	2.782	0.064	-
90	10.446	31.037	23.786	2.429	0.066	-
97	10.432	31.121	23.853	2.378	0.067	-

Aysen July 2010
Station C06 Cast 5



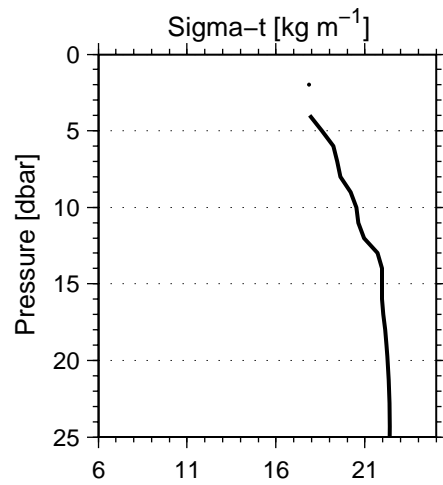
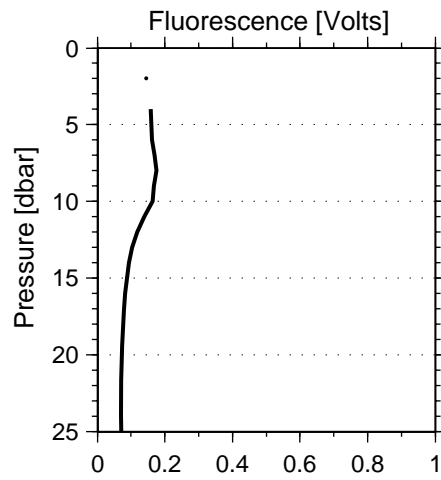
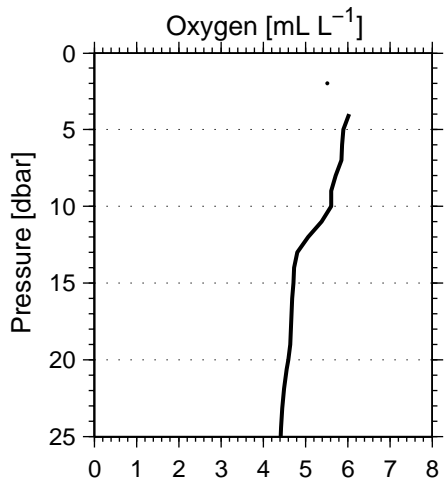
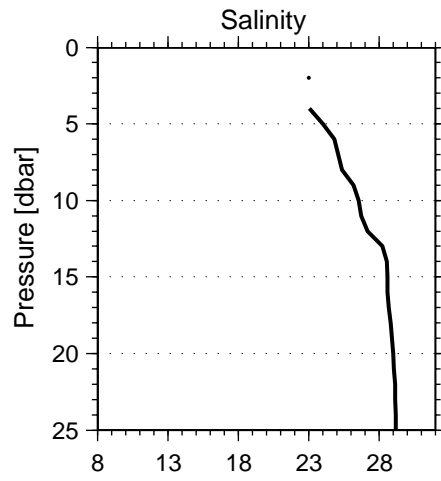
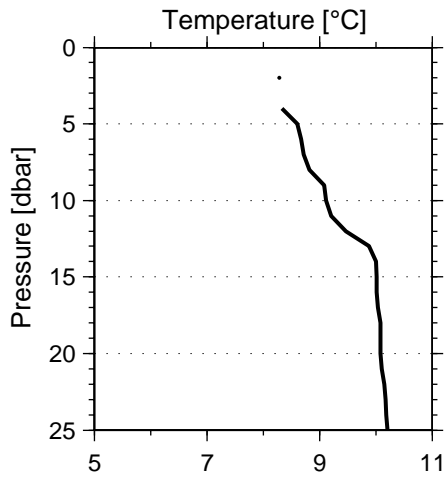
Aysen July 2010
Station C06 Cast 5



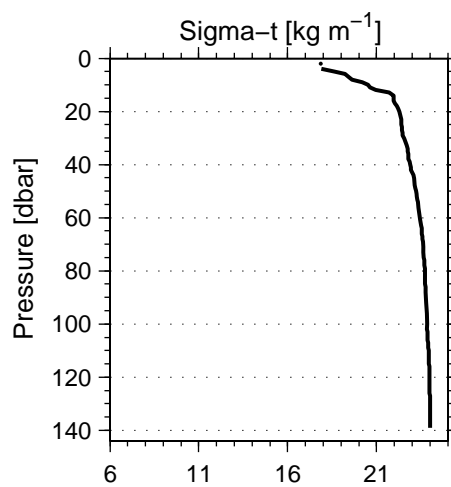
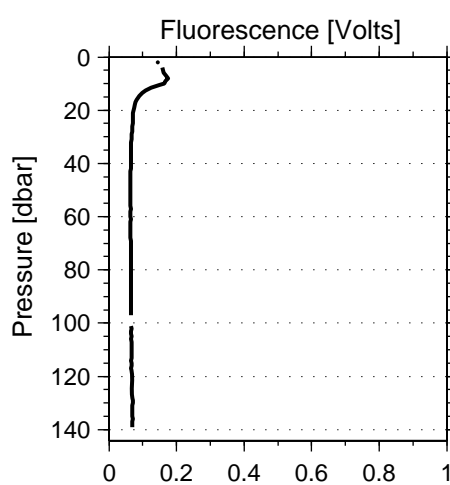
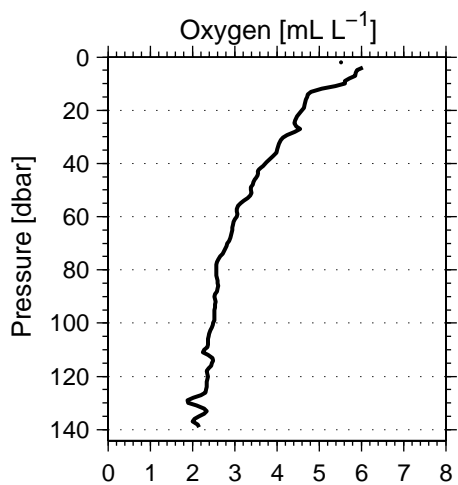
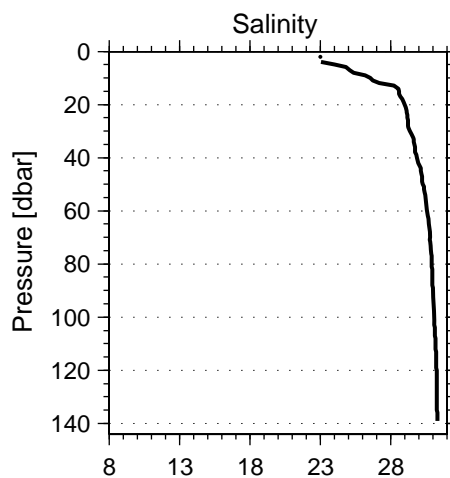
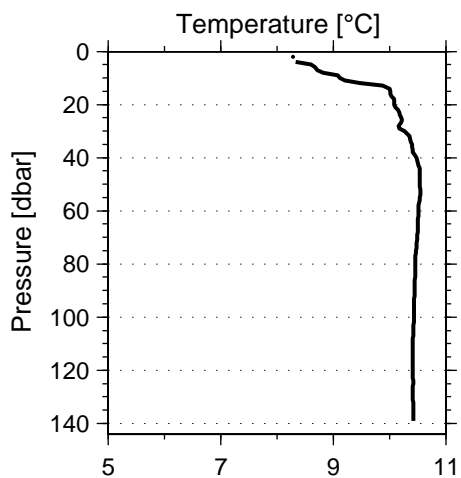
CRUISE	: Aysen July 2010	STATION	: C07	CAST	: 6
DATE	: 2010-07-20	LAT	: 45°26.658	Z-CTD	: 138 m
TIME	: 18:50	LON	: 72°54.050	DEPTH	: 187 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.287	23.030	17.855	5.516	0.146	-
3	-	-	-	-	-	-
4	8.339	23.080	17.889	6.043	0.159	-
6	8.677	24.840	19.220	5.872	0.163	-
8	8.825	25.386	19.626	5.725	0.175	-
10	9.118	26.567	20.507	5.621	0.165	-
12	9.476	27.204	20.951	5.065	0.119	-
14	10.004	28.579	21.943	4.738	0.093	-
16	10.015	28.621	21.974	4.691	0.082	-
18	10.082	28.824	22.122	4.666	0.076	-
20	10.085	29.013	22.268	4.600	0.073	-
22	10.148	29.146	22.362	4.499	0.071	-
24	10.184	29.186	22.387	4.425	0.070	-
26	10.219	29.234	22.419	4.457	0.069	-
28	10.159	29.261	22.449	4.451	0.068	-
30	10.266	29.408	22.546	4.176	0.067	-
35	10.401	29.713	22.762	4.012	0.066	-
40	10.478	29.890	22.887	3.732	0.065	-
45	10.536	30.174	23.099	3.522	0.064	-
50	10.543	30.316	23.208	3.384	0.064	-
60	10.521	30.600	23.433	3.049	0.064	-
70	10.496	30.810	23.600	2.831	0.065	-
80	10.458	30.946	23.713	2.566	0.066	-
90	10.447	31.022	23.774	2.522	0.066	-
100	10.435	31.103	23.839	2.496	NaN	-
125	10.421	31.295	23.991	2.321	0.067	-
138	10.421	31.324	24.013	2.135	0.069	-

Aysen July 2010
Station C07 Cast 6



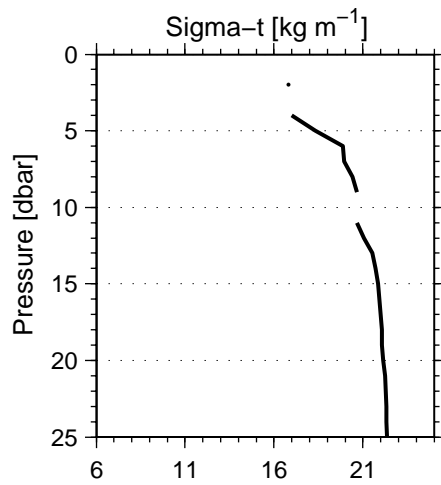
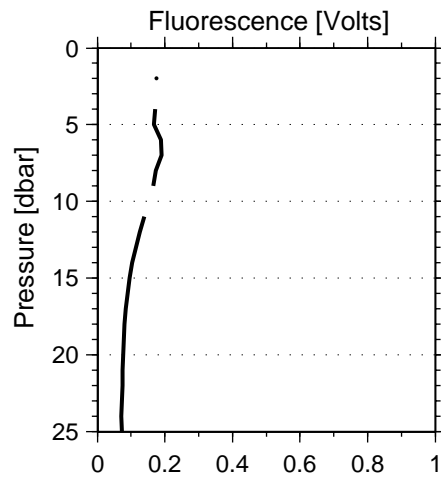
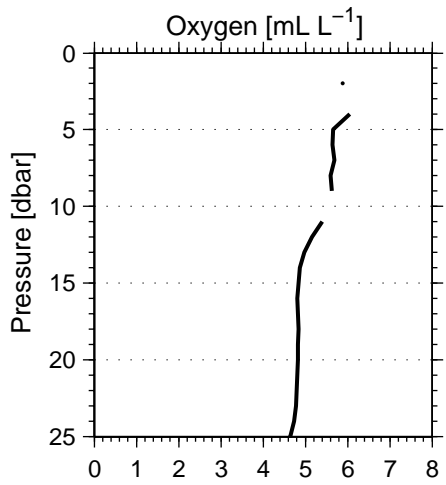
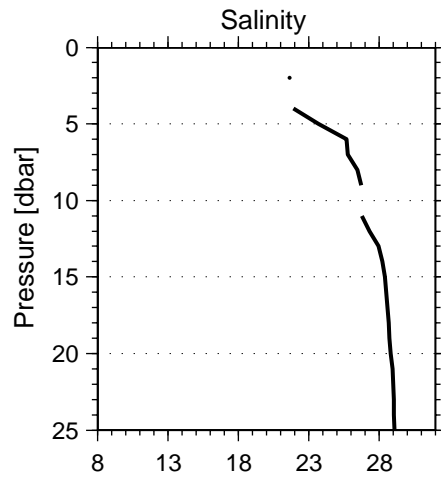
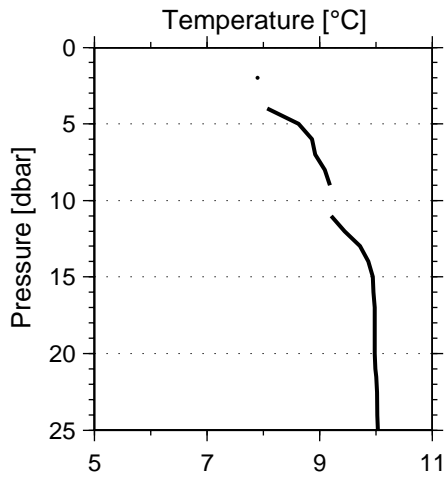
Aysen July 2010
Station C07 Cast 6



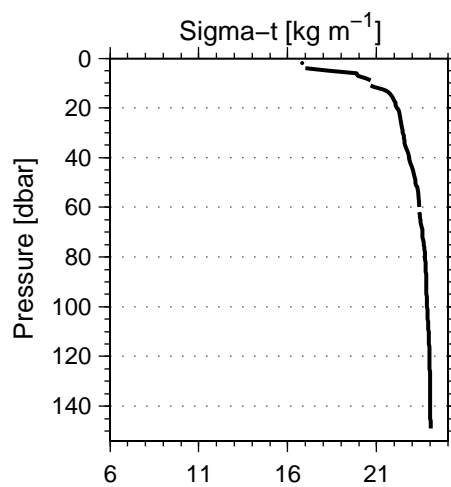
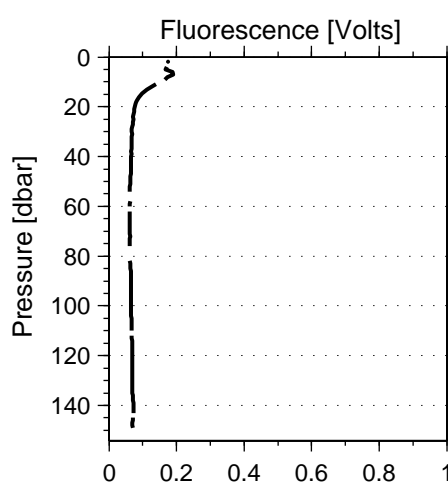
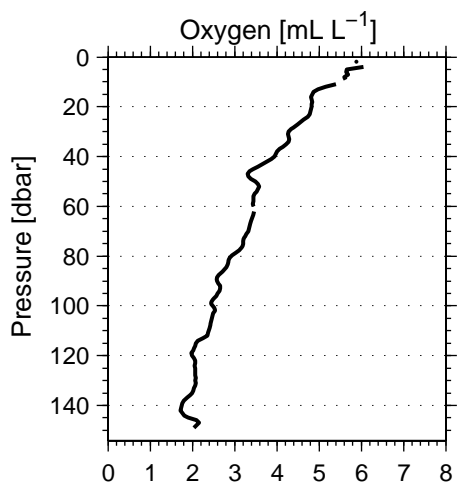
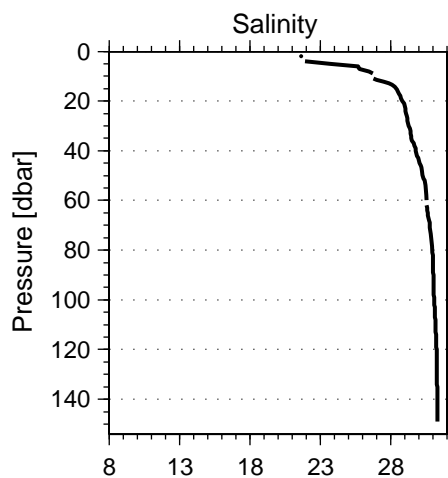
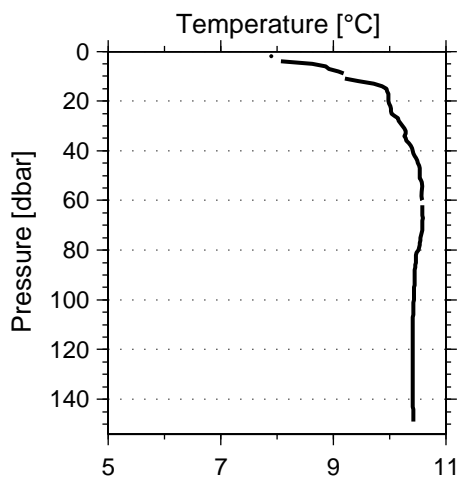
CRUISE	: Aysen July 2010	STATION	: C08	CAST	: 7
DATE	: 2010-07-20	LAT	: 45°26.510	Z-CTD	: 148 m
TIME	: 19:17	LON	: 72°53.962	DEPTH	: 200 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	7.903	21.648	16.821	5.891	0.175	-	-
3	-	-	-	-	-	-	-
4	8.074	21.912	17.007	6.052	0.171	-	-
6	8.870	25.696	19.862	5.645	0.188	-	-
8	9.097	26.464	20.429	5.594	0.174	-	-
10	-	-	-	-	-	-	-
12	9.450	27.336	21.058	5.167	0.127	-	-
14	9.867	28.263	21.718	4.878	0.104	-	-
16	9.963	28.539	21.918	4.818	0.091	-	-
18	9.982	28.715	22.052	4.838	0.080	-	-
20	9.988	28.839	22.148	4.820	0.077	-	-
22	10.014	29.040	22.301	4.797	0.074	-	-
24	10.033	29.079	22.328	4.732	0.072	-	-
26	10.083	29.155	22.379	4.563	0.071	-	-
28	10.163	29.223	22.419	4.429	0.069	-	-
30	10.229	29.308	22.475	4.283	0.068	-	-
35	10.285	29.490	22.607	4.213	0.067	-	-
40	10.420	29.817	22.840	3.949	0.066	-	-
45	10.510	30.082	23.032	3.438	0.065	-	-
50	10.537	30.286	23.186	3.487	0.063	-	-
60	10.583	30.588	23.413	3.443	0.062	-	-
70	10.584	30.807	23.583	3.324	0.062	-	-
80	10.513	30.972	23.724	2.913	NaN	-	-
90	10.445	31.055	23.800	2.590	0.065	-	-
100	10.434	31.107	23.842	2.473	0.066	-	-
125	10.414	31.296	23.992	2.063	0.070	-	-
148	10.423	31.348	24.032	2.102	0.070	-	-

Aysen July 2010
Station C08 Cast 7



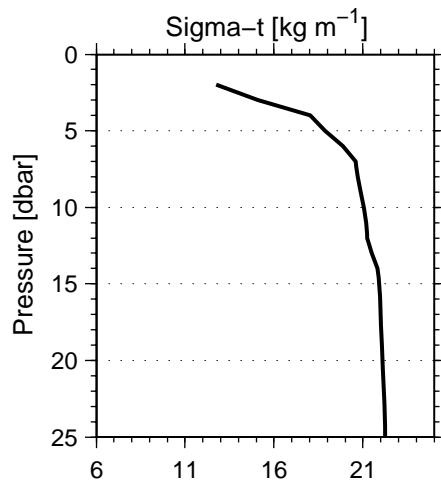
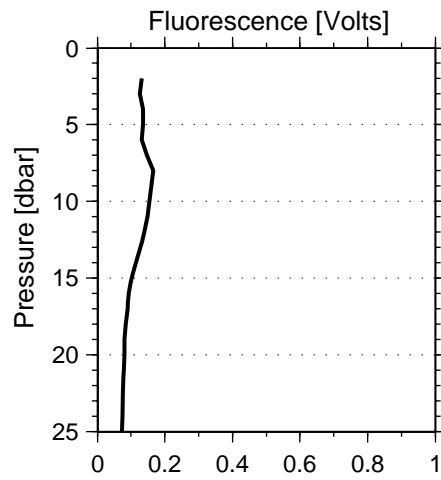
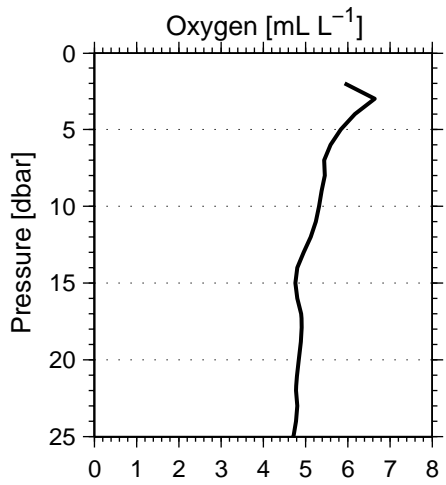
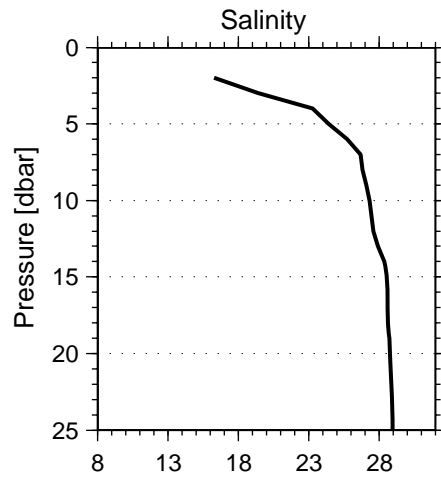
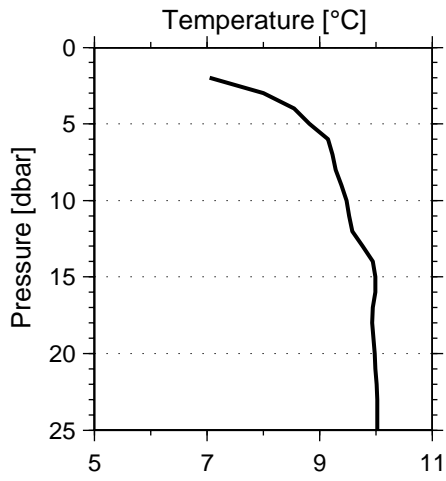
Aysen July 2010
Station C08 Cast 7



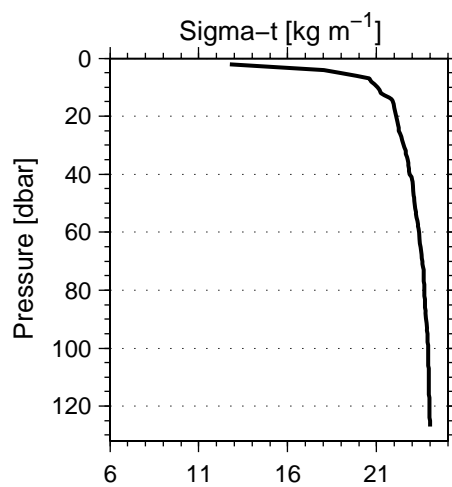
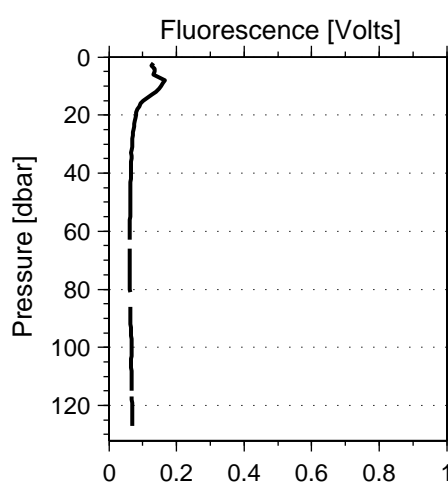
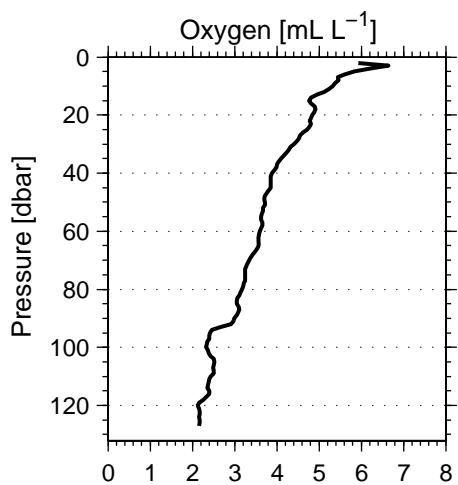
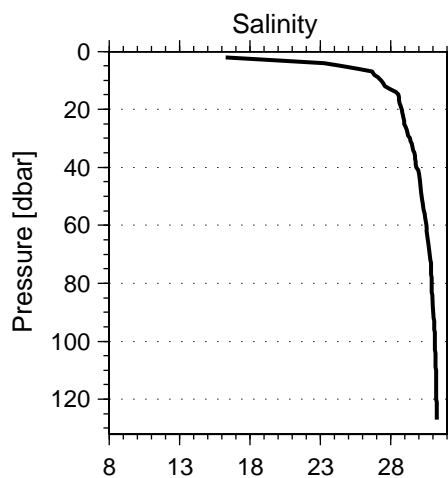
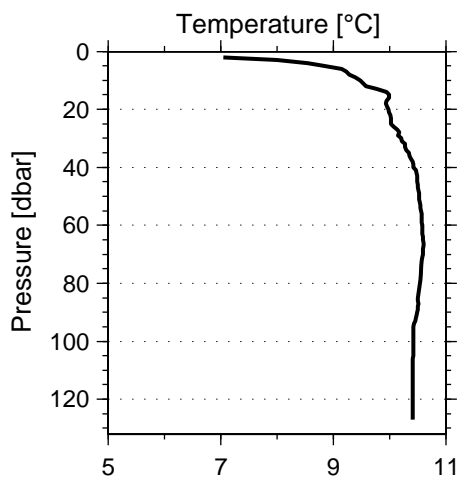
CRUISE	: Aysen July 2010	STATION	: C09	CAST	: 8
DATE	: 2010-07-20	LAT	: 45°24.986	Z-CTD	: 126 m
TIME	: 19:45	LON	: 72°59.821	DEPTH	: 200 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	7.047	16.317	12.734	5.938	0.132	-	
3	8.002	19.433	15.077	6.642	0.127	-	
4	8.555	23.303	18.035	6.180	0.135	-	
6	9.158	25.771	19.880	5.598	0.132	-	
8	9.294	26.848	20.701	5.456	0.166	-	
10	9.479	27.345	21.062	5.322	0.154	-	
12	9.590	27.593	21.238	5.123	0.140	-	
14	9.954	28.406	21.816	4.817	0.114	-	
16	9.992	28.594	21.956	4.815	0.094	-	
18	9.936	28.674	22.028	4.922	0.085	-	
20	9.981	28.794	22.114	4.842	0.080	-	
22	10.011	28.869	22.168	4.779	0.077	-	
24	10.030	28.960	22.236	4.786	0.074	-	
26	10.073	29.077	22.320	4.623	0.071	-	
28	10.171	29.218	22.414	4.529	0.069	-	
30	10.210	29.398	22.548	4.402	0.069	-	
35	10.342	29.707	22.767	4.103	0.067	-	
40	10.431	29.863	22.874	3.890	0.065	-	
45	10.499	30.112	23.056	3.849	0.064	-	
50	10.528	30.224	23.139	3.714	0.063	-	
60	10.580	30.549	23.383	3.604	0.061	-	
70	10.595	30.782	23.562	3.347	0.061	-	
80	10.542	30.935	23.690	3.173	0.062	-	
90	10.496	31.044	23.783	2.999	0.063	-	
100	10.423	31.168	23.892	2.332	0.067	-	
125	10.413	31.298	23.994	2.178	0.069	-	
126	10.413	31.299	23.996	2.170	0.069	-	

Aysen July 2010
Station C09 Cast 8



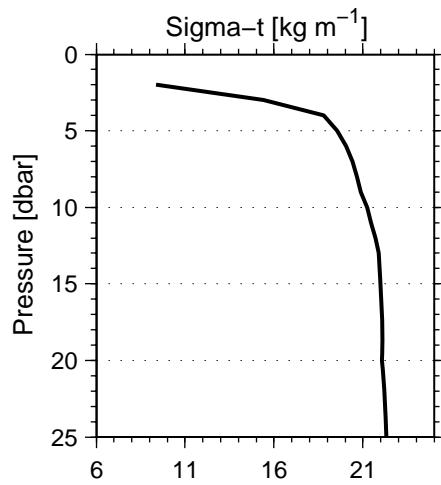
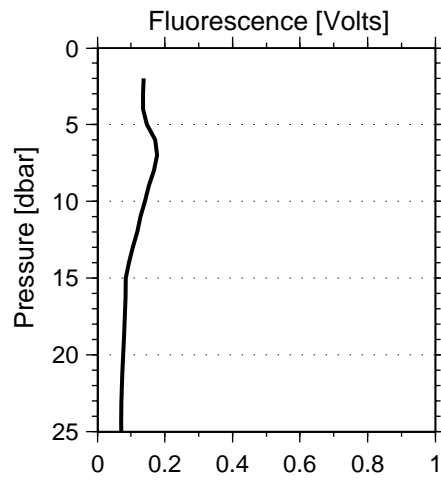
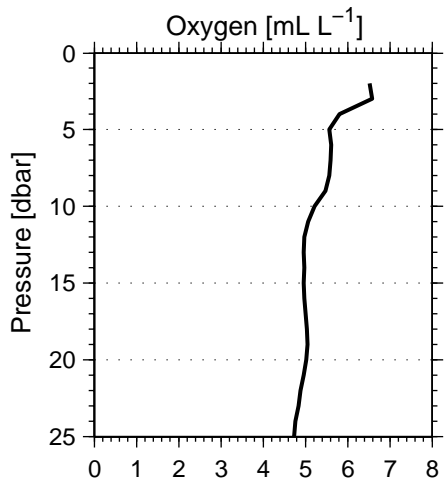
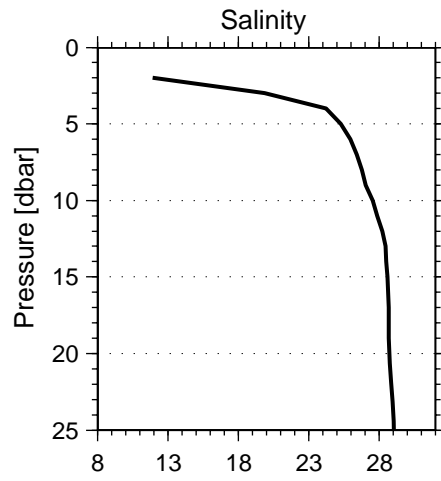
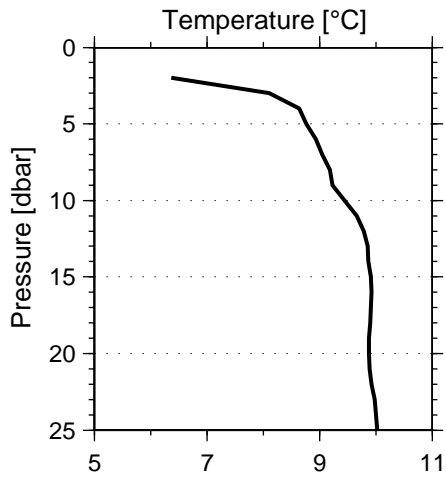
Aysen July 2010
Station C09 Cast 8



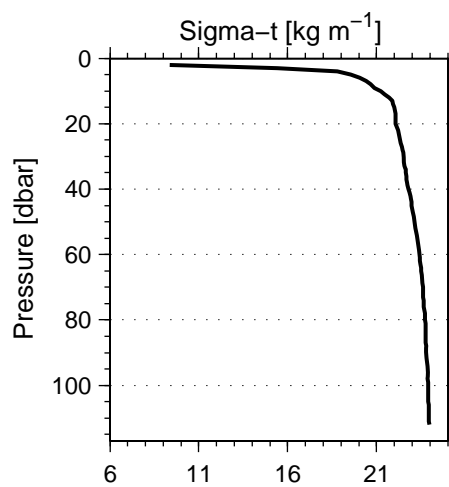
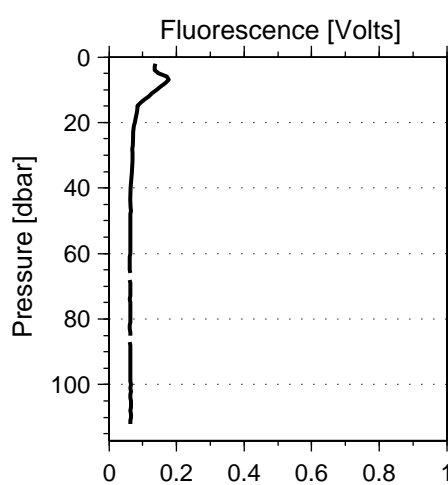
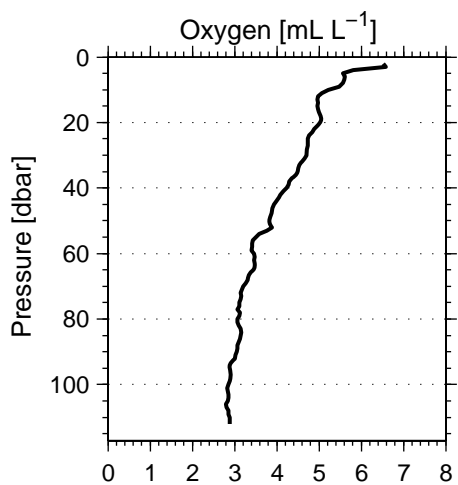
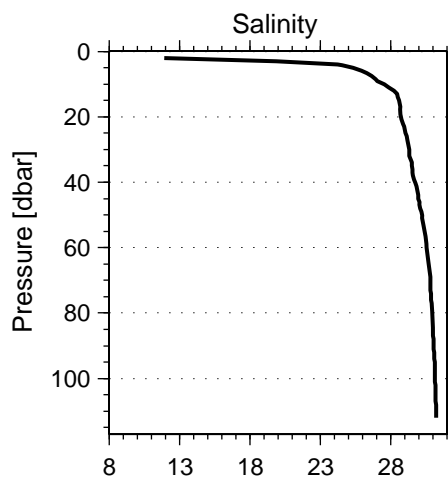
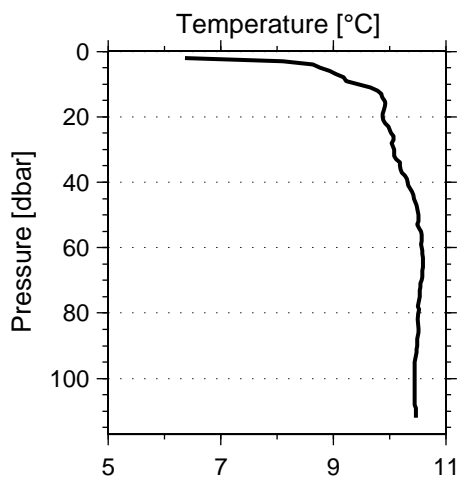
CRUISE : Aysen July 2010	STATION : C10	CAST : 9
DATE : 2010-07-20	LAT : 45°23.733	Z-CTD : 111 m
TIME : 20:10	LON : 73°02.126	DEPTH : 200 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	6.375	11.946	9.359	6.527	0.137	-
3	8.103	19.888	15.420	6.579	0.135	-
4	8.639	24.265	18.775	5.808	0.135	-
6	8.935	25.961	20.060	5.613	0.172	-
8	9.192	26.777	20.660	5.565	0.167	-
10	9.451	27.567	21.239	5.214	0.142	-
12	9.795	28.249	21.718	4.981	0.119	-
14	9.872	28.529	21.924	4.981	0.094	-
16	9.925	28.677	22.031	4.983	0.084	-
18	9.901	28.705	22.057	5.032	0.080	-
20	9.879	28.734	22.083	5.029	0.077	-
22	9.927	28.904	22.208	4.890	0.073	-
24	10.002	29.000	22.272	4.768	0.071	-
26	10.073	29.142	22.370	4.729	0.070	-
28	10.043	29.244	22.454	4.722	0.070	-
30	10.082	29.337	22.521	4.698	0.069	-
35	10.188	29.537	22.660	4.497	0.067	-
40	10.320	29.738	22.795	4.230	0.066	-
45	10.441	29.999	22.978	3.928	0.065	-
50	10.515	30.230	23.146	3.828	0.064	-
60	10.574	30.581	23.409	3.463	0.063	-
70	10.571	30.830	23.603	3.206	0.063	-
80	10.521	30.979	23.728	3.075	0.064	-
90	10.492	31.070	23.804	3.046	0.063	-
100	10.451	31.172	23.890	2.850	0.065	-
111	10.472	31.258	23.953	2.881	0.064	-

Aysen July 2010
Station C10 Cast 9



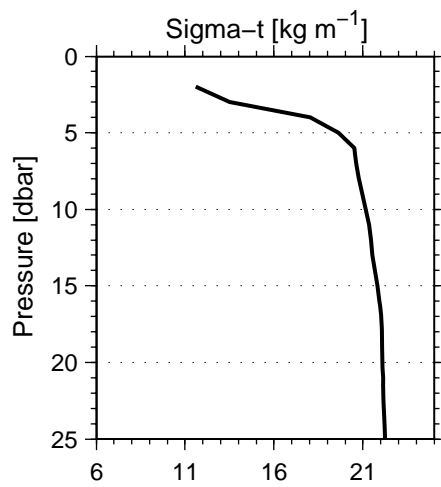
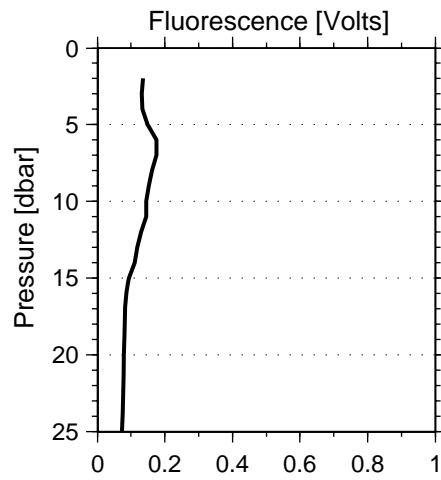
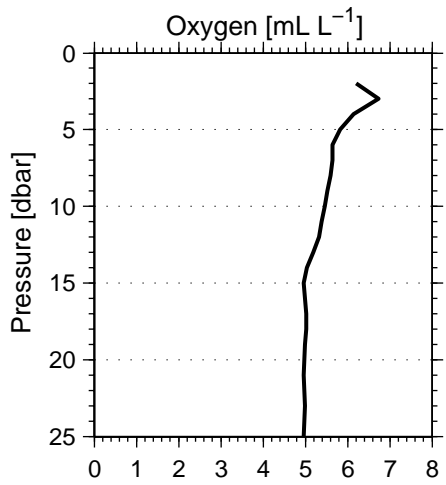
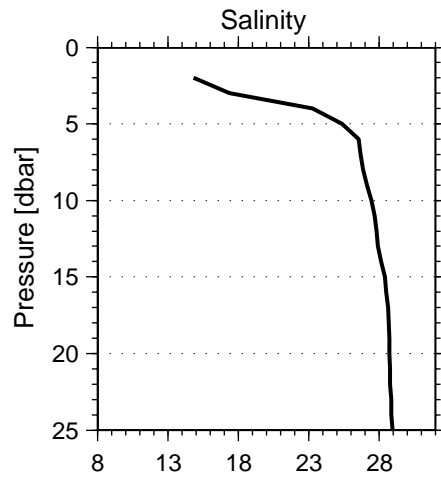
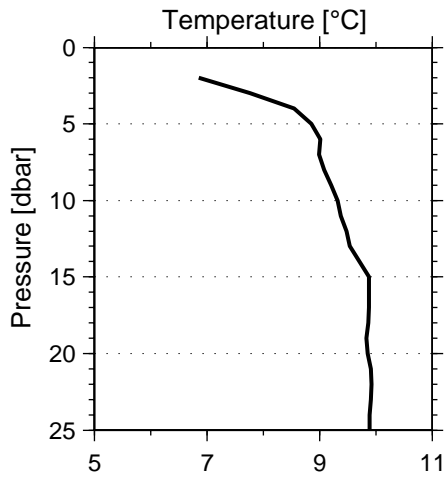
Aysen July 2010
Station C10 Cast 9



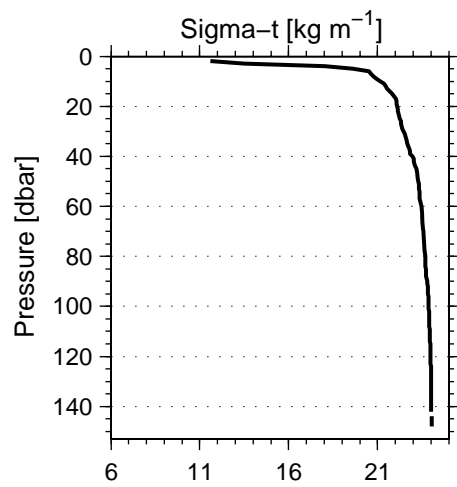
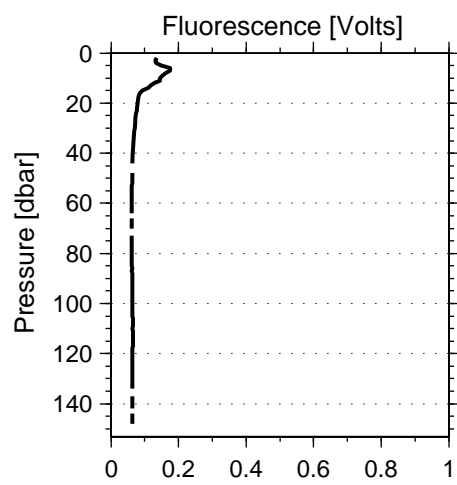
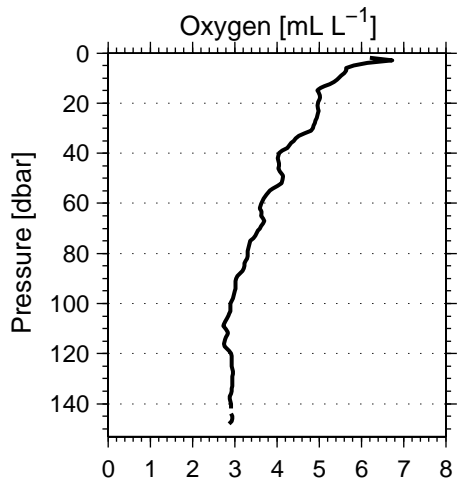
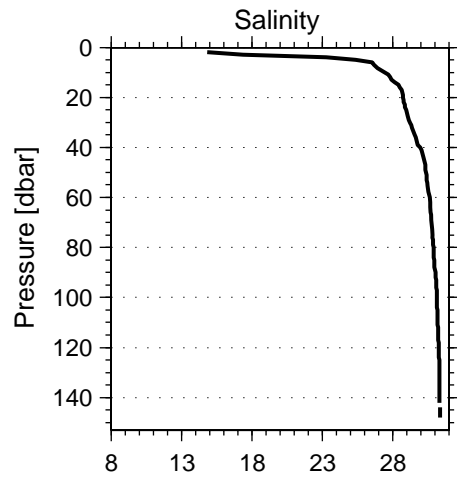
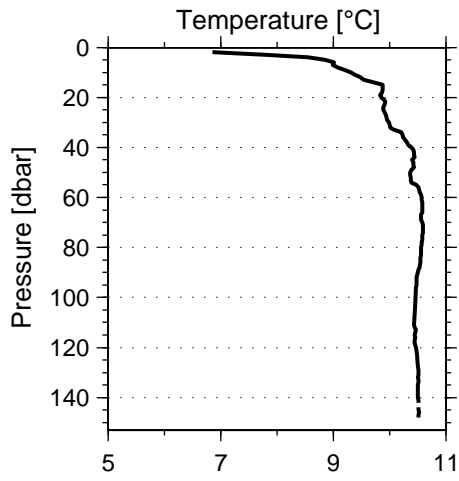
CRUISE	: Aysen July 2010	STATION	: C11	CAST	: 10
DATE	: 2010-07-20	LAT	: 45°22.474	Z-CTD	: 147 m
TIME	: 20:40	LON	: 73°03.909	DEPTH	: 215 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	6.861	14.840	11.594	6.207	0.135	-	-
3	7.762	17.375	13.493	6.734	0.132	-	-
4	8.554	23.310	18.040	6.145	0.133	-	-
6	9.013	26.579	20.532	5.646	0.176	-	-
8	9.085	26.891	20.765	5.596	0.163	-	-
10	9.329	27.463	21.175	5.455	0.144	-	-
12	9.486	27.836	21.444	5.323	0.131	-	-
14	9.712	28.160	21.662	5.037	0.111	-	-
16	9.882	28.514	21.911	4.999	0.085	-	-
18	9.869	28.727	22.079	5.022	0.081	-	-
20	9.854	28.763	22.110	4.973	0.079	-	-
22	9.924	28.815	22.139	4.976	0.076	-	-
24	9.892	28.902	22.212	4.980	0.074	-	-
26	9.918	29.028	22.306	4.945	0.072	-	-
28	9.947	29.101	22.358	4.899	0.071	-	-
30	9.990	29.263	22.478	4.852	0.070	-	-
35	10.228	29.572	22.680	4.398	0.067	-	-
40	10.397	29.967	22.960	4.058	0.065	-	-
45	10.408	30.253	23.181	4.052	NaN	-	-
50	10.373	30.399	23.301	4.139	0.063	-	-
60	10.577	30.652	23.464	3.649	0.061	-	-
70	10.581	30.778	23.561	3.591	0.061	-	-
80	10.565	30.913	23.669	3.311	0.062	-	-
90	10.502	31.046	23.783	3.031	0.063	-	-
100	10.463	31.152	23.872	2.909	0.064	-	-
125	10.497	31.323	23.999	2.936	0.064	-	-
147	10.522	31.369	24.032	2.925	0.063	-	-

Aysen July 2010
Station C11 Cast 10



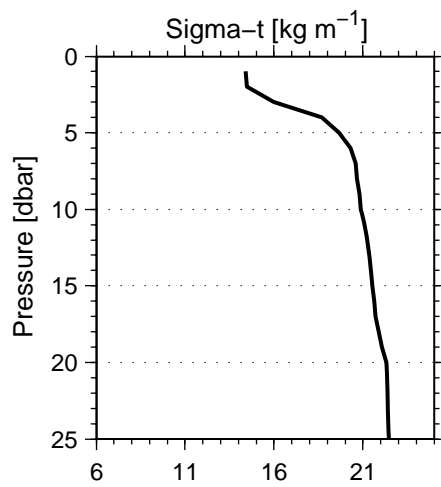
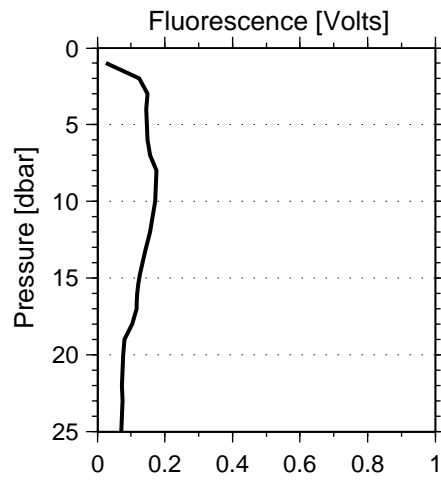
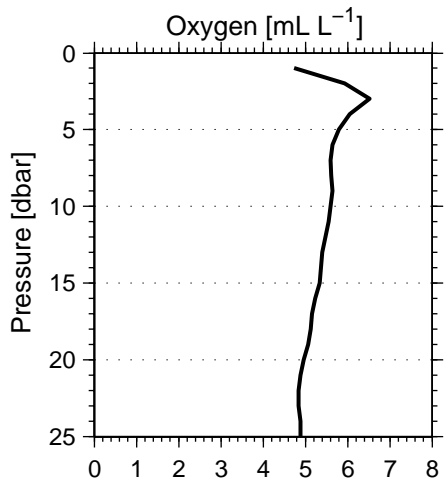
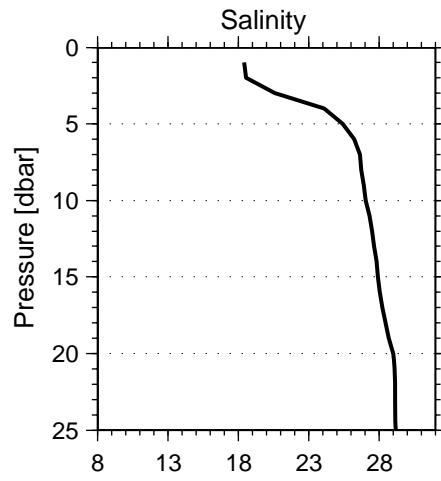
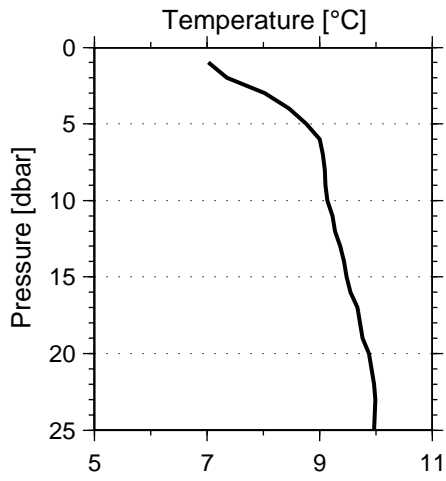
Aysen July 2010
Station C11 Cast 10



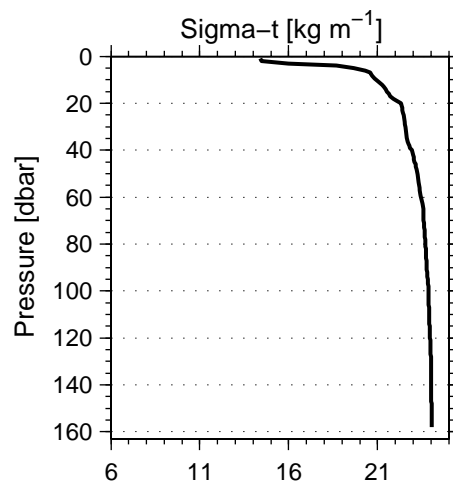
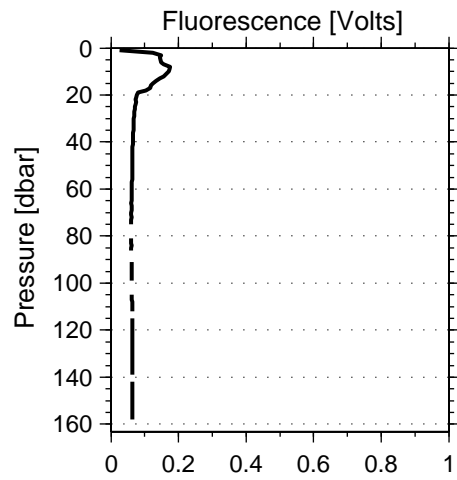
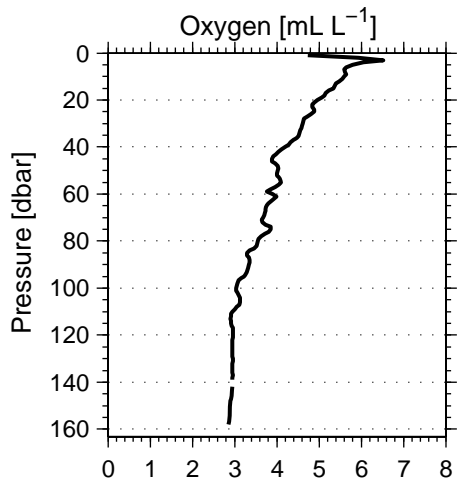
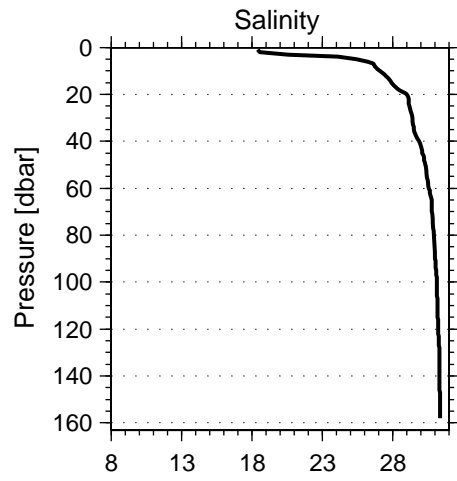
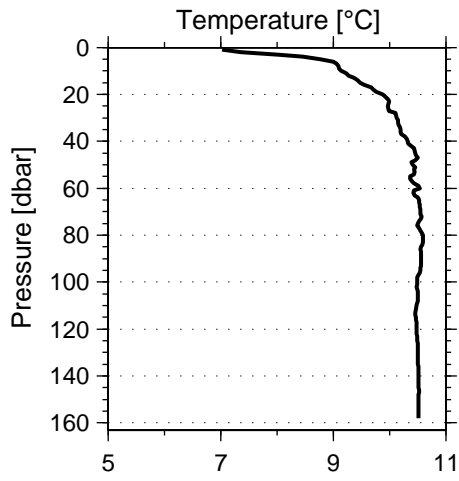
CRUISE	: Aysen July 2010	STATION	: C12	CAST	: 11
DATE	: 2010-07-20	LAT	: 45°21.672	Z-CTD	: 157 m
TIME	: 21:01	LON	: 73°04.957	DEPTH	: 220 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	7.028	18.427	14.393	4.742	0.025	-
2	7.356	18.556	14.460	5.931	0.123	-
3	8.025	20.592	15.980	6.520	0.148	-
4	8.457	24.119	18.685	6.052	0.144	-
6	9.007	26.270	20.291	5.646	0.148	-
8	9.099	26.772	20.669	5.621	0.175	-
10	9.142	27.067	20.894	5.596	0.171	-
12	9.273	27.521	21.229	5.476	0.157	-
14	9.441	27.828	21.444	5.379	0.134	-
16	9.548	28.081	21.625	5.237	0.118	-
18	9.726	28.462	21.895	5.136	0.103	-
20	9.884	29.027	22.311	4.956	0.076	-
22	9.971	29.156	22.397	4.841	0.074	-
24	9.978	29.178	22.413	4.887	0.072	-
26	9.980	29.269	22.484	4.815	0.070	-
28	10.102	29.342	22.522	4.651	0.069	-
30	10.135	29.409	22.569	4.609	0.068	-
35	10.197	29.532	22.654	4.527	0.067	-
40	10.329	29.894	22.915	4.207	0.064	-
45	10.458	30.127	23.075	3.880	0.064	-
50	10.417	30.331	23.241	4.021	0.063	-
60	10.534	30.587	23.420	3.901	0.062	-
70	10.551	30.810	23.591	3.676	0.060	-
80	10.594	30.953	23.695	3.552	NaN	-
90	10.566	31.040	23.768	3.340	NaN	-
100	10.493	31.143	23.861	3.041	NaN	-
125	10.500	31.305	23.985	2.951	0.063	-
150	10.518	31.370	24.033	2.893	0.064	-
157	10.513	31.377	24.039	2.864	0.064	-

Aysen July 2010
Station C12 Cast 11



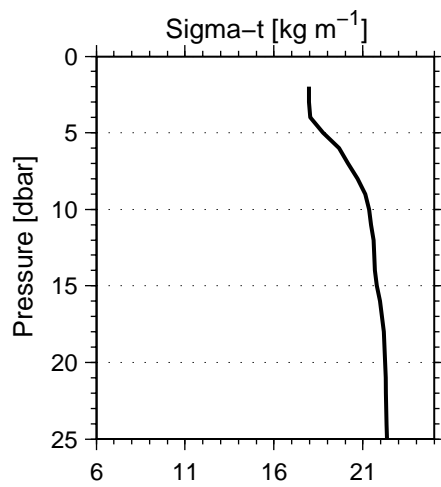
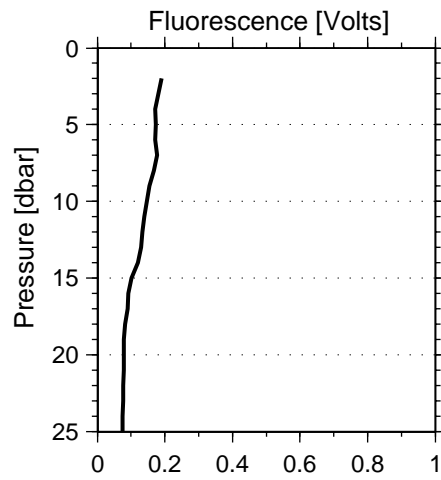
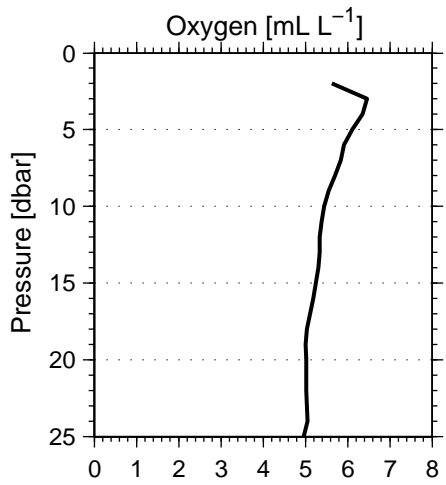
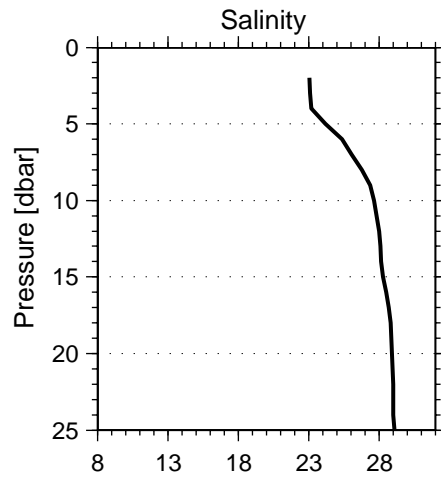
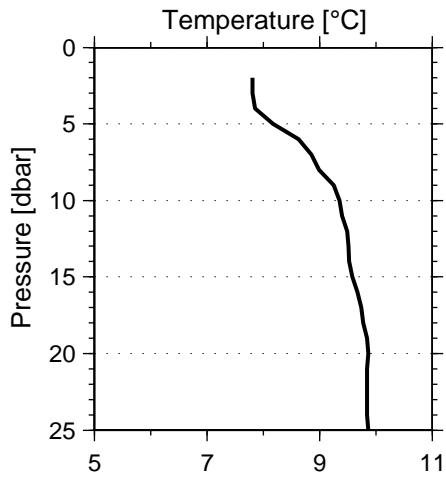
Aysen July 2010
Station C12 Cast 11



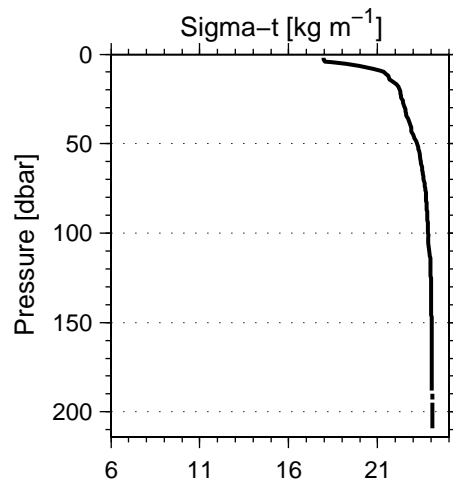
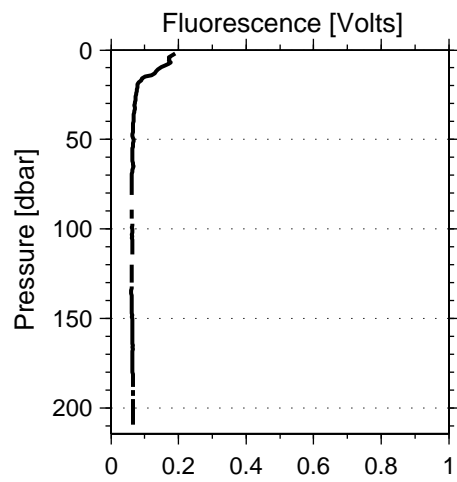
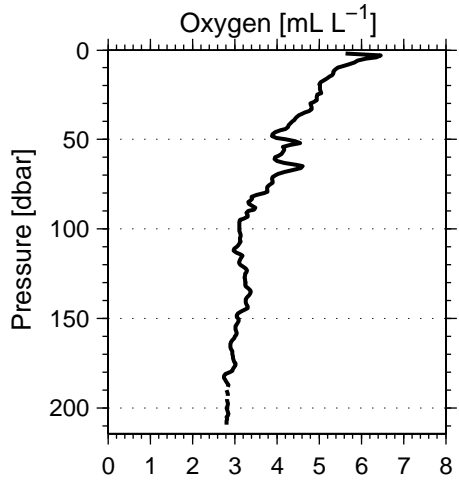
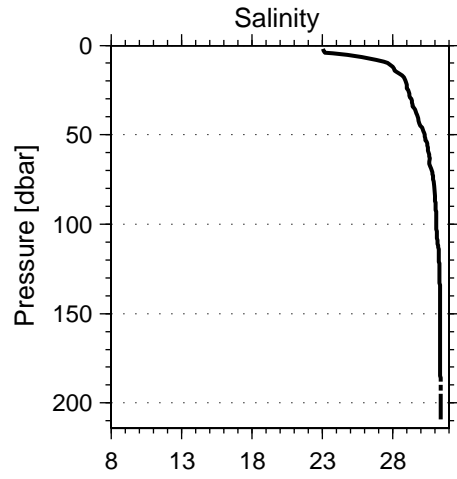
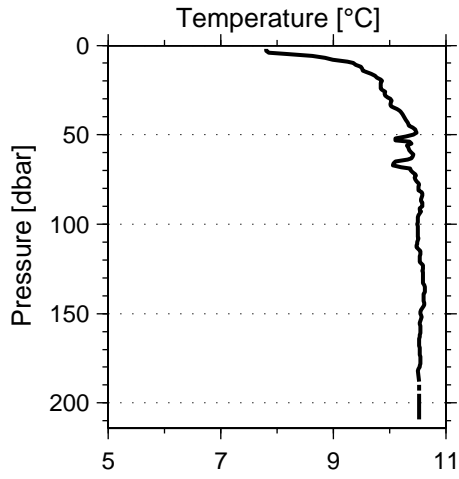
CRUISE : Aysen July 2010	STATION : C14	CAST : 13
DATE : 2010-07-20	LAT : 45°19.025	Z-CTD : 208 m
TIME : 22:06	LON : 73°07.686	DEPTH : 330 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	7.808	23.089	17.960	5.633	0.191	-
3	7.811	23.093	17.964	6.464	0.181	-
4	7.857	23.183	18.028	6.355	0.172	-
6	8.631	25.390	19.655	5.914	0.171	-
8	8.992	26.791	20.700	5.706	0.168	-
10	9.354	27.680	21.341	5.454	0.147	-
12	9.493	28.031	21.594	5.347	0.134	-
14	9.529	28.140	21.674	5.318	0.120	-
16	9.671	28.520	21.948	5.183	0.092	-
18	9.777	28.819	22.165	5.039	0.082	-
20	9.865	28.952	22.255	5.020	0.078	-
22	9.850	29.003	22.297	5.024	0.077	-
24	9.851	29.024	22.314	5.047	0.076	-
26	9.923	29.162	22.410	4.943	0.073	-
28	9.925	29.222	22.456	4.949	0.072	-
30	10.016	29.342	22.535	4.799	0.070	-
35	10.084	29.506	22.652	4.673	0.069	-
40	10.256	29.811	22.862	4.374	0.066	-
45	10.345	29.995	22.991	4.077	0.065	-
50	10.425	30.283	23.202	4.208	0.067	-
60	10.392	30.564	23.427	3.956	0.063	-
70	10.377	30.773	23.591	3.970	0.062	-
80	10.515	30.971	23.722	3.710	0.061	-
90	10.582	31.084	23.799	3.322	0.061	-
100	10.500	31.124	23.844	3.117	0.063	-
125	10.596	31.337	23.994	3.256	0.061	-
150	10.549	31.376	24.033	3.080	0.063	-
175	10.550	31.405	24.055	3.017	0.063	-
200	10.528	31.419	24.070	2.816	0.065	-
208	10.531	31.425	24.074	2.803	0.065	-

Aysen July 2010
Station C14 Cast 13



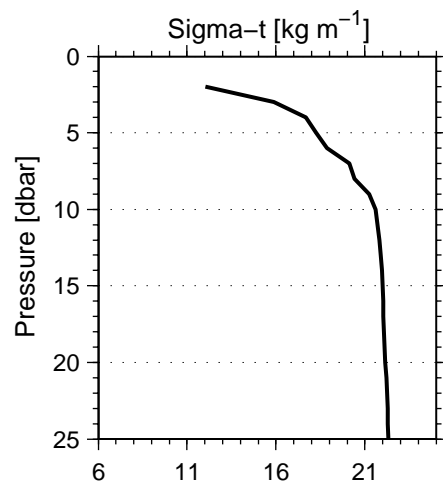
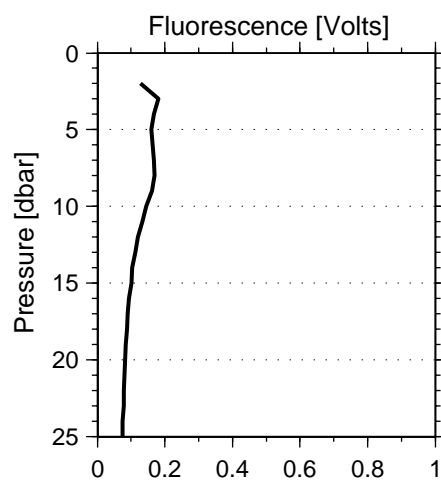
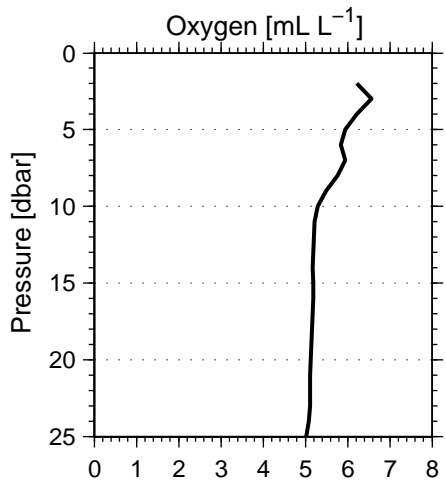
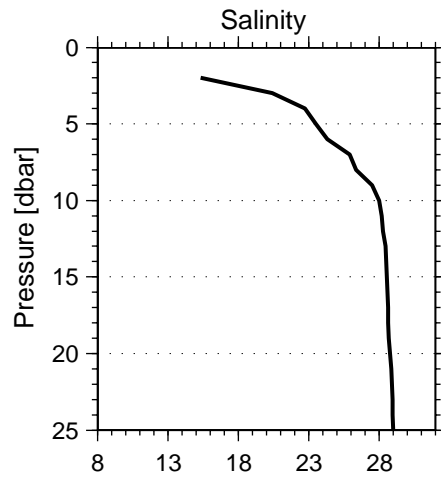
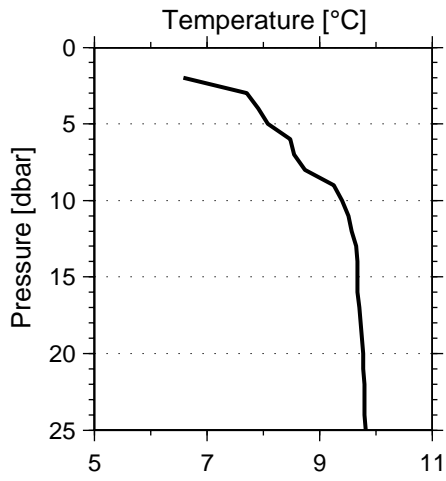
Aysen July 2010
Station C14 Cast 13



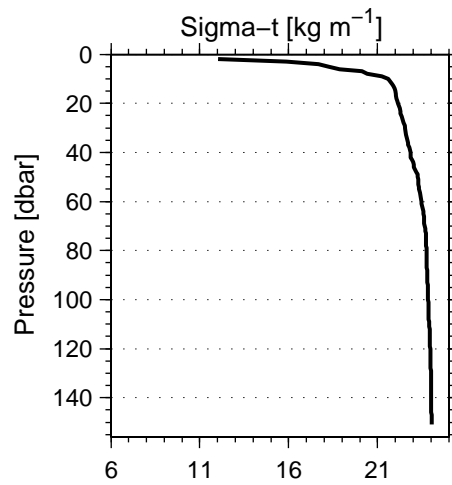
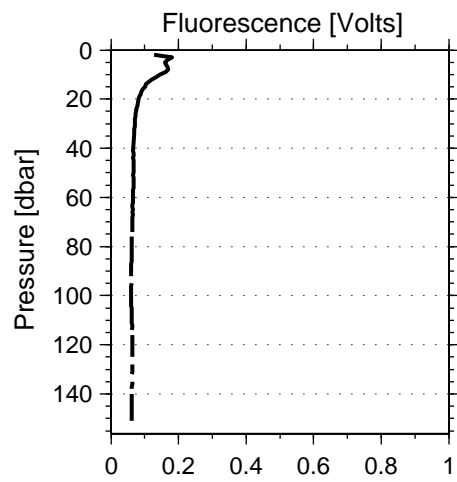
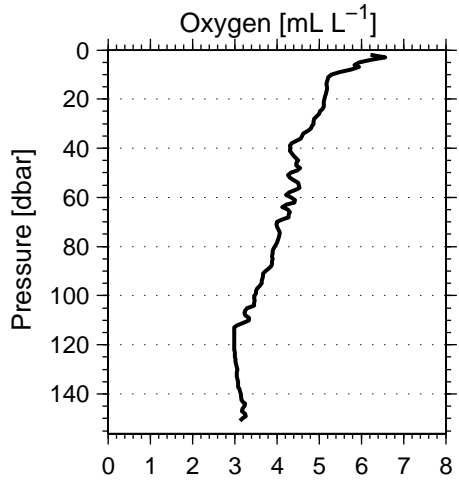
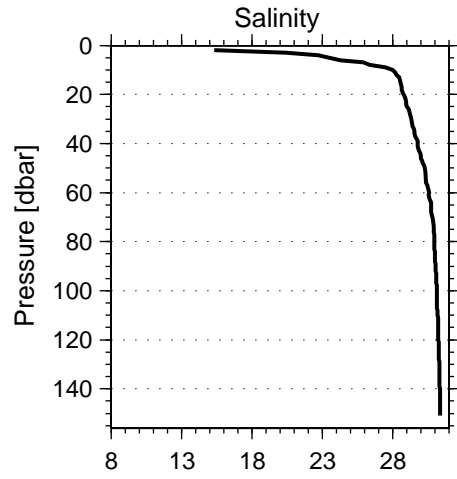
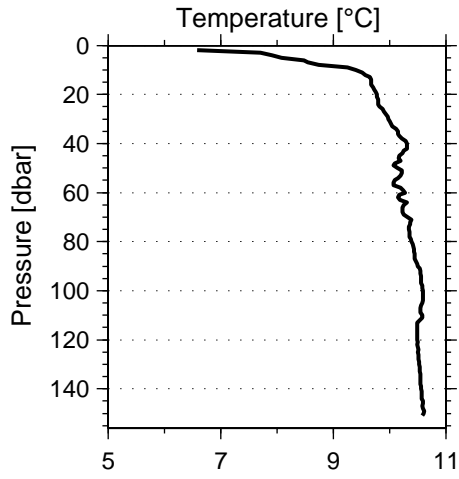
CRUISE : Aysen July 2010	STATION : C15	CAST : 14
DATE : 2010-07-20	LAT : 45°17.860	Z-CTD : 150 m
TIME : 23:57	LON : 73°09.383	DEPTH : 342 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	6.585	15.341	12.011	6.218	0.127	-
3	7.709	20.422	15.884	6.571	0.182	-
4	7.919	22.744	17.677	6.216	0.167	-
6	8.487	24.351	18.862	5.842	0.164	-
8	8.749	26.366	20.402	5.768	0.169	-
10	9.405	28.019	21.598	5.295	0.145	-
12	9.570	28.313	21.802	5.211	0.121	-
14	9.675	28.534	21.959	5.176	0.103	-
16	9.679	28.609	22.017	5.194	0.094	-
18	9.732	28.664	22.052	5.154	0.089	-
20	9.778	28.775	22.131	5.131	0.082	-
22	9.798	28.931	22.249	5.106	0.078	-
24	9.803	28.989	22.294	5.085	0.075	-
26	9.879	29.152	22.409	5.001	0.074	-
28	9.941	29.256	22.480	4.884	0.072	-
30	9.982	29.326	22.528	4.866	0.070	-
35	10.155	29.575	22.695	4.600	0.069	-
40	10.309	29.806	22.850	4.326	0.066	-
45	10.171	30.002	23.024	4.502	0.066	-
50	10.137	30.299	23.261	4.337	0.067	-
60	10.276	30.596	23.471	4.338	0.066	-
70	10.320	30.827	23.643	4.012	0.063	-
80	10.395	30.975	23.746	3.951	0.062	-
90	10.507	31.056	23.790	3.736	0.060	-
100	10.592	31.147	23.847	3.477	0.060	-
125	10.510	31.303	23.982	3.004	0.064	-
150	10.605	31.397	24.039	3.196	0.061	-

Aysen July 2010
Station C15 Cast 14



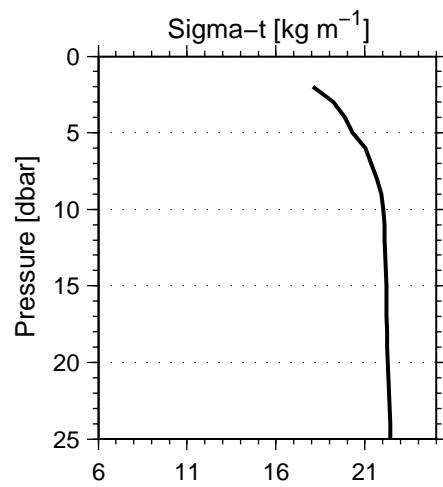
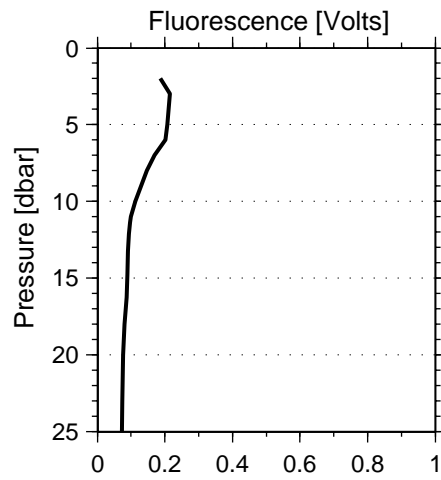
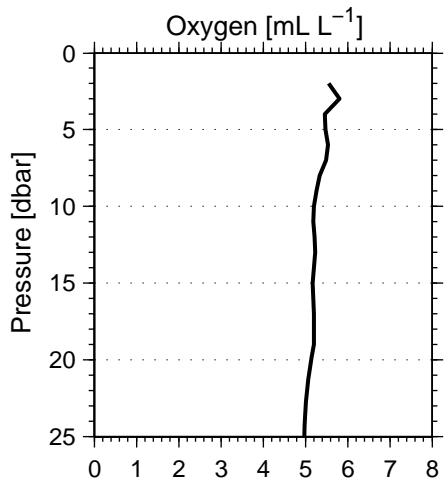
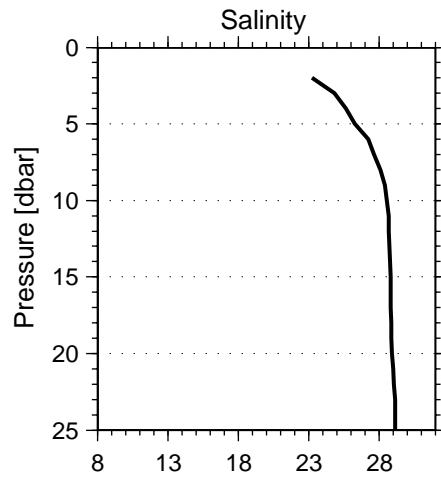
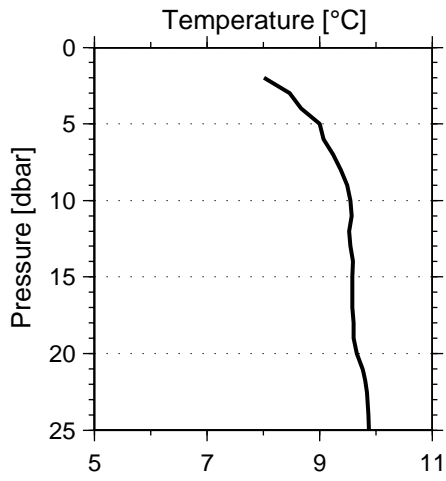
Aysen July 2010
Station C15 Cast 14



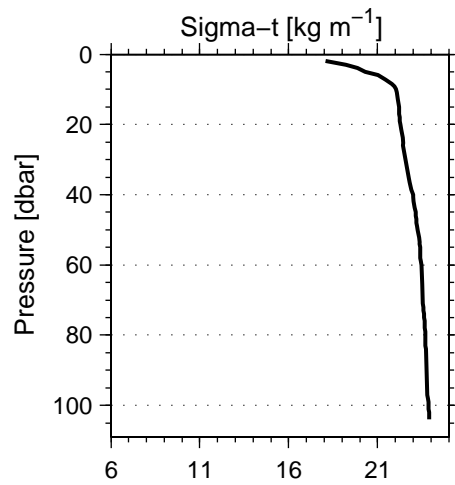
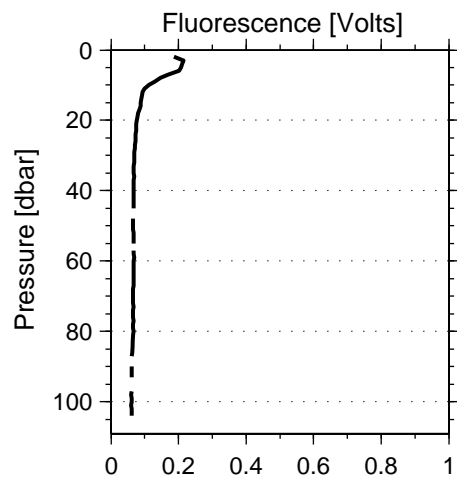
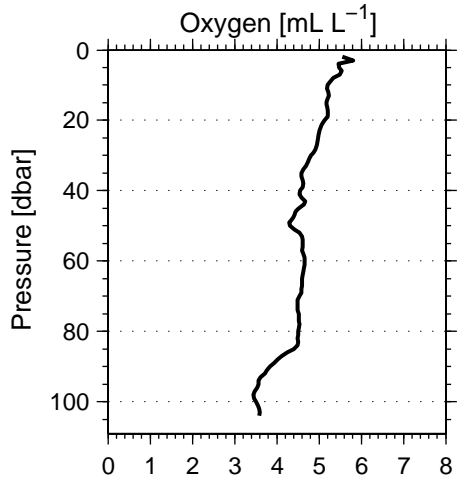
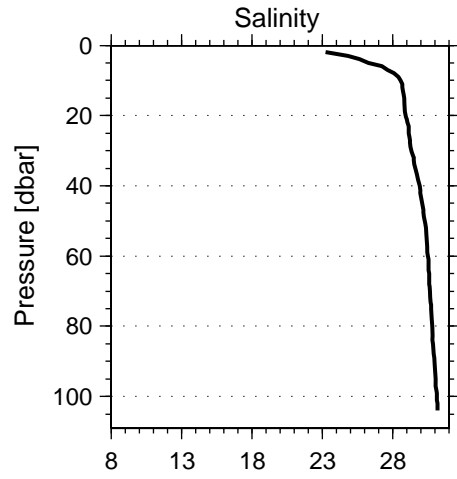
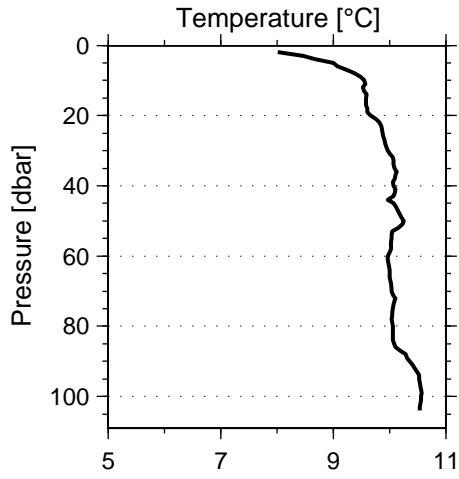
CRUISE	: Aysen July 2010	STATION	: C16	CAST	: 15
DATE	: 2010-07-22	LAT	: 45°16.635	Z-CTD	: 103 m
TIME	: 12:49	LON	: 73°12.463	DEPTH	: 140 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	8.016	23.268	18.075	5.549	0.186	-	-
3	8.475	24.833	19.241	5.813	0.216	-	-
4	8.671	25.652	19.855	5.460	0.211	-	-
6	9.071	27.232	21.033	5.538	0.201	-	-
8	9.385	28.106	21.669	5.348	0.146	-	-
10	9.548	28.585	22.018	5.203	0.113	-	-
12	9.530	28.706	22.115	5.223	0.094	-	-
14	9.595	28.777	22.161	5.208	0.089	-	-
16	9.590	28.833	22.205	5.191	0.087	-	-
18	9.604	28.871	22.233	5.210	0.080	-	-
20	9.665	28.935	22.273	5.148	0.077	-	-
22	9.823	29.080	22.361	5.035	0.074	-	-
24	9.871	29.154	22.412	4.999	0.073	-	-
26	9.893	29.196	22.441	4.970	0.072	-	-
28	9.931	29.271	22.493	4.932	0.070	-	-
30	9.970	29.359	22.556	4.816	0.069	-	-
35	10.099	29.621	22.739	4.586	0.067	-	-
40	10.078	29.947	22.997	4.560	0.067	-	-
45	10.069	30.120	23.133	4.529	0.067	-	-
50	10.254	30.303	23.246	4.314	0.066	-	-
60	9.973	30.538	23.474	4.666	0.067	-	-
70	10.037	30.642	23.545	4.534	0.066	-	-
80	10.062	30.823	23.682	4.510	0.067	-	-
90	10.356	30.975	23.752	3.836	0.062	-	-
100	10.568	31.173	23.871	3.508	0.061	-	-
103	10.542	31.190	23.889	3.598	0.061	-	-

Aysen July 2010
Station C16 Cast 15



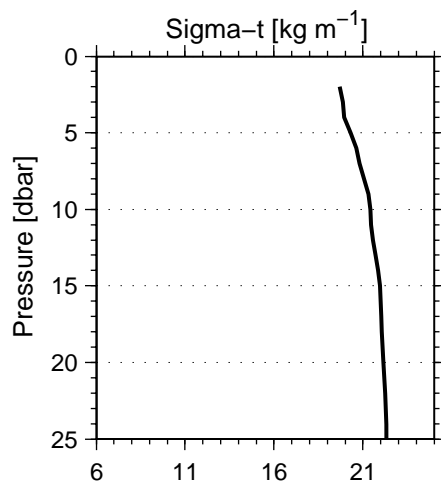
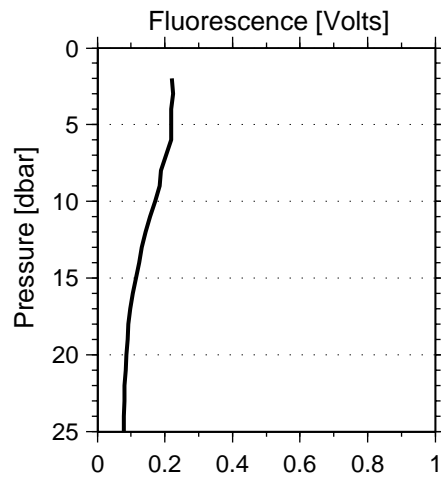
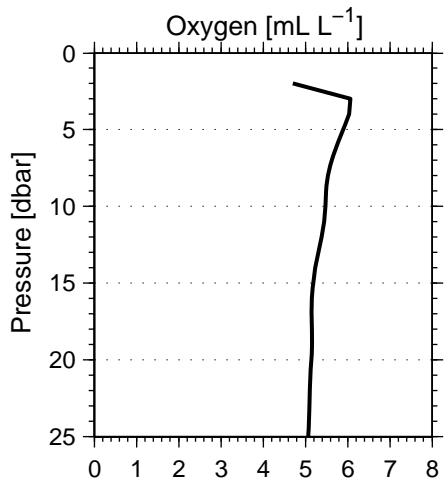
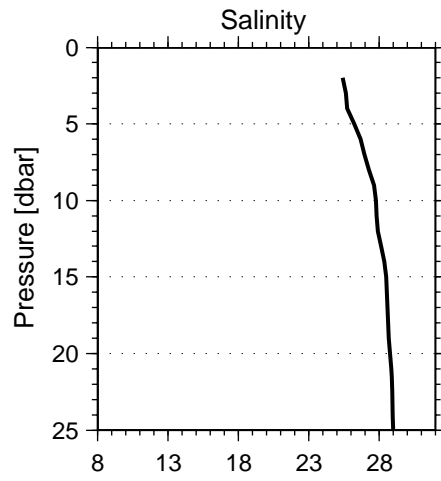
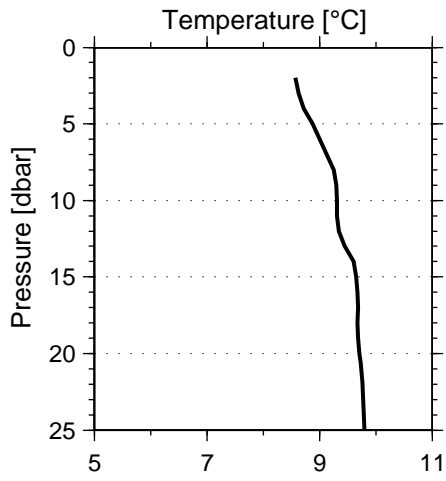
Aysen July 2010
Station C16 Cast 15



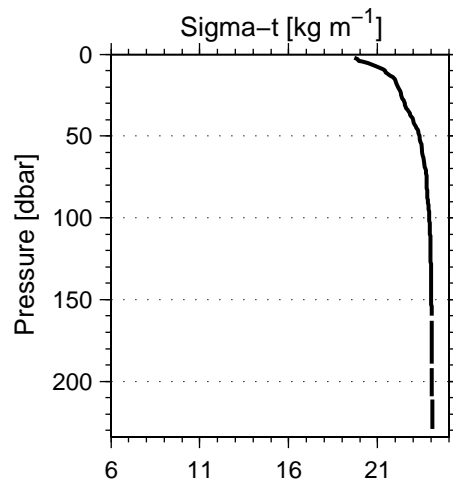
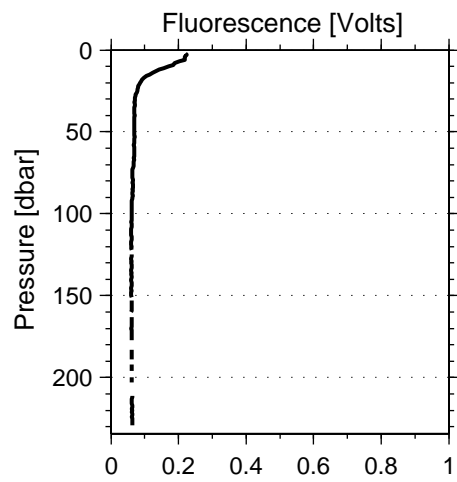
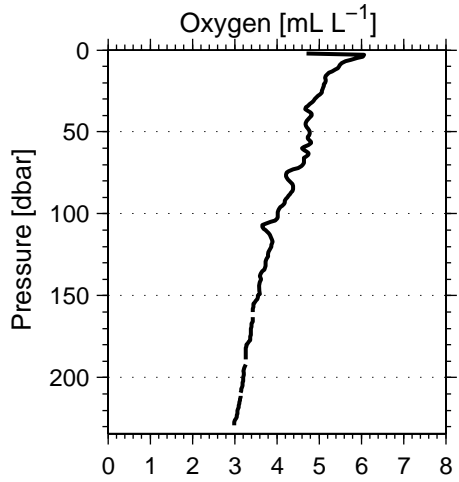
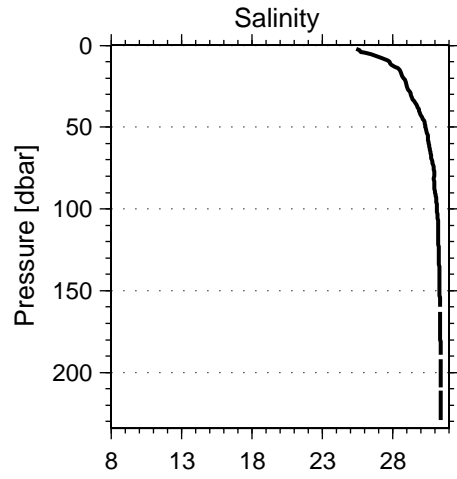
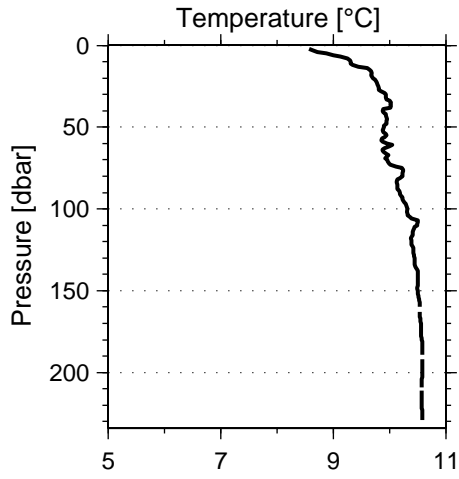
CRUISE	: Aysen July 2010	STATION	: C17	CAST	: 16
DATE	: 2010-07-22	LAT	: 45°17.154	Z-CTD	: 228 m
TIME	: 13:37	LON	: 73°16.062	DEPTH	: 249 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.574	25.412	19.680	4.706	0.220	-
3	8.628	25.648	19.857	6.075	0.224	-
4	8.717	25.772	19.942	6.043	0.219	-
6	9.008	26.688	20.617	5.754	0.219	-
8	9.252	27.285	21.048	5.535	0.189	-
10	9.308	27.775	21.422	5.472	0.171	-
12	9.351	27.951	21.553	5.389	0.142	-
14	9.610	28.393	21.859	5.236	0.124	-
16	9.678	28.585	21.998	5.162	0.106	-
18	9.682	28.671	22.064	5.154	0.092	-
20	9.707	28.787	22.151	5.137	0.086	-
22	9.763	28.938	22.260	5.106	0.081	-
24	9.791	28.998	22.302	5.086	0.079	-
26	9.815	29.052	22.341	5.063	0.076	-
28	9.844	29.218	22.466	4.973	0.073	-
30	9.937	29.314	22.526	4.897	0.071	-
35	10.024	29.618	22.749	4.695	0.070	-
40	9.881	29.904	22.995	4.819	0.070	-
45	9.963	30.181	23.197	4.687	0.070	-
50	9.899	30.361	23.348	4.775	0.070	-
60	9.966	30.580	23.509	4.600	0.069	-
70	9.957	30.796	23.678	4.616	0.067	-
80	10.227	30.959	23.761	4.302	0.065	-
90	10.183	31.041	23.833	4.257	0.064	-
100	10.320	31.171	23.911	4.020	0.061	-
125	10.427	31.283	23.980	3.794	0.061	-
150	10.503	31.355	24.024	3.558	0.060	-
175	10.564	31.394	24.044	3.377	0.061	-
200	10.580	31.419	24.060	3.211	0.062	-
225	10.581	31.437	24.075	3.031	0.064	-
228	10.582	31.445	24.080	2.989	0.063	-

Aysen July 2010
Station C17 Cast 16



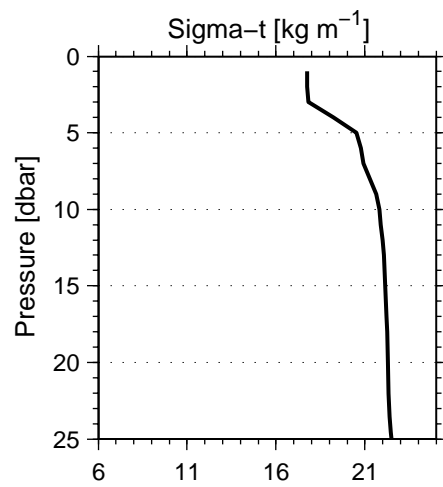
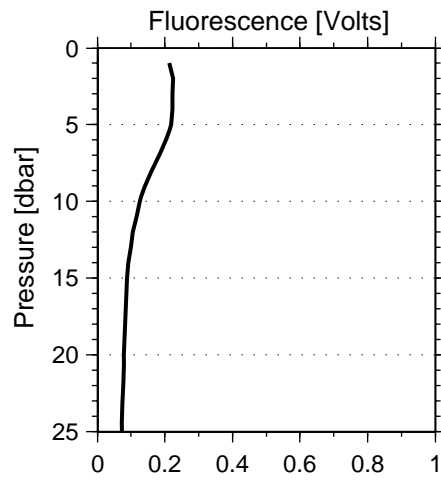
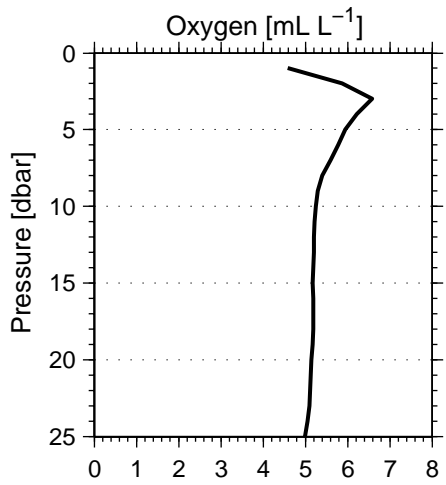
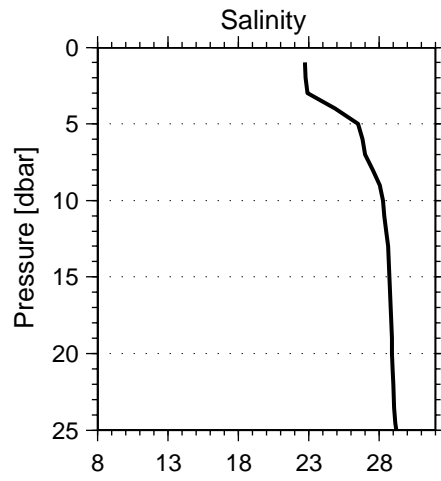
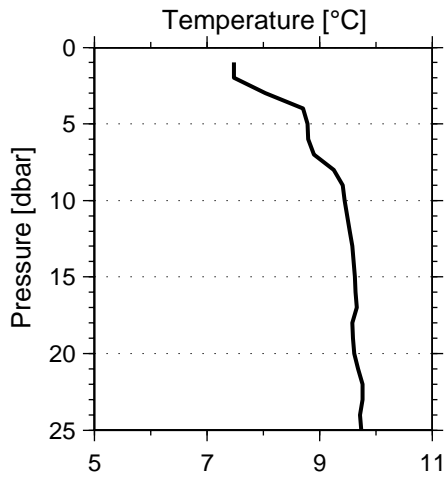
Aysen July 2010
Station C17 Cast 16



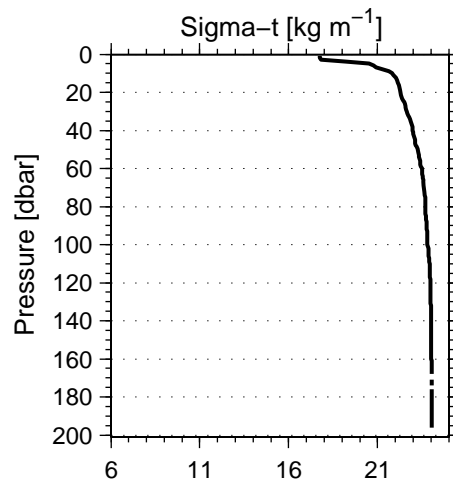
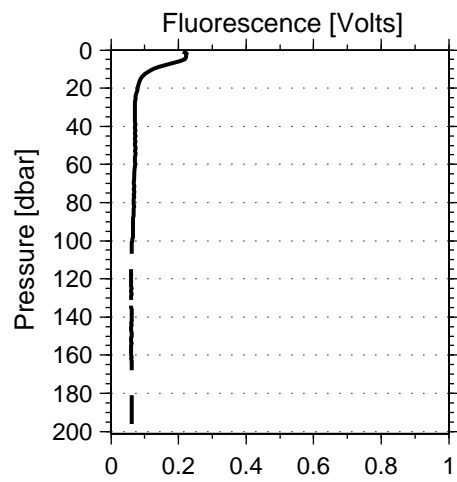
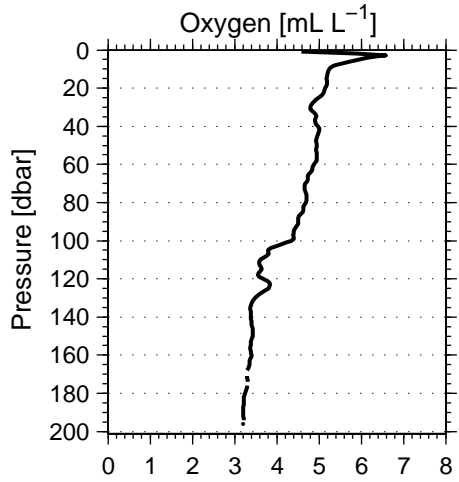
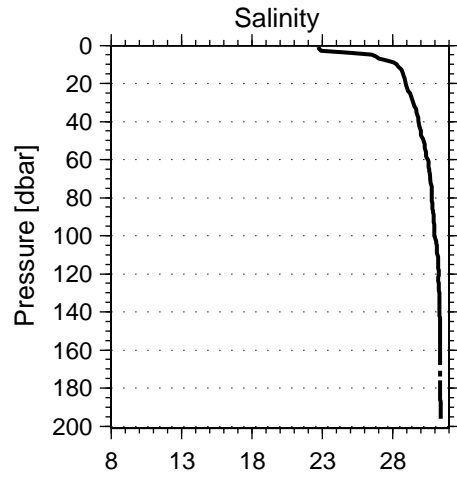
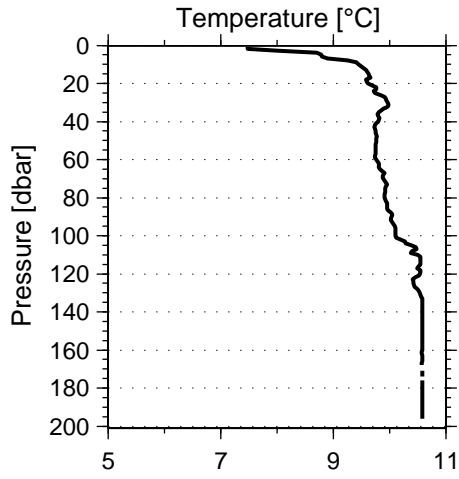
CRUISE	: Aysen July 2010	STATION	: C18	CAST	: 17
DATE	: 2010-07-22	LAT	: 45°18.650	Z-CTD	: 195 m
TIME	: 14:15	LON	: 73°18.269	DEPTH	: 226 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	7.480	22.756	17.738	4.580	0.213	-
2	7.485	22.775	17.752	5.873	0.225	-
3	8.037	22.925	17.804	6.584	0.223	-
4	8.716	24.870	19.238	6.213	0.222	-
6	8.806	26.846	20.769	5.784	0.204	-
8	9.261	27.579	21.276	5.405	0.162	-
10	9.448	28.291	21.804	5.248	0.126	-
12	9.545	28.545	21.988	5.207	0.106	-
14	9.609	28.709	22.106	5.192	0.093	-
16	9.646	28.787	22.161	5.185	0.087	-
18	9.588	28.875	22.238	5.191	0.082	-
20	9.619	28.949	22.291	5.145	0.079	-
22	9.762	29.029	22.331	5.110	0.076	-
24	9.718	29.121	22.410	5.046	0.073	-
26	9.840	29.313	22.541	4.934	0.072	-
28	9.940	29.385	22.581	4.844	0.071	-
30	9.970	29.460	22.635	4.792	0.071	-
35	9.816	29.720	22.862	4.933	0.071	-
40	9.796	29.855	22.970	4.971	0.072	-
45	9.756	30.004	23.093	4.959	0.072	-
50	9.765	30.198	23.243	4.943	0.072	-
60	9.768	30.518	23.492	4.888	0.073	-
70	9.893	30.685	23.602	4.681	0.068	-
80	9.917	30.802	23.689	4.686	0.067	-
90	10.042	30.917	23.759	4.507	0.066	-
100	10.107	30.997	23.810	4.340	0.063	-
125	10.425	31.274	23.974	3.803	0.061	-
150	10.581	31.366	24.019	3.425	0.061	-
175	-	-	-	-	-	-
195	10.583	31.420	24.060	NaN	0.061	-

Aysen July 2010
Station C18 Cast 17



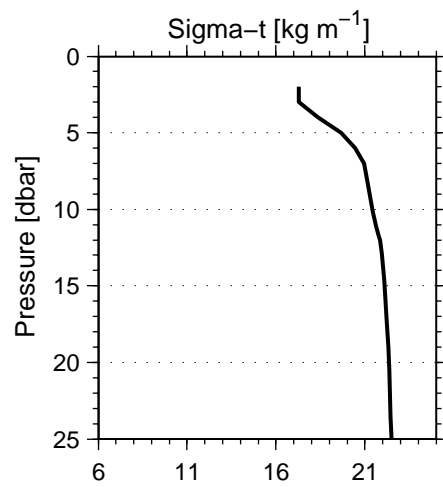
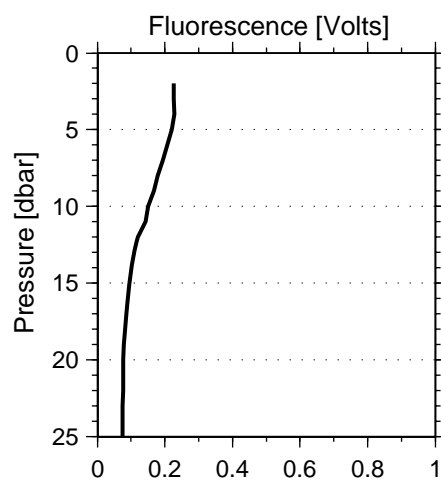
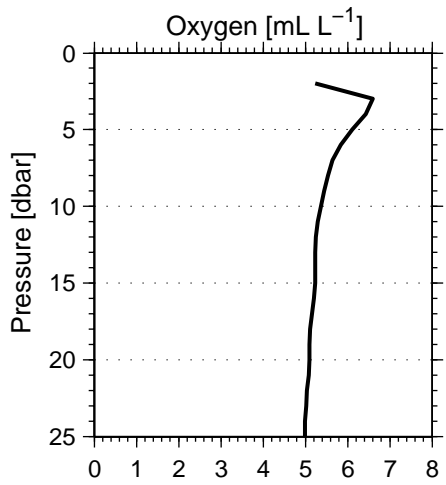
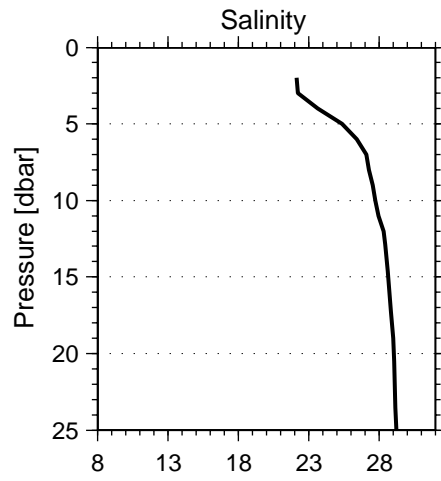
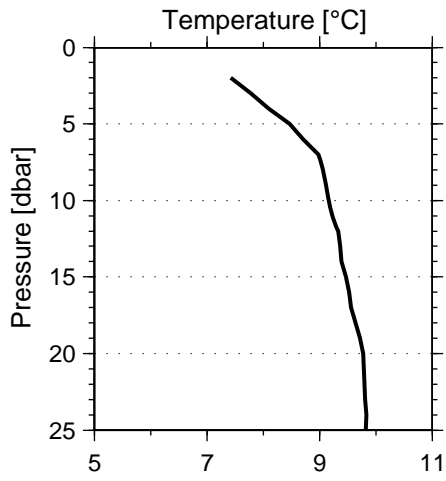
Aysen July 2010
Station C18 Cast 17



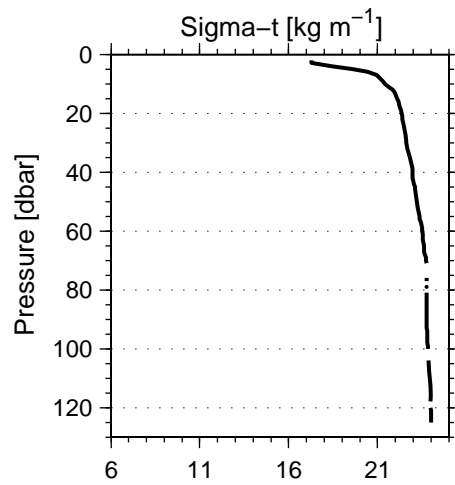
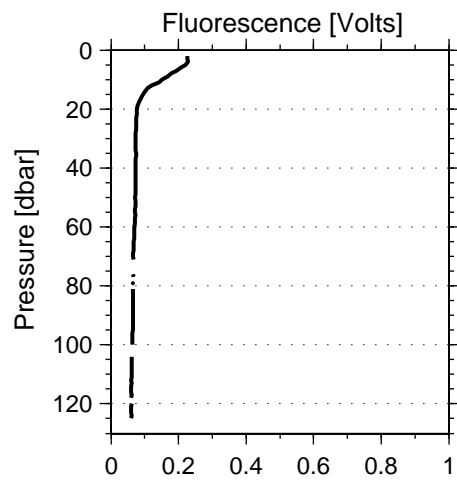
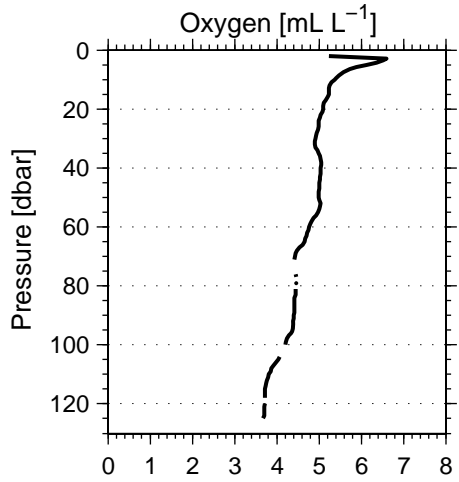
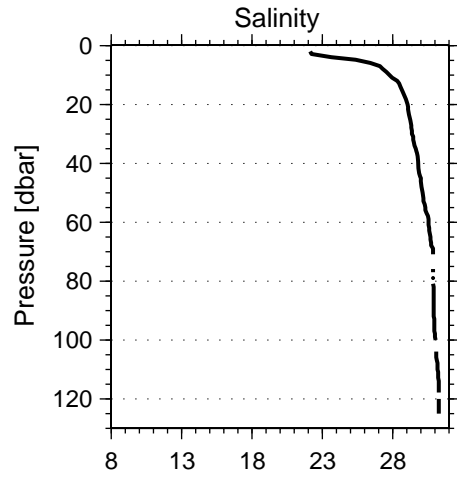
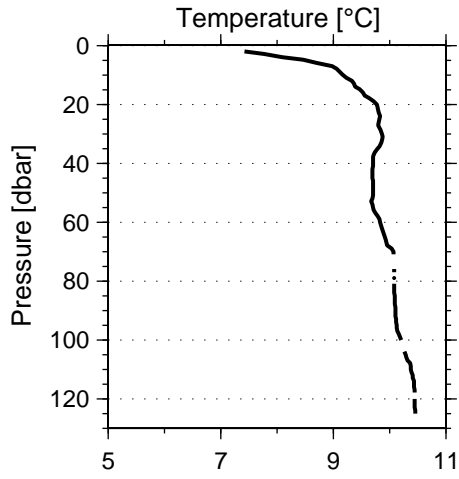
CRUISE : Aysen July 2010	STATION : C19	CAST : 18
DATE : 2010-07-22	LAT : 45°20.122	Z-CTD : 124 m
TIME : 14:49	LON : 73°20.719	DEPTH : 153 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	7.429	22.168	17.283	5.229	0.227	-
3	7.779	22.235	17.295	6.598	0.227	-
4	8.101	23.646	18.360	6.435	0.228	-
6	8.714	26.440	20.464	5.834	0.207	-
8	9.061	27.311	21.096	5.533	0.179	-
10	9.165	27.744	21.419	5.369	0.150	-
12	9.335	28.346	21.864	5.251	0.121	-
14	9.395	28.549	22.013	5.241	0.102	-
16	9.524	28.762	22.160	5.207	0.090	-
18	9.639	28.917	22.263	5.120	0.083	-
20	9.774	29.073	22.364	5.093	0.078	-
22	9.802	29.125	22.400	5.045	0.076	-
24	9.832	29.203	22.456	5.000	0.075	-
26	9.809	29.295	22.531	4.997	0.074	-
28	9.819	29.360	22.581	4.952	0.073	-
30	9.871	29.400	22.604	4.914	0.072	-
35	9.788	29.647	22.809	4.997	0.074	-
40	9.706	29.834	22.968	5.043	0.073	-
45	9.704	30.011	23.106	5.013	0.073	-
50	9.714	30.154	23.216	4.987	0.071	-
60	9.833	30.566	23.519	4.765	0.070	-
70	10.076	30.899	23.739	4.425	0.065	-
80	-	-	-	-	-	-
90	10.104	30.943	23.769	4.407	0.065	-
100	10.212	31.063	23.845	4.207	0.063	-
124	10.455	31.312	23.998	3.698	0.061	-

Aysen July 2010
Station C19 Cast 18



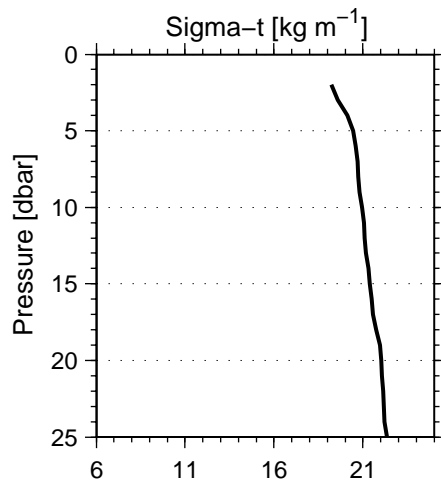
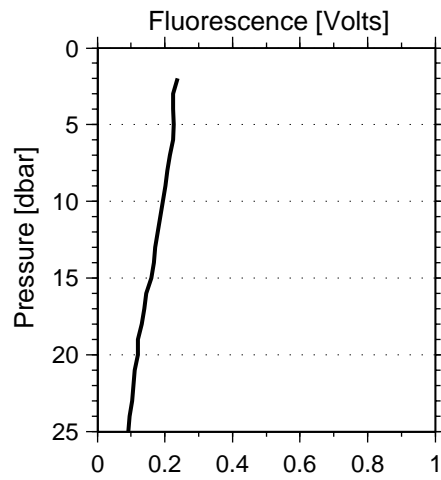
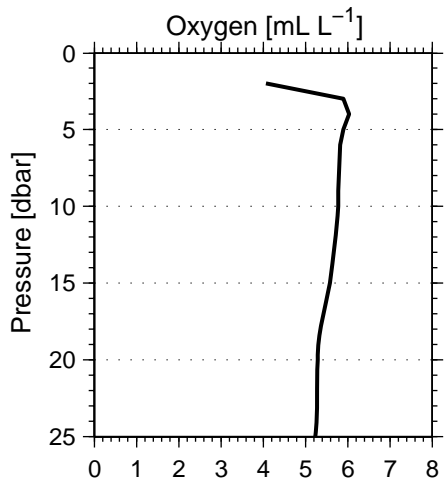
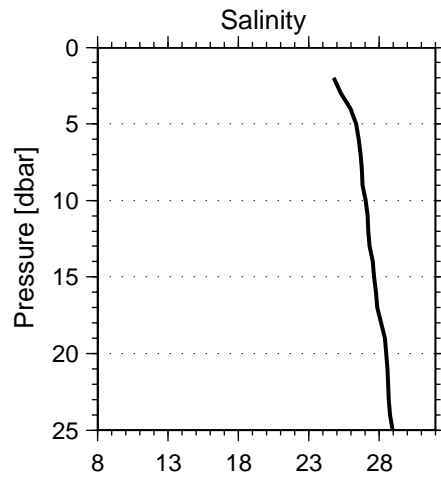
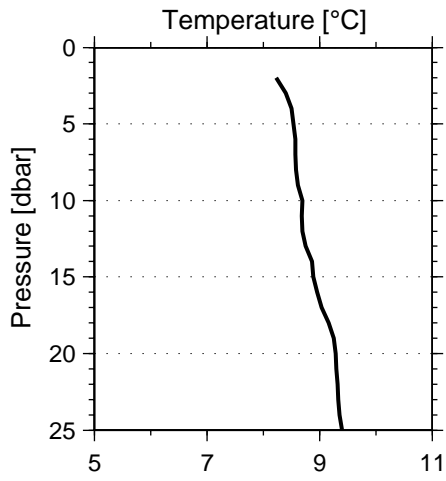
Aysen July 2010
Station C19 Cast 18



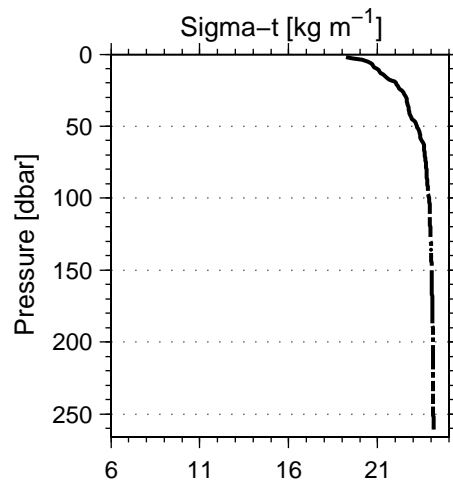
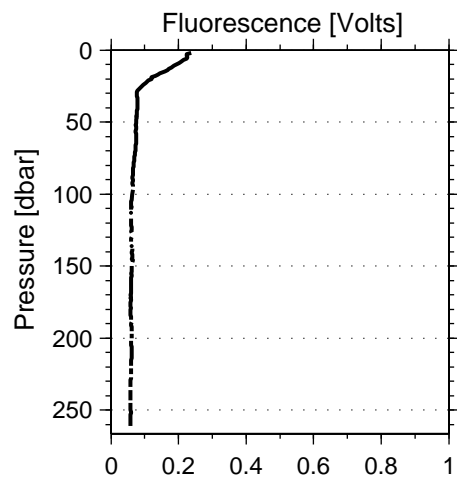
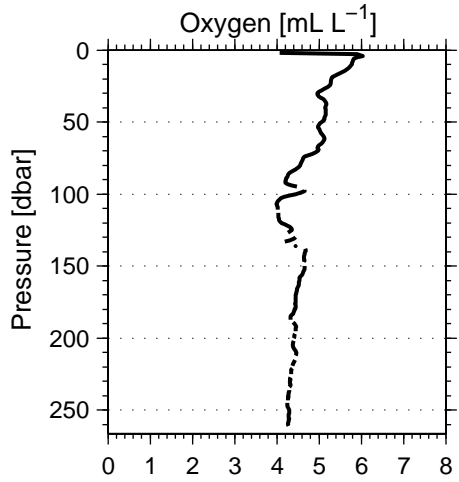
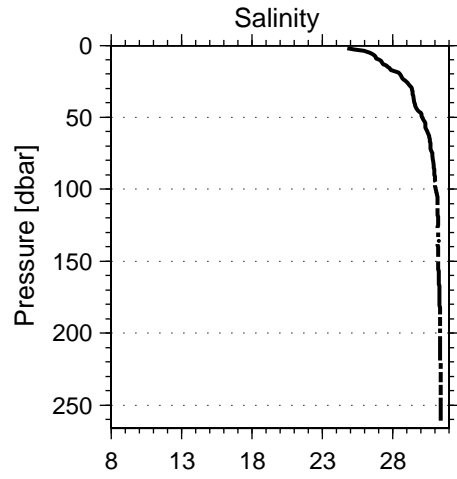
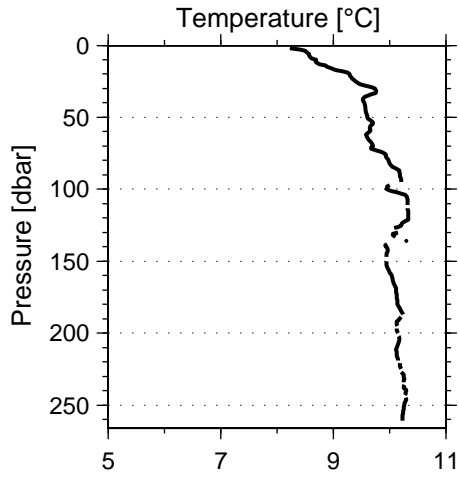
CRUISE : Aysen July 2010	STATION : C20	CAST : 19
DATE : 2010-07-22	LAT : 45°21.517	Z-CTD : 260 m
TIME : 15:26	LON : 73°23.621	DEPTH : 272 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.238	24.789	19.238	4.075	0.237	-
3	8.406	25.278	19.598	5.897	0.224	-
4	8.510	25.992	20.142	6.032	0.224	-
6	8.573	26.565	20.582	5.829	0.224	-
8	8.587	26.776	20.744	5.795	0.207	-
10	8.695	27.078	20.965	5.775	0.195	-
12	8.702	27.253	21.102	5.715	0.178	-
14	8.864	27.562	21.320	5.629	0.167	-
16	8.960	27.785	21.481	5.500	0.145	-
18	9.161	28.149	21.736	5.357	0.131	-
20	9.290	28.531	22.015	5.292	0.120	-
22	9.325	28.680	22.126	5.279	0.107	-
24	9.358	28.807	22.220	5.260	0.097	-
26	9.440	29.072	22.414	5.187	0.088	-
28	9.549	29.195	22.494	5.056	0.079	-
30	9.741	29.394	22.619	4.963	0.077	-
35	9.618	29.458	22.688	5.135	0.078	-
40	9.550	29.559	22.777	5.150	0.078	-
45	9.570	29.779	22.946	5.153	0.076	-
50	9.611	30.114	23.201	5.065	0.074	-
60	9.653	30.458	23.463	5.108	0.074	-
70	9.706	30.707	23.649	4.978	0.072	-
80	9.981	30.881	23.741	4.548	0.067	-
90	10.185	30.996	23.797	4.220	0.065	-
100	9.951	31.068	23.891	4.445	0.064	-
125	10.211	31.235	23.979	4.360	0.061	-
150	9.952	31.256	24.038	4.655	0.062	-
175	10.134	31.348	24.080	4.442	0.059	-
200	10.149	31.389	24.110	4.402	0.061	-
225	10.211	31.422	24.125	4.341	0.060	-
250	10.263	31.448	24.136	4.296	0.058	-
260	10.233	31.448	24.141	4.272	0.059	-

Aysen July 2010
Station C20 Cast 19



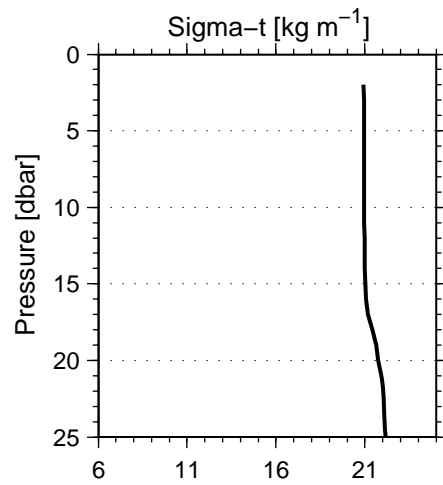
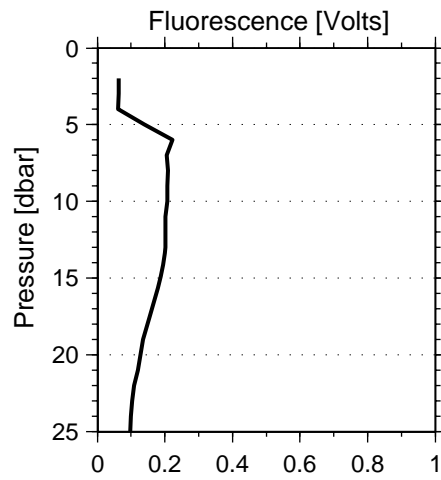
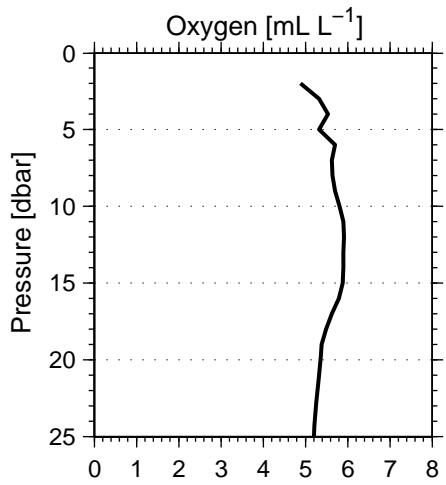
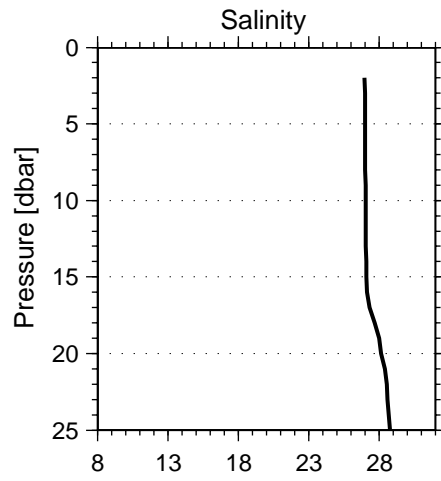
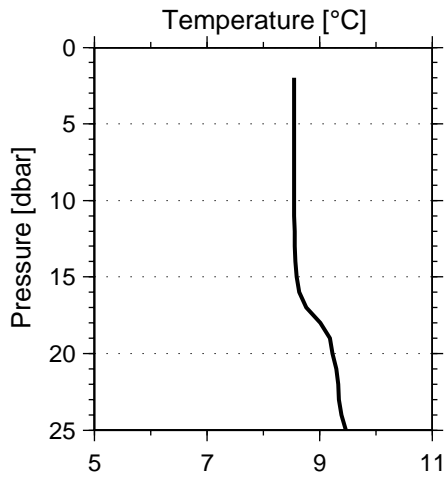
Aysen July 2010
Station C20 Cast 19



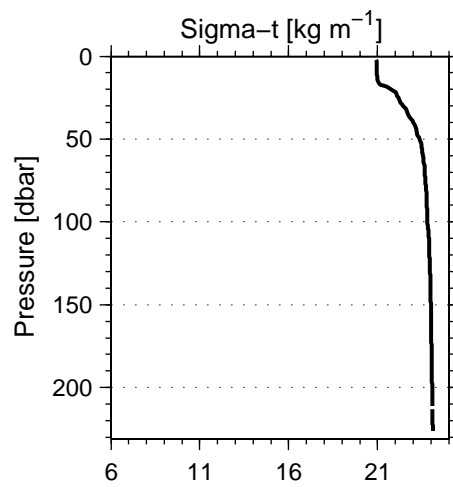
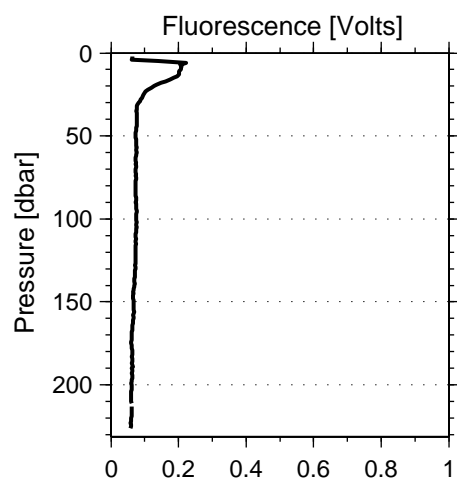
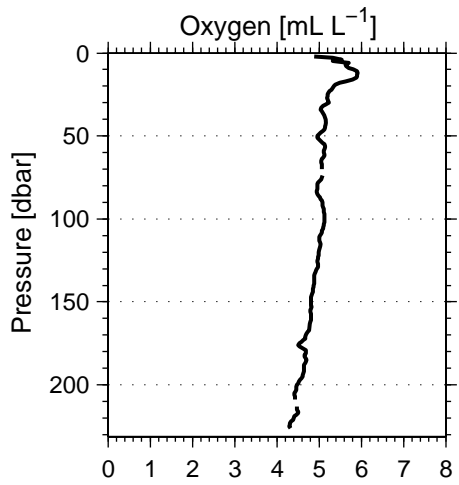
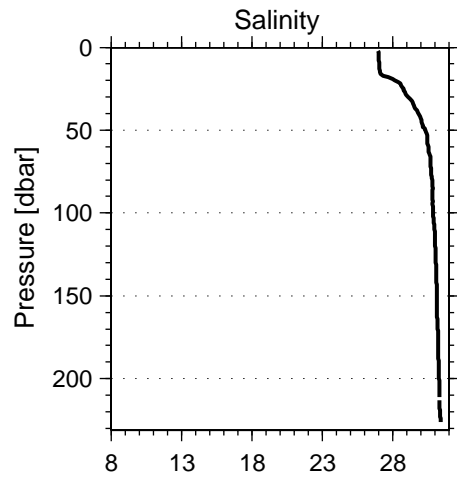
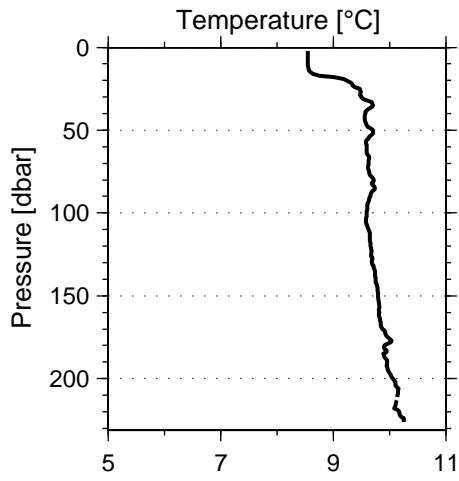
CRUISE	: Aysen July 2010	STATION	: C21	CAST	: 20
DATE	: 2010-07-22	LAT	: 45°22.858	Z-CTD	: 225 m
TIME	: 16:10	LON	: 73°26.502	DEPTH	: 290 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	8.550	26.967	20.899	4.894	0.064	-	-
3	8.549	27.021	20.942	5.326	0.063	-	-
4	8.551	27.027	20.946	5.536	0.061	-	-
6	8.553	27.043	20.958	5.700	0.223	-	-
8	8.553	27.043	20.958	5.651	0.209	-	-
10	8.553	27.054	20.967	5.812	0.207	-	-
12	8.562	27.069	20.977	5.909	0.202	-	-
14	8.574	27.092	20.994	5.904	0.196	-	-
16	8.638	27.173	21.048	5.792	0.175	-	-
18	9.020	27.726	21.426	5.489	0.149	-	-
20	9.232	28.175	21.745	5.357	0.128	-	-
22	9.332	28.547	22.021	5.298	0.110	-	-
24	9.396	28.683	22.118	5.224	0.100	-	-
26	9.488	28.817	22.208	5.203	0.093	-	-
28	9.480	28.930	22.298	5.205	0.089	-	-
30	9.511	29.105	22.429	5.229	0.083	-	-
35	9.705	29.526	22.728	5.064	0.076	-	-
40	9.570	29.839	22.993	5.164	0.077	-	-
45	9.572	30.089	23.187	5.137	0.075	-	-
50	9.708	30.358	23.376	4.963	0.073	-	-
60	9.601	30.559	23.550	5.107	0.077	-	-
70	9.629	30.705	23.660	5.064	0.074	-	-
80	9.726	30.819	23.734	4.959	0.073	-	-
90	9.664	30.857	23.773	5.087	0.074	-	-
100	9.597	30.883	23.803	5.129	0.076	-	-
125	9.678	31.077	23.942	4.965	0.073	-	-
150	9.801	31.167	23.993	4.809	0.067	-	-
175	9.971	31.250	24.030	4.541	0.060	-	-
200	10.060	31.316	24.067	4.481	0.061	-	-
225	10.257	31.418	24.114	4.299	0.059	-	-

Aysen July 2010
Station C21 Cast 20



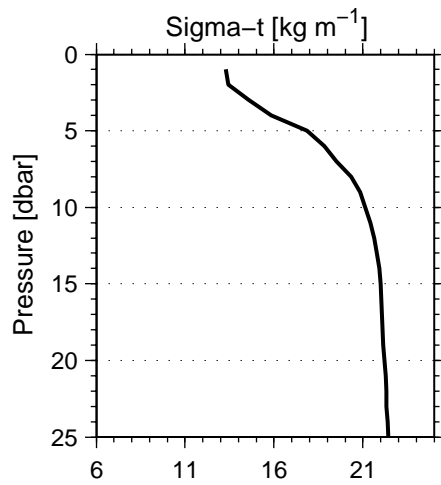
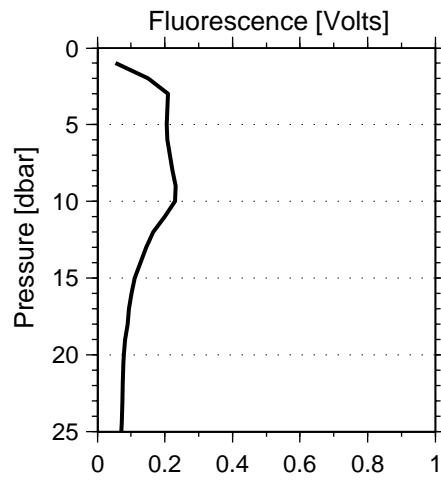
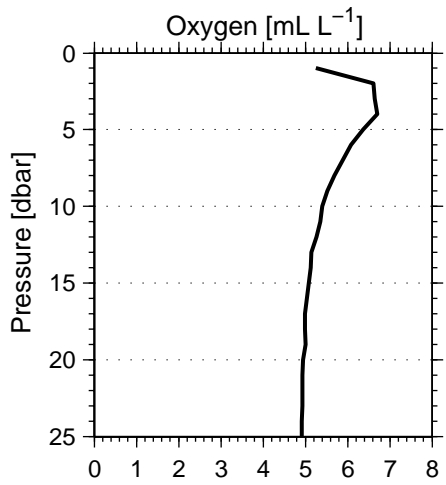
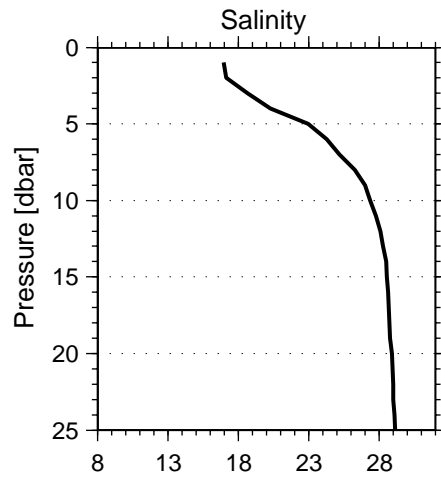
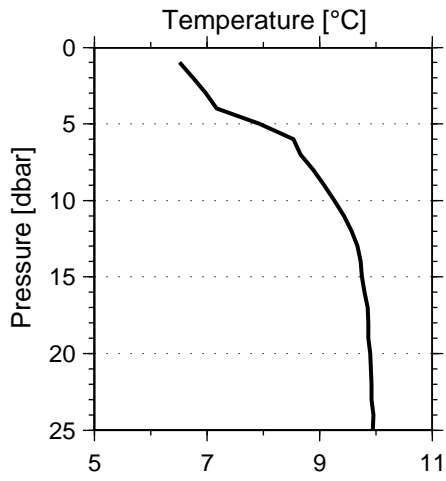
Aysen July 2010
Station C21 Cast 20



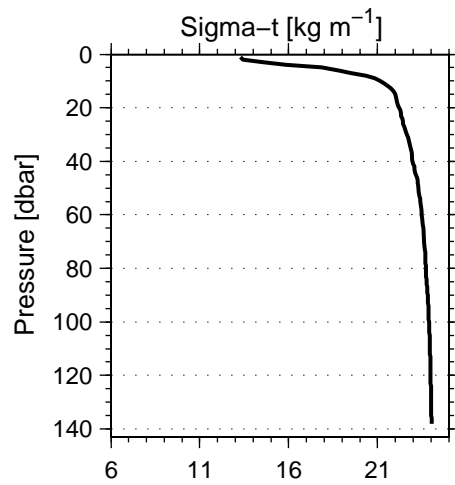
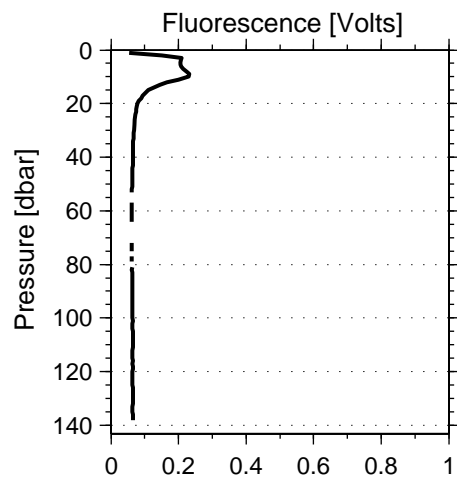
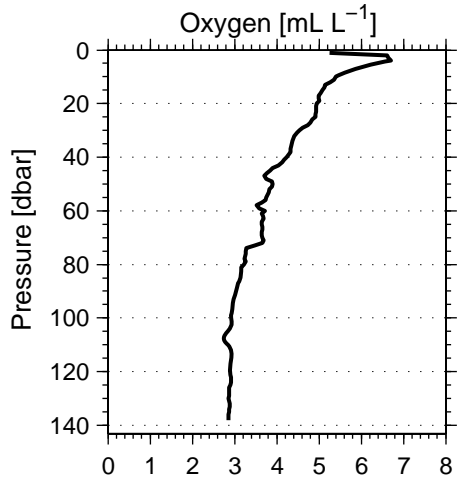
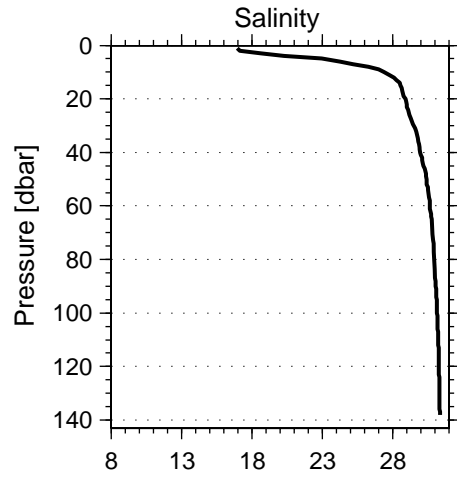
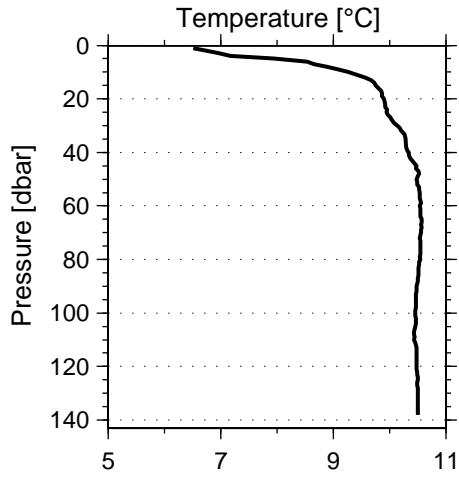
CRUISE	: Aysen July 2010	STATION	: CUS	CAST	: 21
DATE	: 2010-07-23	LAT	: 45°22.955	Z-CTD	: 137 m
TIME	: 01:21	LON	: 73°06.387	DEPTH	: 193 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	6.516	16.963	13.291	5.249	0.053	-
2	6.752	17.176	13.437	6.618	0.151	-
3	6.986	18.682	14.596	6.640	0.209	-
4	7.175	20.281	15.830	6.703	0.208	-
6	8.545	24.316	18.827	6.077	0.207	-
8	8.893	26.312	20.340	5.692	0.223	-
10	9.267	27.406	21.140	5.402	0.231	-
12	9.574	28.103	21.638	5.259	0.166	-
14	9.733	28.511	21.932	5.124	0.128	-
16	9.802	28.641	22.023	5.040	0.102	-
18	9.864	28.750	22.098	4.998	0.091	-
20	9.904	28.911	22.218	4.954	0.078	-
22	9.923	29.024	22.302	4.937	0.075	-
24	9.956	29.129	22.379	4.918	0.072	-
26	9.969	29.216	22.444	4.842	0.070	-
28	10.046	29.362	22.546	4.733	0.069	-
30	10.142	29.519	22.653	4.535	0.069	-
35	10.285	29.818	22.863	4.357	0.066	-
40	10.342	29.965	22.968	4.234	0.065	-
45	10.482	30.222	23.145	3.845	0.064	-
50	10.488	30.417	23.296	3.904	0.064	-
60	10.539	30.663	23.479	3.717	0.062	-
70	10.559	30.840	23.614	3.665	NaN	-
80	10.552	30.972	23.717	3.216	NaN	-
90	10.487	31.086	23.817	3.043	0.064	-
100	10.461	31.177	23.892	2.919	0.064	-
125	10.501	31.330	24.004	2.898	0.064	-
137	10.505	31.364	24.031	2.852	0.065	-

Aysen July 2010
Station CUS Cast 21



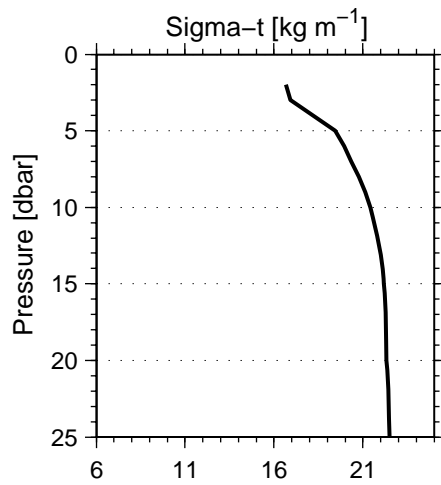
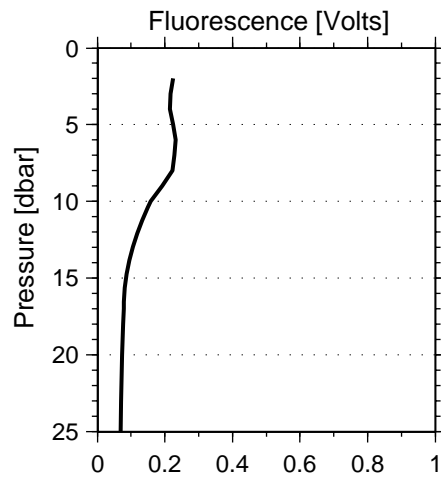
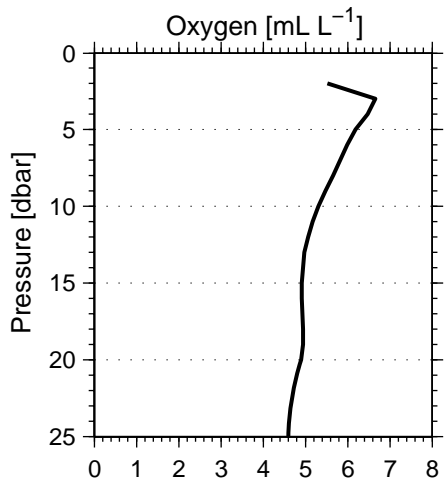
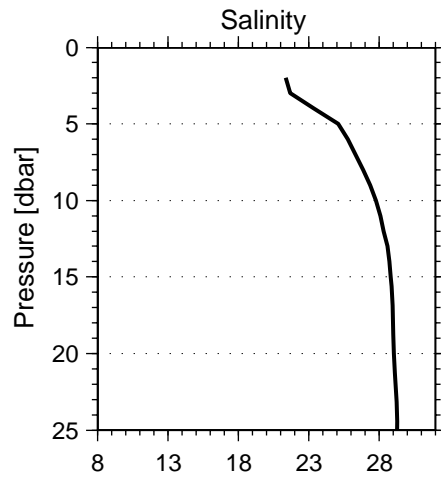
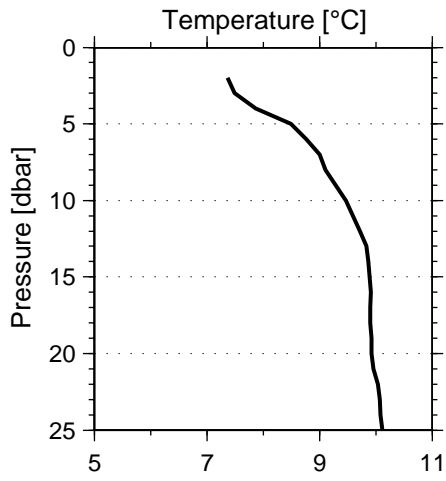
Aysen July 2010
Station CUS Cast 21



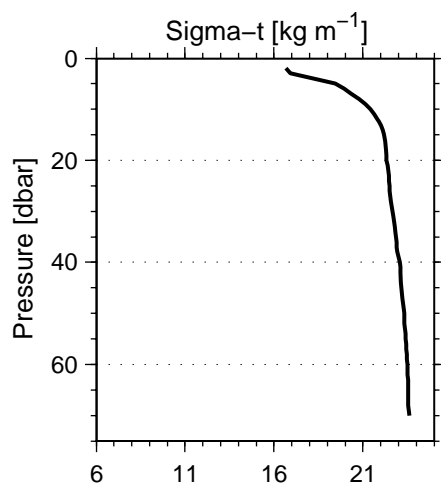
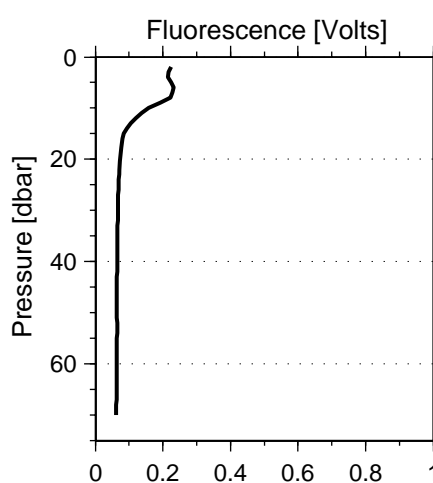
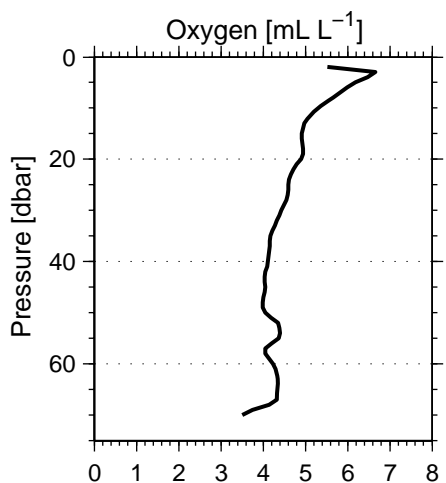
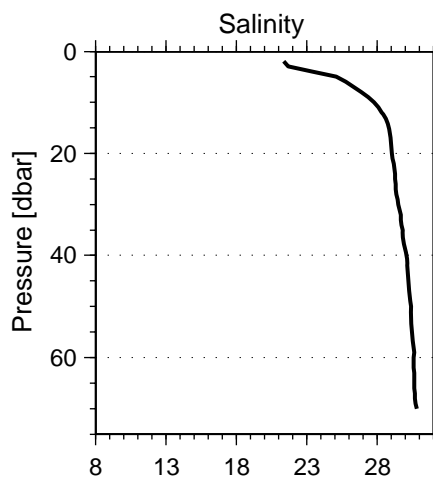
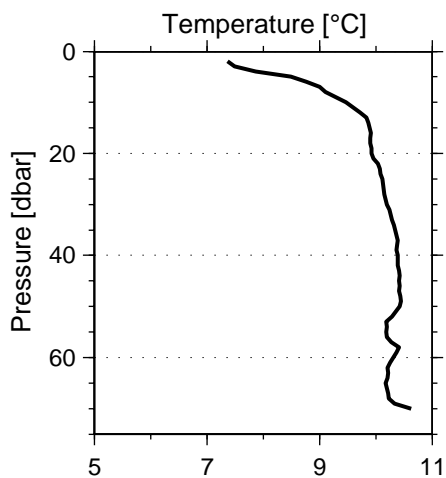
CRUISE	: Aysen July 2010	STATION	: CUC	CAST	: 22
DATE	: 2010-07-23	LAT	: 45°22.181	Z-CTD	: 69 m
TIME	: 02:01	LON	: 73°05.120	DEPTH	: 94 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	7.374	21.372	16.665	5.527	0.224	-	-
3	7.492	21.701	16.910	6.656	0.217	-	-
4	7.873	23.395	18.192	6.478	0.214	-	-
6	8.765	25.798	19.956	5.985	0.232	-	-
8	9.113	26.889	20.759	5.658	0.222	-	-
10	9.472	27.811	21.426	5.316	0.158	-	-
12	9.723	28.339	21.799	5.061	0.120	-	-
14	9.866	28.736	22.087	4.941	0.093	-	-
16	9.917	28.940	22.238	4.916	0.080	-	-
18	9.904	29.010	22.294	4.952	0.077	-	-
20	9.931	29.060	22.329	4.897	0.073	-	-
22	10.039	29.204	22.424	4.714	0.072	-	-
24	10.087	29.273	22.471	4.608	0.070	-	-
26	10.128	29.328	22.506	4.592	0.069	-	-
28	10.153	29.408	22.565	4.546	0.068	-	-
30	10.204	29.543	22.662	4.427	0.067	-	-
35	10.345	29.822	22.856	4.170	0.066	-	-
40	10.392	30.128	23.087	4.115	0.065	-	-
45	10.417	30.227	23.160	4.047	0.064	-	-
50	10.426	30.421	23.309	4.054	0.064	-	-
60	10.313	30.629	23.490	4.234	0.064	-	-
69	10.335	30.750	23.581	3.750	0.062	-	-

Aysen July 2010
Station CUC Cast 22



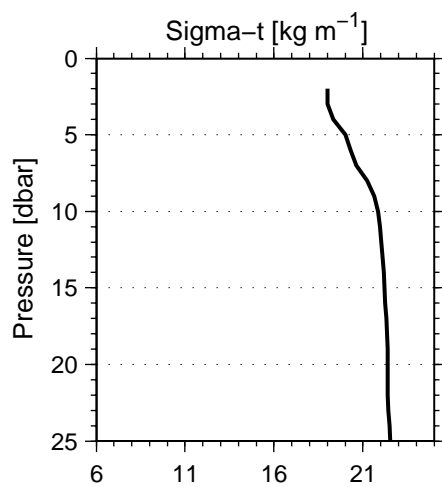
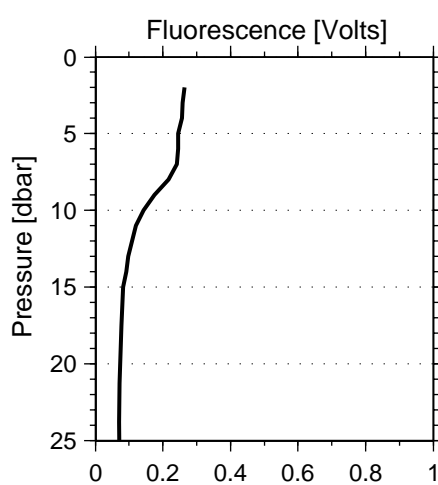
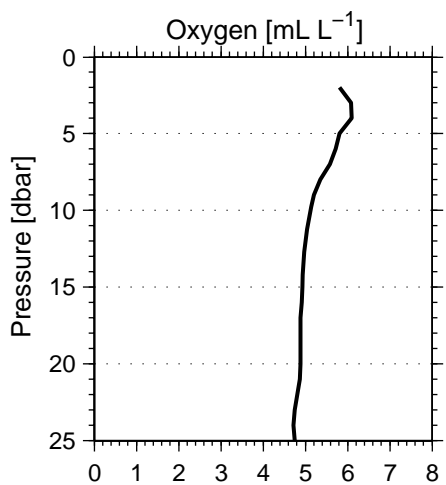
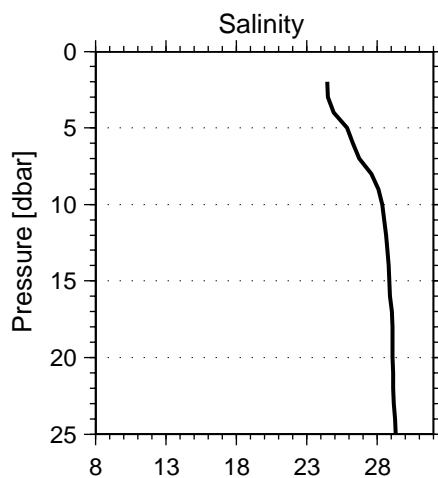
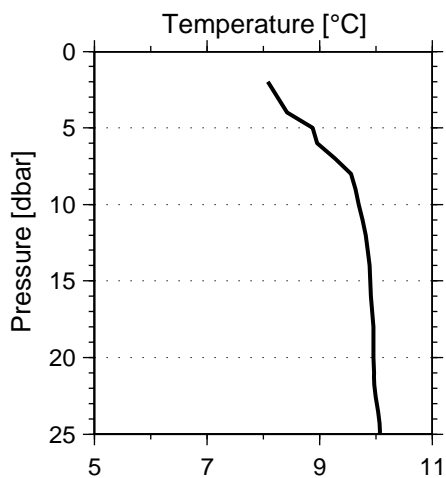
Aysen July 2010
Station CUC Cast 22



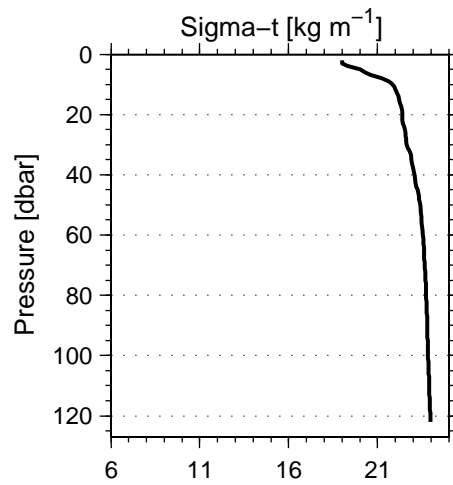
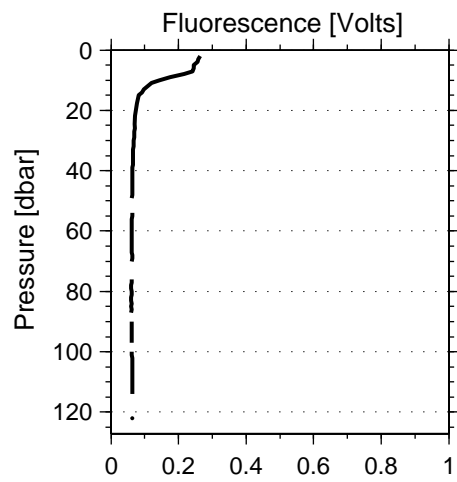
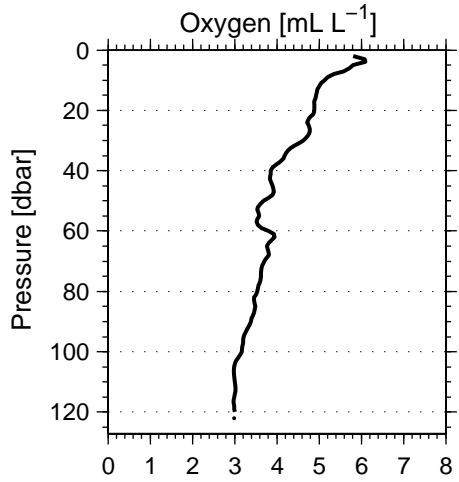
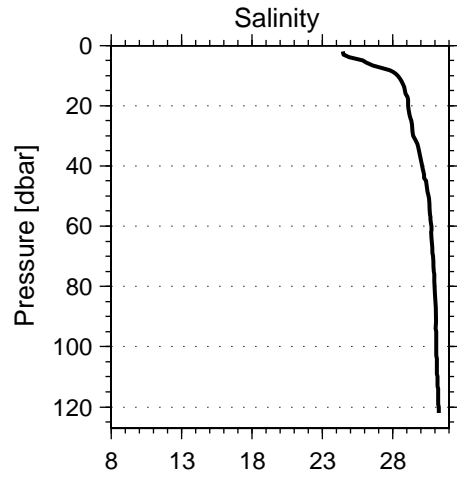
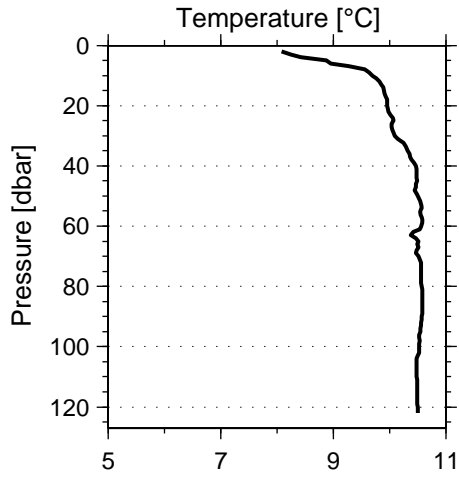
CRUISE : Aysen July 2010	STATION : CUN	CAST : 23
DATE : 2010-07-23	LAT : 45°21.218	Z-CTD : 121 m
TIME : 02:33	LON : 73°03.597	DEPTH : 133 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.083	24.464	19.003	5.809	0.265	-
3	8.257	24.519	19.023	6.089	0.258	-
4	8.431	24.945	19.334	6.103	0.257	-
6	8.956	26.274	20.301	5.725	0.245	-
8	9.566	27.604	21.250	5.354	0.218	-
10	9.702	28.389	21.842	5.126	0.143	-
12	9.827	28.676	22.046	5.008	0.109	-
14	9.887	28.836	22.161	4.950	0.091	-
16	9.911	28.947	22.244	4.910	0.081	-
18	9.958	29.102	22.357	4.885	0.077	-
20	9.965	29.136	22.383	4.883	0.073	-
22	9.987	29.169	22.405	4.813	0.072	-
24	10.059	29.312	22.505	4.718	0.070	-
26	10.044	29.382	22.562	4.777	0.070	-
28	10.052	29.423	22.593	4.757	0.070	-
30	10.093	29.483	22.633	4.627	0.068	-
35	10.325	29.879	22.904	4.184	0.066	-
40	10.472	30.123	23.069	3.859	0.064	-
45	10.490	30.369	23.258	3.902	0.063	-
50	10.508	30.553	23.399	3.686	NaN	-
60	10.560	30.766	23.556	3.799	0.062	-
70	10.522	30.895	23.663	3.699	0.061	-
80	10.575	30.995	23.732	3.536	0.061	-
90	10.577	31.070	23.790	3.382	0.061	-
100	10.525	31.126	23.842	3.169	0.062	-
121	10.503	31.276	23.962	NaN	NaN	-

Aysen July 2010
Station CUN Cast 23



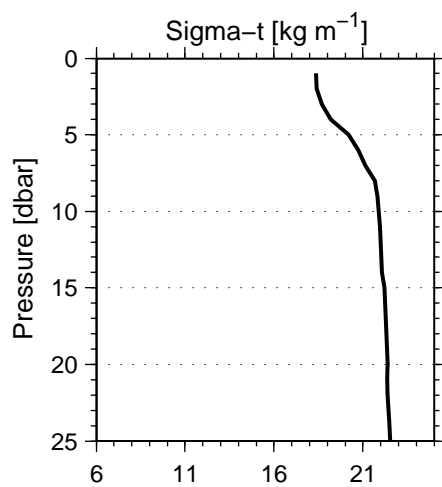
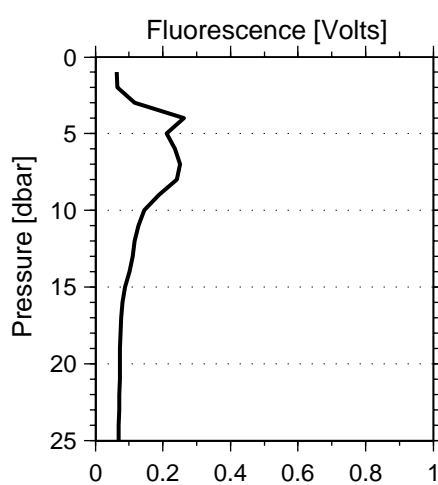
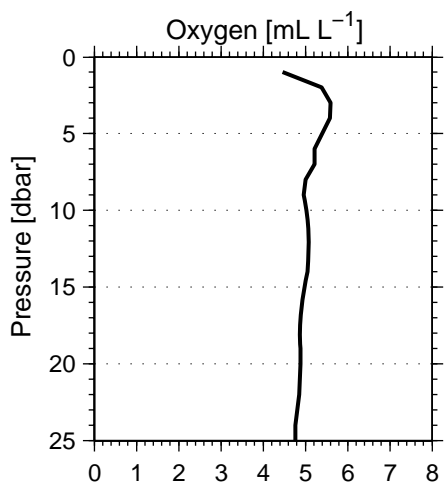
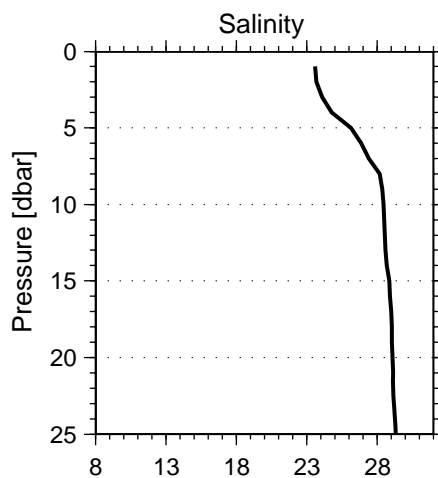
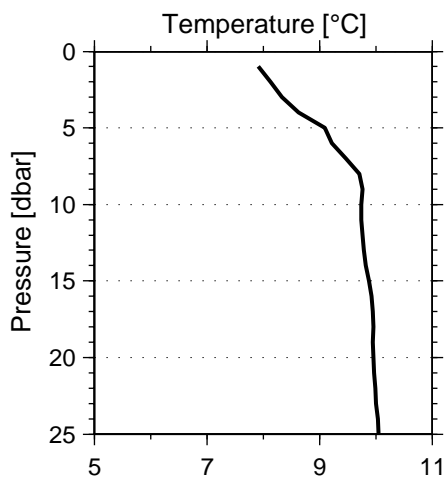
Aysen July 2010
Station CUN Cast 23



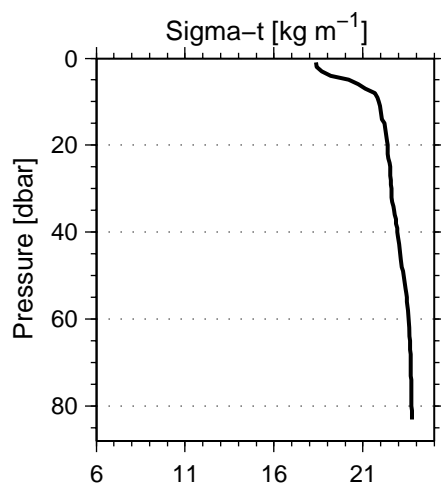
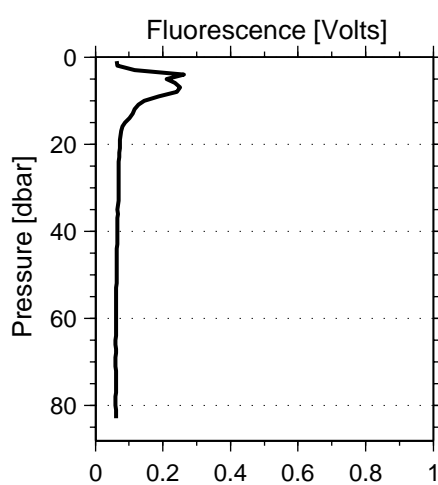
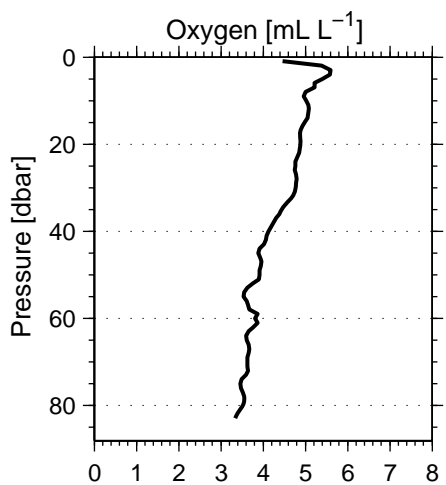
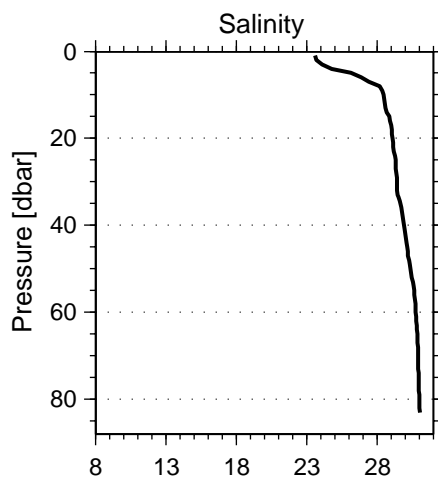
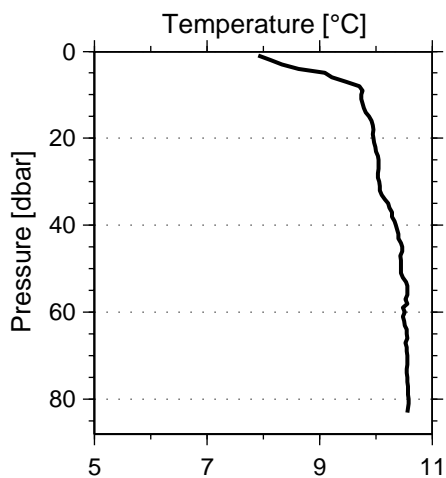
CRUISE : Aysen July 2010	STATION : CUN	CAST : 24
DATE : 2010-07-23	LAT : 45°21.206	Z-CTD : 82 m
TIME : 04:23	LON : 73°03.486	DEPTH : 113 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	7.909	23.633	18.374	4.467	0.064	-
2	8.128	23.708	18.406	5.391	0.066	-
3	8.331	24.114	18.697	5.603	0.116	-
4	8.628	24.795	19.190	5.587	0.263	-
6	9.217	26.878	20.735	5.218	0.235	-
8	9.713	28.185	21.681	5.005	0.242	-
10	9.743	28.474	21.901	5.022	0.145	-
12	9.763	28.582	21.983	5.078	0.117	-
14	9.821	28.711	22.074	5.052	0.102	-
16	9.922	28.937	22.235	4.928	0.081	-
18	9.957	29.072	22.335	4.877	0.075	-
20	9.961	29.123	22.373	4.893	0.073	-
22	9.989	29.156	22.395	4.851	0.072	-
24	10.044	29.295	22.494	4.771	0.070	-
26	10.055	29.352	22.537	4.751	0.069	-
28	10.037	29.373	22.556	4.802	0.070	-
30	10.061	29.438	22.603	4.768	0.069	-
35	10.216	29.677	22.765	4.450	0.066	-
40	10.359	29.929	22.937	4.132	0.065	-
45	10.477	30.171	23.106	3.885	0.064	-
50	10.448	30.401	23.290	3.920	0.063	-
60	10.519	30.771	23.567	3.807	0.061	-
70	10.557	30.927	23.681	3.621	0.060	-
80	10.581	31.003	23.737	3.521	0.060	-
82	10.576	31.017	23.748	3.386	0.061	-

Aysen July 2010
Station CUN Cast 24



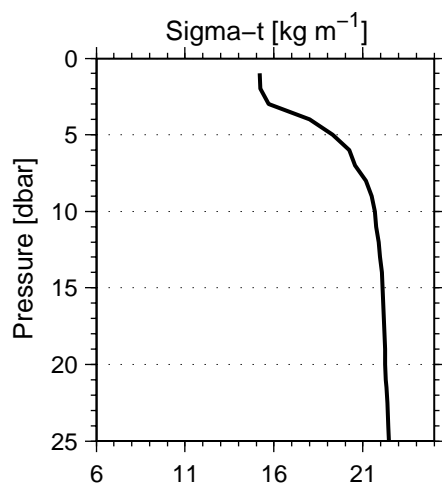
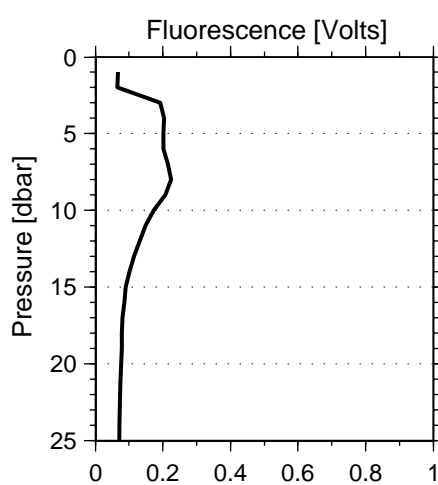
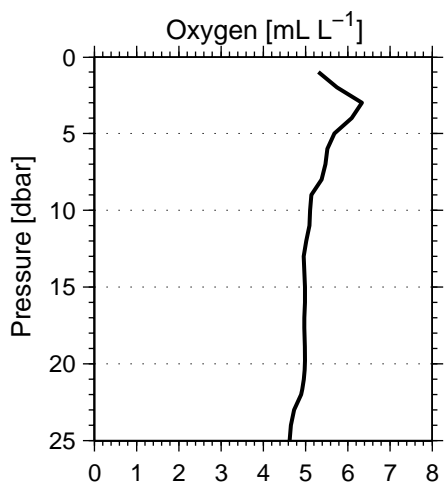
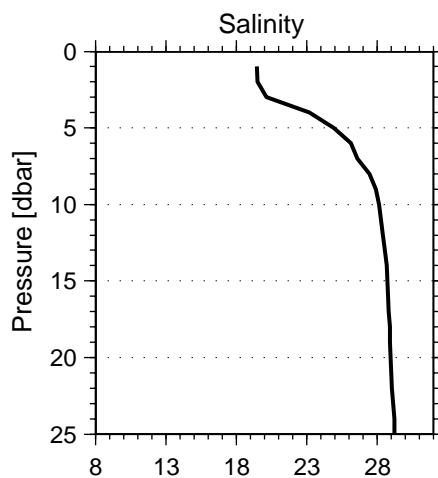
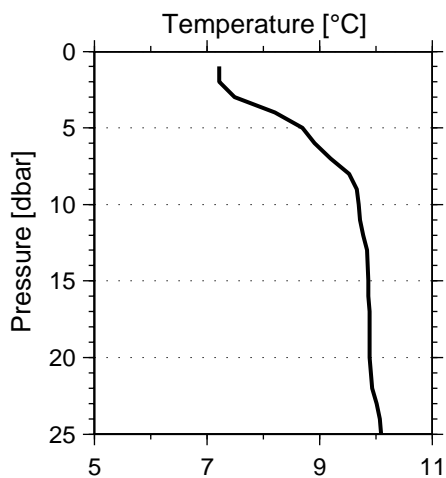
Aysen July 2010
Station CUN Cast 24



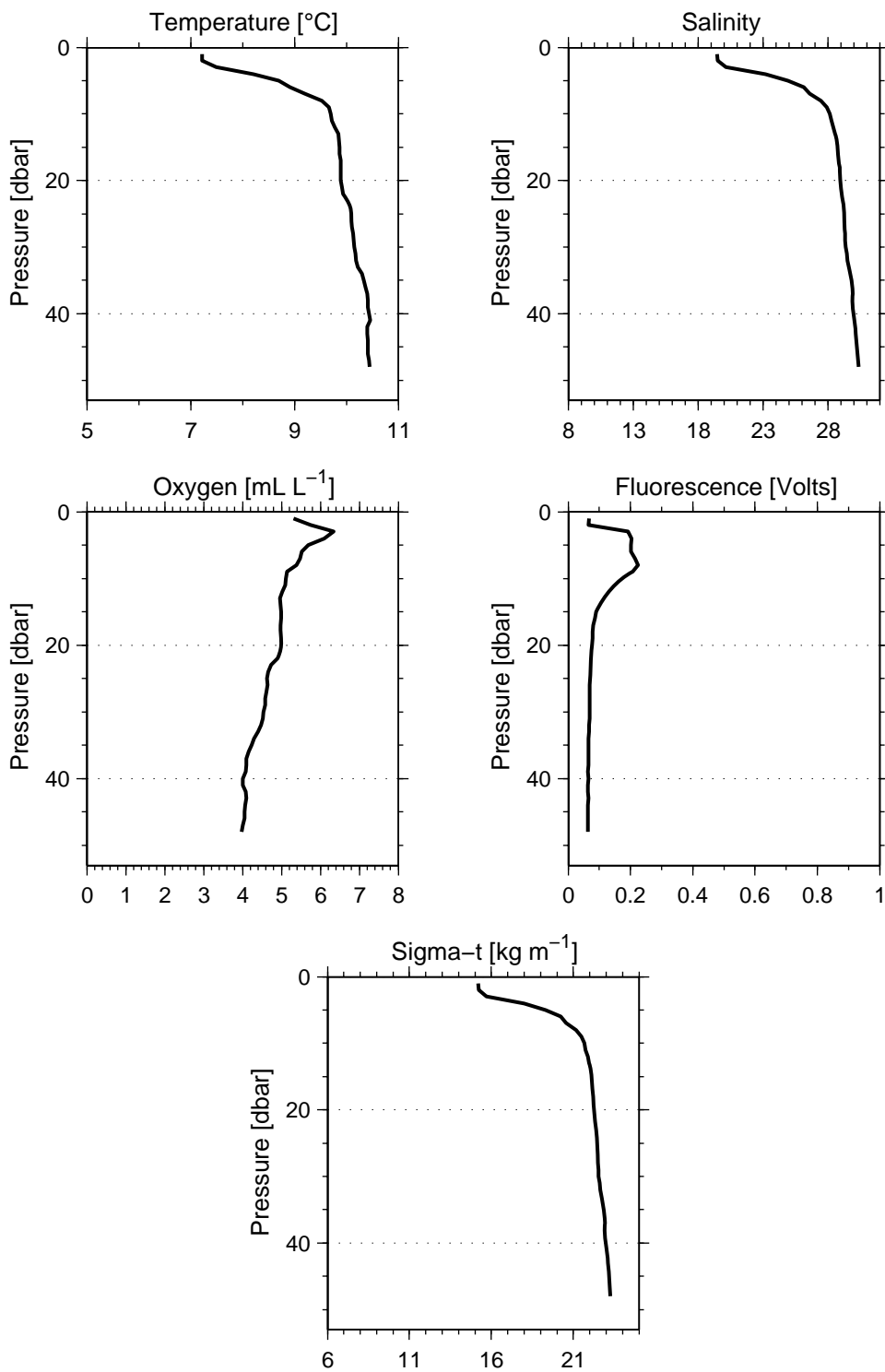
CRUISE	: Aysen July 2010	STATION	: CUC	CAST	: 25
DATE	: 2010-07-23	LAT	: 45°22.042	Z-CTD	: 47 m
TIME	: 04:56	LON	: 73°04.955	DEPTH	: 130 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	7.224	19.492	15.207	5.309	0.068	-
2	7.220	19.532	15.240	5.754	0.065	-
3	7.500	20.141	15.687	6.337	0.193	-
4	8.208	23.218	18.013	6.103	0.203	-
6	8.913	26.171	20.227	5.524	0.201	-
8	9.524	27.489	21.166	5.391	0.224	-
10	9.696	28.157	21.661	5.106	0.172	-
12	9.783	28.445	21.873	5.027	0.133	-
14	9.863	28.694	22.055	4.983	0.101	-
16	9.872	28.800	22.136	4.986	0.086	-
18	9.891	28.909	22.218	4.972	0.079	-
20	9.895	28.957	22.255	5.000	0.077	-
22	9.938	29.077	22.341	4.895	0.073	-
24	10.076	29.236	22.443	4.653	0.071	-
26	10.099	29.286	22.479	4.638	0.070	-
28	10.127	29.319	22.500	4.587	0.069	-
30	10.152	29.377	22.541	4.530	0.068	-
35	10.337	29.820	22.855	4.235	0.066	-
40	10.437	29.995	22.976	4.000	0.065	-
45	10.415	30.246	23.175	4.050	0.063	-
47	10.434	30.323	23.232	4.012	0.063	-

Aysen July 2010
Station CUC Cast 25



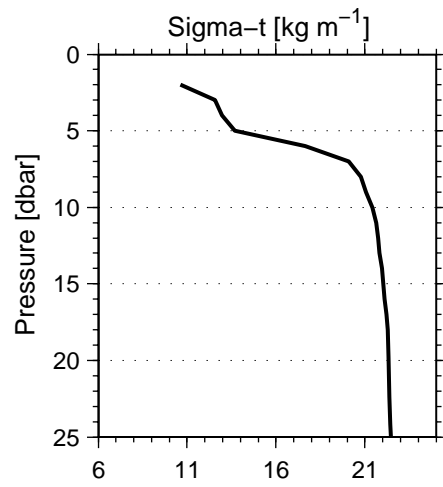
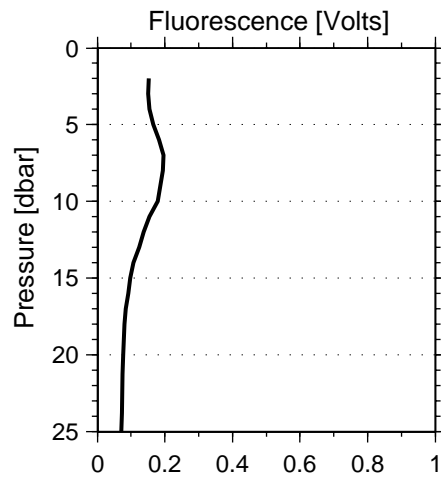
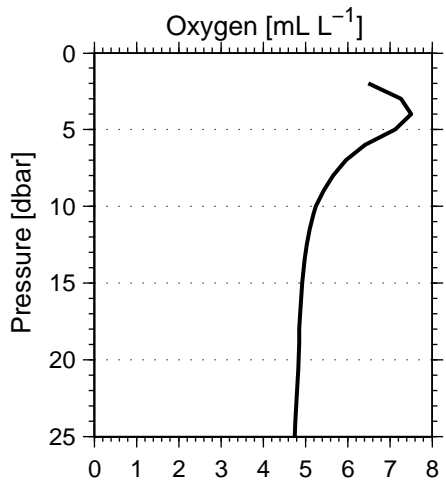
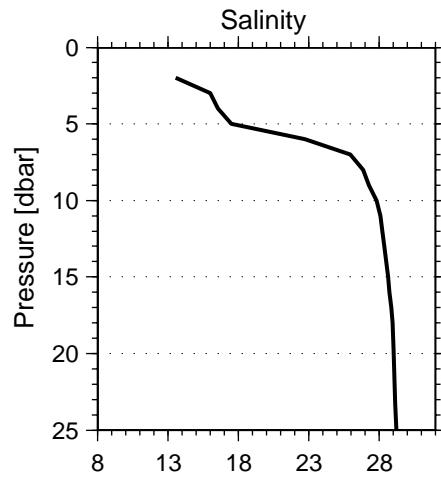
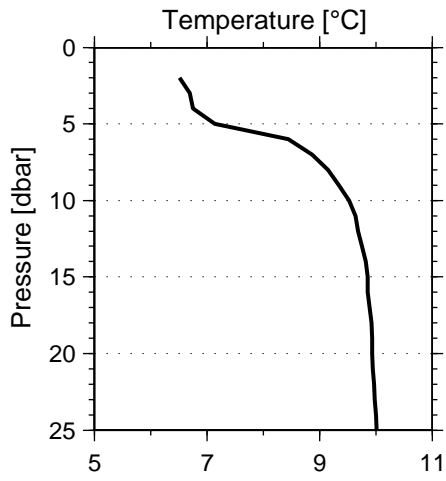
Aysen July 2010
Station CUC Cast 25



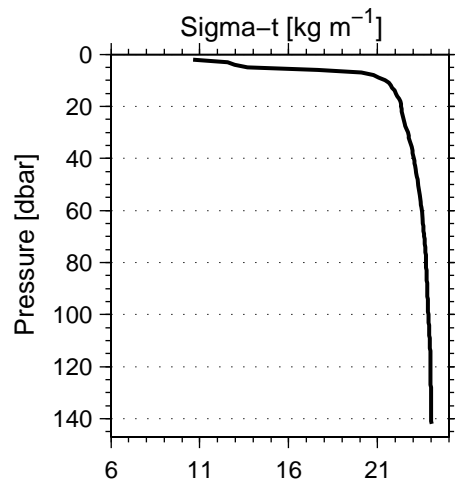
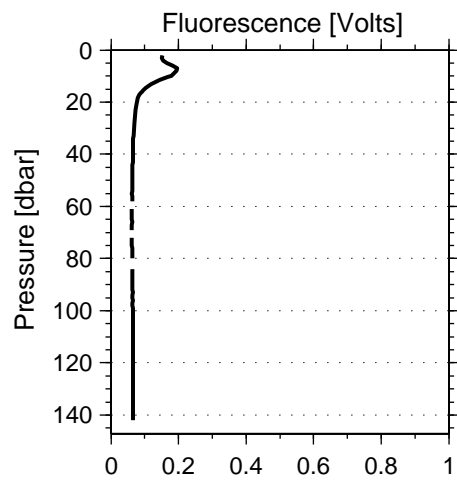
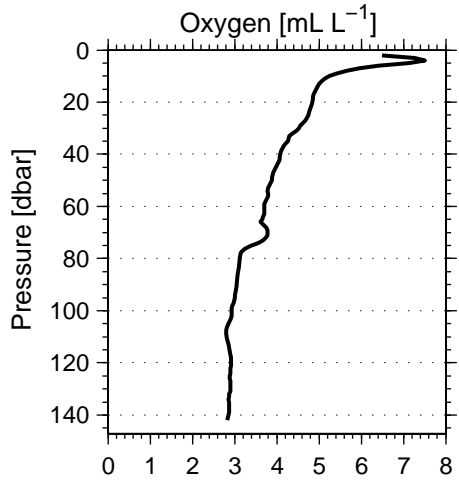
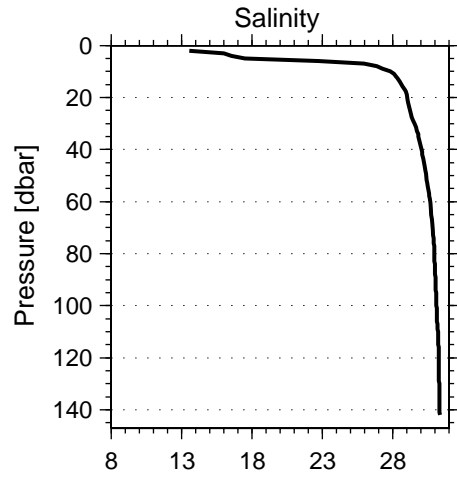
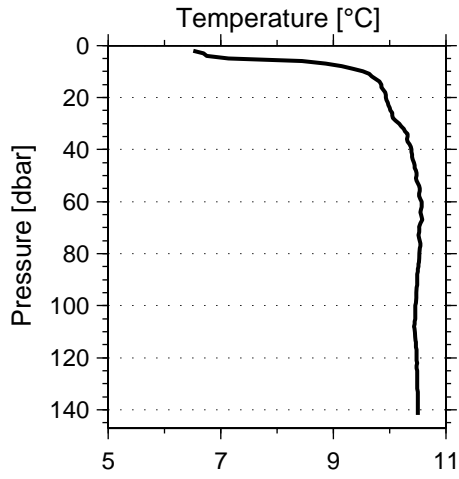
CRUISE : Aysen July 2010	STATION : CUS	CAST : 26
DATE : 2010-07-23	LAT : 45°22.861	Z-CTD : 141 m
TIME : 05:22	LON : 73°06.061	DEPTH : 220 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	6.512	13.561	10.618	6.488	0.152	-
3	6.701	16.040	12.549	7.263	0.150	-
4	6.754	16.571	12.962	7.507	0.155	-
6	8.443	22.761	17.627	6.410	0.182	-
8	9.149	26.909	20.769	5.665	0.194	-
10	9.533	27.833	21.434	5.257	0.179	-
12	9.684	28.236	21.726	5.068	0.137	-
14	9.824	28.541	21.941	4.958	0.107	-
16	9.857	28.758	22.105	4.898	0.092	-
18	9.922	28.992	22.278	4.853	0.081	-
20	9.943	29.055	22.324	4.845	0.077	-
22	9.968	29.106	22.359	4.806	0.074	-
24	10.002	29.207	22.432	4.769	0.073	-
26	10.048	29.303	22.500	4.722	0.071	-
28	10.061	29.398	22.572	4.618	0.070	-
30	10.172	29.584	22.699	4.517	0.068	-
35	10.325	29.859	22.888	4.260	0.066	-
40	10.395	30.063	23.036	4.076	0.065	-
45	10.436	30.237	23.164	3.982	0.064	-
50	10.483	30.404	23.286	3.884	0.064	-
60	10.569	30.692	23.497	3.703	NaN	-
70	10.533	30.855	23.629	3.785	NaN	-
80	10.531	30.981	23.728	3.122	0.063	-
90	10.492	31.060	23.796	3.056	0.064	-
100	10.462	31.128	23.854	2.934	0.065	-
125	10.490	31.310	23.991	2.889	0.065	-
141	10.506	31.361	24.028	2.835	0.065	-

Aysen July 2010
Station CUS Cast 26



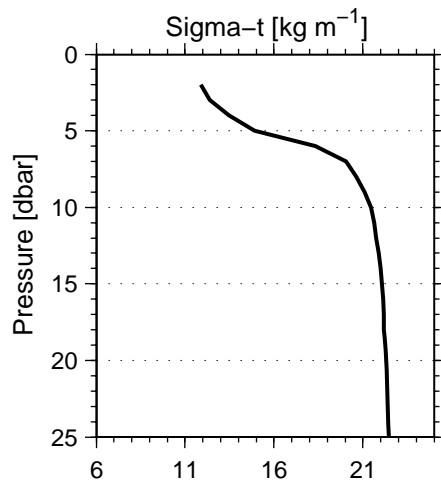
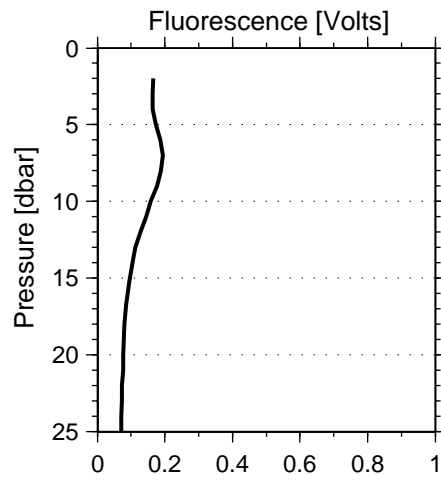
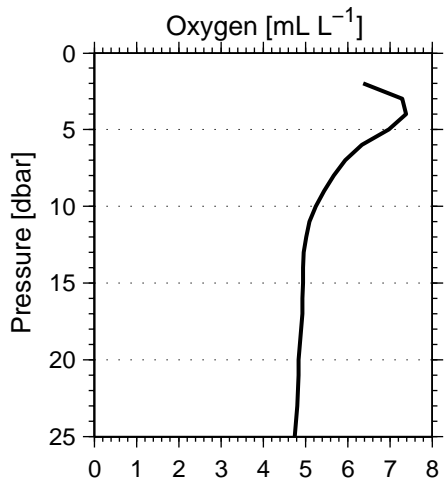
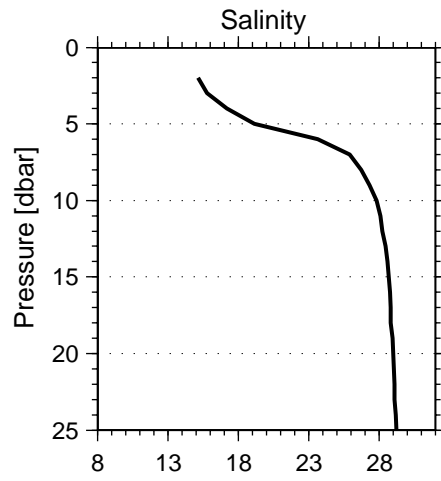
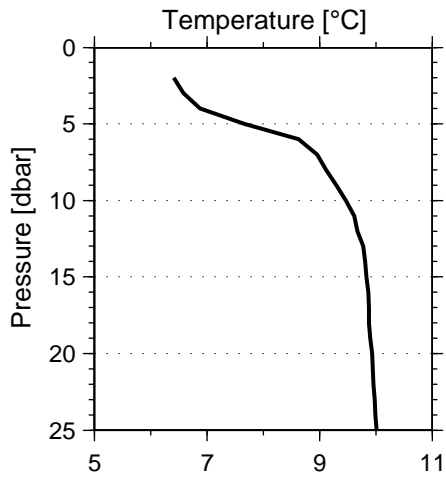
Aysen July 2010
Station CUS Cast 26



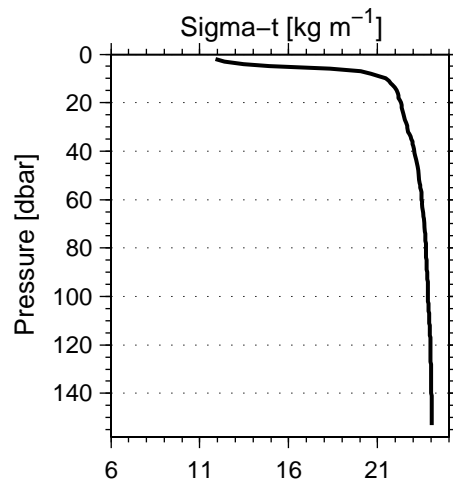
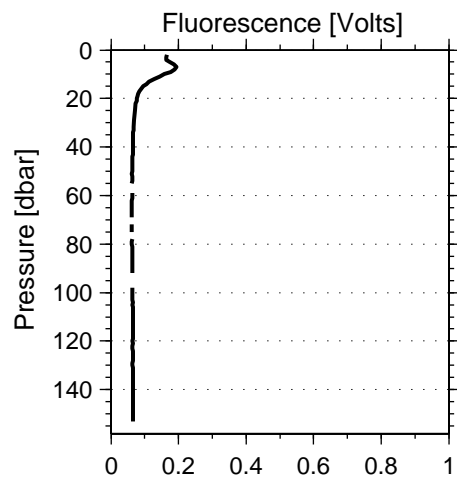
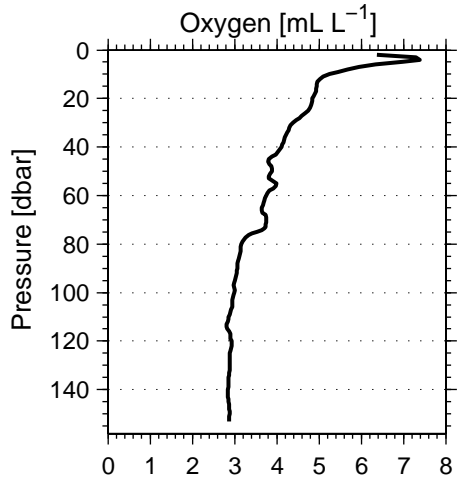
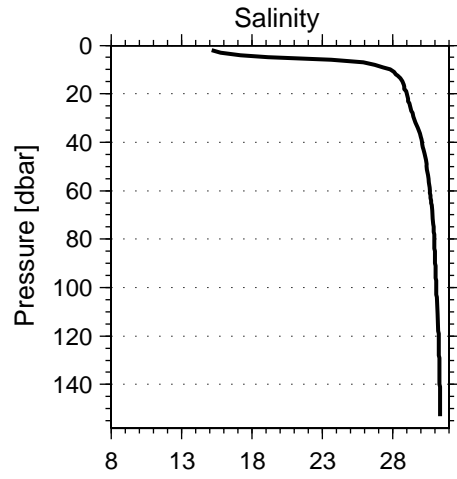
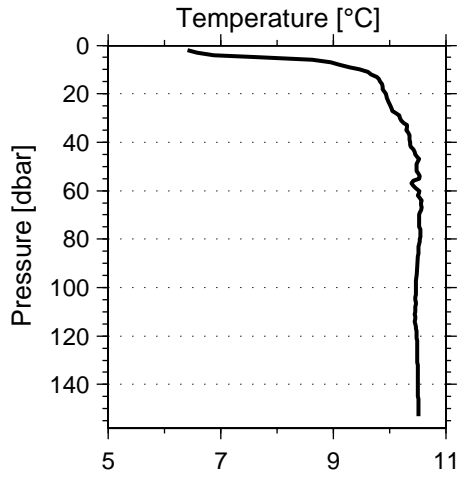
CRUISE : Aysen July 2010	STATION : CUS	CAST : 27
DATE : 2010-07-23	LAT : 45°22.791	Z-CTD : 152 m
TIME : 07:16	LON : 73°06.183	DEPTH : 205 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	6.410	15.157	11.880	6.368	0.165	-
3	6.590	15.812	12.380	7.296	0.164	-
4	6.877	17.225	13.463	7.381	0.164	-
6	8.627	23.674	18.315	6.337	0.186	-
8	9.124	26.737	20.639	5.680	0.188	-
10	9.469	27.833	21.443	5.254	0.159	-
12	9.680	28.253	21.739	5.022	0.128	-
14	9.815	28.594	21.985	4.948	0.105	-
16	9.869	28.803	22.139	4.938	0.090	-
18	9.880	28.856	22.178	4.899	0.080	-
20	9.937	29.043	22.314	4.848	0.077	-
22	9.965	29.111	22.363	4.828	0.073	-
24	9.995	29.191	22.421	4.783	0.072	-
26	10.043	29.293	22.493	4.682	0.070	-
28	10.108	29.425	22.585	4.531	0.069	-
30	10.192	29.542	22.663	4.382	0.067	-
35	10.304	29.867	22.898	4.224	0.066	-
40	10.370	30.097	23.066	4.113	0.065	-
45	10.463	30.304	23.212	3.807	0.064	-
50	10.482	30.440	23.315	3.881	0.063	-
60	10.525	30.668	23.485	3.750	0.063	-
70	10.534	30.854	23.628	3.754	NaN	-
80	10.541	30.975	23.721	3.163	0.062	-
90	10.499	31.044	23.782	3.063	0.063	-
100	10.475	31.104	23.833	2.994	0.064	-
125	10.491	31.298	23.981	2.892	0.065	-
150	10.519	31.381	24.041	2.880	0.065	-
152	10.520	31.386	24.045	2.872	0.065	-

Aysen July 2010
Station CUS Cast 27



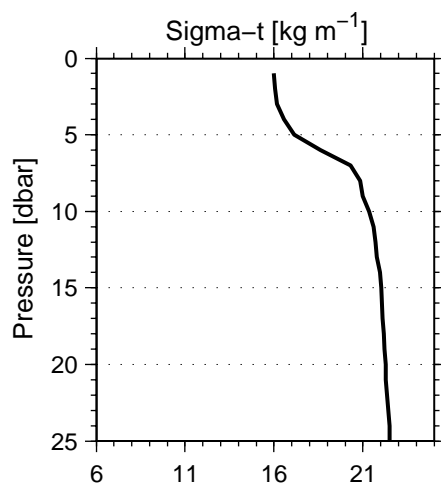
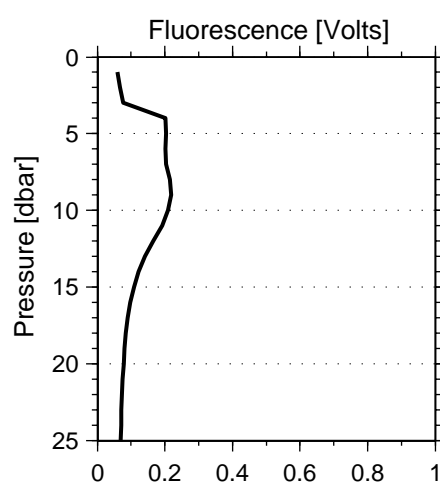
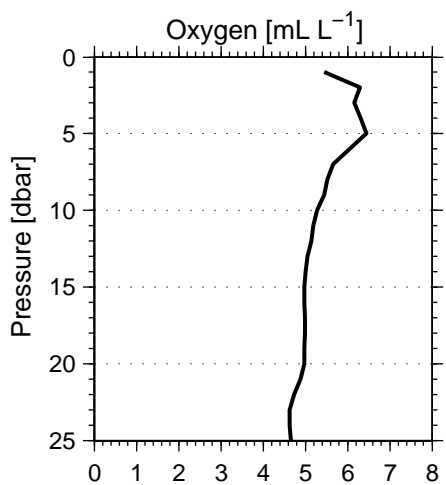
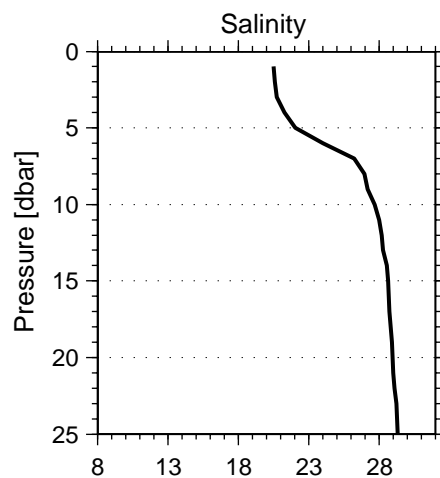
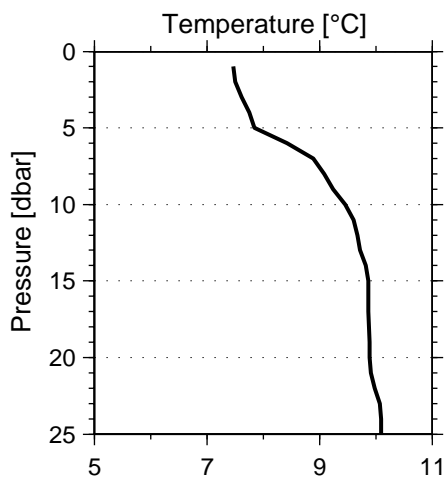
Aysen July 2010
Station CUS Cast 27



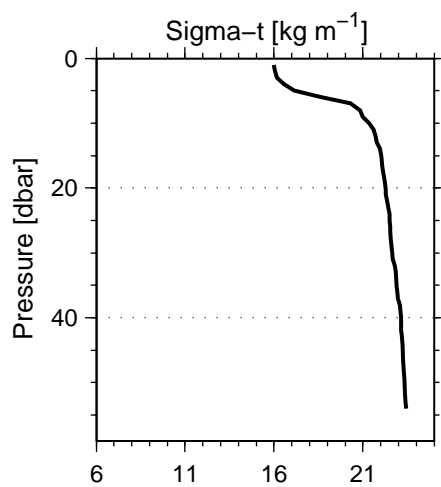
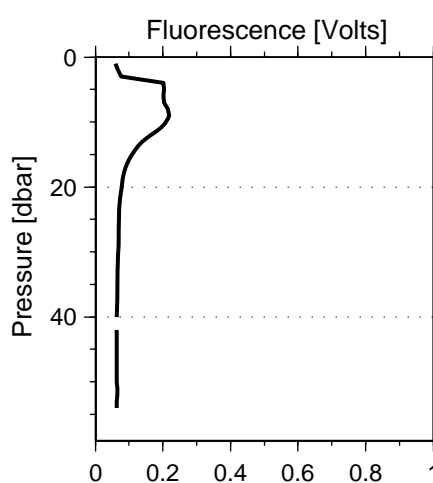
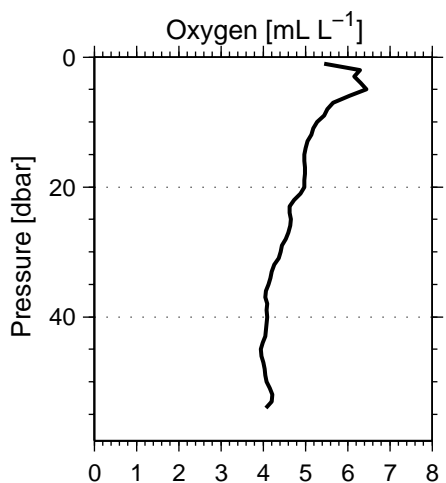
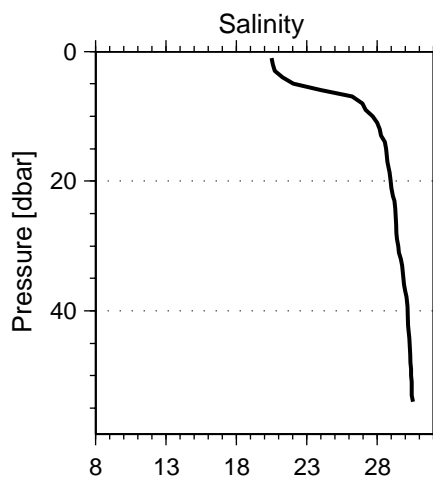
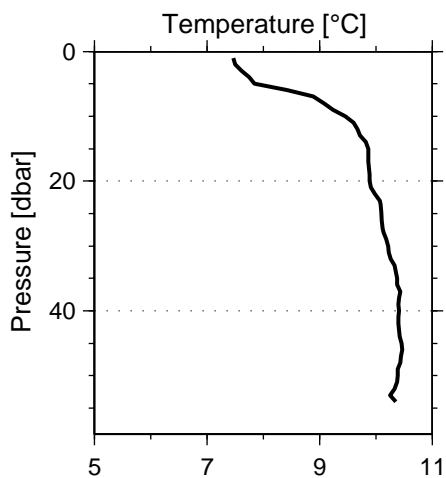
CRUISE : Aysen July 2010	STATION : CUC	CAST : 28
DATE : 2010-07-23	LAT : 45°22.166	Z-CTD : 53 m
TIME : 07:39	LON : 73°05.058	DEPTH : 189 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	7.471	20.518	15.986	5.453	0.059	-
2	7.502	20.599	16.045	6.301	0.068	-
3	7.616	20.771	16.167	6.159	0.076	-
4	7.753	21.280	16.551	6.314	0.202	-
6	8.422	24.038	18.625	6.048	0.201	-
8	9.084	26.977	20.831	5.525	0.215	-
10	9.460	27.722	21.358	5.283	0.209	-
12	9.672	28.188	21.690	5.139	0.166	-
14	9.829	28.557	21.953	5.006	0.123	-
16	9.867	28.689	22.050	4.978	0.097	-
18	9.882	28.835	22.161	4.990	0.085	-
20	9.895	28.976	22.269	4.973	0.078	-
22	9.981	29.107	22.358	4.742	0.073	-
24	10.102	29.299	22.488	4.635	0.071	-
26	10.104	29.343	22.522	4.644	0.070	-
28	10.140	29.392	22.555	4.545	0.069	-
30	10.223	29.511	22.634	4.423	0.068	-
35	10.376	29.881	22.897	4.133	0.065	-
40	10.410	30.192	23.134	4.096	0.064	-
45	10.455	30.354	23.252	3.943	0.063	-
50	10.396	30.447	23.334	4.089	0.063	-
53	10.250	30.496	23.396	4.211	0.064	-

Aysen July 2010
Station CUC Cast 28



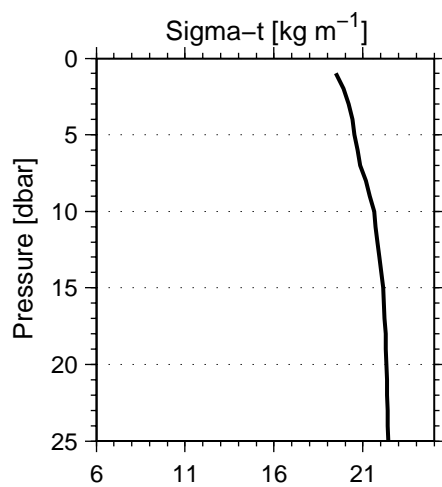
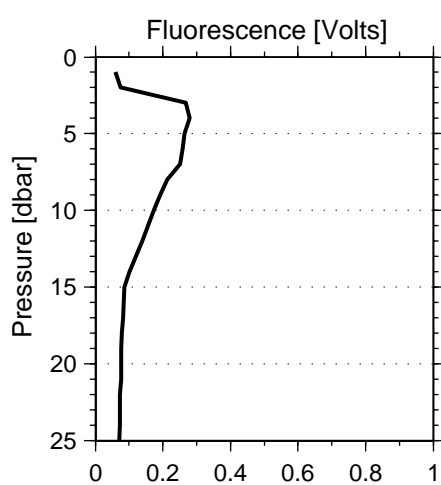
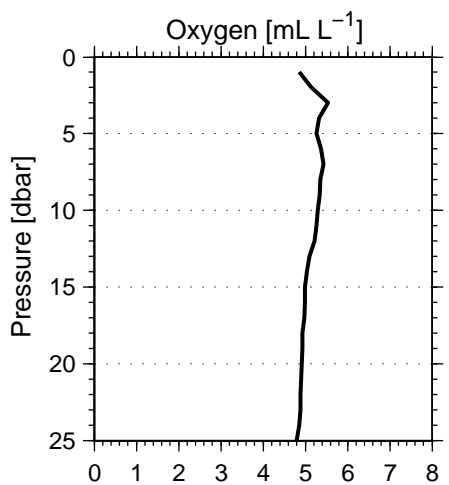
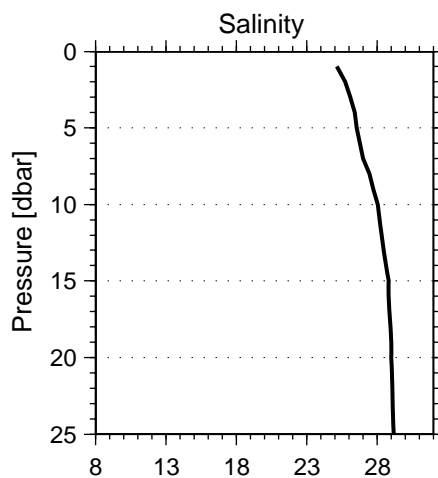
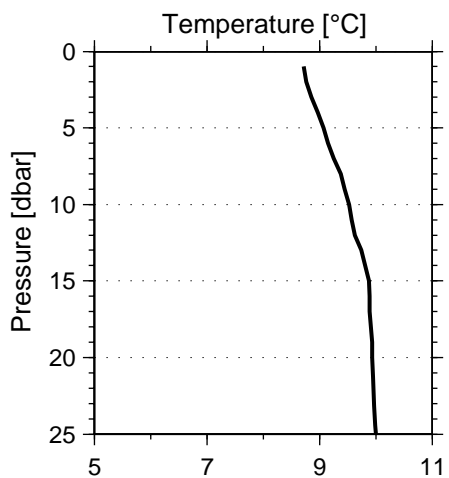
Aysen July 2010
Station CUC Cast 28



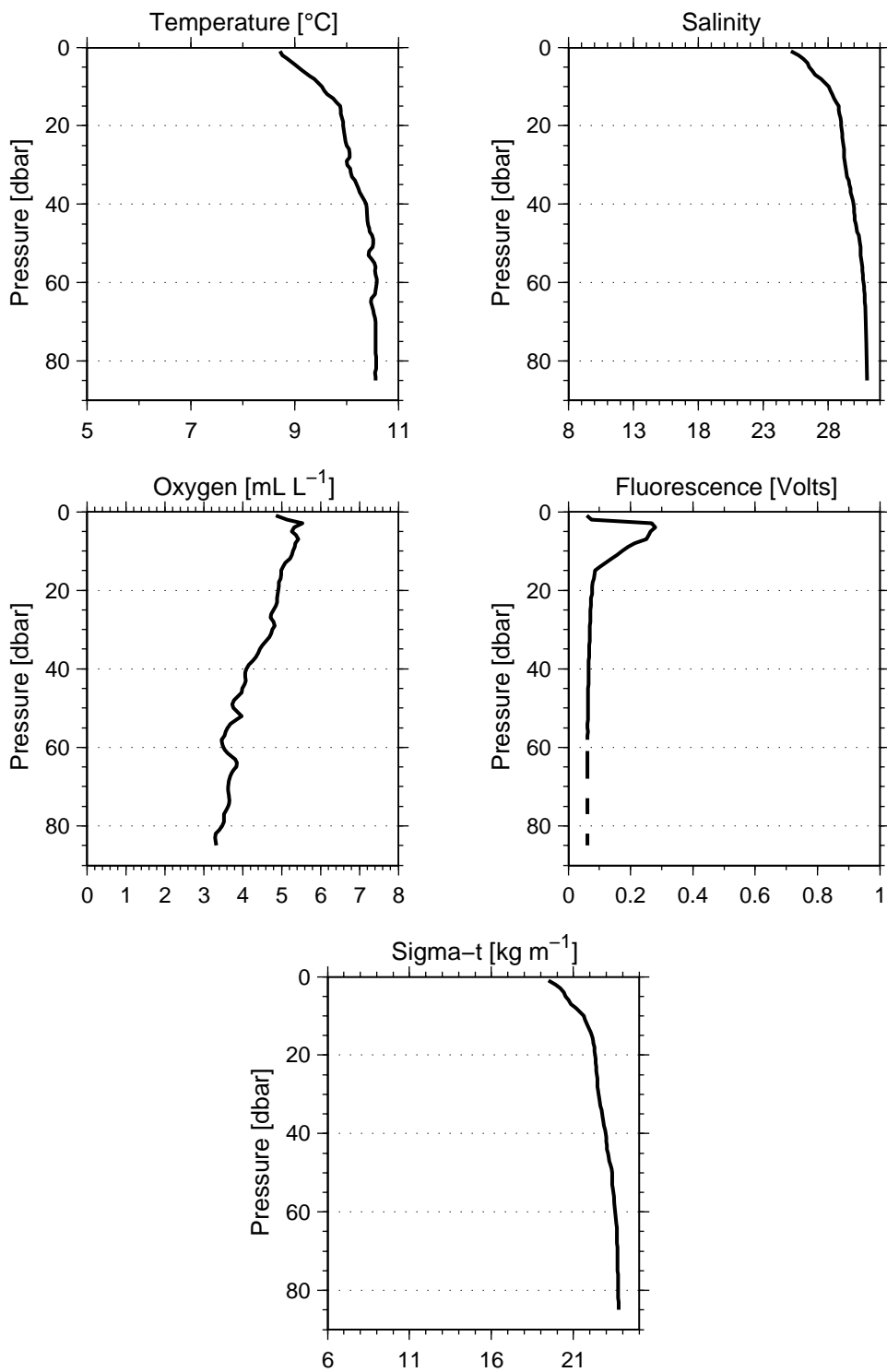
CRUISE : Aysen July 2010	STATION : CUN	CAST : 29
DATE : 2010-07-23	LAT : 45°21.300	Z-CTD : 84 m
TIME : 08:05	LON : 73°03.626	DEPTH : 113 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	8.725	25.160	19.463	4.852	0.061	-
2	8.766	25.755	19.922	5.144	0.074	-
3	8.863	26.119	20.194	5.543	0.268	-
4	8.976	26.419	20.412	5.322	0.280	-
6	9.157	26.816	20.696	5.378	0.258	-
8	9.382	27.479	21.180	5.352	0.212	-
10	9.530	28.082	21.628	5.297	0.173	-
12	9.634	28.321	21.799	5.216	0.139	-
14	9.815	28.663	22.038	5.044	0.101	-
16	9.890	28.835	22.160	4.991	0.085	-
18	9.920	28.980	22.269	4.938	0.078	-
20	9.938	29.043	22.315	4.921	0.076	-
22	9.960	29.107	22.361	4.892	0.074	-
24	9.979	29.153	22.394	4.861	0.072	-
26	10.055	29.247	22.455	4.733	0.071	-
28	10.060	29.267	22.470	4.794	0.070	-
30	10.015	29.344	22.537	4.771	0.069	-
35	10.200	29.675	22.765	4.447	0.067	-
40	10.377	29.966	22.963	4.096	0.066	-
45	10.419	30.161	23.108	3.991	0.064	-
50	10.518	30.490	23.348	3.767	0.063	-
60	10.584	30.747	23.537	3.513	NaN	-
70	10.559	30.921	23.676	3.634	NaN	-
80	10.573	30.994	23.731	3.475	NaN	-
84	10.558	31.038	23.768	3.304	0.062	-

Aysen July 2010
Station CUN Cast 29



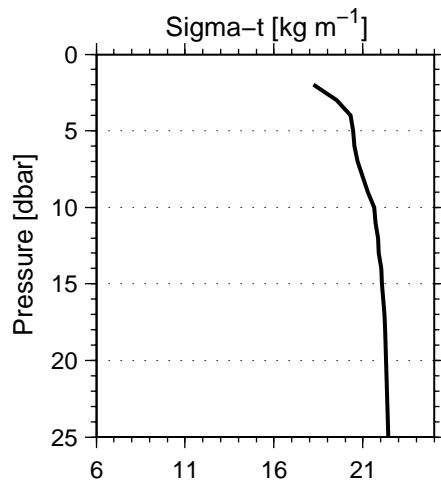
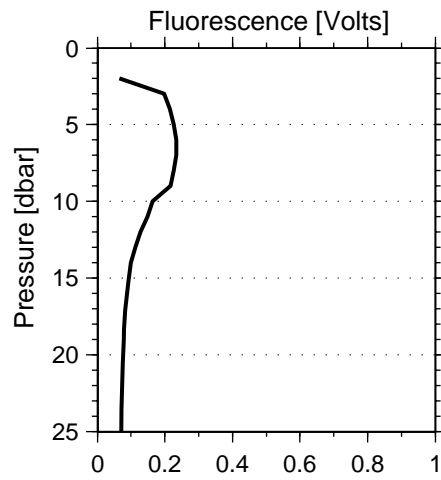
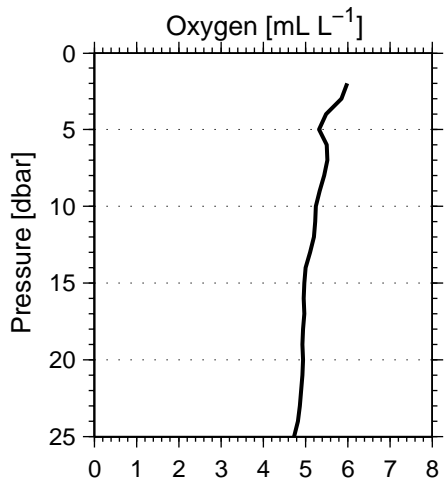
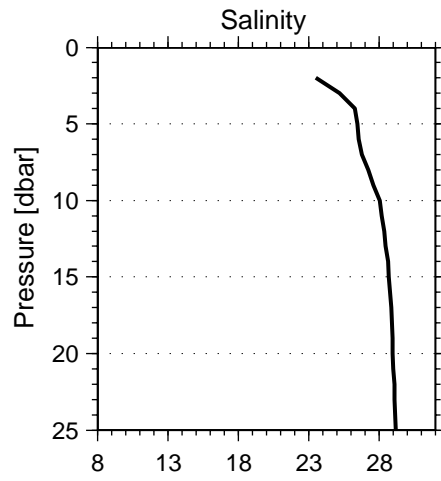
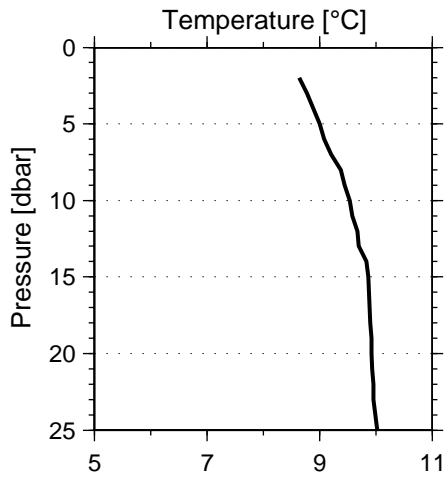
Aysen July 2010
Station CUN Cast 29



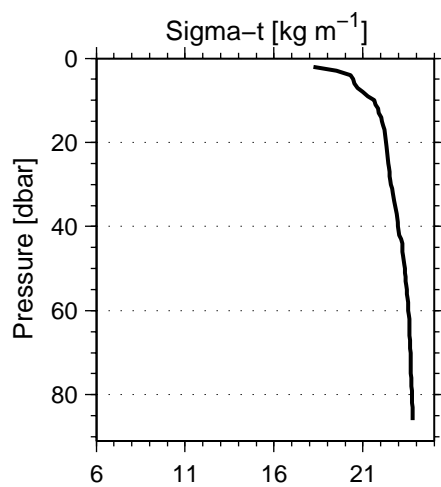
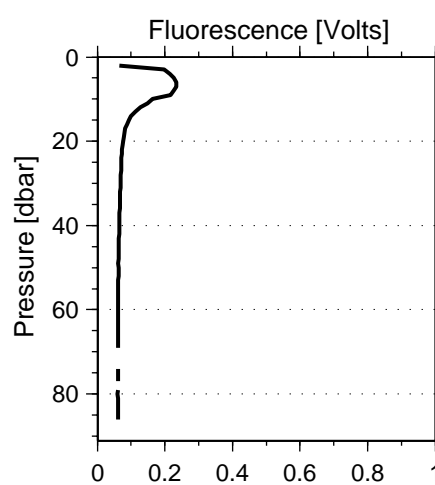
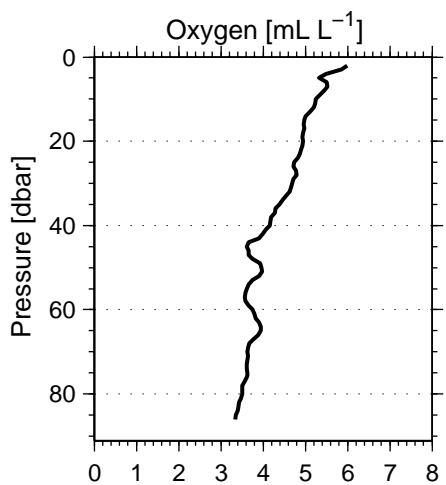
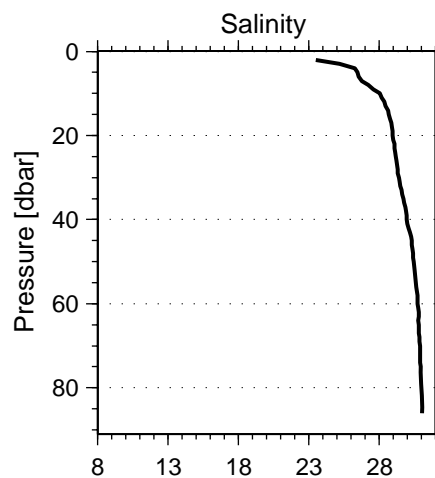
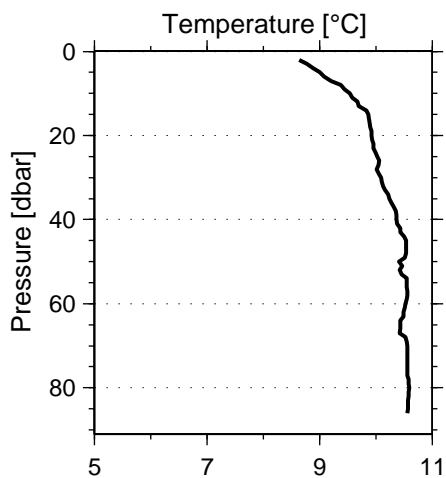
CRUISE : Aysen July 2010	STATION : CUN	CAST : 30
DATE : 2010-07-23	LAT : 45°21.331	Z-CTD : 85 m
TIME : 09:52	LON : 73°03.714	DEPTH : 148 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.641	23.539	18.208	5.991	0.066	-
3	8.781	25.212	19.496	5.854	0.199	-
4	8.889	26.276	20.312	5.492	0.215	-
6	9.081	26.566	20.512	5.503	0.233	-
8	9.385	27.241	20.994	5.446	0.227	-
10	9.545	28.082	21.626	5.256	0.164	-
12	9.674	28.389	21.846	5.198	0.128	-
14	9.834	28.643	22.020	5.003	0.100	-
16	9.875	28.801	22.136	4.969	0.088	-
18	9.909	28.946	22.244	4.953	0.080	-
20	9.928	28.997	22.281	4.948	0.077	-
22	9.959	29.106	22.361	4.900	0.073	-
24	9.995	29.167	22.403	4.826	0.072	-
26	10.064	29.253	22.459	4.718	0.071	-
28	10.022	29.319	22.517	4.796	0.070	-
30	10.095	29.410	22.576	4.692	0.069	-
35	10.249	29.739	22.807	4.394	0.067	-
40	10.370	29.973	22.970	4.162	0.065	-
45	10.541	30.339	23.226	3.621	0.064	-
50	10.410	30.483	23.360	3.965	0.063	-
60	10.525	30.750	23.549	3.745	0.062	-
70	10.558	30.919	23.675	3.634	NaN	-
80	10.592	31.025	23.752	3.504	0.061	-
85	10.571	31.075	23.794	3.352	0.062	-

Aysen July 2010
Station CUN Cast 30



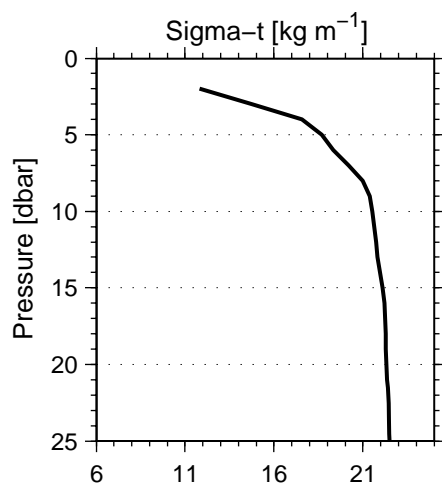
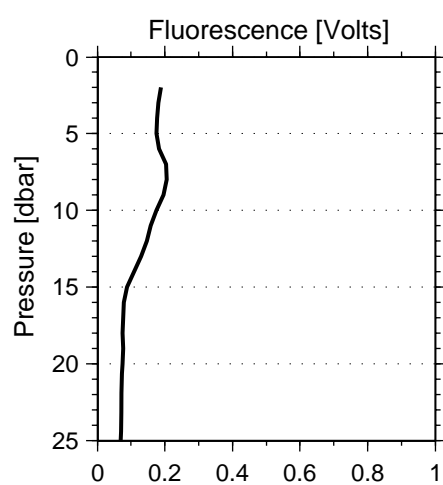
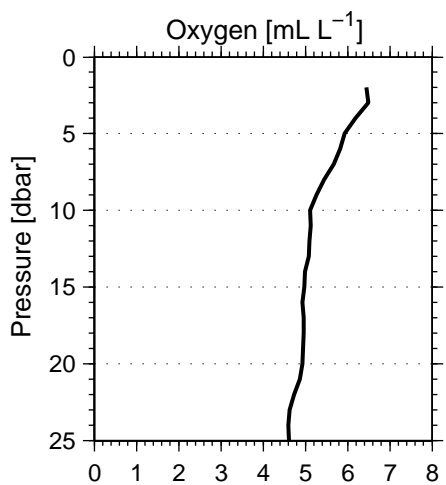
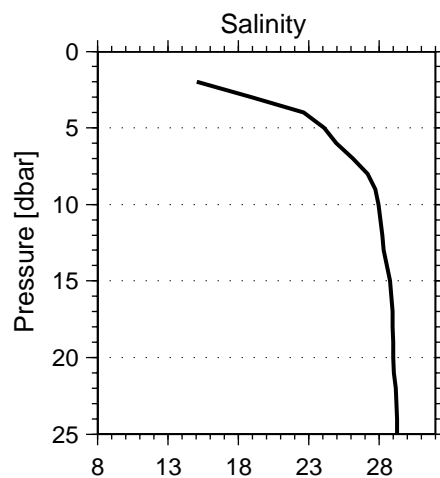
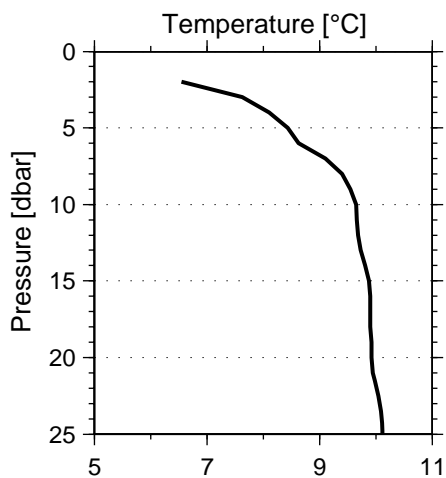
Aysen July 2010
Station CUN Cast 30



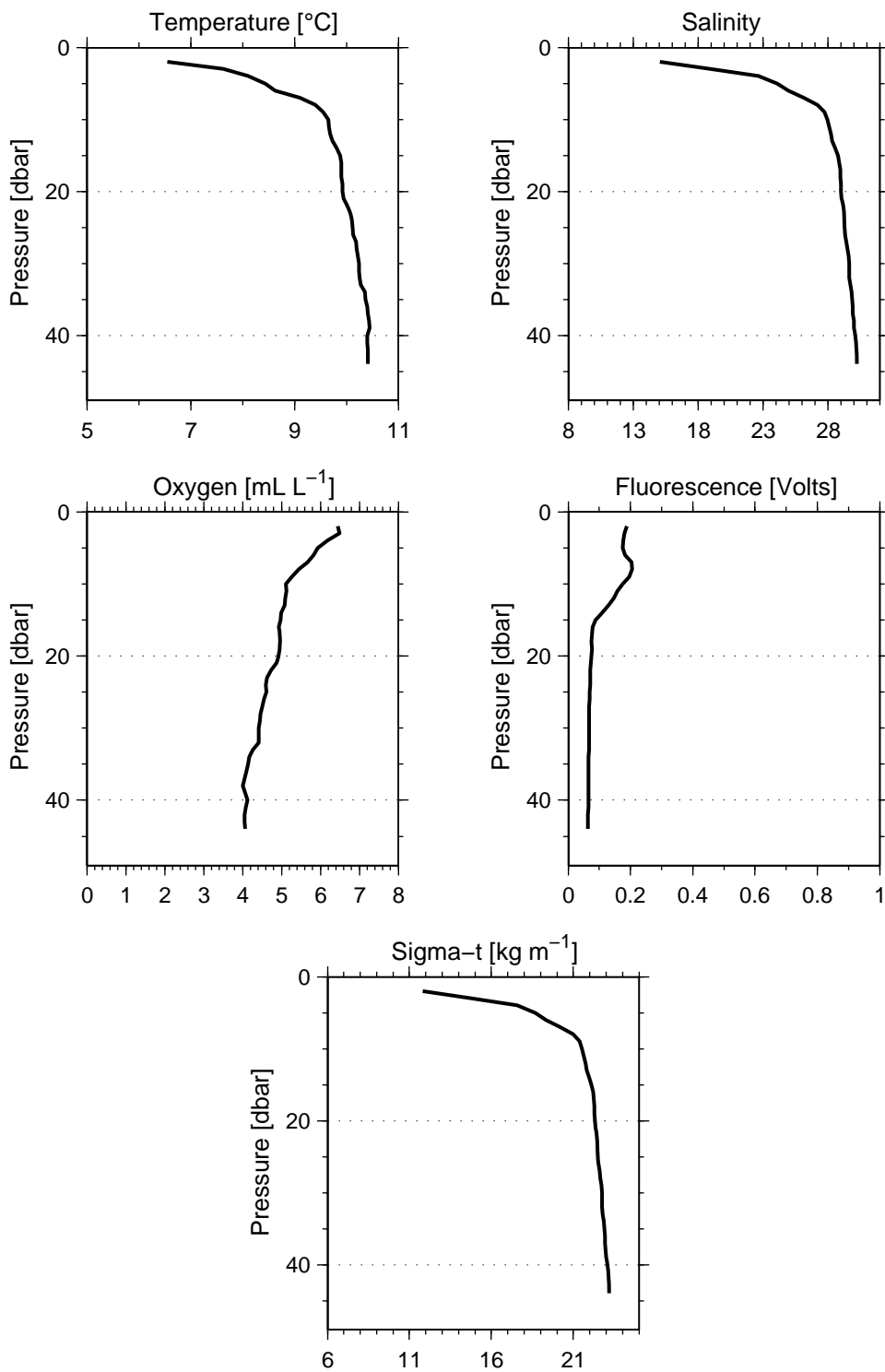
CRUISE	: Aysen July 2010	STATION	: CUC	CAST	: 31
DATE	: 2010-07-23	LAT	: 45°21.956	Z-CTD	: 43 m
TIME	: 10:23	LON	: 73°05.079	DEPTH	: 160 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	6.555	15.086	11.822	6.450	0.189	-	-
3	7.628	18.933	14.726	6.497	0.182	-	-
4	8.103	22.642	17.575	6.189	0.176	-	-
6	8.626	24.987	19.341	5.827	0.183	-	-
8	9.405	27.215	20.971	5.454	0.206	-	-
10	9.655	27.994	21.541	5.120	0.175	-	-
12	9.692	28.265	21.747	5.104	0.146	-	-
14	9.816	28.577	21.971	4.998	0.108	-	-
16	9.909	28.890	22.200	4.932	0.079	-	-
18	9.908	28.993	22.280	4.959	0.075	-	-
20	9.931	29.043	22.316	4.925	0.075	-	-
22	10.015	29.184	22.412	4.735	0.071	-	-
24	10.113	29.291	22.480	4.600	0.070	-	-
26	10.127	29.351	22.525	4.554	0.069	-	-
28	10.195	29.536	22.657	4.463	0.068	-	-
30	10.241	29.656	22.744	4.418	0.067	-	-
35	10.375	29.884	22.899	4.146	0.065	-	-
40	10.398	30.092	23.058	4.122	0.064	-	-
43	10.416	30.238	23.169	4.051	0.064	-	-

Aysen July 2010
Station CUC Cast 31



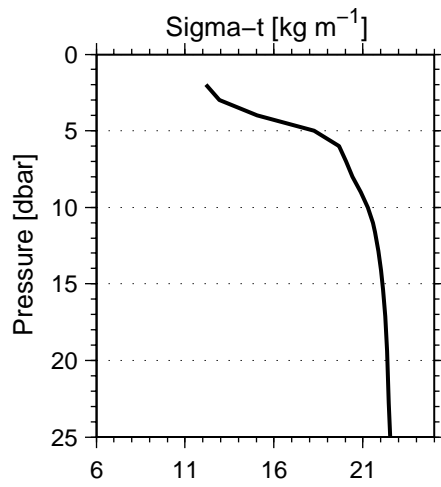
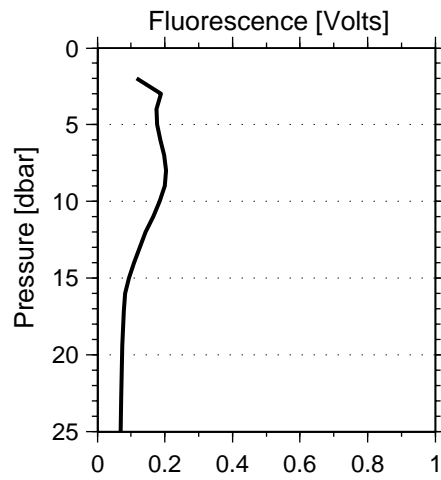
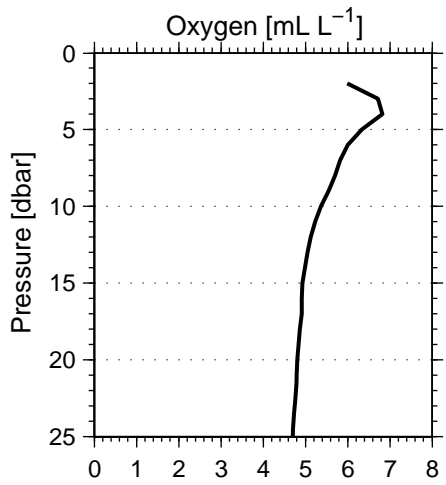
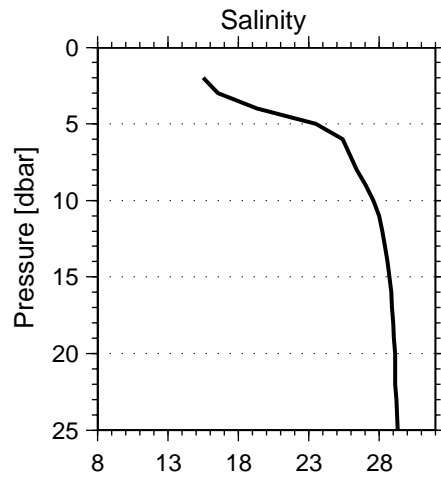
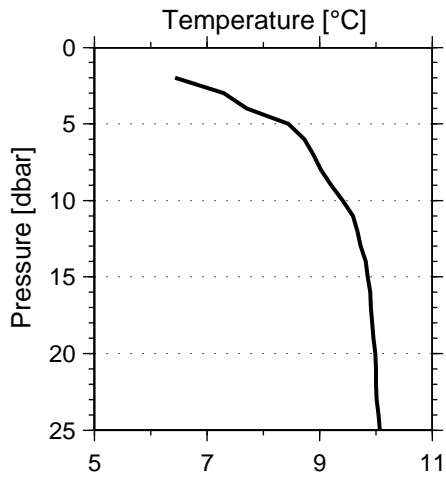
Aysen July 2010
Station CUC Cast 31



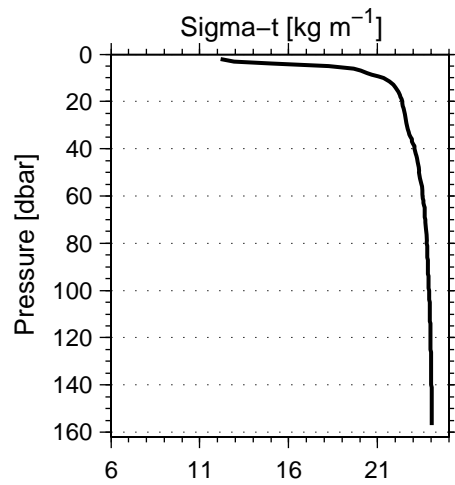
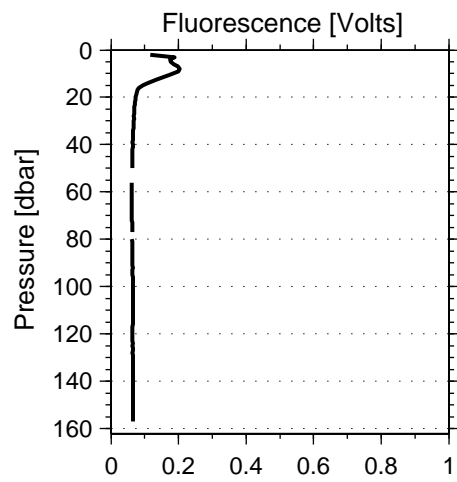
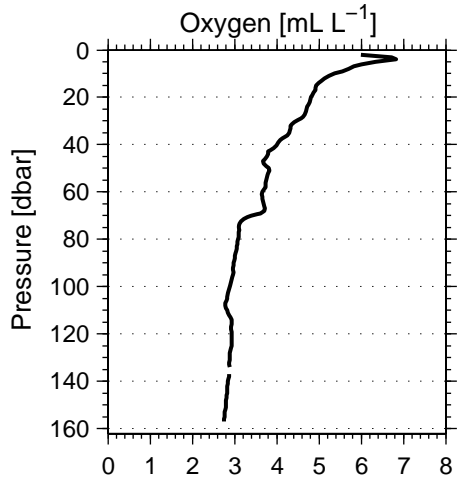
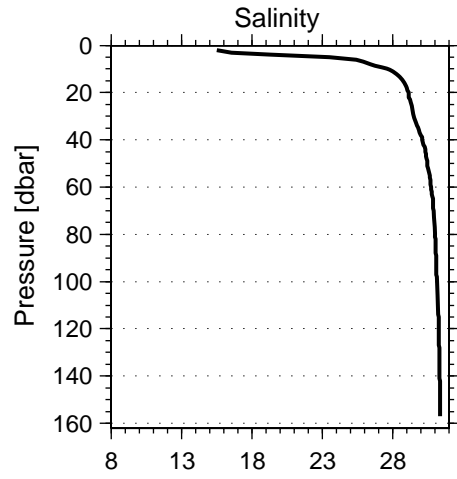
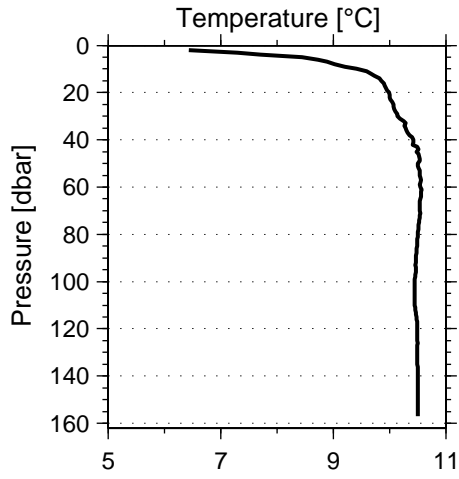
CRUISE : Aysen July 2010	STATION : CUS	CAST : 32
DATE : 2010-07-23	LAT : 45°22.946	Z-CTD : 156 m
TIME : 10:58	LON : 73°06.314	DEPTH : 199 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	6.433	15.512	12.157	5.989	0.116	-
3	7.297	16.579	12.918	6.712	0.188	-
4	7.709	19.355	15.047	6.825	0.176	-
6	8.730	25.418	19.664	6.006	0.187	-
8	9.028	26.444	20.424	5.698	0.203	-
10	9.417	27.627	21.290	5.377	0.186	-
12	9.680	28.270	21.752	5.132	0.144	-
14	9.820	28.622	22.005	4.986	0.109	-
16	9.902	28.865	22.182	4.922	0.083	-
18	9.936	29.020	22.297	4.876	0.076	-
20	9.990	29.145	22.386	4.814	0.073	-
22	10.009	29.182	22.412	4.782	0.071	-
24	10.054	29.302	22.498	4.718	0.070	-
26	10.077	29.370	22.547	4.695	0.069	-
28	10.107	29.439	22.597	4.635	0.068	-
30	10.147	29.501	22.639	4.466	0.068	-
35	10.288	29.832	22.874	4.291	0.065	-
40	10.423	30.133	23.085	4.006	0.065	-
45	10.483	30.351	23.245	3.759	0.064	-
50	10.509	30.469	23.333	3.817	0.063	-
60	10.553	30.738	23.535	3.663	0.061	-
70	10.543	30.910	23.671	3.420	0.062	-
80	10.508	31.037	23.775	3.085	0.062	-
90	10.474	31.100	23.830	2.976	0.064	-
100	10.452	31.172	23.890	2.880	0.065	-
125	10.499	31.311	23.990	2.925	0.064	-
150	10.503	31.377	24.041	2.801	0.066	-
156	10.502	31.385	24.047	2.756	0.066	-

Aysen July 2010
Station CUS Cast 32



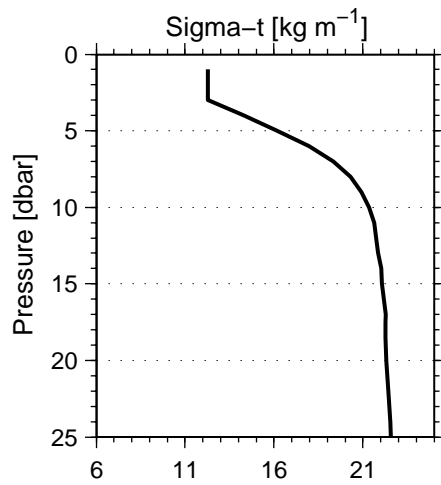
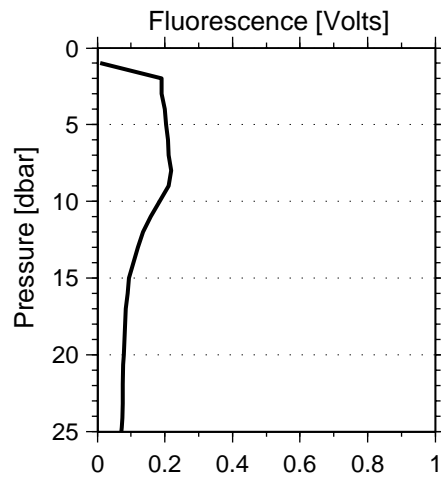
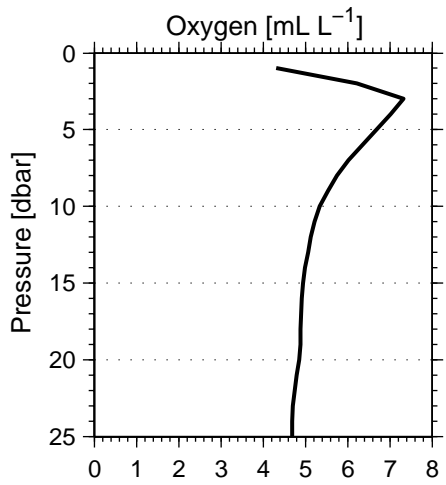
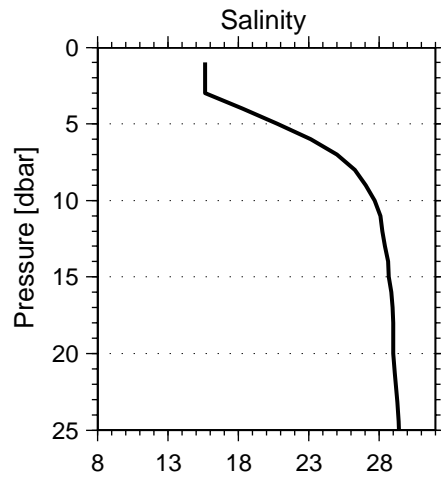
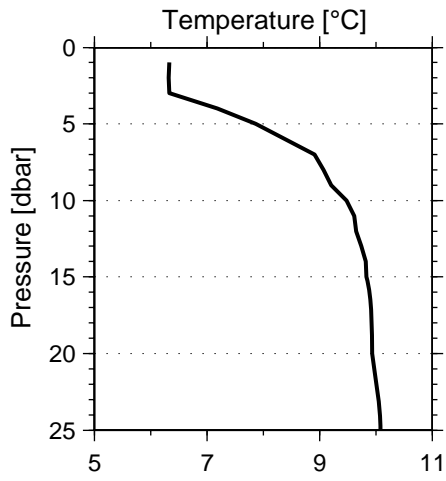
Aysen July 2010
Station CUS Cast 32



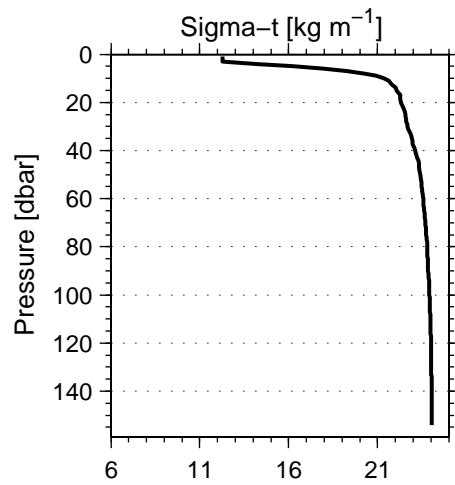
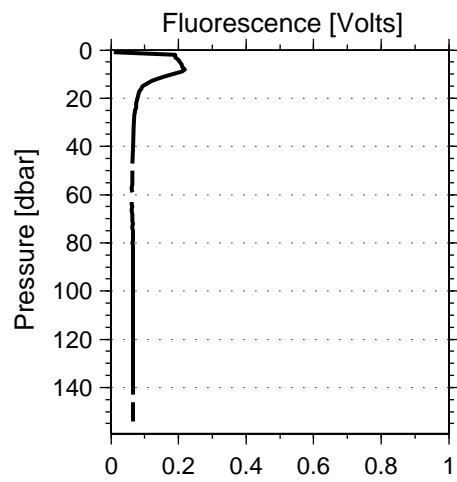
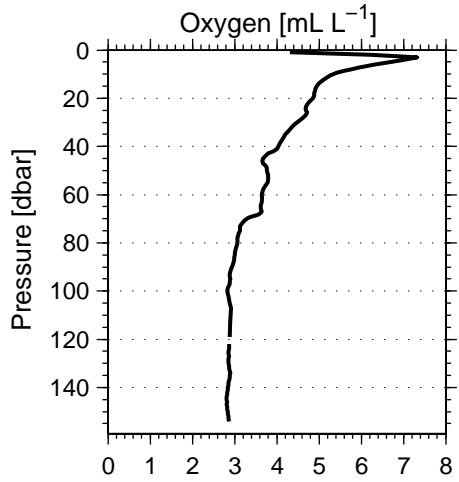
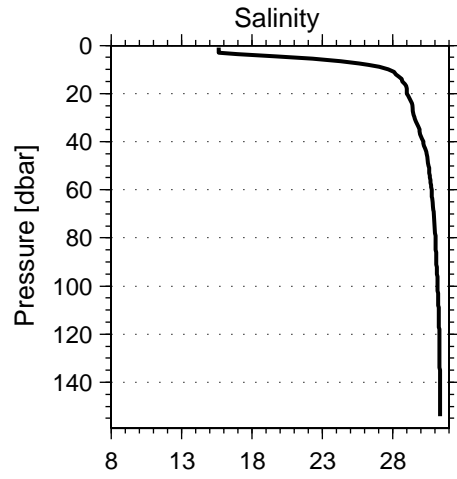
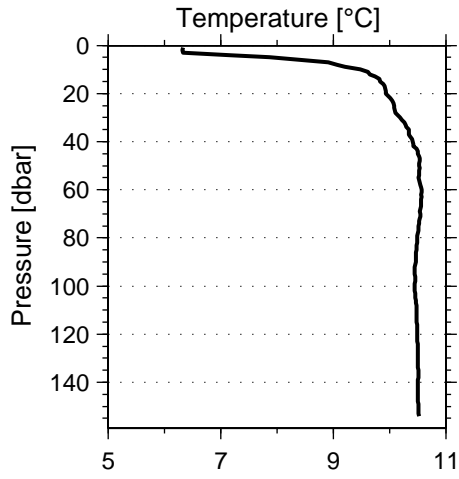
CRUISE : Aysen July 2010	STATION : CUS	CAST : 33
DATE : 2010-07-23	LAT : 45°22.918	Z-CTD : 153 m
TIME : 13:18	LON : 73°06.225	DEPTH : 206 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	6.332	15.645	12.271	4.309	0.009	-
2	6.327	15.653	12.277	6.214	0.191	-
3	6.334	15.656	12.279	7.331	0.191	-
4	7.187	18.317	14.289	7.021	0.200	-
6	8.387	23.176	17.956	6.357	0.209	-
8	9.079	26.318	20.318	5.750	0.218	-
10	9.487	27.698	21.335	5.344	0.184	-
12	9.656	28.256	21.745	5.129	0.136	-
14	9.821	28.645	22.023	4.998	0.107	-
16	9.886	28.865	22.184	4.917	0.089	-
18	9.922	29.004	22.287	4.894	0.082	-
20	9.940	29.039	22.311	4.849	0.079	-
22	10.015	29.196	22.422	4.743	0.075	-
24	10.076	29.376	22.552	4.693	0.074	-
26	10.089	29.426	22.589	4.714	0.071	-
28	10.108	29.472	22.622	4.629	0.069	-
30	10.184	29.576	22.691	4.482	0.068	-
35	10.347	29.924	22.935	4.209	0.067	-
40	10.415	30.182	23.125	4.039	0.066	-
45	10.507	30.447	23.316	3.680	0.064	-
50	10.533	30.571	23.408	3.768	0.064	-
60	10.571	30.780	23.564	3.649	NaN	-
70	10.550	30.930	23.685	3.298	0.064	-
80	10.496	31.058	23.794	3.064	0.064	-
90	10.469	31.121	23.847	2.938	0.065	-
100	10.449	31.208	23.918	2.826	0.066	-
125	10.501	31.349	24.020	2.859	0.066	-
150	10.515	31.389	24.049	2.837	0.066	-
153	10.522	31.393	24.050	2.864	0.066	-

Aysen July 2010
Station CUS Cast 33



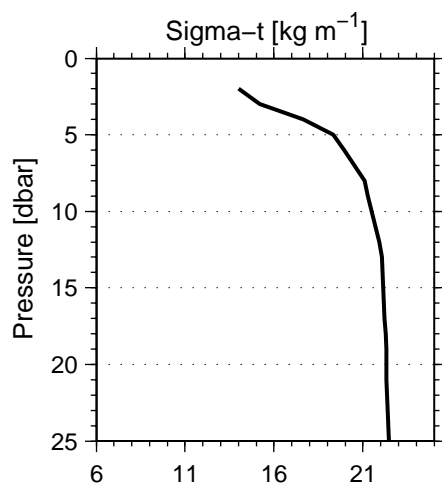
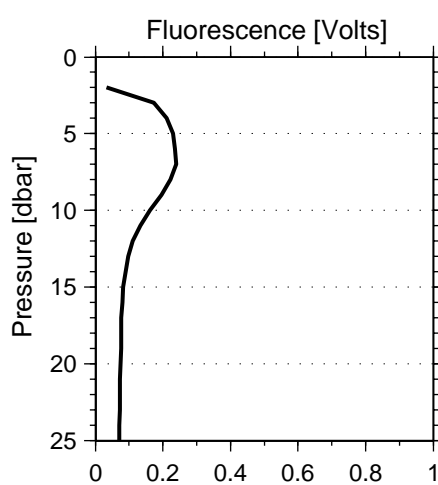
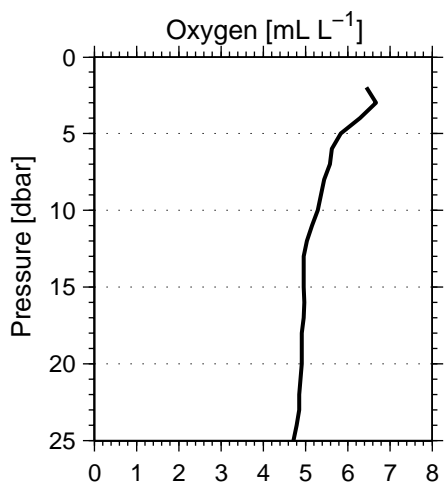
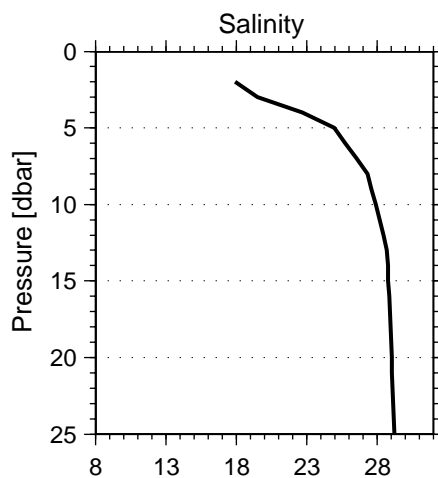
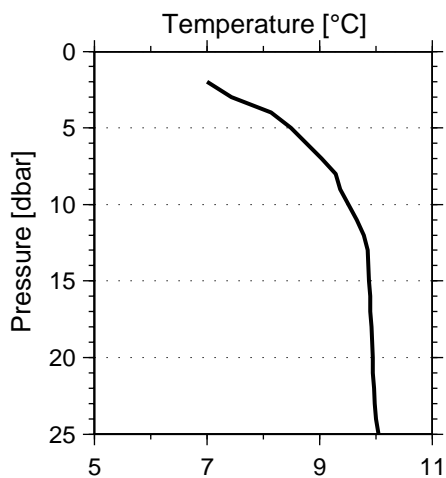
Aysen July 2010
Station CUS Cast 33



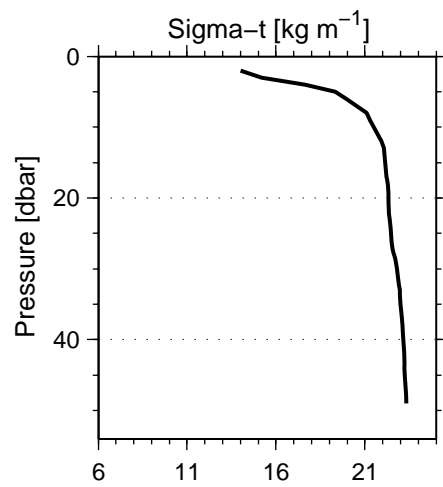
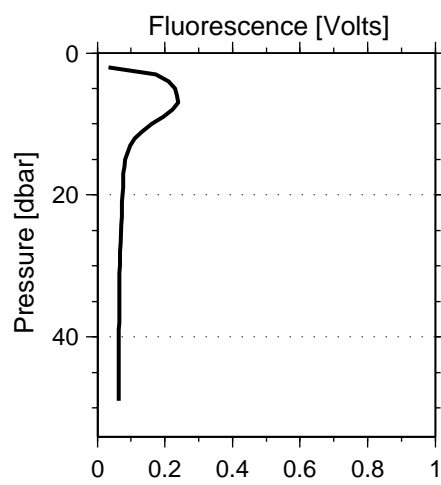
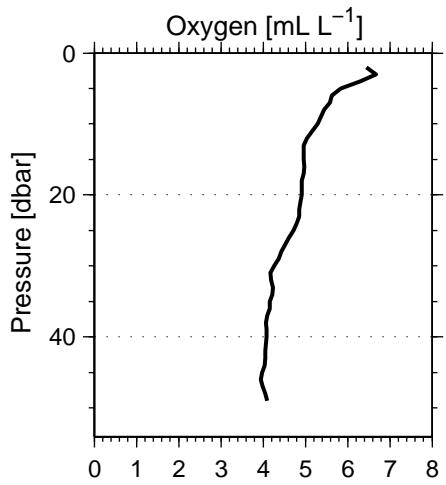
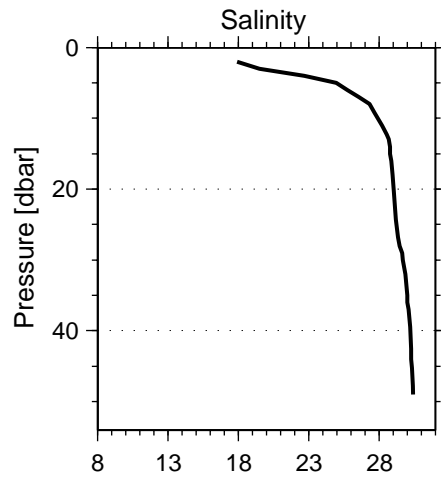
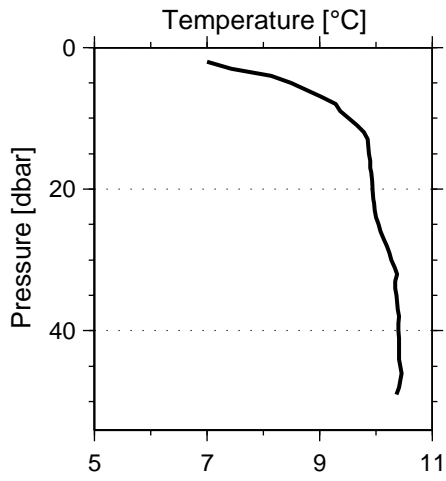
CRUISE	: Aysen July 2010	STATION	: CUC	CAST	: 34
DATE	: 2010-07-23	LAT	: 45°22.106	Z-CTD	: 48 m
TIME	: 13:48	LON	: 73°05.047	DEPTH	: 133 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	7.003	17.914	13.993	6.453	0.034	-	-
3	7.439	19.504	15.194	6.669	0.173	-	-
4	8.142	22.724	17.635	6.299	0.211	-	-
6	8.764	25.767	19.932	5.632	0.235	-	-
8	9.291	27.353	21.095	5.440	0.222	-	-
10	9.517	27.923	21.506	5.289	0.162	-	-
12	9.790	28.498	21.913	5.038	0.110	-	-
14	9.873	28.776	22.117	4.966	0.090	-	-
16	9.901	28.869	22.185	4.974	0.080	-	-
18	9.925	28.985	22.272	4.924	0.076	-	-
20	9.945	29.047	22.317	4.918	0.075	-	-
22	9.976	29.110	22.361	4.860	0.073	-	-
24	10.007	29.203	22.428	4.799	0.071	-	-
26	10.083	29.310	22.500	4.620	0.069	-	-
28	10.199	29.496	22.626	4.431	0.068	-	-
30	10.276	29.711	22.781	4.259	0.067	-	-
35	10.370	30.010	22.999	4.160	0.065	-	-
40	10.408	30.229	23.163	4.084	0.064	-	-
45	10.435	30.335	23.241	3.977	0.064	-	-
48	10.413	30.425	23.315	4.058	0.064	-	-

Aysen July 2010
Station CUC Cast 34



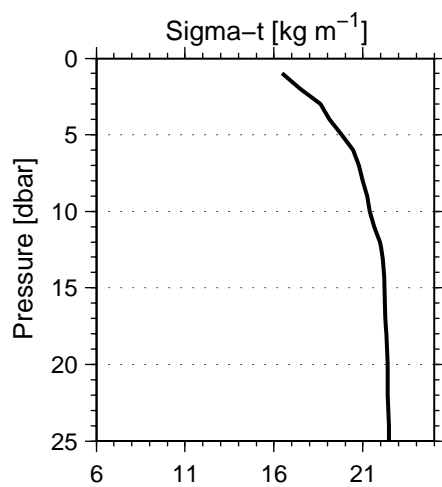
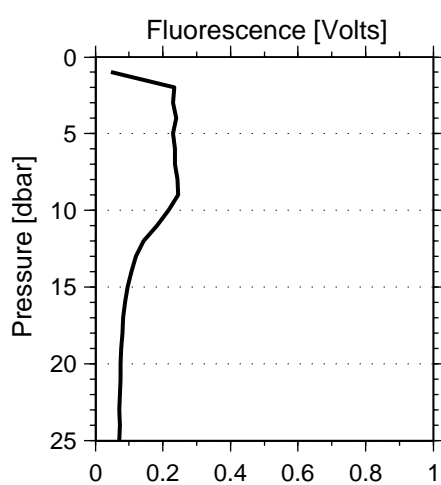
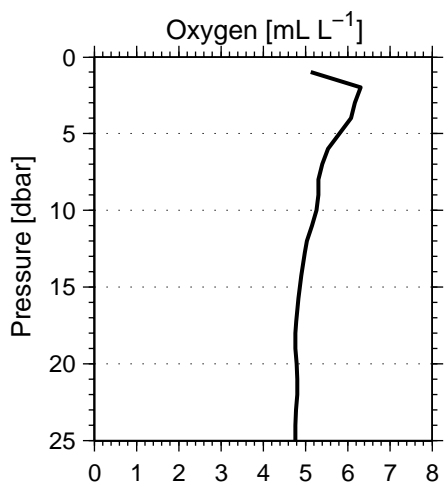
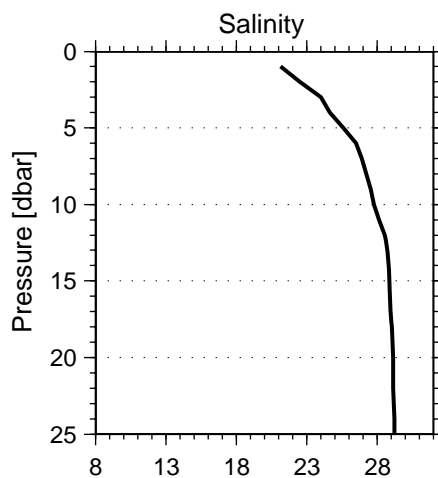
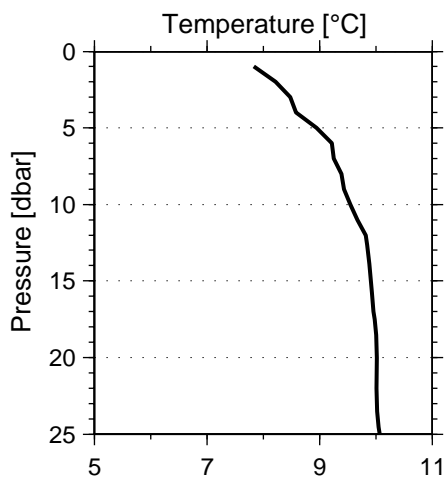
Aysen July 2010
Station CUC Cast 34



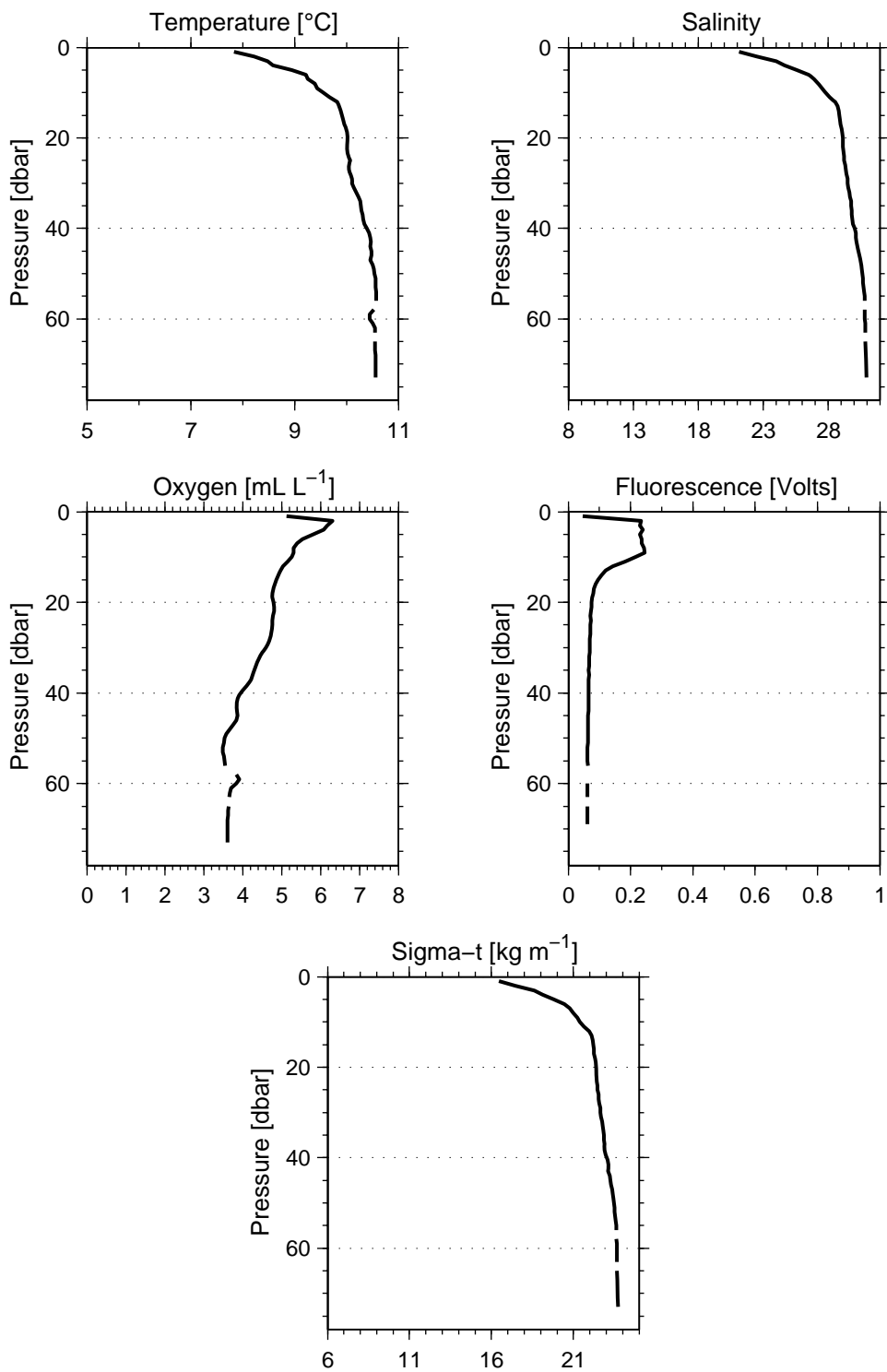
CRUISE : Aysen July 2010	STATION : CUN	CAST : 35
DATE : 2010-07-23	LAT : 45°21.240	Z-CTD : 72 m
TIME : 14:20	LON : 73°03.583	DEPTH : 124 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	7.833	21.152	16.441	5.134	0.046	-
2	8.220	22.537	17.479	6.304	0.235	-
3	8.481	24.008	18.596	6.174	0.230	-
4	8.581	24.673	19.102	6.082	0.239	-
6	9.217	26.511	20.449	5.543	0.235	-
8	9.389	27.249	20.999	5.318	0.244	-
10	9.547	27.794	21.401	5.269	0.216	-
12	9.822	28.557	21.954	5.045	0.143	-
14	9.892	28.834	22.159	4.915	0.106	-
16	9.940	28.938	22.233	4.827	0.088	-
18	9.999	29.066	22.323	4.764	0.080	-
20	10.020	29.148	22.383	4.795	0.075	-
22	10.021	29.180	22.409	4.805	0.073	-
24	10.038	29.238	22.451	4.761	0.072	-
26	10.049	29.328	22.520	4.748	0.071	-
28	10.078	29.415	22.582	4.705	0.070	-
30	10.111	29.522	22.660	4.599	0.069	-
35	10.279	29.800	22.850	4.299	0.066	-
40	10.387	30.060	23.034	3.954	0.065	-
45	10.478	30.351	23.246	3.864	0.064	-
50	10.543	30.642	23.462	3.541	0.063	-
60	10.453	30.860	23.647	3.836	0.062	-
70	10.565	30.940	23.690	3.614	NaN	-
72	10.560	30.967	23.712	3.609	NaN	-

Aysen July 2010
Station CUN Cast 35



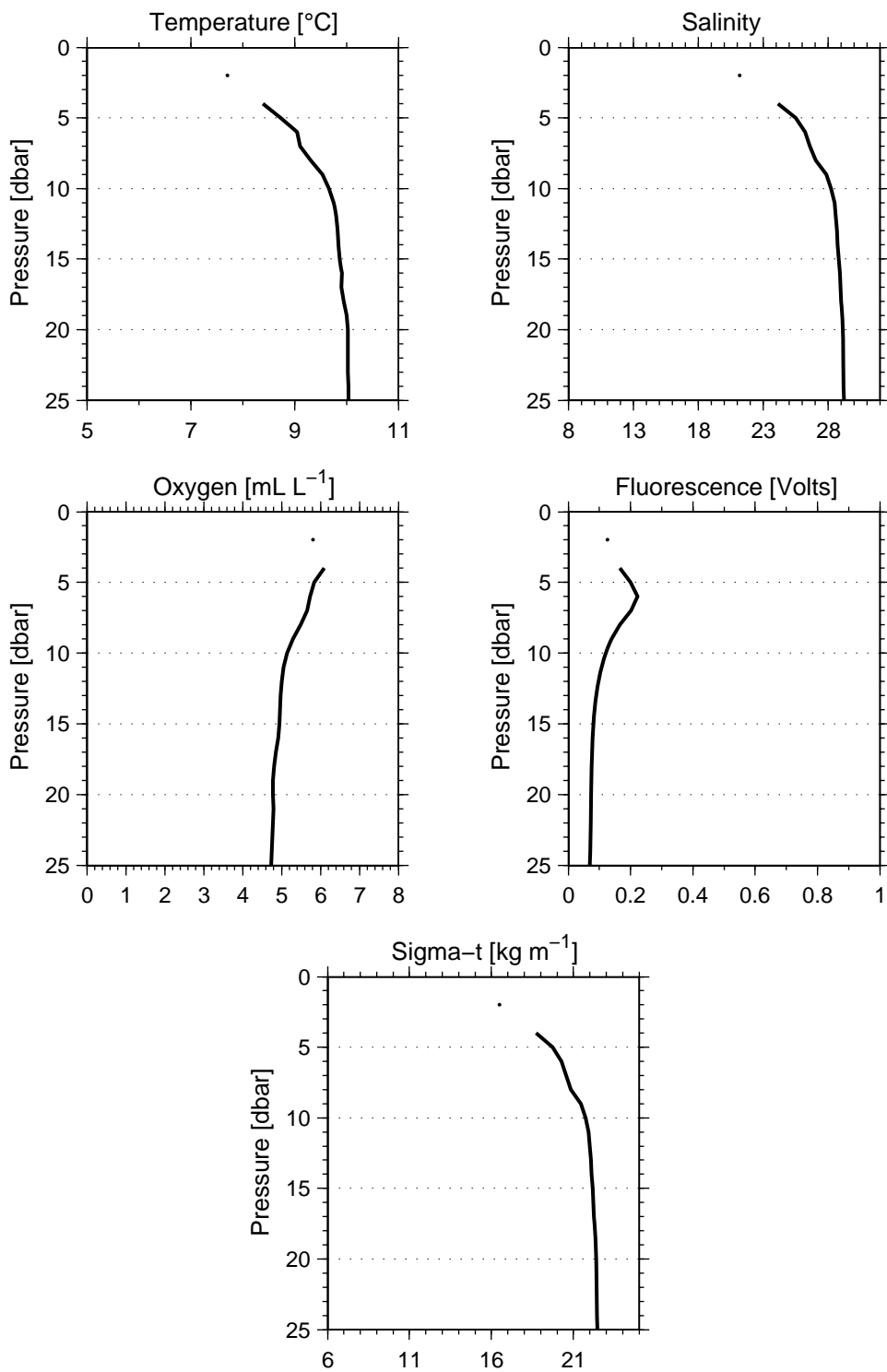
Aysen July 2010
Station CUN Cast 35



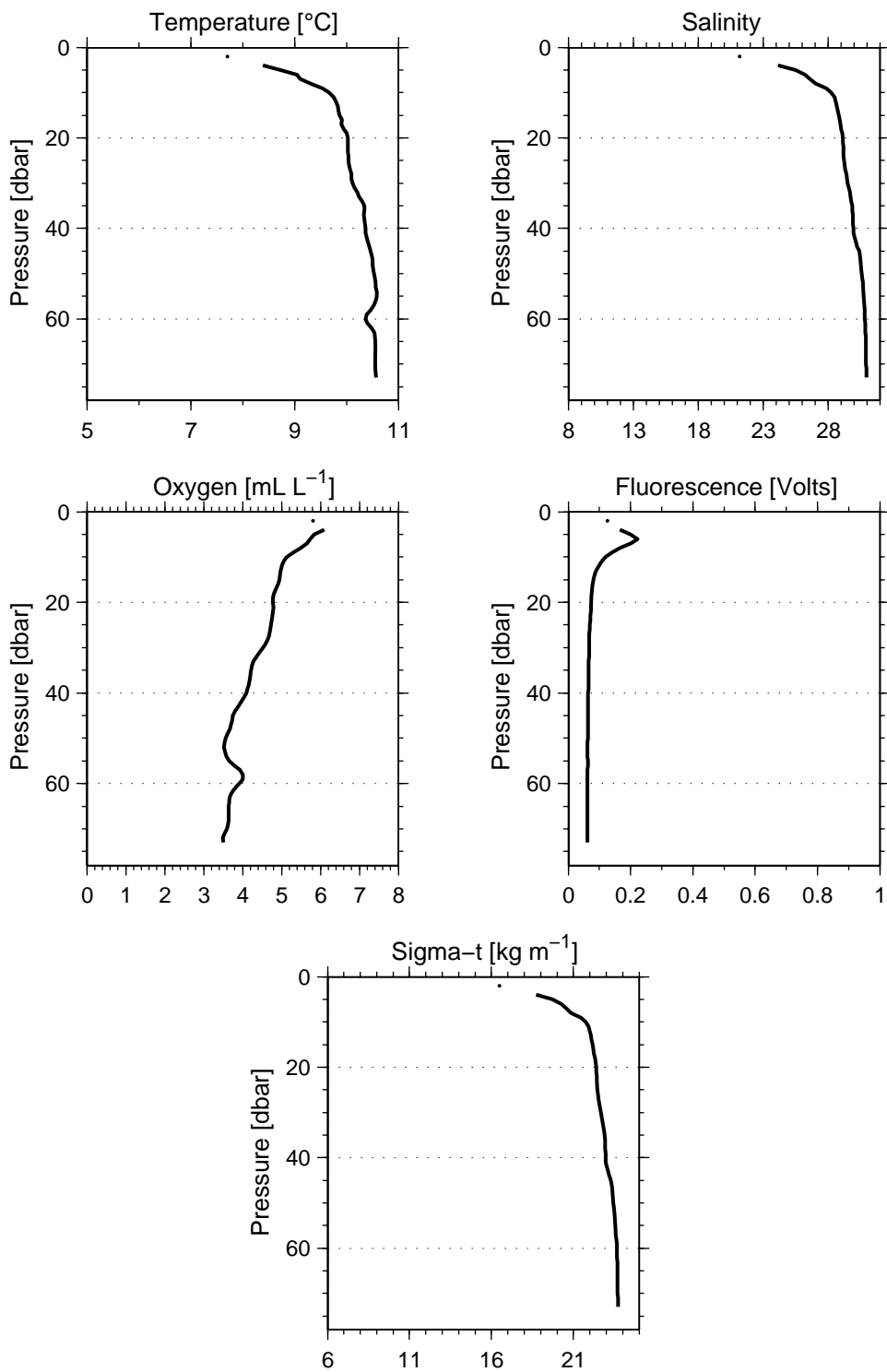
CRUISE	: Aysen July 2010	STATION	: CUN	CAST	: 36
DATE	: 2010-07-23	LAT	: 45°21.266	Z-CTD	: 72 m
TIME	: 16:49	LON	: 73°03.671	DEPTH	: 138 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	7.712	21.202	16.494	5.808	0.126	-	-
3	-	-	-	-	-	-	-
4	8.389	24.153	18.720	6.096	0.167	-	-
6	9.050	26.245	20.265	5.730	0.222	-	-
8	9.314	27.047	20.853	5.492	0.166	-	-
10	9.664	28.263	21.749	5.149	0.120	-	-
12	9.798	28.627	22.013	5.007	0.098	-	-
14	9.850	28.757	22.106	4.969	0.084	-	-
16	9.910	28.919	22.223	4.915	0.079	-	-
18	9.947	29.037	22.308	4.804	0.075	-	-
20	10.027	29.151	22.385	4.788	0.073	-	-
22	10.027	29.192	22.417	4.787	0.072	-	-
24	10.038	29.227	22.442	4.748	0.070	-	-
26	10.051	29.294	22.493	4.708	0.070	-	-
28	10.092	29.411	22.577	4.656	0.068	-	-
30	10.118	29.535	22.670	4.529	0.067	-	-
35	10.345	29.880	22.901	4.216	0.066	-	-
40	10.365	29.971	22.969	4.093	0.064	-	-
45	10.469	30.427	23.307	3.756	0.064	-	-
50	10.532	30.621	23.447	3.566	0.063	-	-
60	10.370	30.847	23.651	3.911	0.061	-	-
70	10.564	30.948	23.696	3.600	0.062	-	-
72	10.562	30.969	23.713	3.489	0.061	-	-

Aysen July 2010
Station CUN Cast 36



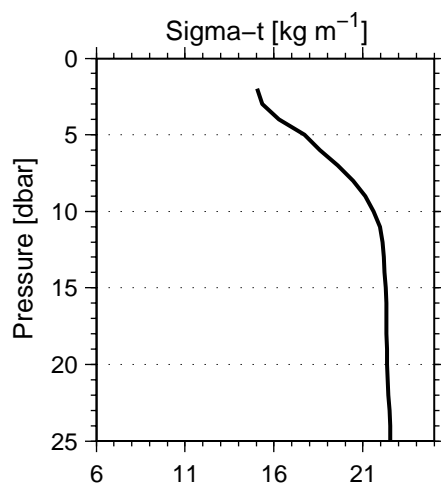
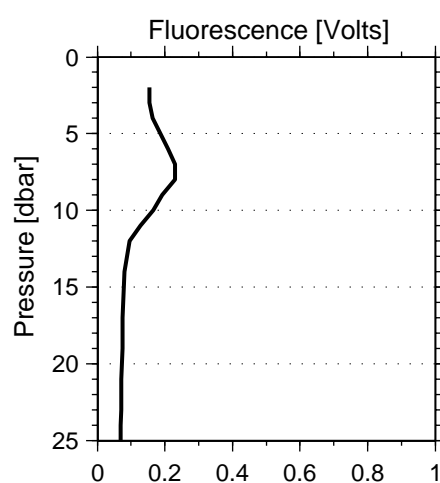
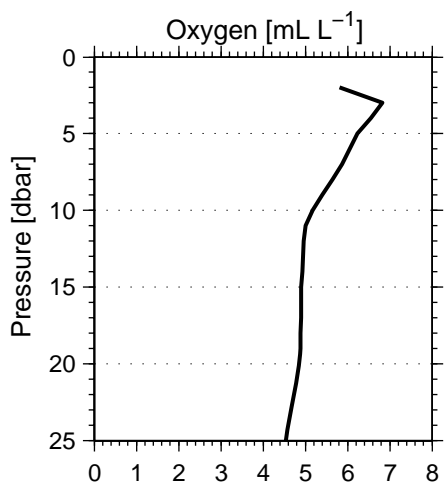
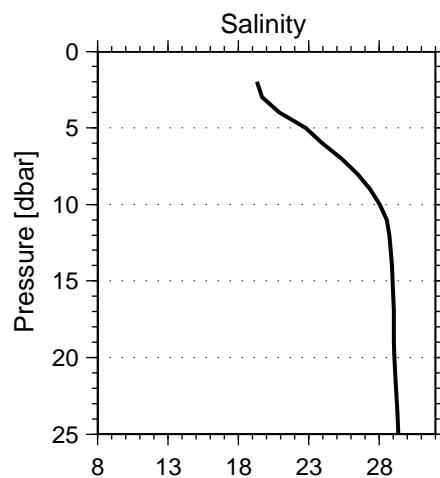
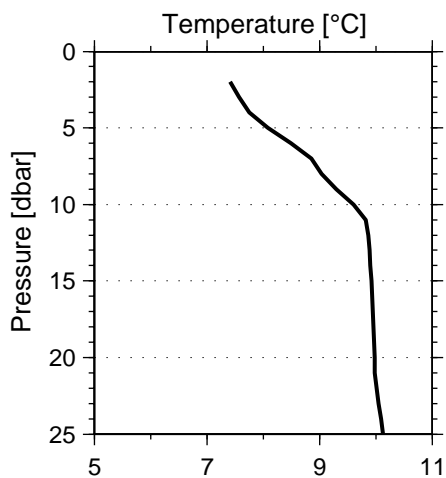
Aysen July 2010
Station CUN Cast 36



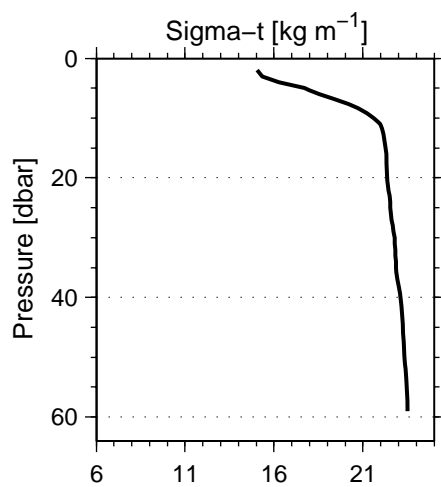
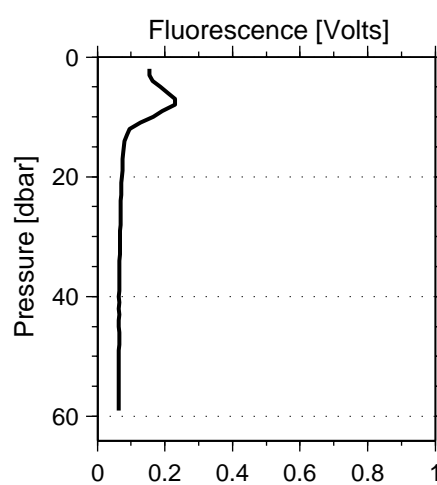
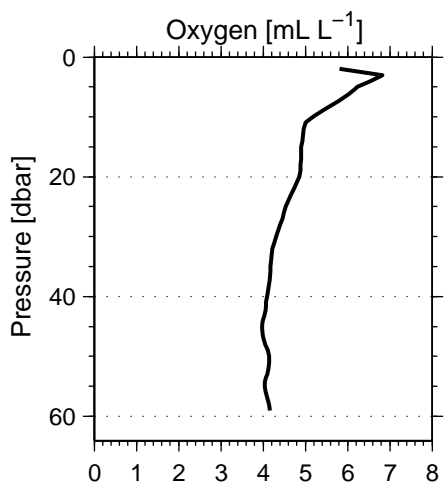
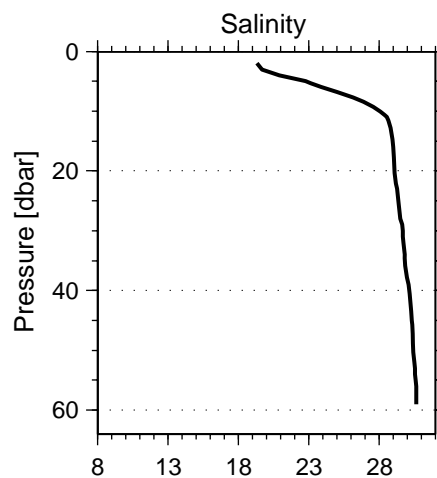
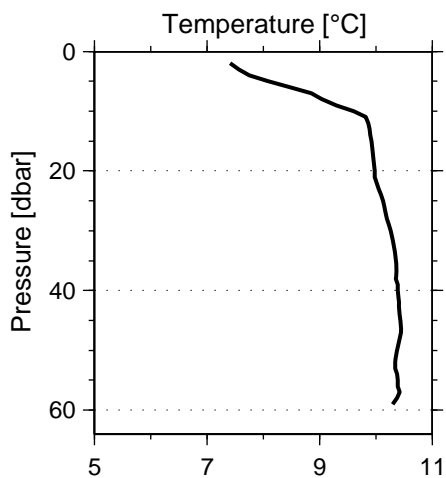
CRUISE	: Aysen July 2010	STATION	: CUC	CAST	: 37
DATE	: 2010-07-23	LAT	: 45°22.085	Z-CTD	: 58 m
TIME	: 17:13	LON	: 73°05.092	DEPTH	: 141 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	7.418	19.322	15.054	5.811	0.155	-
3	7.572	19.692	15.328	6.819	0.154	-
4	7.757	20.921	16.269	6.552	0.164	-
6	8.495	23.991	18.580	6.054	0.209	-
8	9.042	26.486	20.454	5.645	0.231	-
10	9.606	28.053	21.594	5.174	0.165	-
12	9.873	28.743	22.091	4.956	0.095	-
14	9.905	28.925	22.228	4.927	0.081	-
16	9.937	29.035	22.308	4.896	0.077	-
18	9.957	29.072	22.334	4.890	0.075	-
20	9.978	29.121	22.369	4.853	0.072	-
22	10.018	29.225	22.444	4.730	0.071	-
24	10.096	29.339	22.520	4.598	0.070	-
26	10.152	29.429	22.581	4.499	0.069	-
28	10.200	29.541	22.661	4.403	0.068	-
30	10.265	29.694	22.770	4.303	0.067	-
35	10.361	29.851	22.877	4.179	0.066	-
40	10.395	30.151	23.105	4.096	0.064	-
45	10.433	30.340	23.245	3.979	0.064	-
50	10.378	30.447	23.338	4.137	0.064	-
58	10.384	30.657	23.500	4.148	0.064	-

Aysen July 2010
Station CUC Cast 37



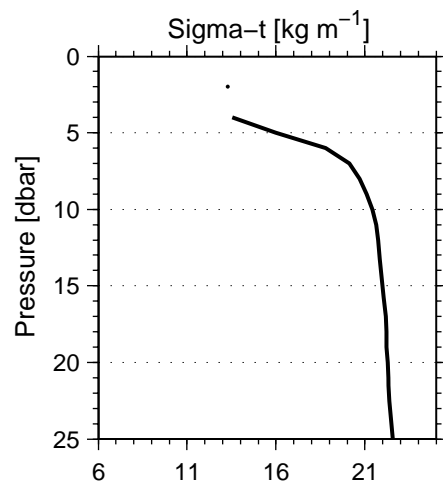
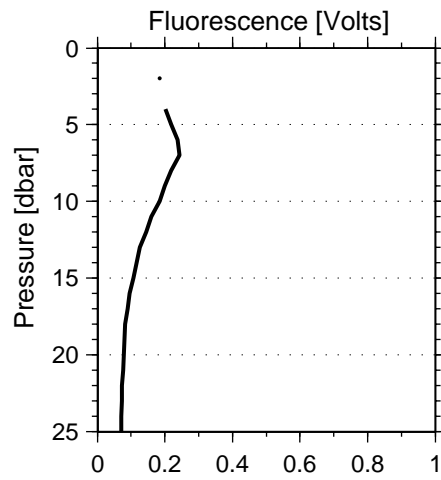
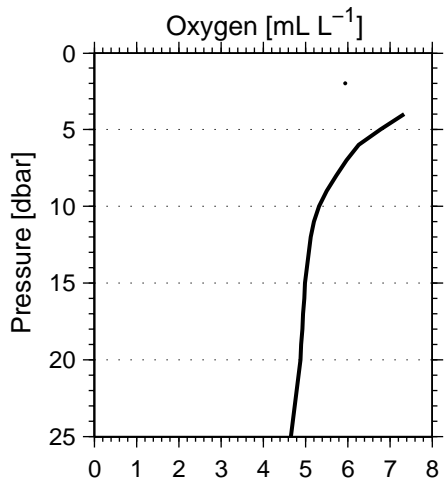
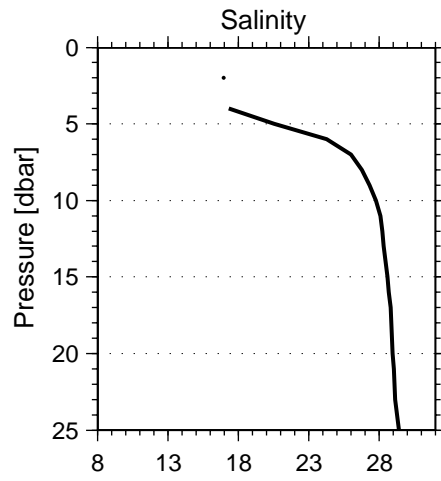
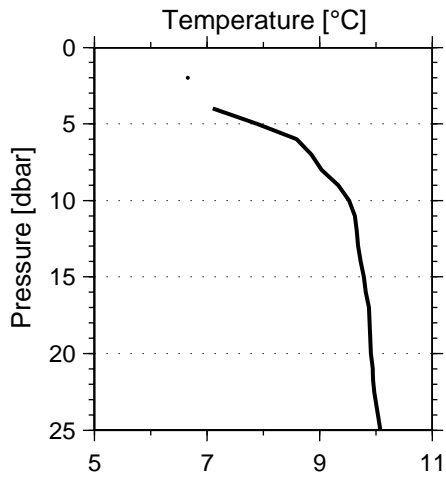
Aysen July 2010
Station CUC Cast 37



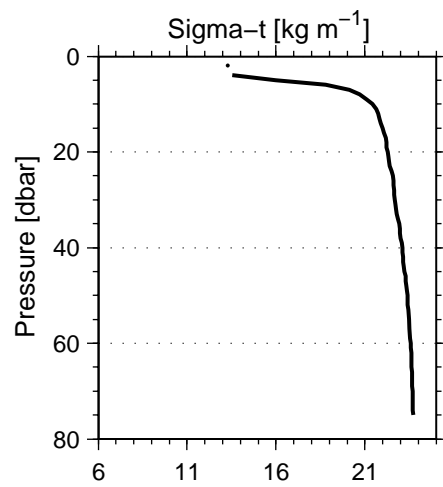
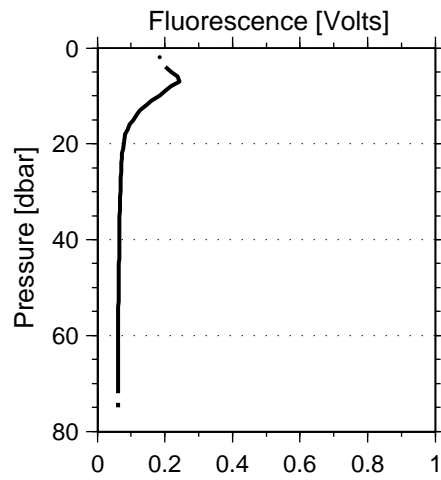
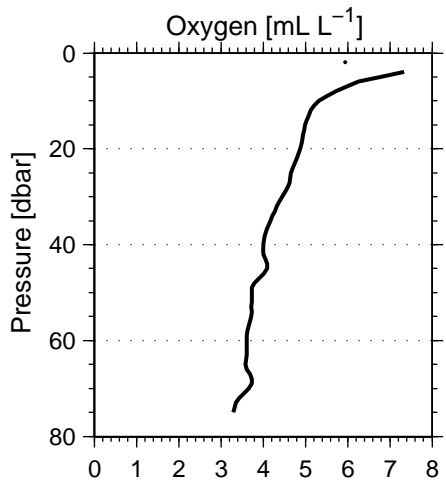
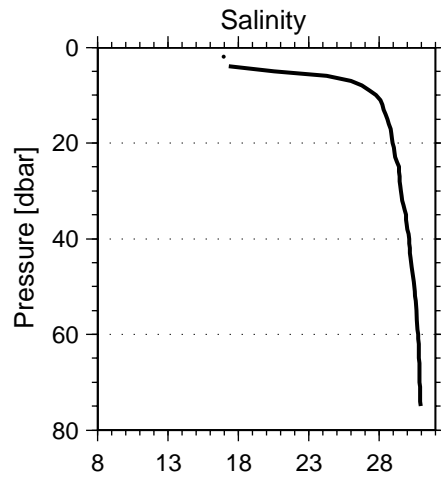
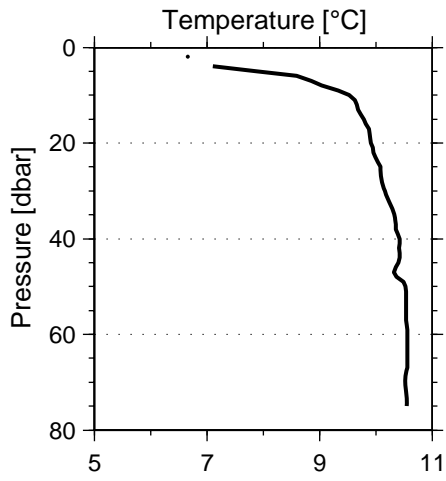
CRUISE : Aysen July 2010	STATION : CUS	CAST : 38
DATE : 2010-07-23	LAT : 45°22.952	Z-CTD : 74 m
TIME : 17:37	LON : 73°06.287	DEPTH : 201 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	6.670	16.971	13.284	5.948	0.185	-
3	-	-	-	-	-	-
4	7.105	17.349	13.539	7.340	0.201	-
6	8.593	24.293	18.802	6.271	0.238	-
8	9.044	26.788	20.690	5.742	0.219	-
10	9.533	27.795	21.404	5.325	0.185	-
12	9.668	28.260	21.747	5.134	0.146	-
14	9.729	28.473	21.903	5.040	0.117	-
16	9.828	28.721	22.081	4.978	0.096	-
18	9.891	28.889	22.202	4.926	0.083	-
20	9.919	28.981	22.270	4.880	0.079	-
22	9.966	29.111	22.363	4.791	0.074	-
24	10.042	29.305	22.502	4.697	0.071	-
26	10.090	29.442	22.601	4.648	0.070	-
28	10.107	29.479	22.627	4.591	0.069	-
30	10.168	29.571	22.689	4.450	0.069	-
35	10.339	29.915	22.929	4.180	0.066	-
40	10.424	30.148	23.097	4.007	0.065	-
45	10.403	30.298	23.218	4.094	0.064	-
50	10.533	30.540	23.384	3.731	0.063	-
60	10.566	30.789	23.573	3.614	0.062	-
70	10.527	30.904	23.669	3.663	0.062	-
74	10.555	30.951	23.700	3.326	0.062	-

Aysen July 2010
Station CUS Cast 38



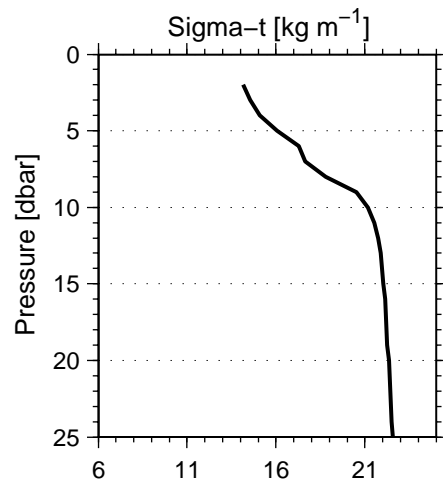
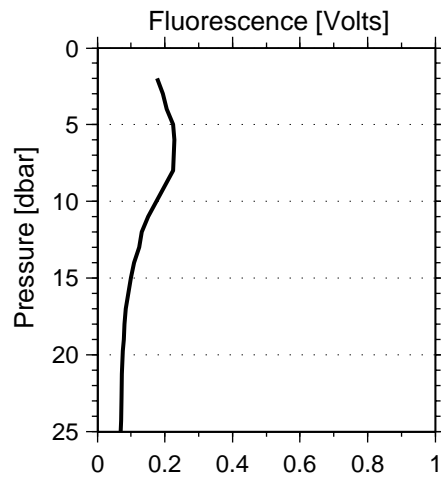
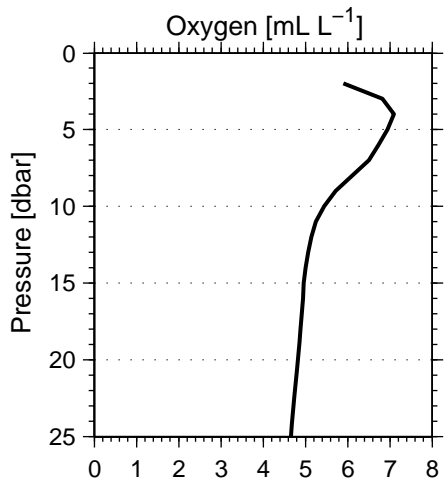
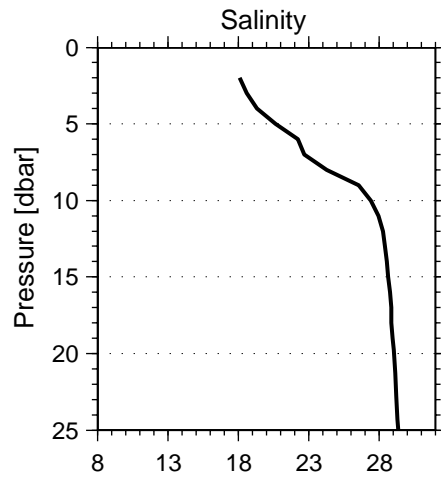
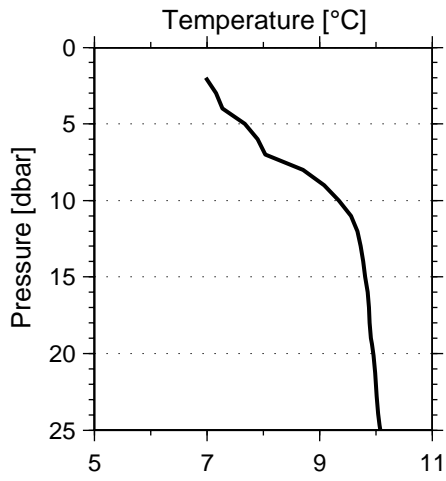
Aysen July 2010
Station CUS Cast 38



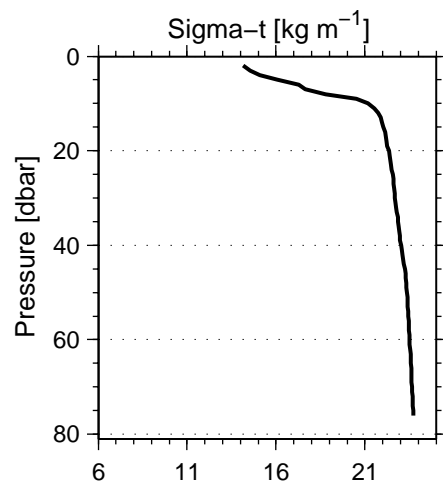
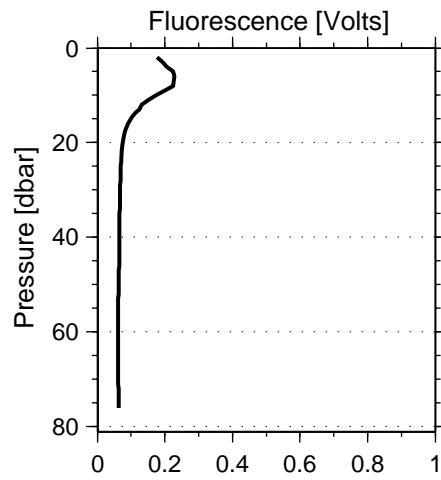
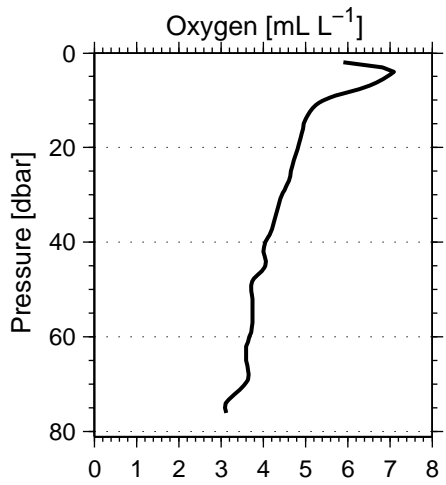
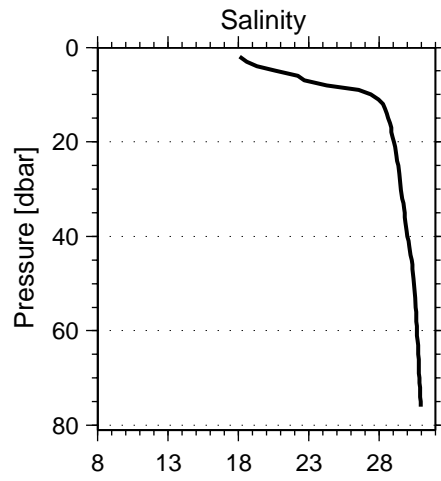
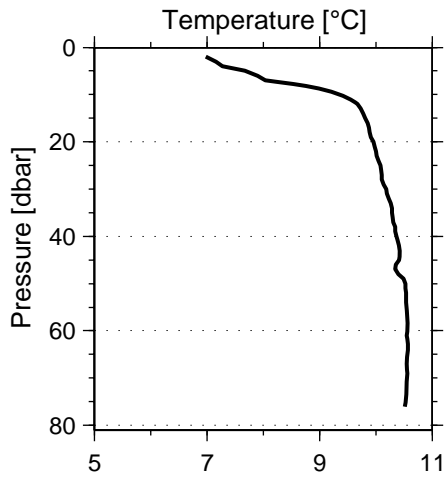
CRUISE : Aysen July 2010	STATION : CUS	CAST : 39
DATE : 2010-07-23	LAT : 45°23.072	Z-CTD : 75 m
TIME : 19:33	LON : 73°06.137	DEPTH : 203 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	6.987	18.097	14.138	5.907	0.178	-
3	7.163	18.625	14.534	6.826	0.194	-
4	7.284	19.357	15.096	7.092	0.205	-
6	7.903	22.228	17.275	6.735	0.228	-
8	8.714	24.297	18.790	6.118	0.225	-
10	9.349	27.453	21.165	5.451	0.176	-
12	9.674	28.276	21.758	5.139	0.132	-
14	9.780	28.576	21.975	5.003	0.110	-
16	9.859	28.786	22.127	4.945	0.091	-
18	9.894	28.907	22.216	4.886	0.080	-
20	9.959	29.089	22.347	4.822	0.075	-
22	10.002	29.198	22.426	4.756	0.072	-
24	10.047	29.317	22.511	4.689	0.071	-
26	10.100	29.437	22.596	4.642	0.070	-
28	10.110	29.495	22.640	4.557	0.069	-
30	10.185	29.574	22.689	4.450	0.067	-
35	10.293	29.833	22.874	4.281	0.066	-
40	10.365	30.039	23.022	4.060	0.066	-
45	10.410	30.336	23.246	4.048	0.065	-
50	10.525	30.497	23.352	3.721	0.063	-
60	10.562	30.703	23.506	3.677	0.062	-
70	10.555	30.870	23.637	3.574	0.062	-
75	10.524	30.957	23.710	3.103	0.064	-

Aysen July 2010
Station CUS Cast 39



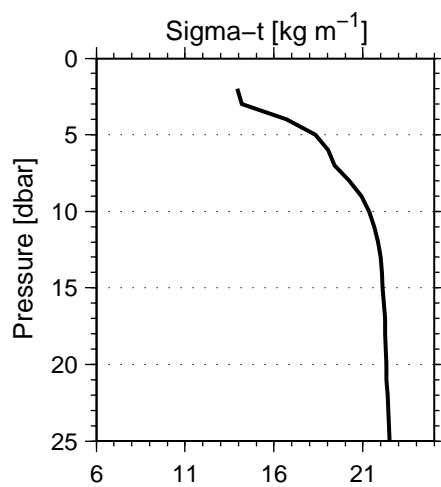
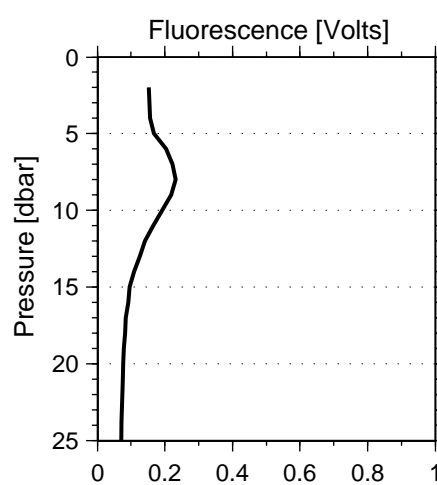
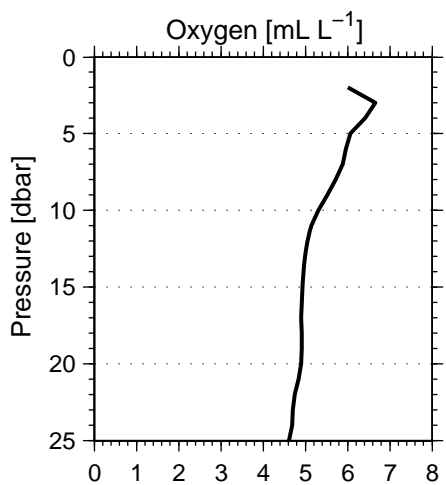
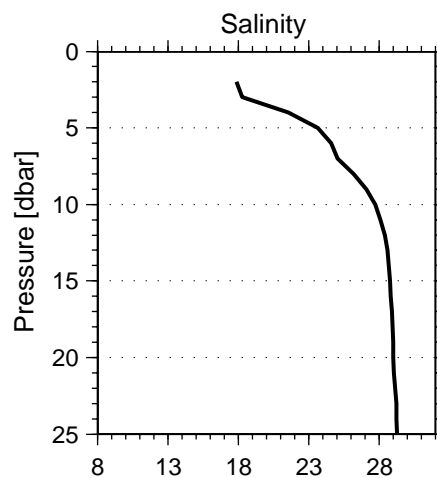
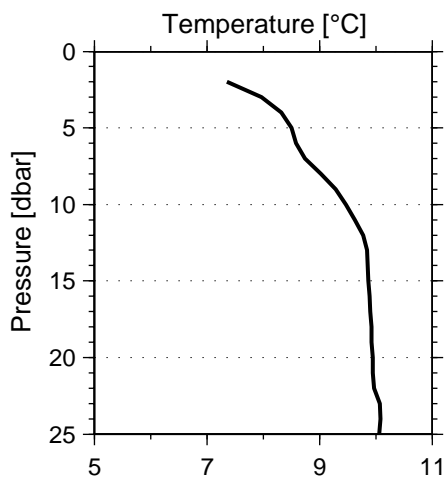
Aysen July 2010
Station CUS Cast 39



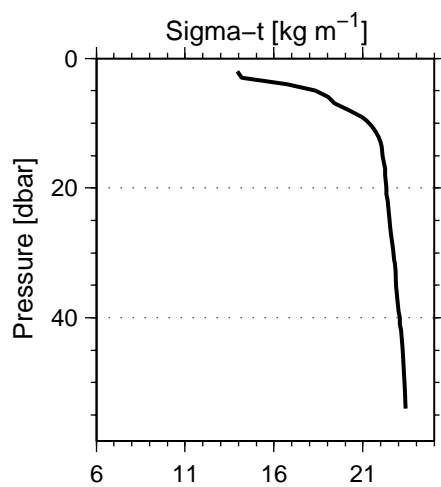
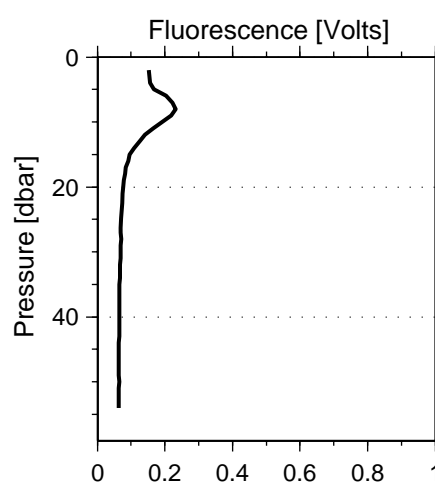
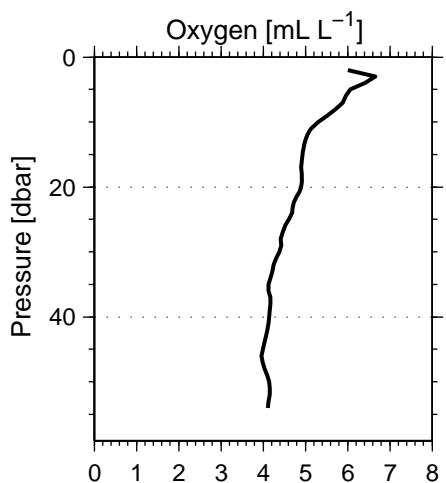
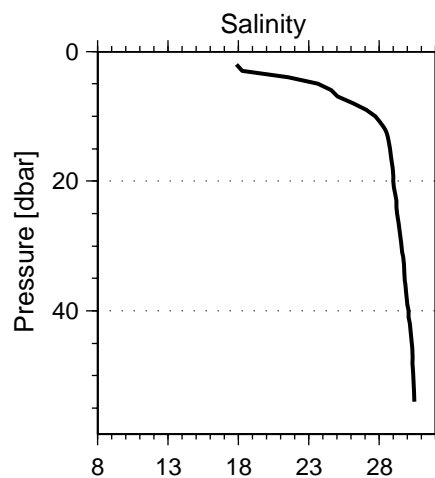
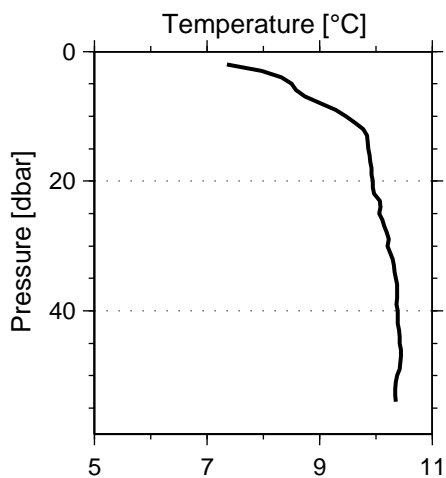
CRUISE	: Aysen July 2010	STATION	: CUC	CAST	: 40
DATE	: 2010-07-23	LAT	: 45°22.064	Z-CTD	: 53 m
TIME	: 20:00	LON	: 73°04.986	DEPTH	: 181 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	7.362	17.904	13.949	6.006	0.152	-
3	7.973	18.291	14.187	6.654	0.155	-
4	8.327	21.581	16.718	6.410	0.156	-
6	8.586	24.605	19.048	5.968	0.203	-
8	9.034	26.201	20.233	5.718	0.232	-
10	9.466	27.727	21.361	5.313	0.192	-
12	9.776	28.415	21.850	5.047	0.142	-
14	9.860	28.698	22.058	4.957	0.109	-
16	9.890	28.848	22.170	4.910	0.092	-
18	9.921	28.968	22.259	4.911	0.082	-
20	9.945	29.043	22.314	4.897	0.077	-
22	9.970	29.141	22.386	4.746	0.074	-
24	10.082	29.264	22.464	4.684	0.072	-
26	10.119	29.373	22.543	4.529	0.070	-
28	10.196	29.477	22.612	4.422	0.070	-
30	10.214	29.598	22.703	4.381	0.069	-
35	10.357	29.845	22.872	4.134	0.066	-
40	10.387	30.100	23.066	4.147	0.065	-
45	10.429	30.322	23.231	3.988	0.064	-
50	10.379	30.449	23.339	4.139	0.065	-
53	10.345	30.512	23.394	4.133	0.064	-

Aysen July 2010
Station CUC Cast 40



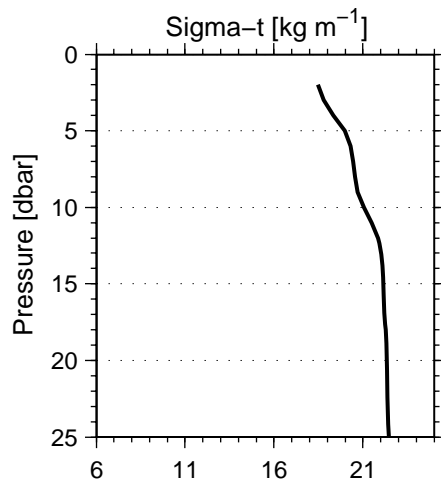
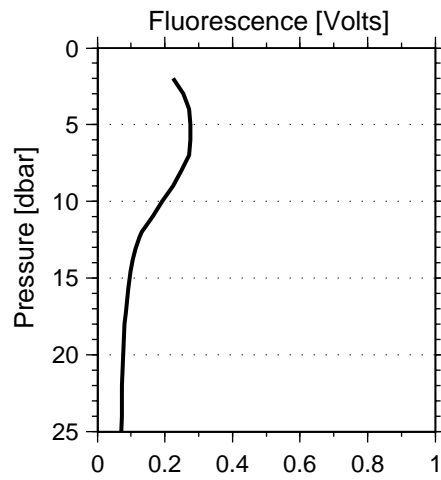
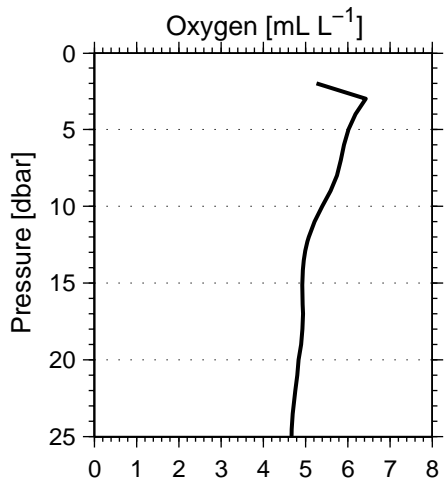
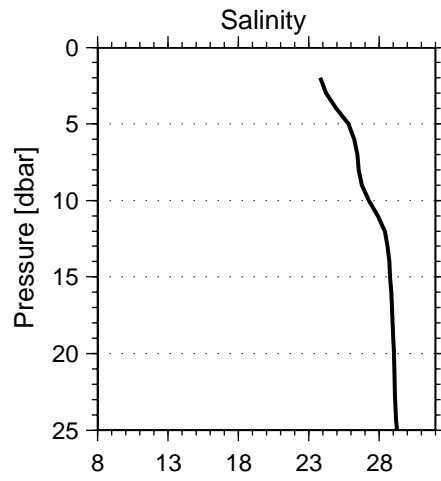
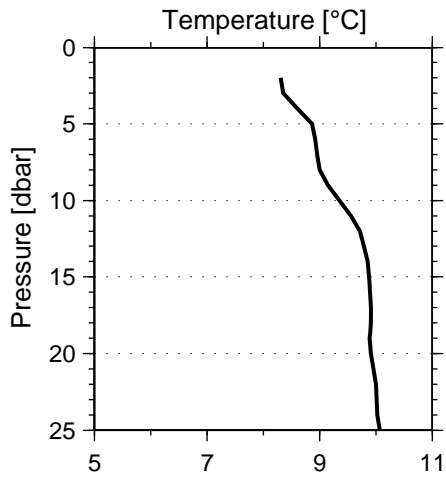
Aysen July 2010
Station CUC Cast 40



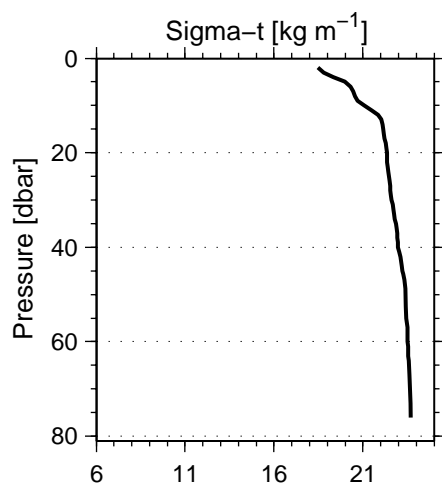
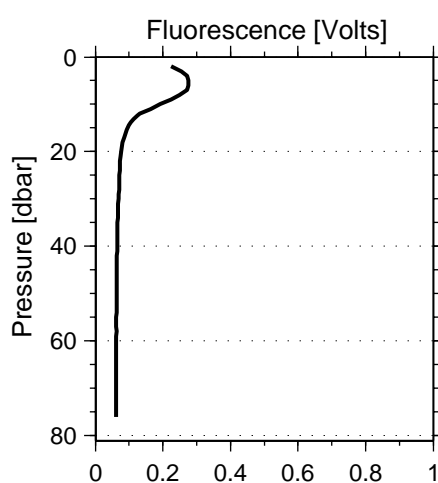
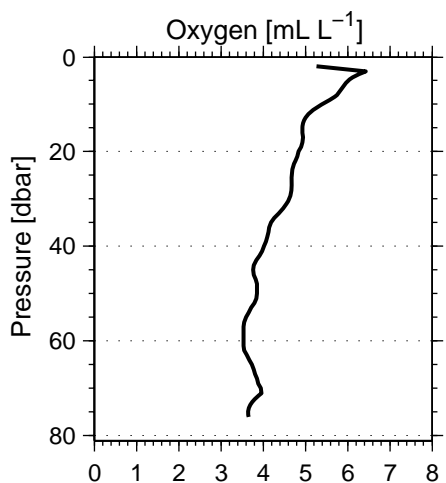
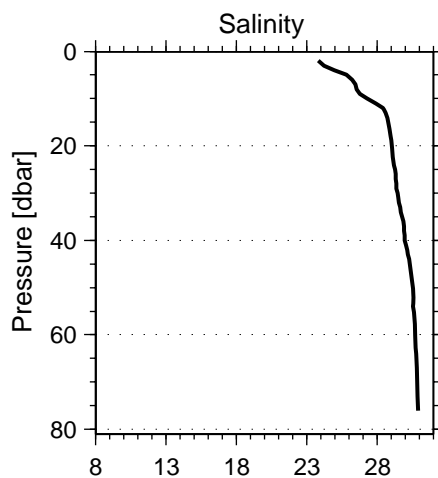
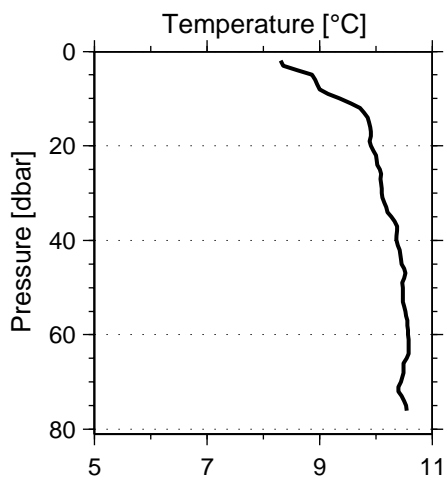
CRUISE	: Aysen July 2010	STATION	: CUN	CAST	: 41
DATE	: 2010-07-23	LAT	: 45°21.290	Z-CTD	: 75 m
TIME	: 20:25	LON	: 73°03.653	DEPTH	: 136 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	8.311	23.838	18.484	5.262	0.224	-	-
3	8.354	24.234	18.788	6.437	0.255	-	-
4	8.611	24.986	19.342	6.194	0.273	-	-
6	8.927	26.267	20.300	5.914	0.276	-	-
8	9.003	26.587	20.539	5.749	0.248	-	-
10	9.360	27.306	21.049	5.402	0.192	-	-
12	9.727	28.427	21.868	5.077	0.131	-	-
14	9.855	28.758	22.105	4.944	0.102	-	-
16	9.903	28.875	22.189	4.935	0.089	-	-
18	9.909	28.984	22.273	4.927	0.080	-	-
20	9.913	29.079	22.347	4.846	0.076	-	-
22	10.007	29.125	22.368	4.762	0.074	-	-
24	10.028	29.190	22.415	4.690	0.072	-	-
26	10.098	29.331	22.514	4.678	0.071	-	-
28	10.091	29.370	22.545	4.676	0.072	-	-
30	10.111	29.470	22.620	4.612	0.068	-	-
35	10.279	29.792	22.844	4.183	0.066	-	-
40	10.372	29.991	22.983	4.019	0.065	-	-
45	10.457	30.329	23.232	3.758	0.064	-	-
50	10.482	30.550	23.401	3.857	0.063	-	-
60	10.579	30.718	23.515	3.532	0.062	-	-
70	10.447	30.869	23.654	3.953	0.062	-	-
75	10.535	30.914	23.675	3.640	0.061	-	-

Aysen July 2010
Station CUN Cast 41



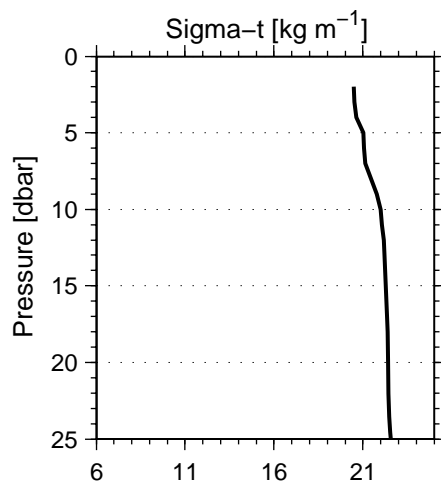
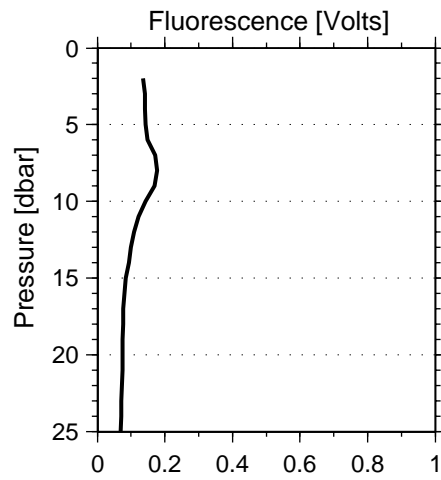
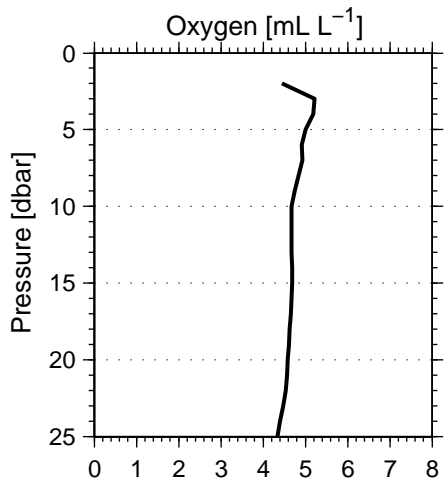
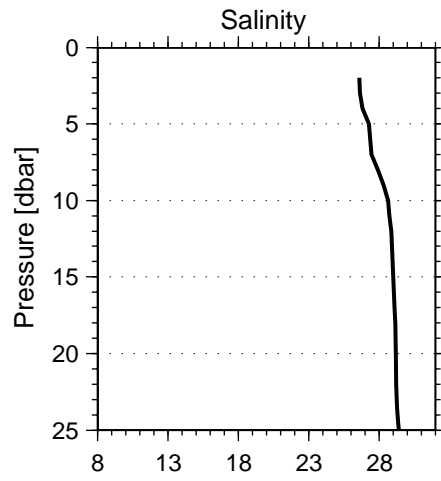
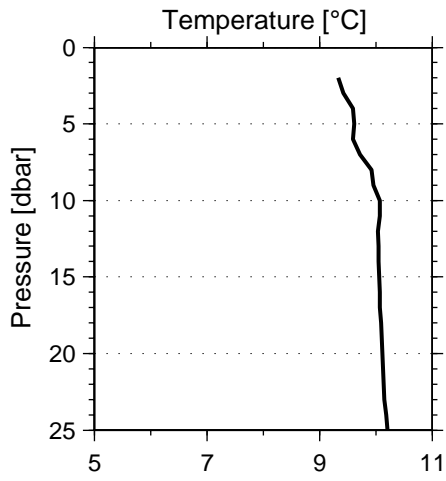
Aysen July 2010
Station CUN Cast 41



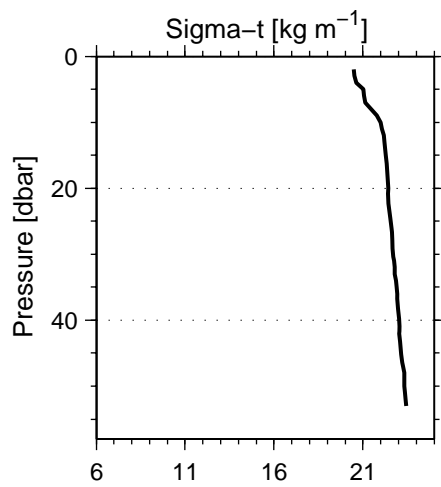
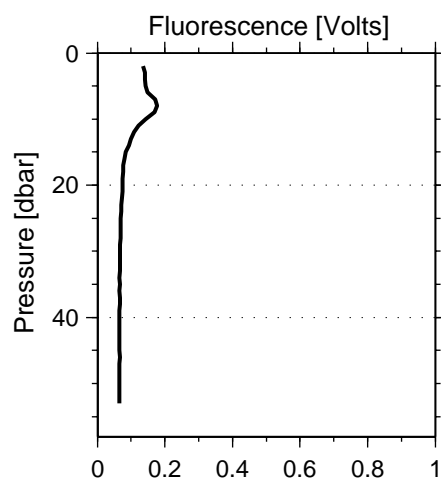
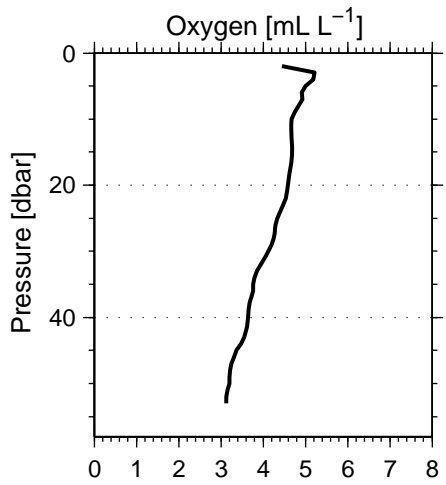
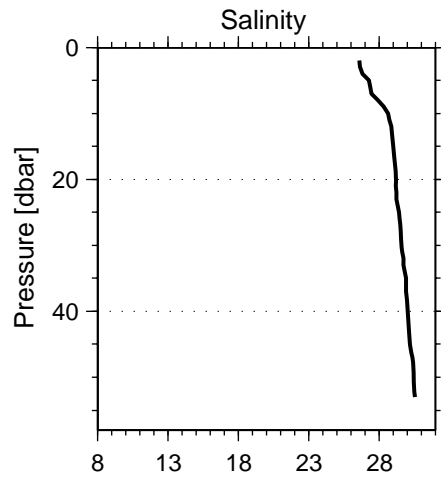
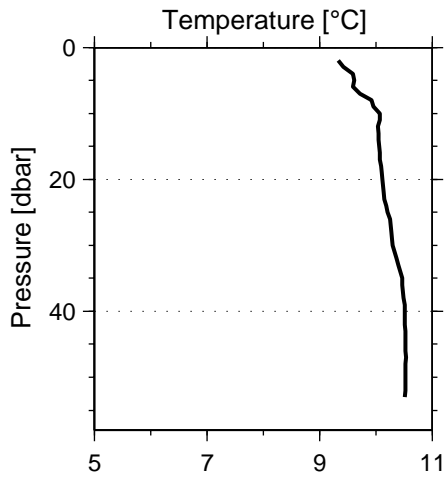
CRUISE	: Aysen July 2010	STATION	: CN	CAST	: 42
DATE	: 2010-07-24	LAT	: 45°25.664	Z-CTD	: 52 m
TIME	: 15:49	LON	: 72°54.635	DEPTH	: 70 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	9.335	26.601	20.502	4.440	0.135	-
3	9.425	26.638	20.518	5.214	0.141	-
4	9.593	26.825	20.639	5.191	0.141	-
6	9.598	27.369	21.062	4.920	0.148	-
8	9.925	27.948	21.464	4.846	0.176	-
10	10.074	28.645	21.983	4.670	0.143	-
12	10.043	28.872	22.165	4.680	0.110	-
14	10.052	28.982	22.249	4.689	0.093	-
16	10.070	29.077	22.320	4.679	0.080	-
18	10.093	29.153	22.375	4.628	0.076	-
20	10.120	29.201	22.409	4.590	0.075	-
22	10.138	29.231	22.430	4.533	0.073	-
24	10.186	29.348	22.513	4.408	0.070	-
26	10.251	29.490	22.613	4.297	0.069	-
28	10.277	29.549	22.654	4.245	0.069	-
30	10.298	29.599	22.690	4.130	0.068	-
35	10.468	29.916	22.909	3.772	0.067	-
40	10.513	30.069	23.021	3.649	0.066	-
45	10.530	30.225	23.139	3.379	0.065	-
50	10.532	30.483	23.340	3.204	0.066	-
52	10.528	30.535	23.381	3.128	0.065	-

Aysen July 2010
Station CN Cast 42



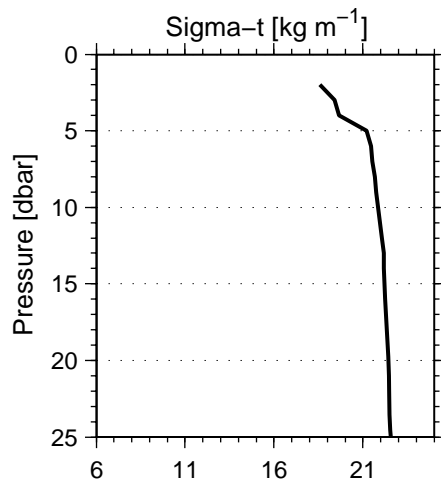
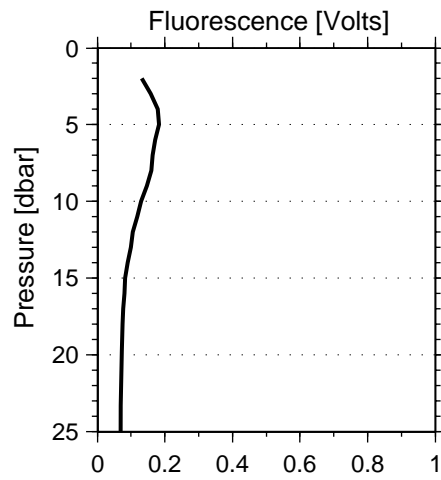
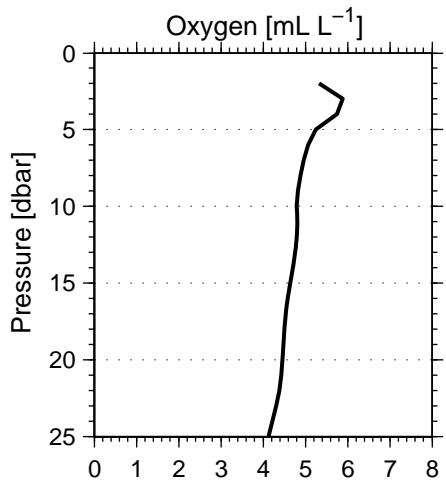
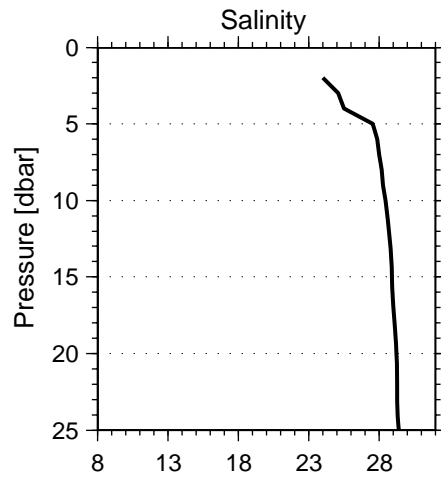
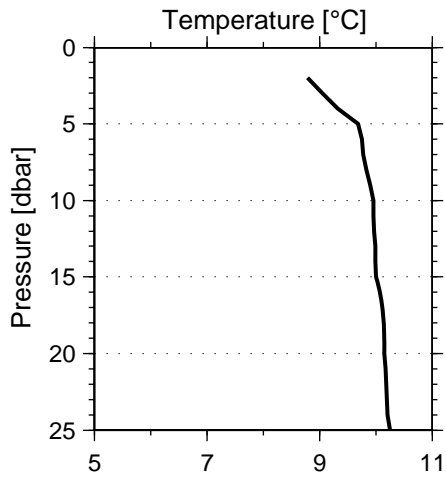
Aysen July 2010
Station CN Cast 42



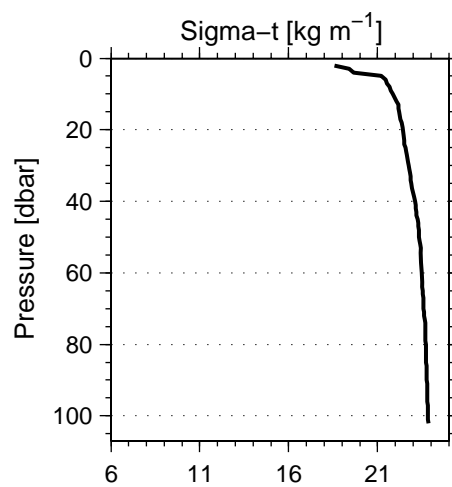
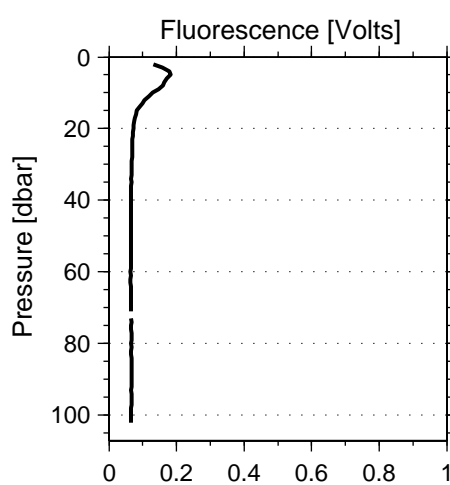
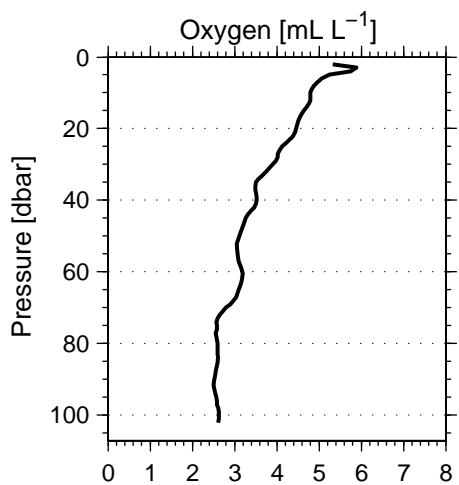
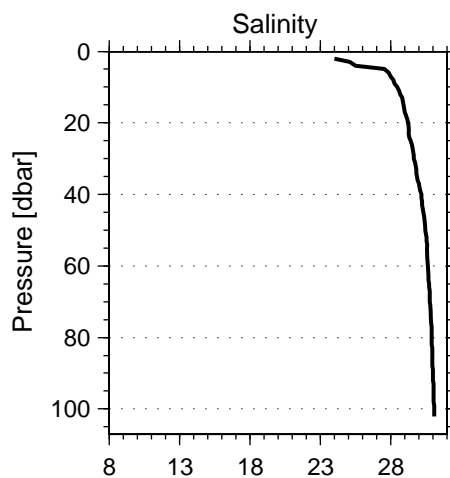
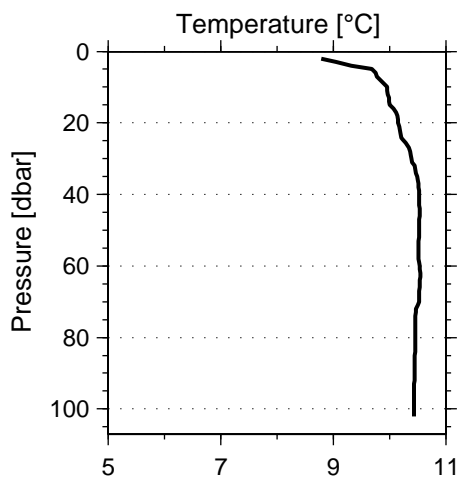
CRUISE	: Aysen July 2010	STATION	: CC	CAST	: 43
DATE	: 2010-07-24	LAT	: 45°26.588	Z-CTD	: 101 m
TIME	: 16:09	LON	: 72°54.732	DEPTH	: 176 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	8.789	24.020	18.564	5.332	0.132	-	-
3	9.047	25.119	19.387	5.881	0.159	-	-
4	9.327	25.501	19.645	5.756	0.178	-	-
6	9.755	27.884	21.440	5.067	0.172	-	-
8	9.839	28.187	21.663	4.885	0.160	-	-
10	9.960	28.465	21.861	4.799	0.130	-	-
12	9.971	28.726	22.062	4.790	0.105	-	-
14	9.998	28.894	22.189	4.710	0.090	-	-
16	10.078	28.986	22.248	4.583	0.080	-	-
18	10.138	29.120	22.343	4.509	0.076	-	-
20	10.155	29.240	22.434	4.465	0.072	-	-
22	10.186	29.292	22.469	4.388	0.070	-	-
24	10.216	29.357	22.515	4.219	0.069	-	-
26	10.314	29.510	22.618	4.067	0.068	-	-
28	10.367	29.605	22.683	4.016	0.068	-	-
30	10.393	29.681	22.738	3.904	0.067	-	-
35	10.493	29.908	22.899	3.511	0.066	-	-
40	10.523	30.193	23.115	3.521	0.065	-	-
45	10.534	30.351	23.237	3.267	0.065	-	-
50	10.532	30.488	23.344	3.112	0.066	-	-
60	10.538	30.670	23.485	3.183	0.064	-	-
70	10.524	30.810	23.596	2.795	0.066	-	-
80	10.458	30.936	23.705	2.593	0.066	-	-
90	10.447	31.019	23.771	2.519	0.067	-	-
100	10.435	31.102	23.838	2.629	0.066	-	-
101	10.434	31.109	23.843	2.623	0.066	-	-

Aysen July 2010
Station CC Cast 43



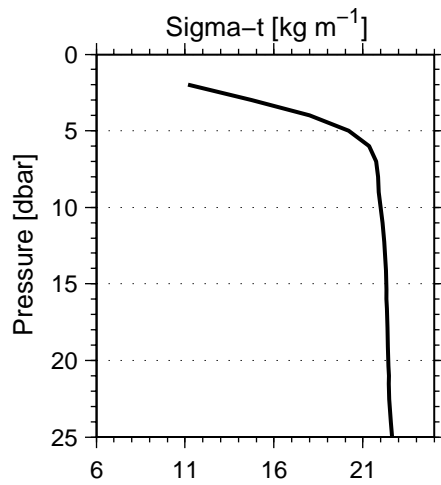
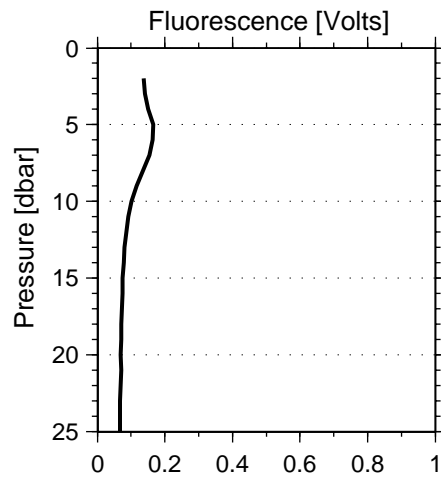
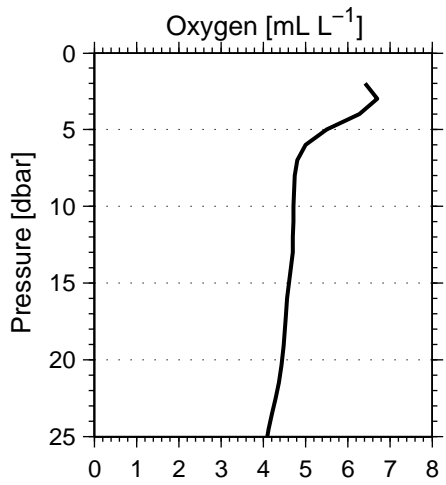
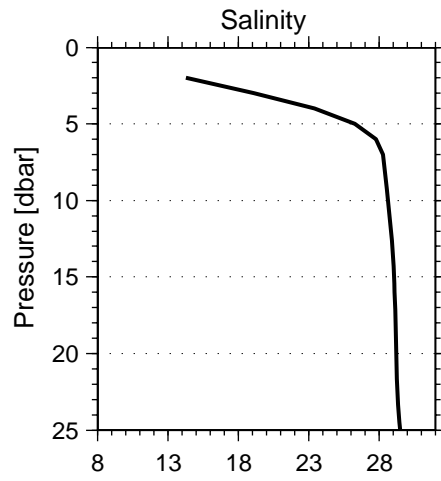
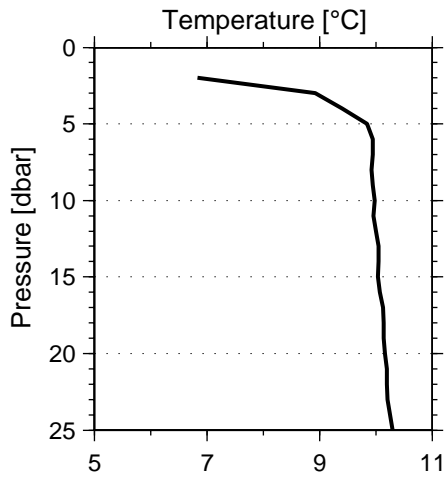
Aysen July 2010
Station CC Cast 43



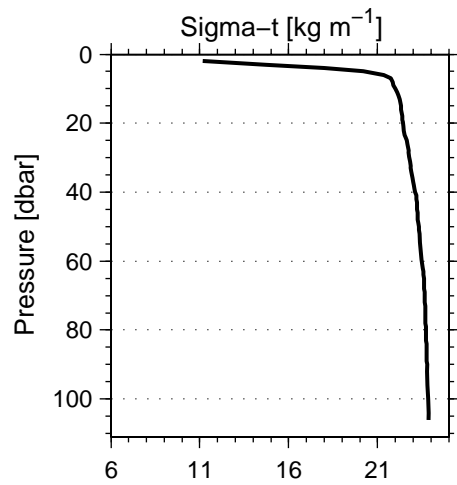
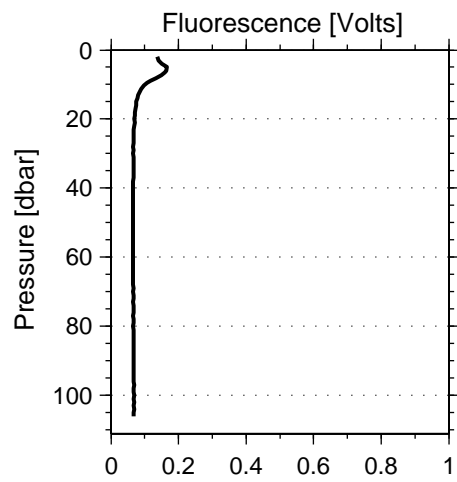
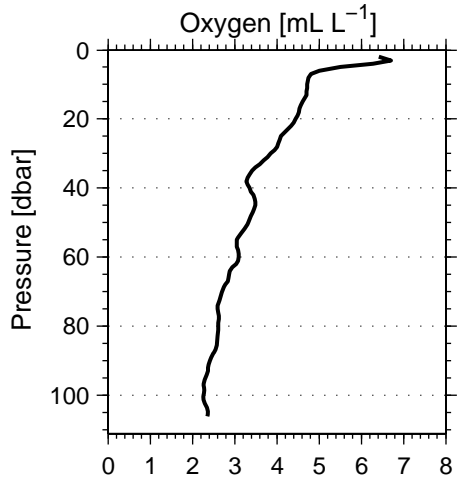
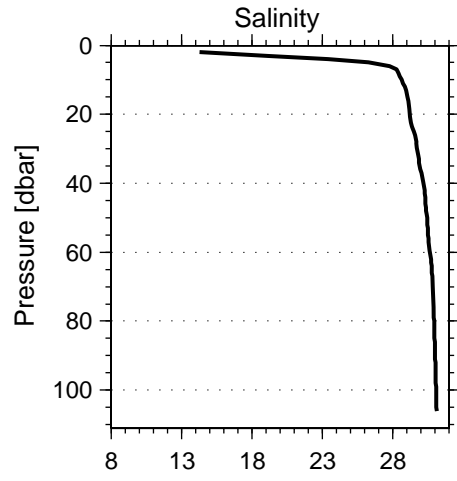
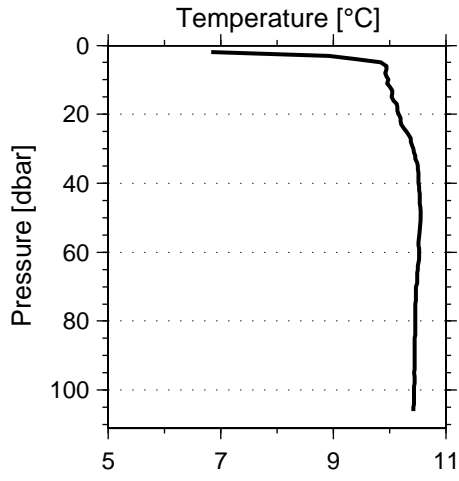
CRUISE : Aysen July 2010	STATION : CS	CAST : 44
DATE : 2010-07-24	LAT : 45°27.437	Z-CTD : 105 m
TIME : 16:27	LON : 72°54.839	DEPTH : 156 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	6.836	14.291	11.159	6.414	0.137	-
3	8.921	19.106	14.715	6.708	0.141	-
4	9.401	23.420	18.013	6.278	0.151	-
6	9.946	27.788	21.336	5.011	0.163	-
8	9.928	28.438	21.845	4.752	0.136	-
10	9.979	28.639	21.994	4.723	0.101	-
12	10.011	28.893	22.186	4.706	0.086	-
14	10.053	29.009	22.270	4.662	0.078	-
16	10.075	29.099	22.336	4.569	0.074	-
18	10.147	29.192	22.397	4.518	0.071	-
20	10.162	29.235	22.429	4.452	0.070	-
22	10.197	29.282	22.460	4.344	0.069	-
24	10.259	29.435	22.568	4.174	0.068	-
26	10.341	29.601	22.685	4.066	0.067	-
28	10.384	29.685	22.743	4.009	0.066	-
30	10.424	29.770	22.803	3.852	0.066	-
35	10.505	29.949	22.928	3.418	0.067	-
40	10.522	30.186	23.110	3.353	0.065	-
45	10.542	30.352	23.236	3.486	0.065	-
50	10.551	30.471	23.328	3.324	0.065	-
60	10.533	30.663	23.480	3.092	0.065	-
70	10.477	30.869	23.650	2.704	0.066	-
80	10.458	30.960	23.724	2.609	0.066	-
90	10.447	31.029	23.779	2.410	0.067	-
100	10.440	31.106	23.841	2.268	0.068	-
105	10.431	31.135	23.865	2.369	0.068	-

Aysen July 2010
Station CS Cast 44



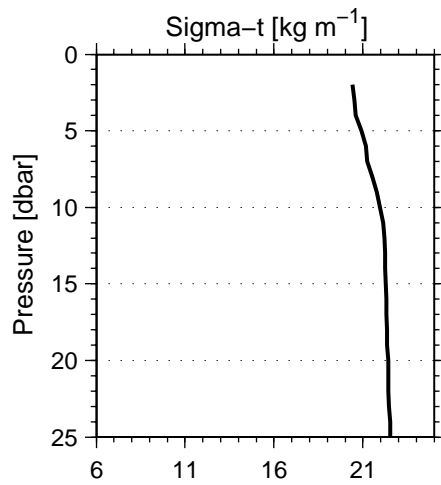
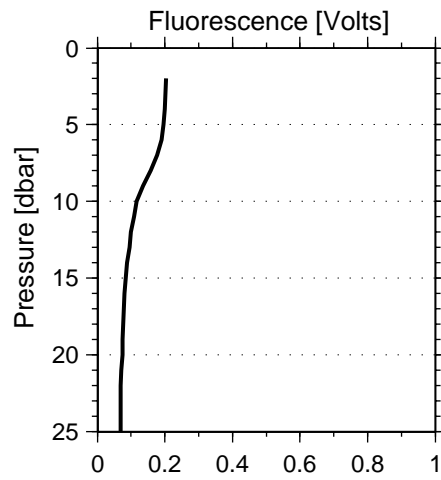
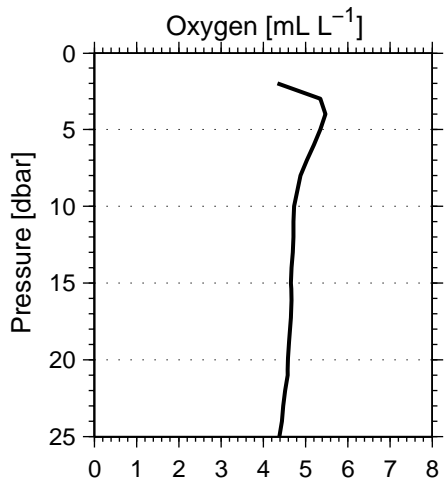
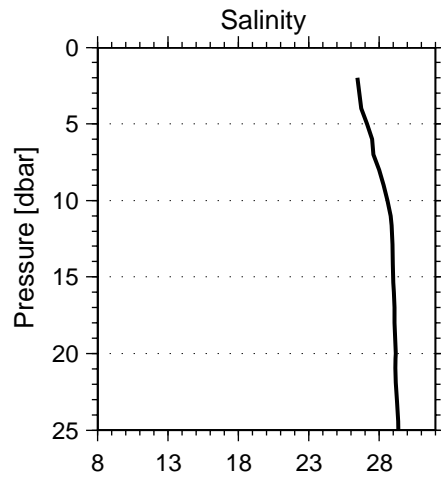
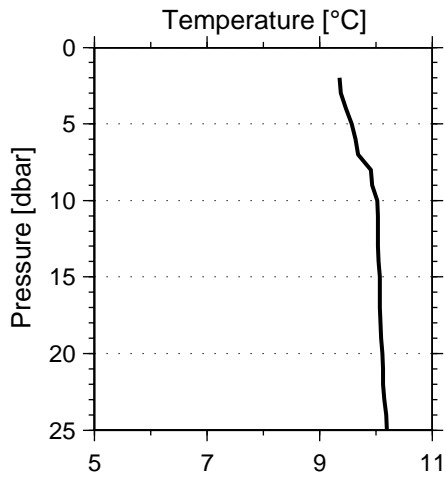
Aysen July 2010
Station CS Cast 44



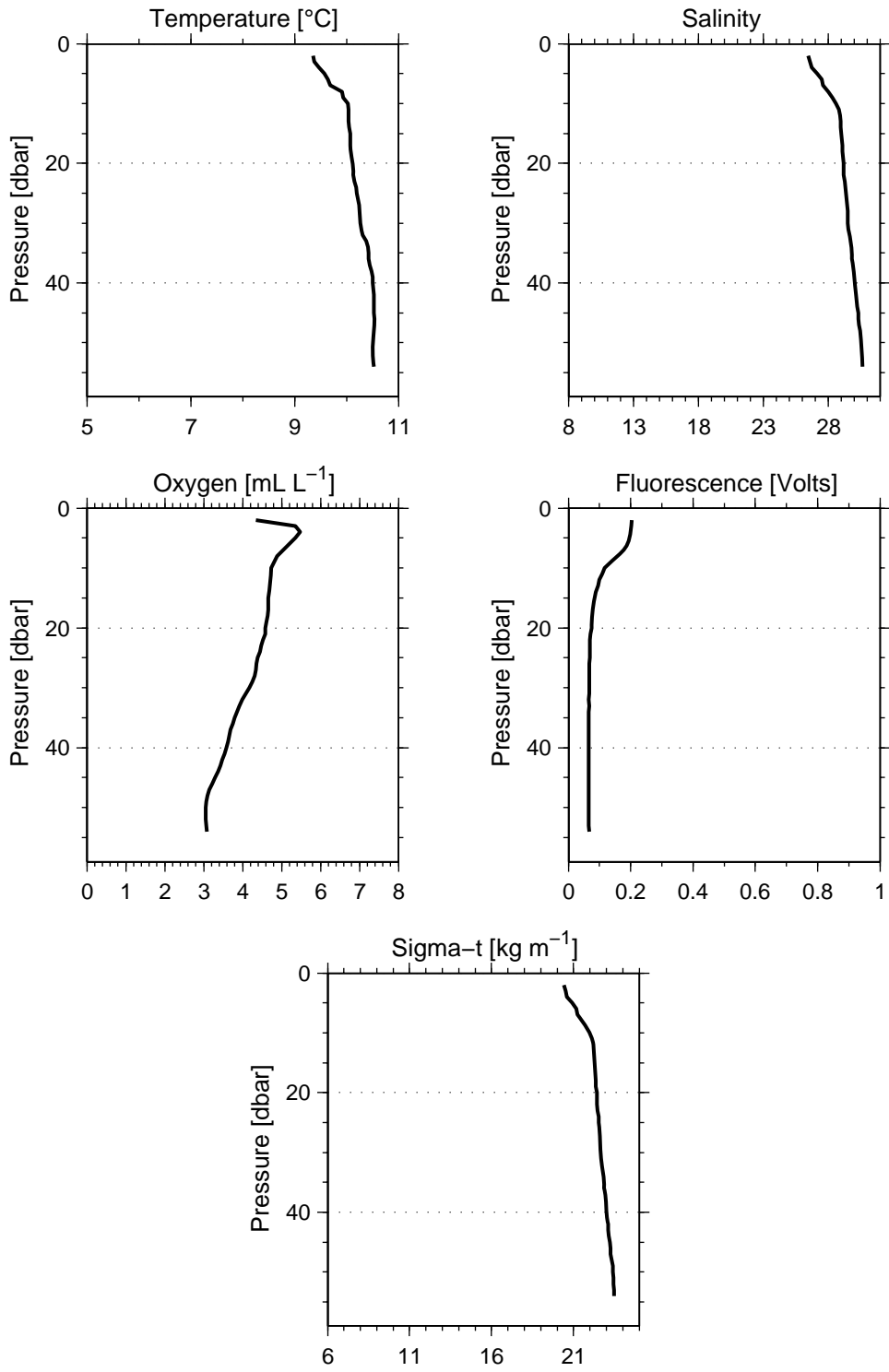
CRUISE	: Aysen July 2010	STATION	: CN	CAST	: 45
DATE	: 2010-07-24	LAT	: 45°25.615	Z-CTD	: 53 m
TIME	: 18:21	LON	: 72°54.632	DEPTH	: 98 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	9.359	26.489	20.411	4.335	0.204	-
3	9.377	26.620	20.511	5.363	0.201	-
4	9.470	26.752	20.600	5.480	0.200	-
6	9.638	27.507	21.164	5.199	0.191	-
8	9.913	28.011	21.514	4.893	0.158	-
10	10.026	28.621	21.972	4.740	0.116	-
12	10.044	28.924	22.205	4.712	0.099	-
14	10.049	28.978	22.247	4.679	0.088	-
16	10.078	29.081	22.322	4.654	0.081	-
18	10.082	29.117	22.350	4.636	0.077	-
20	10.123	29.206	22.412	4.582	0.074	-
22	10.130	29.222	22.424	4.530	0.069	-
24	10.186	29.355	22.518	4.439	0.069	-
26	10.217	29.428	22.570	4.360	0.068	-
28	10.254	29.502	22.621	4.304	0.067	-
30	10.271	29.541	22.650	4.177	0.067	-
35	10.430	29.833	22.851	3.802	0.066	-
40	10.510	30.061	23.015	3.585	0.065	-
45	10.533	30.321	23.214	3.291	0.065	-
50	10.521	30.570	23.410	3.056	0.065	-
53	10.522	30.642	23.465	3.068	0.065	-

Aysen July 2010
Station CN Cast 45



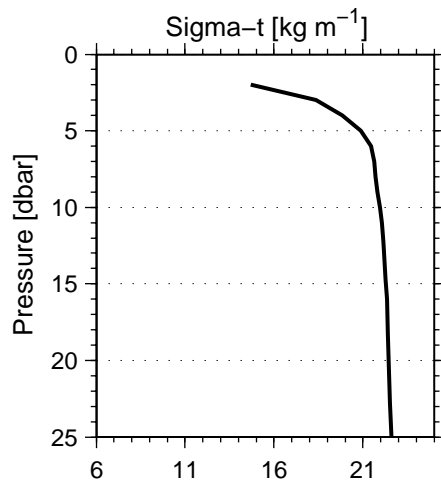
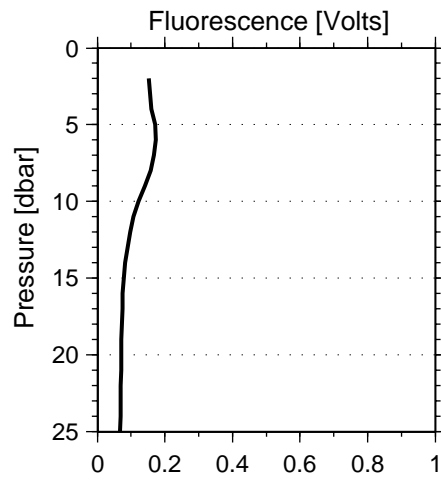
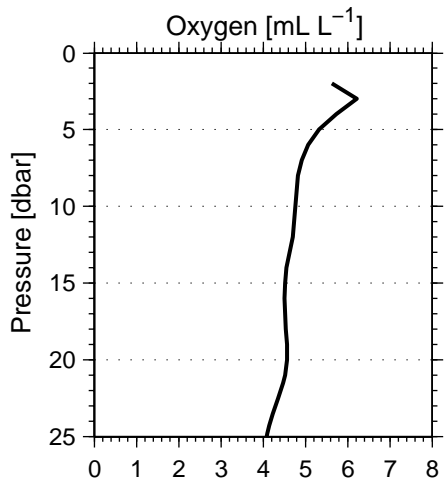
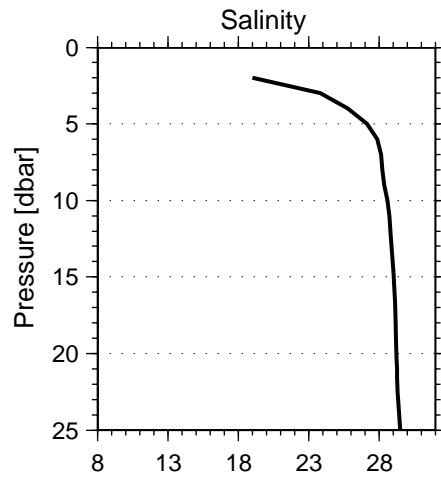
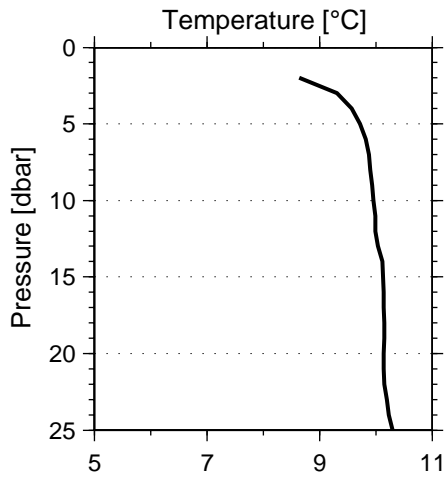
Aysen July 2010
Station CN Cast 45



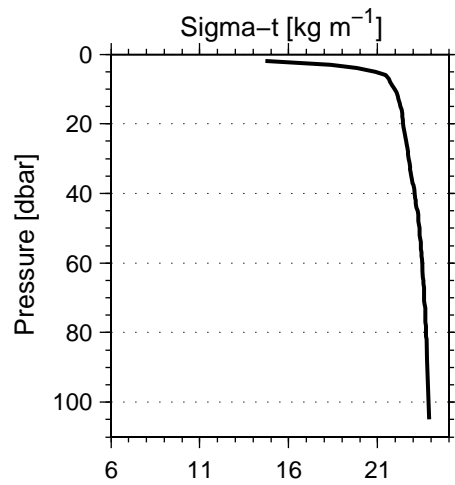
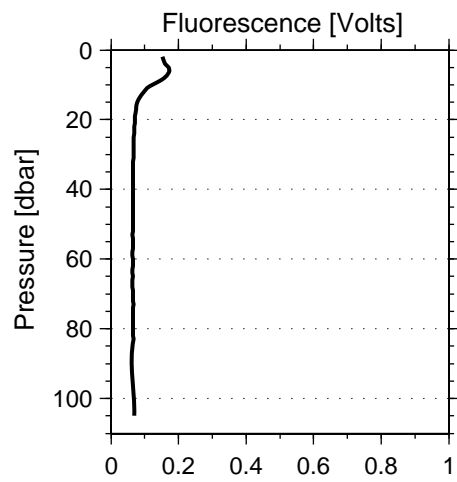
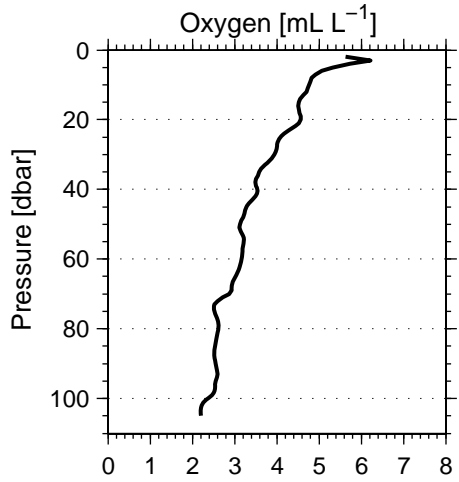
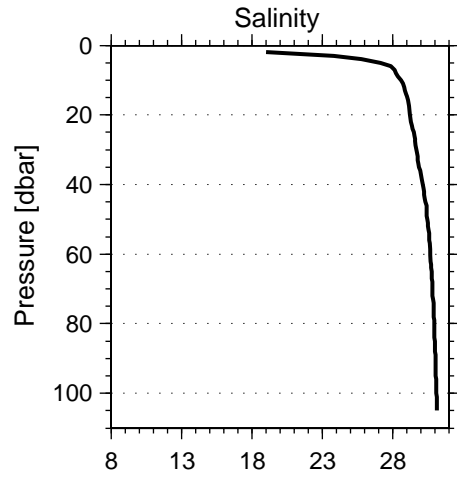
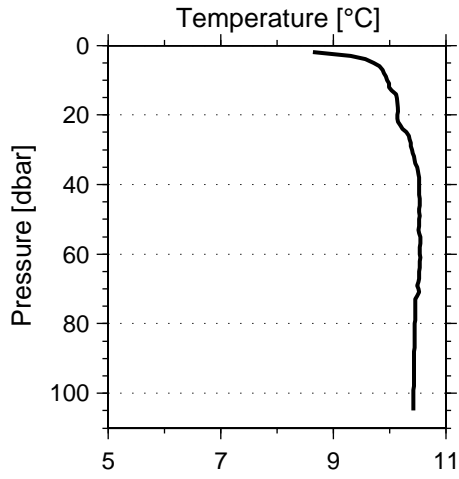
CRUISE : Aysen July 2010	STATION : CC	CAST : 46
DATE : 2010-07-24	LAT : 45°26.576	Z-CTD : 104 m
TIME : 18:39	LON : 72°54.773	DEPTH : 175 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.644	19.015	14.674	5.636	0.153	-
3	9.314	23.860	18.368	6.215	0.157	-
4	9.577	25.800	19.842	5.740	0.161	-
6	9.828	27.902	21.442	5.064	0.174	-
8	9.901	28.268	21.716	4.833	0.158	-
10	9.964	28.606	21.970	4.768	0.121	-
12	9.996	28.824	22.135	4.698	0.097	-
14	10.114	28.981	22.238	4.560	0.083	-
16	10.139	29.119	22.343	4.510	0.076	-
18	10.149	29.193	22.398	4.544	0.073	-
20	10.138	29.250	22.444	4.561	0.071	-
22	10.151	29.302	22.483	4.419	0.070	-
24	10.238	29.436	22.573	4.178	0.068	-
26	10.350	29.565	22.655	4.036	0.067	-
28	10.377	29.631	22.703	4.003	0.067	-
30	10.400	29.711	22.761	3.943	0.067	-
35	10.489	29.898	22.892	3.584	0.066	-
40	10.531	30.159	23.088	3.535	0.065	-
45	10.536	30.359	23.243	3.279	0.065	-
50	10.532	30.489	23.345	3.130	0.065	-
60	10.543	30.696	23.504	3.172	0.064	-
70	10.512	30.830	23.613	2.873	0.065	-
80	10.454	30.969	23.731	2.617	0.066	-
90	10.443	31.051	23.797	2.554	0.066	-
100	10.429	31.133	23.863	2.368	0.067	-
104	10.428	31.168	23.891	2.203	0.068	-

Aysen July 2010
Station CC Cast 46



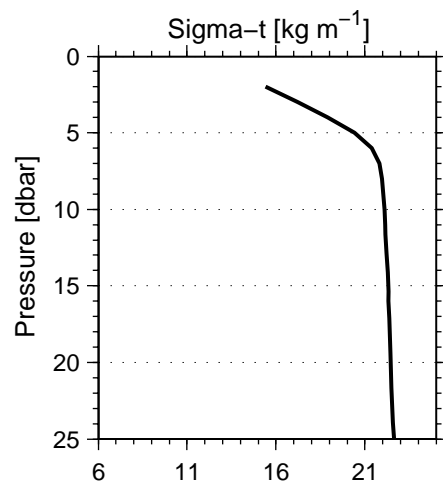
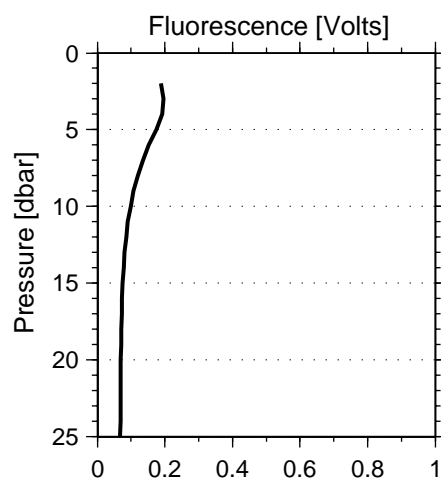
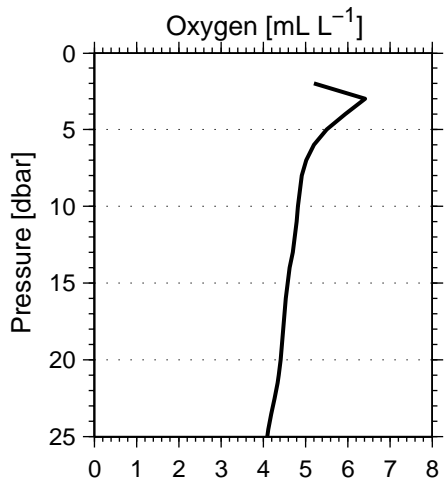
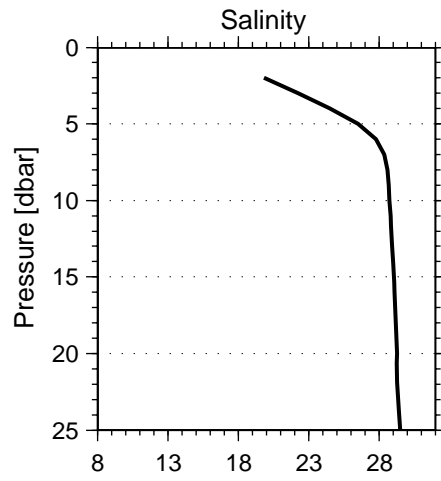
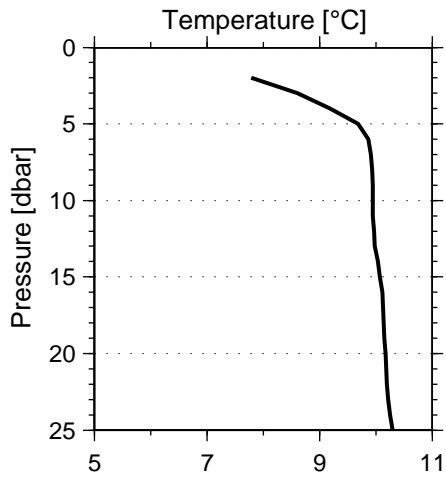
Aysen July 2010
Station CC Cast 46



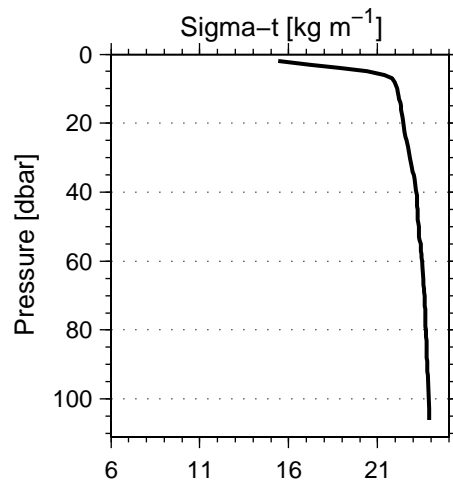
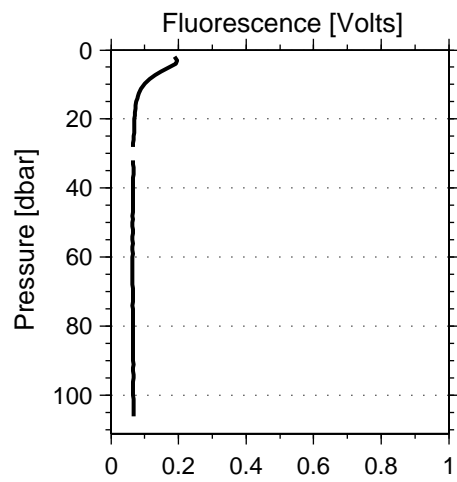
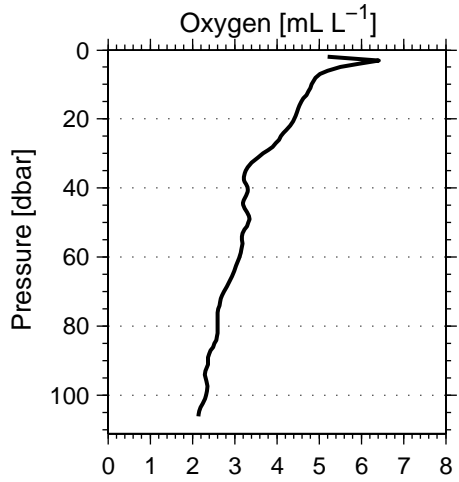
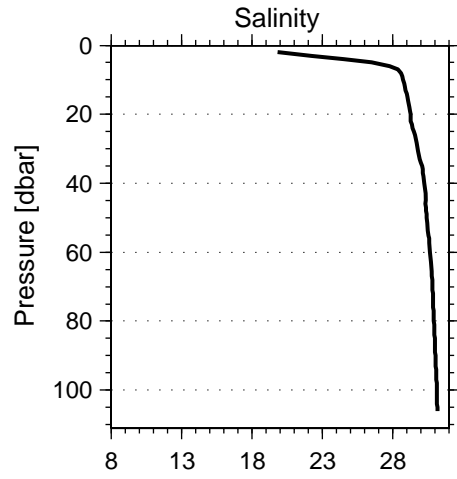
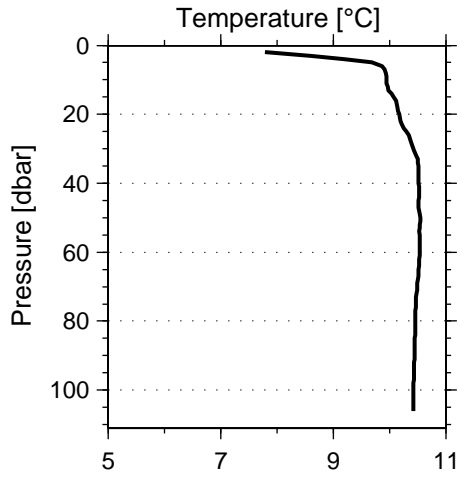
CRUISE	: Aysen July 2010	STATION	: CS	CAST	: 47
DATE	: 2010-07-24	LAT	: 45°27.406	Z-CTD	: 105 m
TIME	: 18:57	LON	: 72°54.860	DEPTH	: 158 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	7.791	19.823	15.405	5.208	0.188	-	-
3	8.610	22.244	17.201	6.417	0.195	-	-
4	9.192	24.530	18.907	5.948	0.192	-	-
6	9.865	27.817	21.370	5.205	0.153	-	-
8	9.940	28.593	21.964	4.921	0.120	-	-
10	9.944	28.772	22.102	4.831	0.099	-	-
12	9.969	28.884	22.186	4.756	0.086	-	-
14	10.041	29.001	22.266	4.631	0.078	-	-
16	10.117	29.099	22.330	4.539	0.073	-	-
18	10.145	29.196	22.401	4.473	0.071	-	-
20	10.175	29.278	22.460	4.411	0.070	-	-
22	10.198	29.318	22.488	4.311	0.069	-	-
24	10.250	29.438	22.572	4.157	0.068	-	-
26	10.344	29.607	22.689	4.046	0.066	-	-
28	10.386	29.696	22.751	3.899	0.066	-	-
30	10.430	29.796	22.822	3.679	NaN	-	-
35	10.514	30.092	23.039	3.264	0.067	-	-
40	10.512	30.266	23.174	3.316	0.066	-	-
45	10.519	30.352	23.240	3.212	0.065	-	-
50	10.550	30.449	23.310	3.328	0.064	-	-
60	10.541	30.679	23.491	3.121	0.064	-	-
70	10.492	30.855	23.637	2.751	0.065	-	-
80	10.458	30.948	23.715	2.601	0.065	-	-
90	10.445	31.051	23.797	2.371	0.066	-	-
100	10.427	31.151	23.878	2.326	0.066	-	-
105	10.426	31.183	23.902	2.152	0.067	-	-

Aysen July 2010
Station CS Cast 47



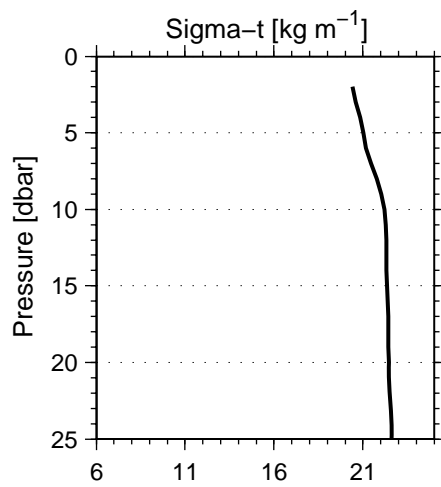
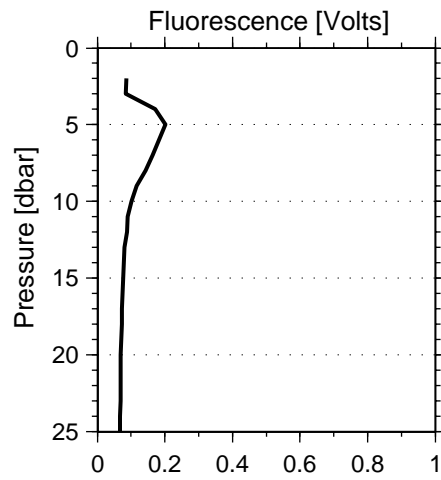
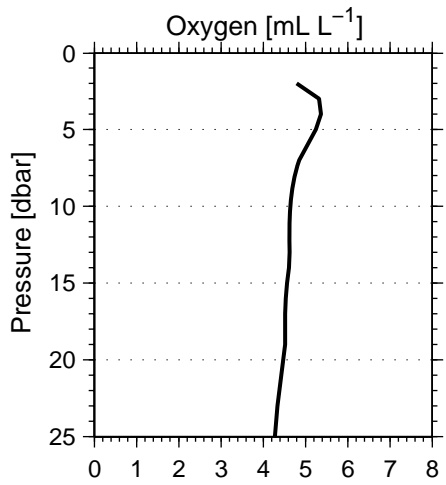
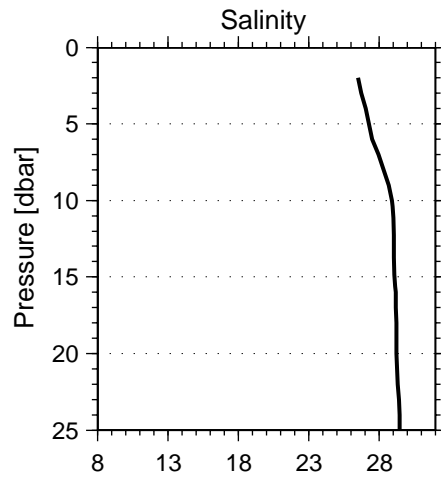
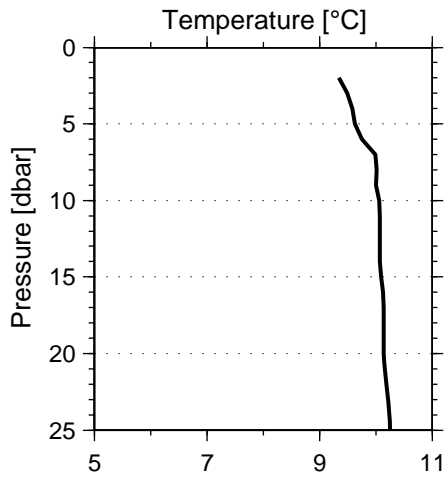
Aysen July 2010
Station CS Cast 47



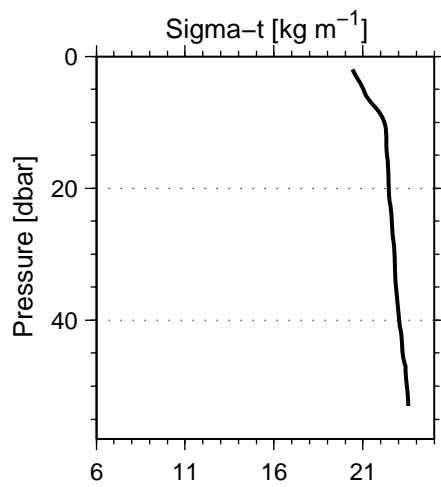
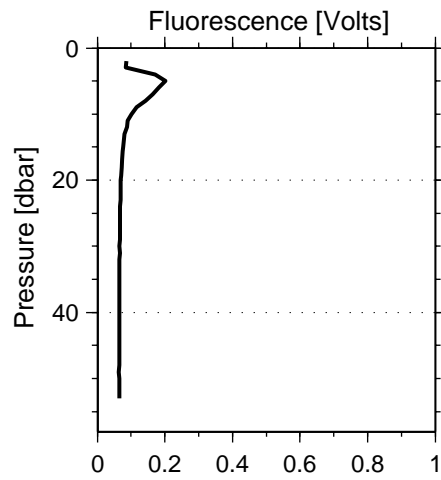
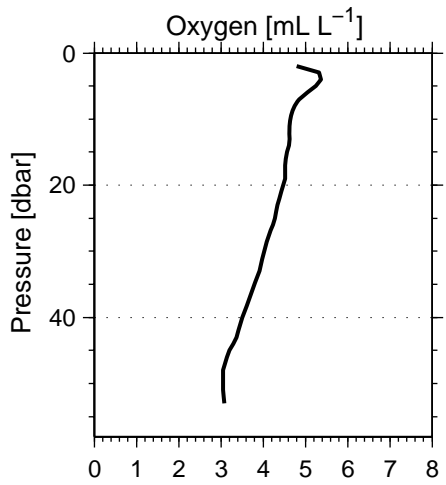
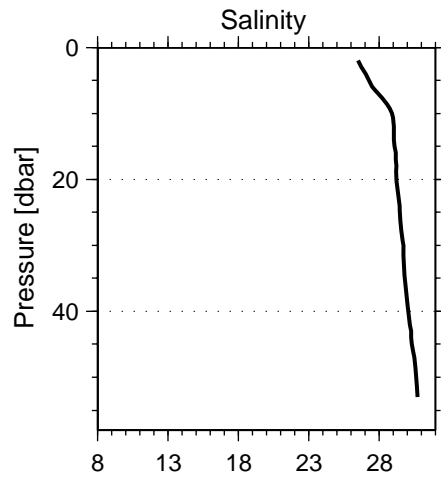
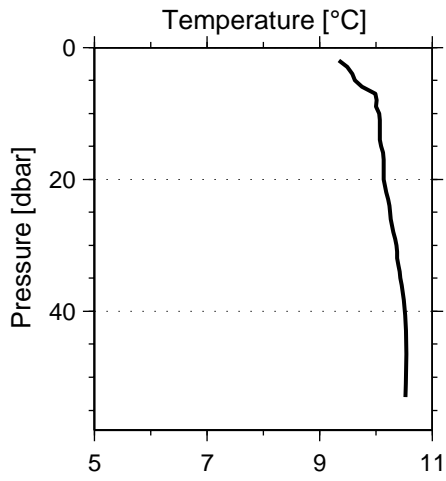
CRUISE	: Aysen July 2010	STATION	: CN	CAST	: 48
DATE	: 2010-07-24	LAT	: 45°25.653	Z-CTD	: 52 m
TIME	: 20:52	LON	: 72°54.626	DEPTH	: 80 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	9.350	26.501	20.422	4.795	0.086	-	-
3	9.493	26.742	20.589	5.319	0.085	-	-
4	9.582	27.065	20.828	5.370	0.172	-	-
6	9.759	27.527	21.161	5.046	0.182	-	-
8	10.014	28.354	21.766	4.756	0.144	-	-
10	10.061	28.934	22.210	4.642	0.102	-	-
12	10.079	29.061	22.306	4.626	0.087	-	-
14	10.076	29.082	22.323	4.612	0.079	-	-
16	10.129	29.192	22.401	4.540	0.074	-	-
18	10.141	29.238	22.435	4.522	0.072	-	-
20	10.145	29.255	22.447	4.484	0.070	-	-
22	10.190	29.353	22.516	4.381	0.069	-	-
24	10.243	29.471	22.599	4.315	0.068	-	-
26	10.263	29.526	22.639	4.228	0.067	-	-
28	10.310	29.618	22.703	4.115	0.067	-	-
30	10.372	29.730	22.780	4.022	0.066	-	-
35	10.436	29.843	22.857	3.796	0.066	-	-
40	10.519	30.094	23.039	3.505	0.065	-	-
45	10.533	30.339	23.228	3.209	0.065	-	-
50	10.524	30.667	23.485	3.051	0.065	-	-
52	10.528	30.724	23.529	3.068	0.065	-	-

Aysen July 2010
Station CN Cast 48



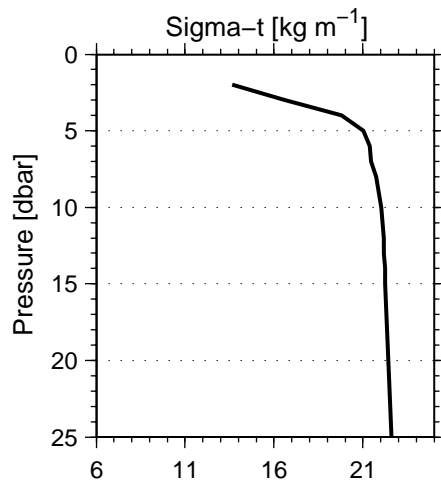
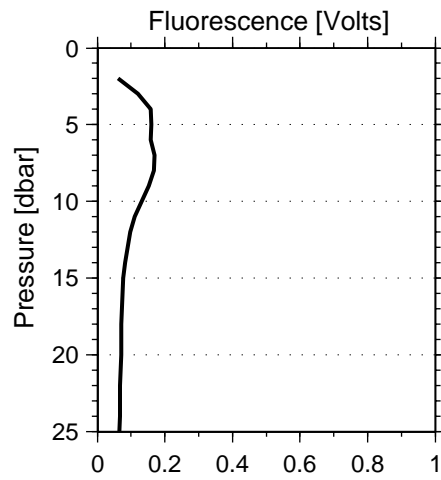
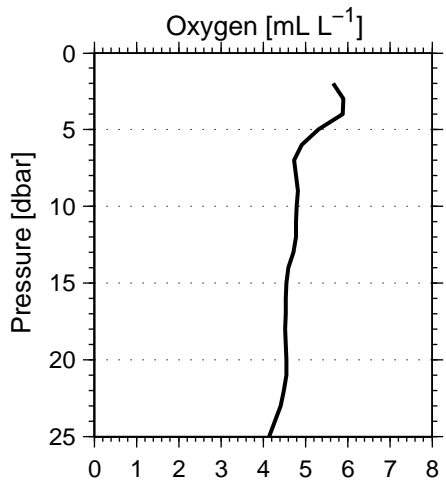
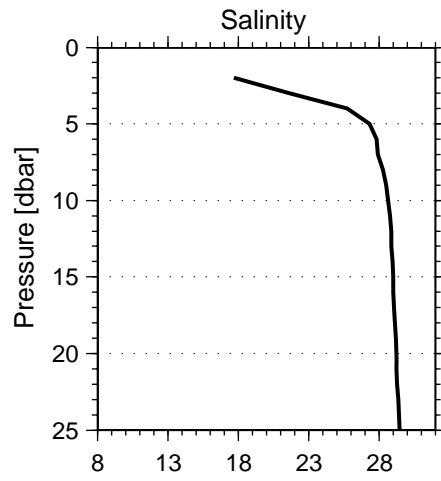
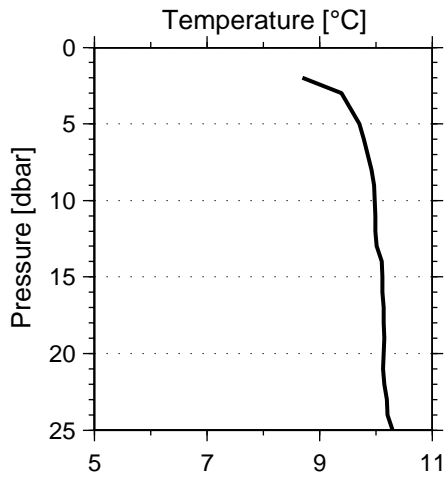
Aysen July 2010
Station CN Cast 48



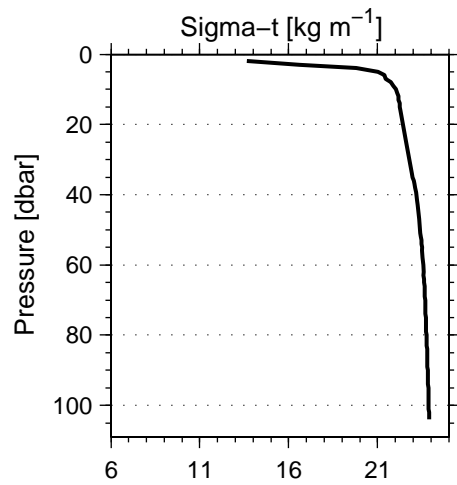
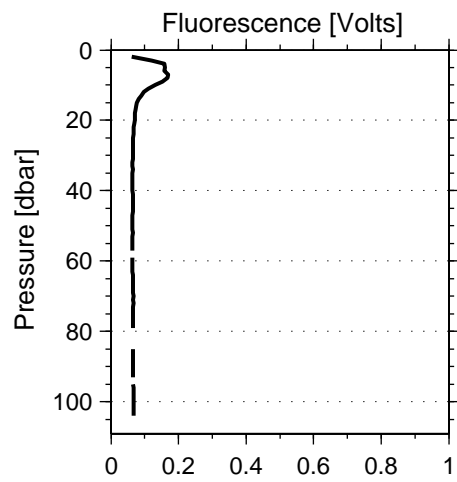
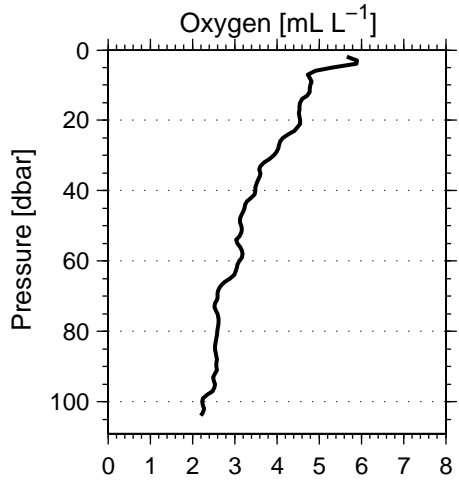
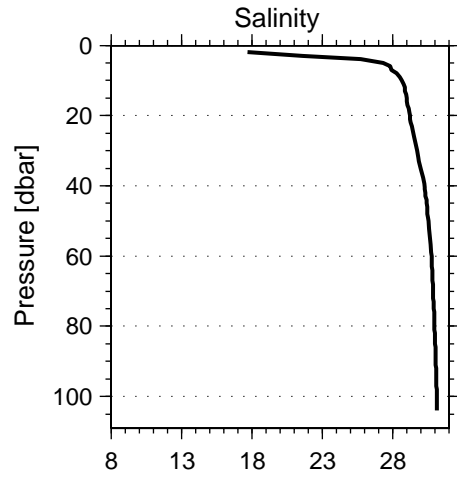
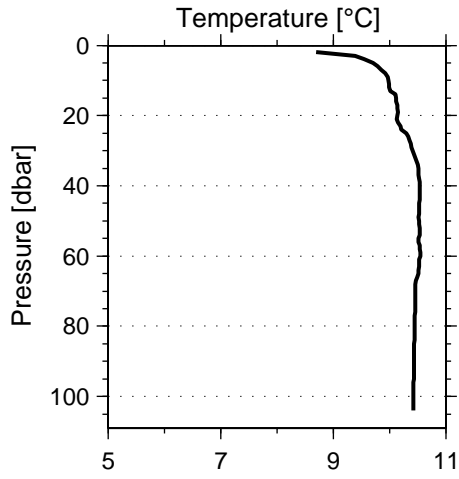
CRUISE	: Aysen July 2010	STATION	: CC	CAST	: 49
DATE	: 2010-07-24	LAT	: 45°26.573	Z-CTD	: 103 m
TIME	: 21:10	LON	: 72°54.750	DEPTH	: 175 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.700	17.707	13.647	5.654	0.061	-
3	9.393	21.605	16.600	5.908	0.121	-
4	9.554	25.738	19.797	5.880	0.158	-
6	9.791	27.819	21.384	4.915	0.159	-
8	9.924	28.290	21.730	4.776	0.168	-
10	9.978	28.681	22.026	4.798	0.132	-
12	9.998	28.871	22.171	4.785	0.097	-
14	10.109	28.970	22.231	4.601	0.082	-
16	10.125	29.043	22.285	4.543	0.075	-
18	10.140	29.147	22.363	4.527	0.071	-
20	10.139	29.238	22.434	4.557	0.070	-
22	10.158	29.315	22.492	4.494	0.067	-
24	10.215	29.414	22.560	4.281	0.067	-
26	10.336	29.543	22.641	4.082	0.065	-
28	10.385	29.662	22.725	4.036	0.065	-
30	10.412	29.739	22.781	3.933	0.064	-
35	10.514	30.014	22.978	3.610	0.064	-
40	10.538	30.291	23.189	3.500	0.064	-
45	10.533	30.437	23.304	3.229	0.065	-
50	10.528	30.560	23.400	3.161	0.064	-
60	10.555	30.775	23.564	3.113	0.064	-
70	10.462	30.896	23.673	2.596	0.066	-
80	10.451	30.984	23.744	2.595	NaN	-
90	10.440	31.074	23.816	2.574	0.066	-
100	10.430	31.155	23.880	2.238	0.068	-
103	10.427	31.164	23.888	2.256	0.068	-

Aysen July 2010
Station CC Cast 49



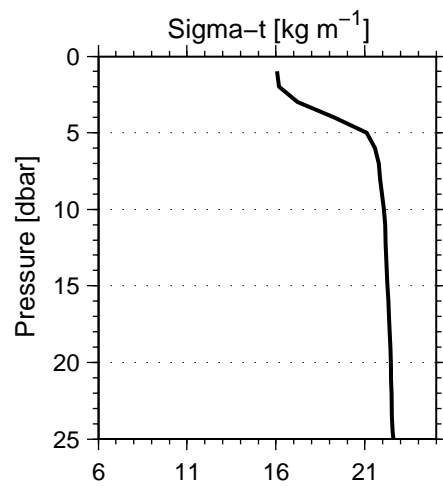
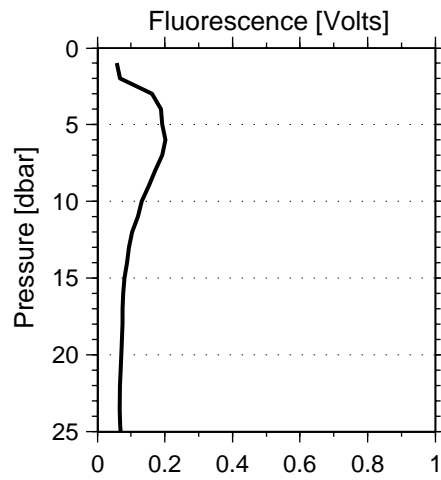
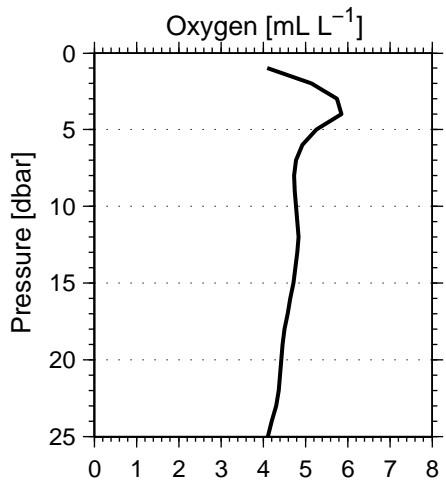
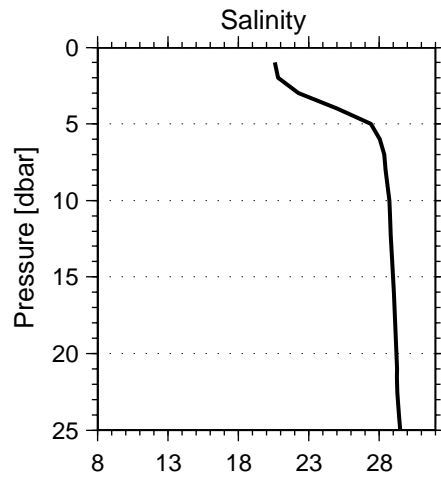
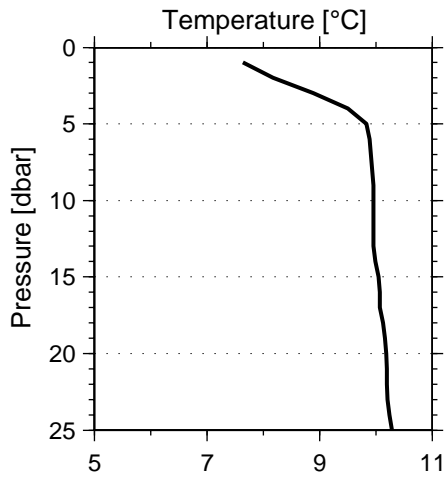
Aysen July 2010
Station CC Cast 49



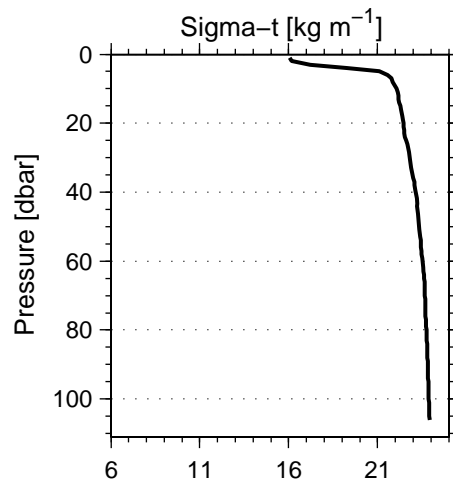
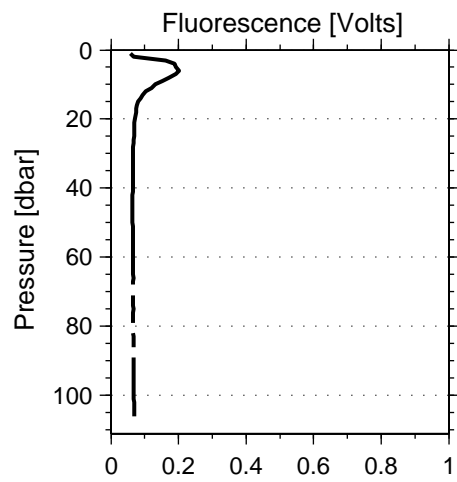
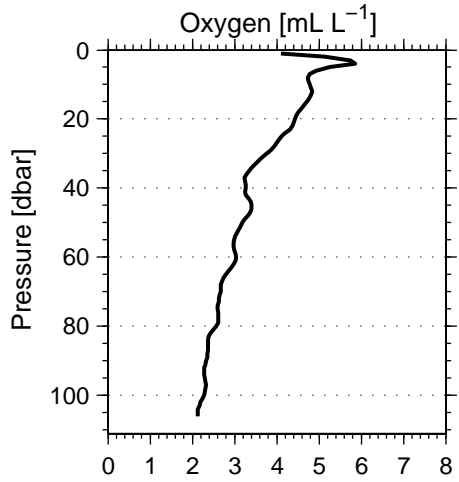
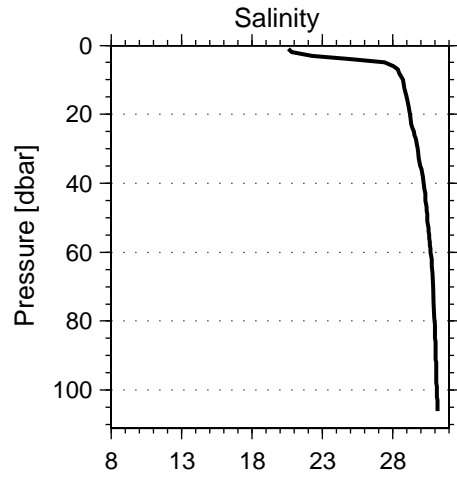
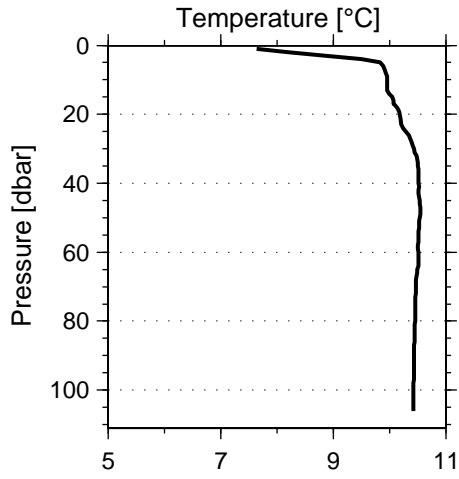
CRUISE	: Aysen July 2010	STATION	: CS	CAST	: 50
DATE	: 2010-07-24	LAT	: 45°27.430	Z-CTD	: 105 m
TIME	: 21:30	LON	: 72°54.842	DEPTH	: 156 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	7.641	20.618	16.046	4.101	0.059	-
2	8.177	20.832	16.151	5.143	0.067	-
3	8.891	22.311	17.216	5.750	0.161	-
4	9.504	25.032	19.254	5.859	0.189	-
6	9.890	28.064	21.560	4.939	0.202	-
8	9.935	28.462	21.863	4.732	0.172	-
10	9.961	28.745	22.079	4.780	0.132	-
12	9.959	28.848	22.159	4.837	0.104	-
14	9.996	28.927	22.215	4.766	0.088	-
16	10.068	29.067	22.313	4.650	0.077	-
18	10.136	29.168	22.380	4.514	0.074	-
20	10.184	29.263	22.447	4.428	0.070	-
22	10.204	29.318	22.486	4.375	0.069	-
24	10.240	29.409	22.552	4.202	0.069	-
26	10.344	29.586	22.672	4.060	0.067	-
28	10.392	29.695	22.750	3.928	0.066	-
30	10.435	29.794	22.820	3.768	0.065	-
35	10.508	29.985	22.956	3.336	0.065	-
40	10.519	30.214	23.132	3.270	0.065	-
45	10.542	30.358	23.241	3.408	0.064	-
50	10.537	30.478	23.335	3.192	0.064	-
60	10.512	30.721	23.528	3.031	0.065	-
70	10.469	30.886	23.664	2.667	NaN	-
80	10.456	30.993	23.750	2.567	NaN	-
90	10.440	31.083	23.822	2.325	0.067	-
100	10.429	31.156	23.881	2.282	0.067	-
105	10.425	31.202	23.918	2.126	0.069	-

Aysen July 2010
Station CS Cast 50



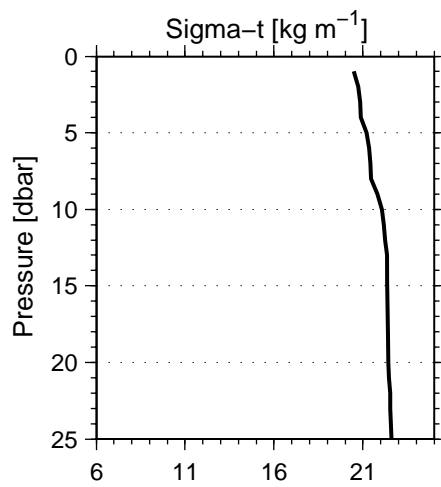
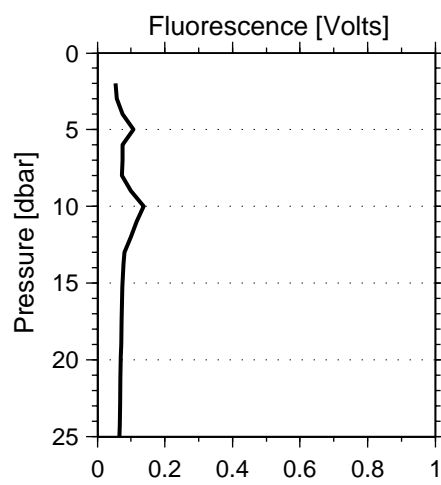
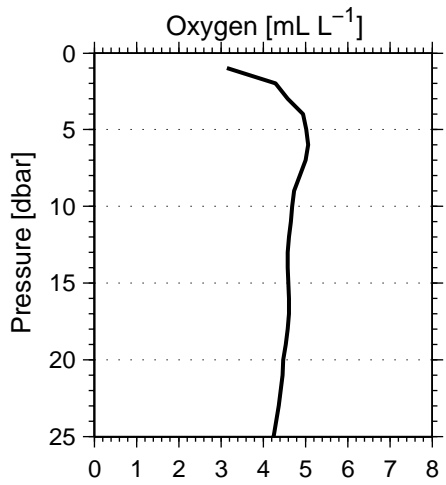
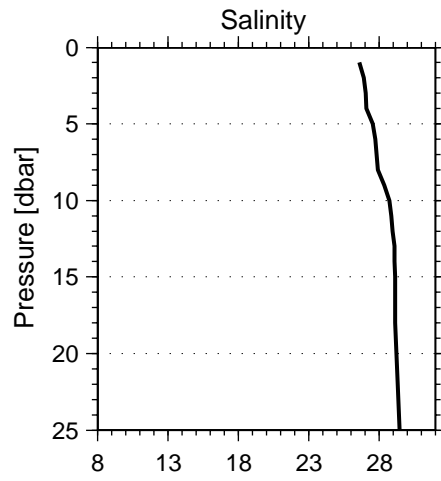
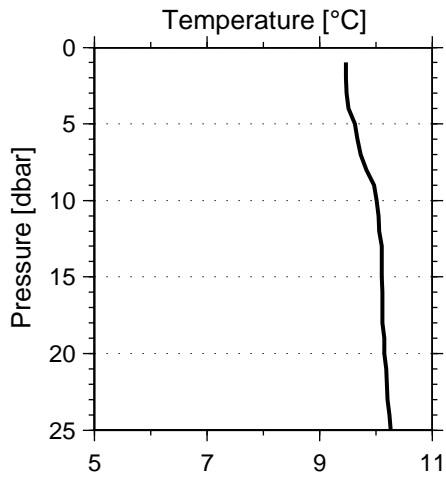
Aysen July 2010
Station CS Cast 50



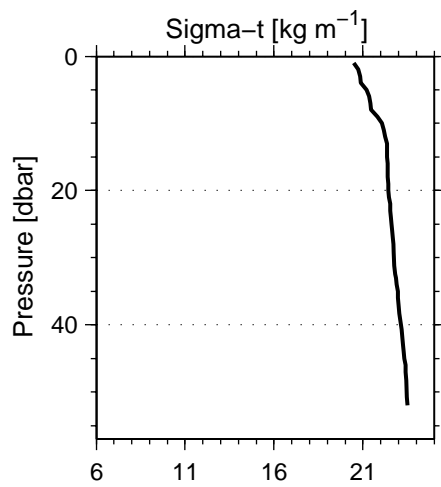
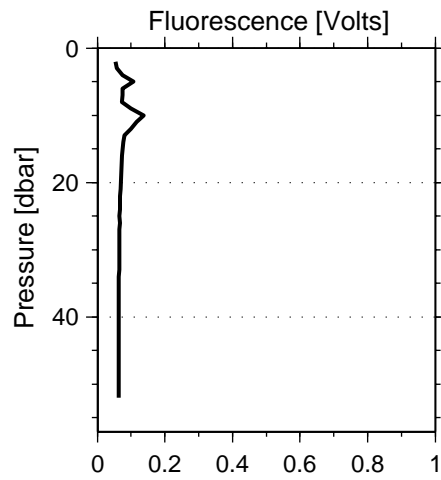
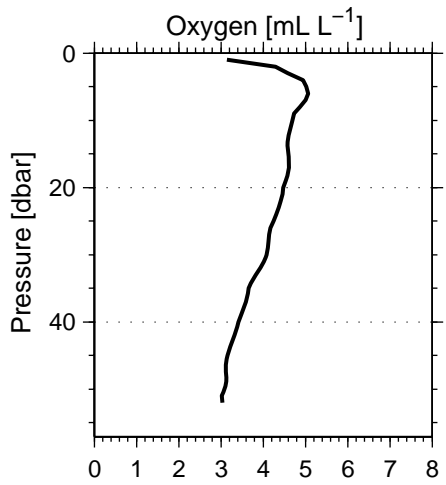
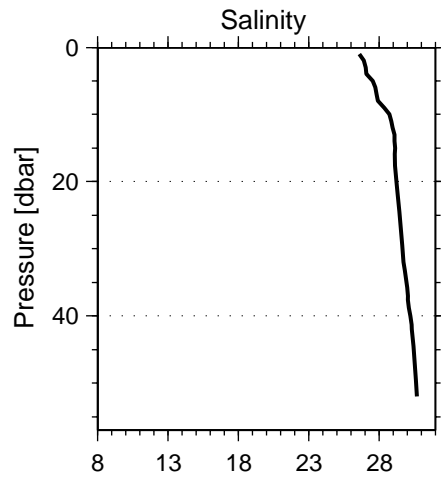
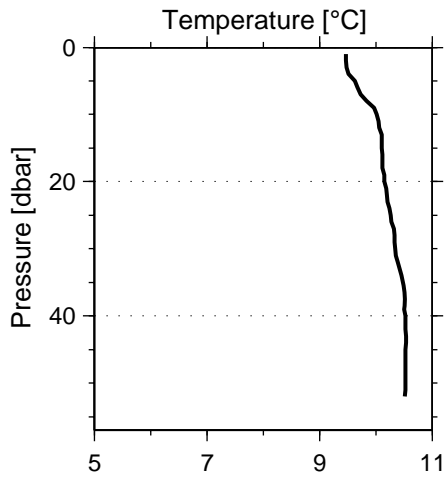
CRUISE	: Aysen July 2010	STATION	: CN	CAST	: 51
DATE	: 2010-07-24	LAT	: 45°25.652	Z-CTD	: 51 m
TIME	: 23:03	LON	: 72°54.666	DEPTH	: 78 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	9.467	26.624	20.501	3.137	NaN	-
2	9.477	26.941	20.747	4.293	0.054	-
3	9.482	27.067	20.844	4.587	0.058	-
4	9.513	27.135	20.892	4.954	0.074	-
6	9.681	27.760	21.354	5.068	0.074	-
8	9.839	27.925	21.459	4.872	0.074	-
10	10.020	28.732	22.059	4.683	0.137	-
12	10.060	28.959	22.230	4.616	0.099	-
14	10.113	29.132	22.356	4.586	0.076	-
16	10.115	29.160	22.378	4.611	0.073	-
18	10.122	29.181	22.393	4.581	0.071	-
20	10.158	29.238	22.432	4.485	0.069	-
22	10.204	29.360	22.519	4.415	0.068	-
24	10.240	29.445	22.580	4.313	0.067	-
26	10.283	29.524	22.634	4.179	0.066	-
28	10.339	29.631	22.708	4.127	0.066	-
30	10.342	29.664	22.734	4.080	0.065	-
35	10.486	29.973	22.950	3.657	0.064	-
40	10.525	30.231	23.145	3.419	0.064	-
45	10.532	30.461	23.323	3.155	0.064	-
50	10.528	30.637	23.460	3.080	0.064	-
51	10.527	30.661	23.479	3.022	0.064	-

Aysen July 2010
Station CN Cast 51



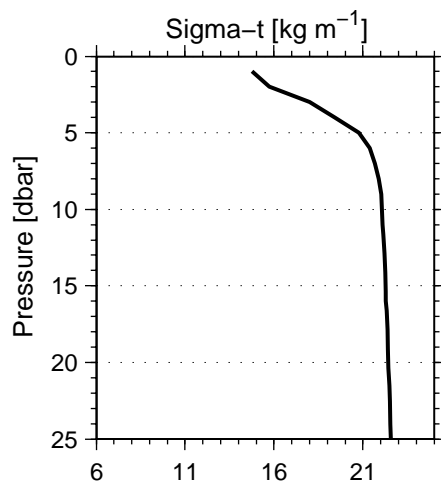
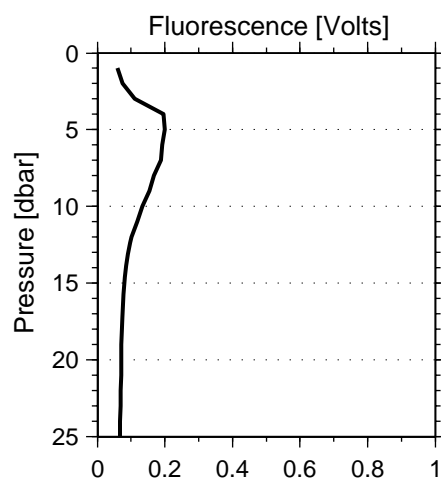
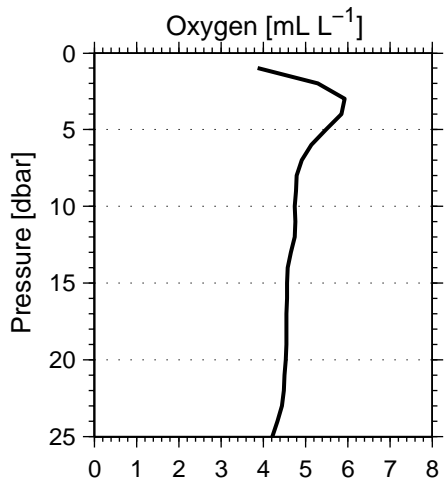
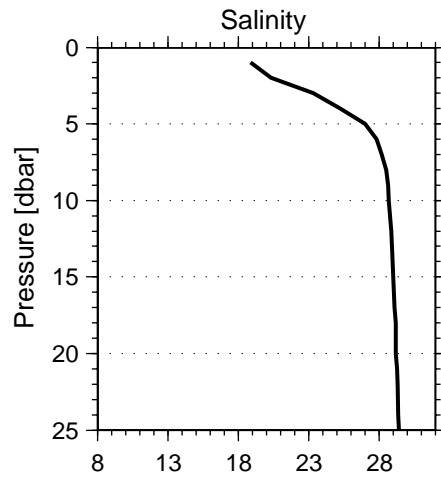
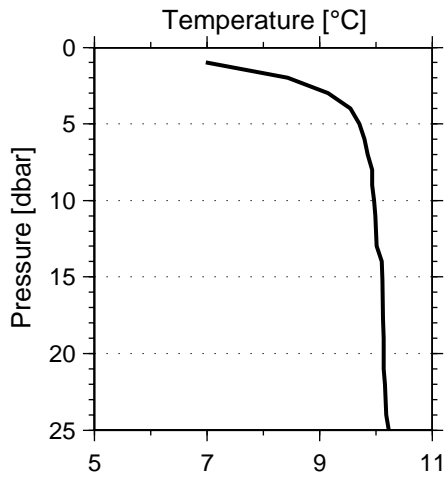
Aysen July 2010
Station CN Cast 51



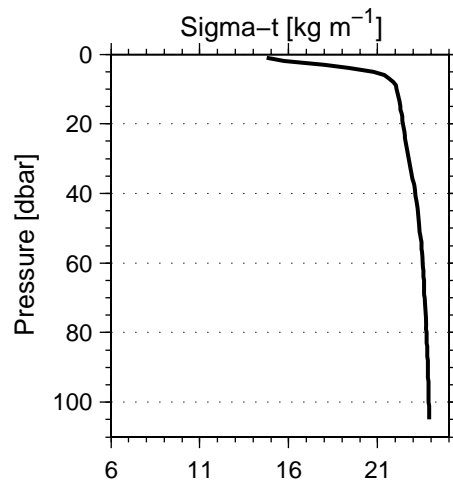
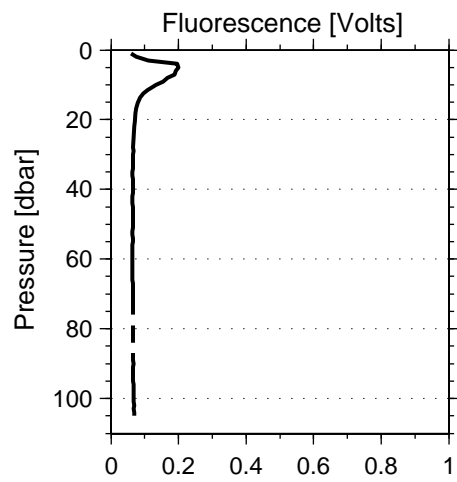
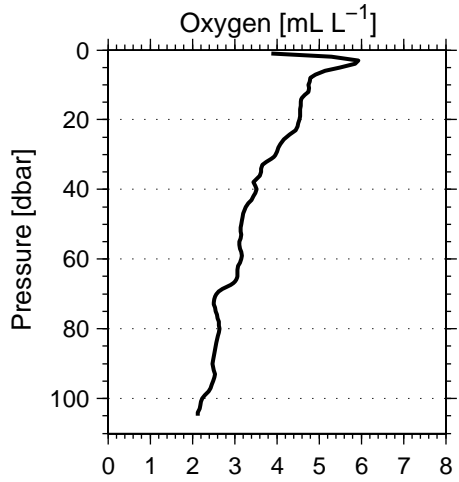
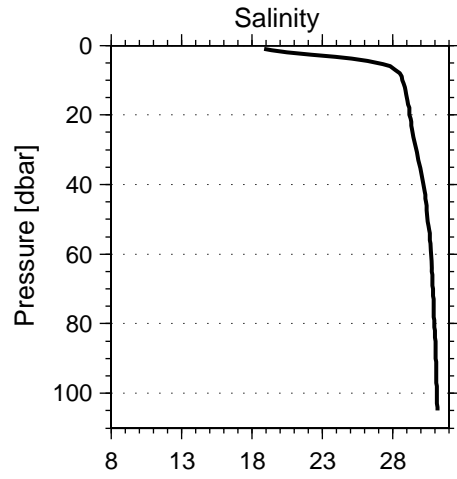
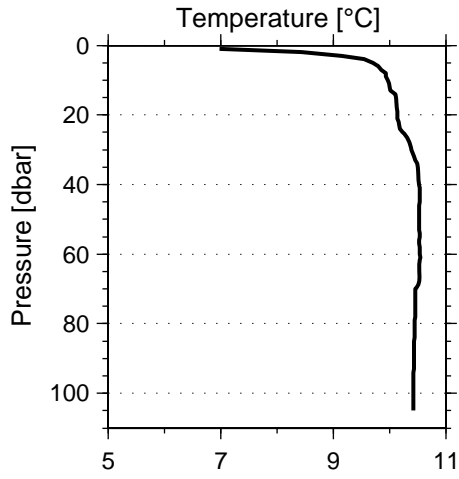
CRUISE	: Aysen July 2010	STATION	: CC	CAST	: 52
DATE	: 2010-07-24	LAT	: 45°26.569	Z-CTD	: 104 m
TIME	: 23:31	LON	: 72°54.819	DEPTH	: 172 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	6.986	18.881	14.763	3.865	0.061	-
2	8.441	20.342	15.735	5.297	0.075	-
3	9.155	23.345	17.988	5.929	0.111	-
4	9.555	25.246	19.414	5.850	0.197	-
6	9.802	27.830	21.391	5.142	0.192	-
8	9.936	28.502	21.893	4.802	0.168	-
10	9.972	28.720	22.058	4.754	0.133	-
12	10.001	28.873	22.173	4.753	0.101	-
14	10.110	28.978	22.237	4.591	0.084	-
16	10.119	29.060	22.299	4.562	0.076	-
18	10.134	29.182	22.392	4.557	0.073	-
20	10.146	29.223	22.422	4.531	0.071	-
22	10.165	29.332	22.504	4.490	0.069	-
24	10.188	29.380	22.538	4.346	0.067	-
26	10.302	29.496	22.610	4.141	0.067	-
28	10.353	29.578	22.665	4.041	0.066	-
30	10.390	29.687	22.743	3.973	0.065	-
35	10.502	29.963	22.940	3.629	0.064	-
40	10.528	30.209	23.128	3.529	0.065	-
45	10.540	30.388	23.264	3.264	0.065	-
50	10.531	30.497	23.351	3.152	0.065	-
60	10.545	30.742	23.539	3.161	0.064	-
70	10.466	30.872	23.654	2.573	0.065	-
80	10.453	30.986	23.745	2.639	0.066	-
90	10.436	31.091	23.829	2.480	0.066	-
100	10.429	31.151	23.878	2.234	0.068	-
104	10.428	31.183	23.902	2.135	0.068	-

Aysen July 2010
Station CC Cast 52



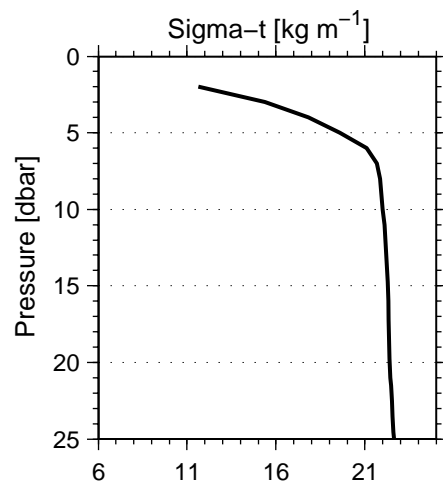
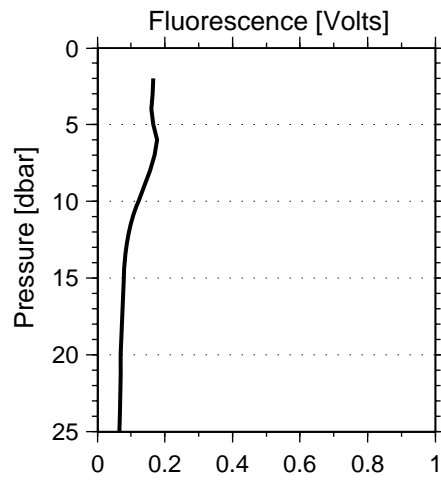
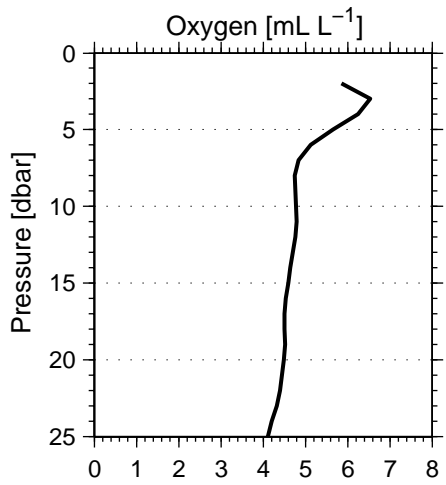
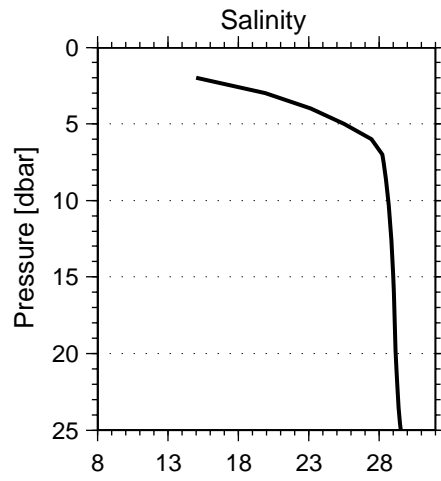
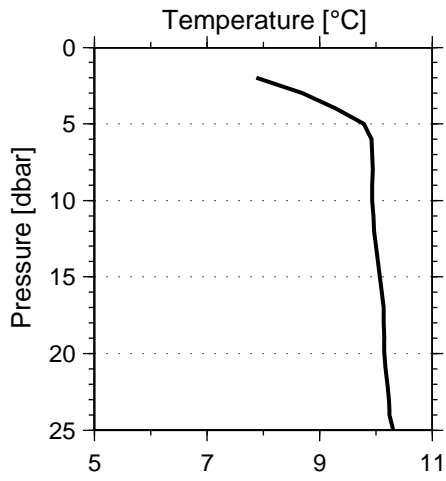
Aysen July 2010
Station CC Cast 52



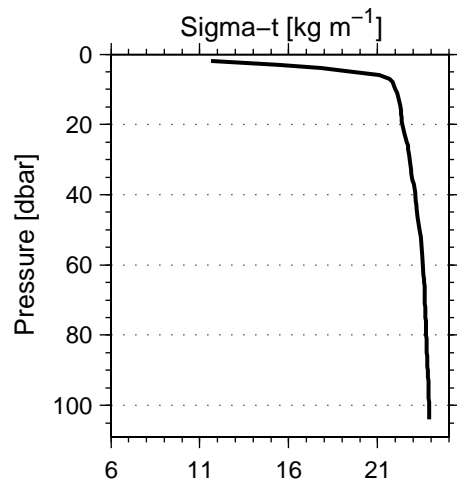
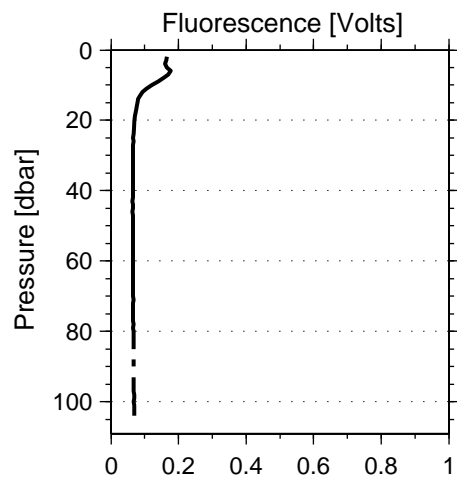
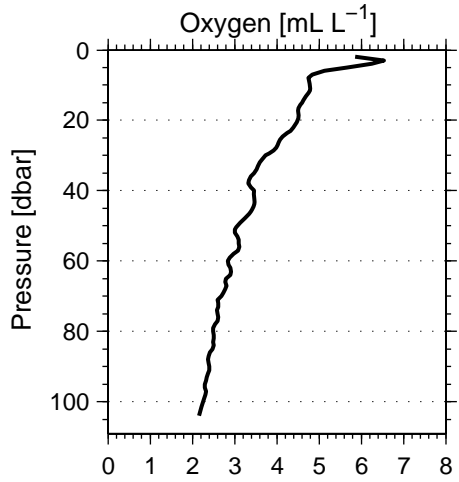
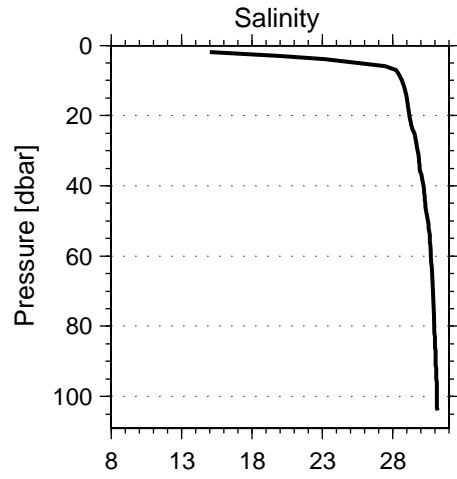
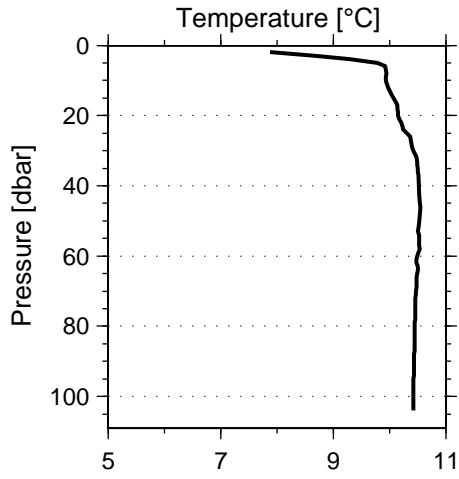
CRUISE : Aysen July 2010	STATION : CS	CAST : 53
DATE : 2010-07-24	LAT : 45°27.370	Z-CTD : 103 m
TIME : 23:52	LON : 72°54.831	DEPTH : 157 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	7.876	15.031	11.647	5.858	0.165	-
3	8.697	19.910	15.368	6.544	0.163	-
4	9.290	23.177	17.838	6.251	0.160	-
6	9.923	27.497	21.112	5.134	0.177	-
8	9.953	28.443	21.845	4.755	0.156	-
10	9.942	28.643	22.002	4.774	0.122	-
12	9.967	28.847	22.157	4.763	0.093	-
14	10.045	28.984	22.252	4.651	0.081	-
16	10.112	29.073	22.311	4.538	0.077	-
18	10.146	29.129	22.349	4.513	0.072	-
20	10.153	29.185	22.391	4.499	0.069	-
22	10.210	29.318	22.486	4.396	0.068	-
24	10.243	29.425	22.564	4.207	0.067	-
26	10.367	29.635	22.707	4.055	0.067	-
28	10.393	29.700	22.753	3.978	0.066	-
30	10.426	29.777	22.808	3.740	0.066	-
35	10.503	29.949	22.929	3.463	0.066	-
40	10.525	30.202	23.122	3.464	0.065	-
45	10.542	30.334	23.222	3.432	0.065	-
50	10.530	30.517	23.366	3.070	0.065	-
60	10.500	30.731	23.538	2.835	0.065	-
70	10.476	30.883	23.661	2.685	0.066	-
80	10.452	30.978	23.739	2.495	0.066	-
90	10.440	31.078	23.819	2.402	0.067	-
100	10.426	31.169	23.892	2.247	0.068	-
103	10.427	31.180	23.900	2.180	0.068	-

Aysen July 2010
Station CS Cast 53



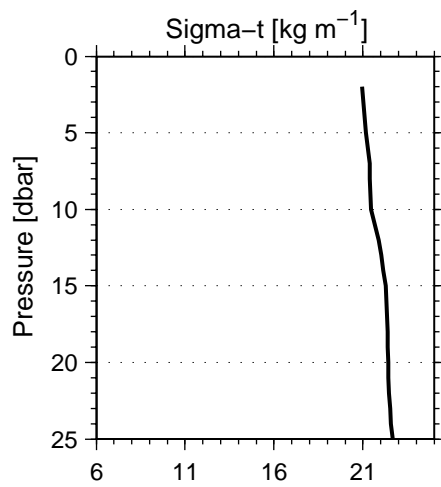
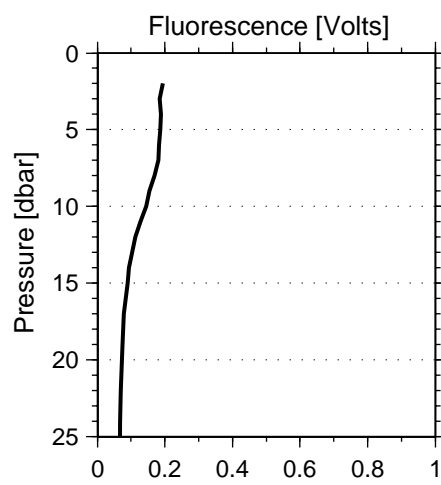
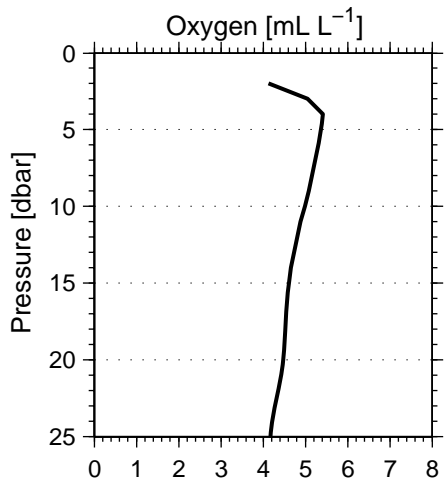
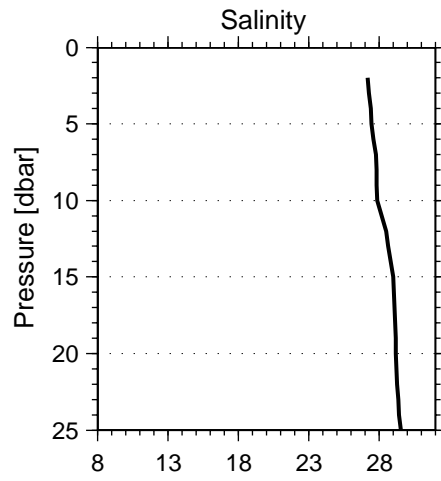
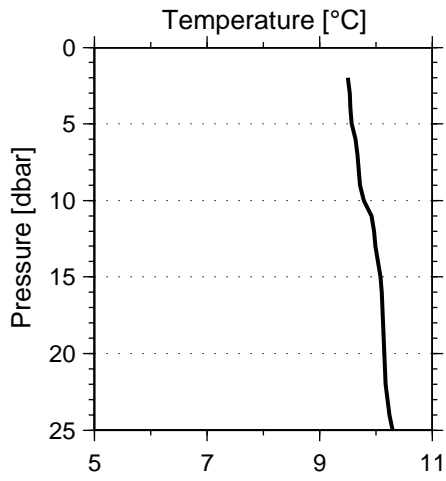
Aysen July 2010
Station CS Cast 53



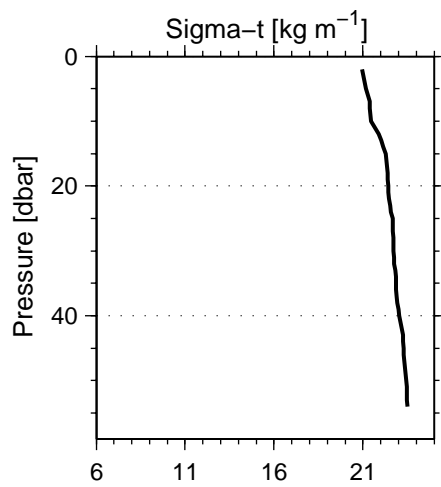
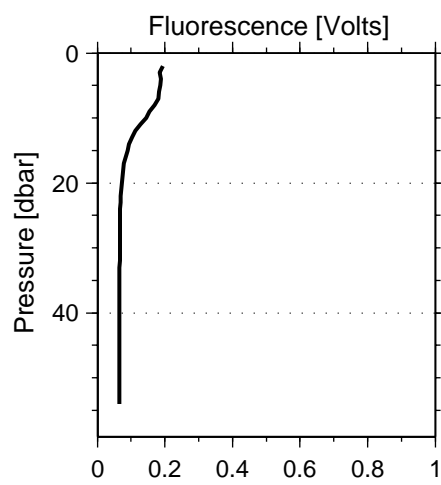
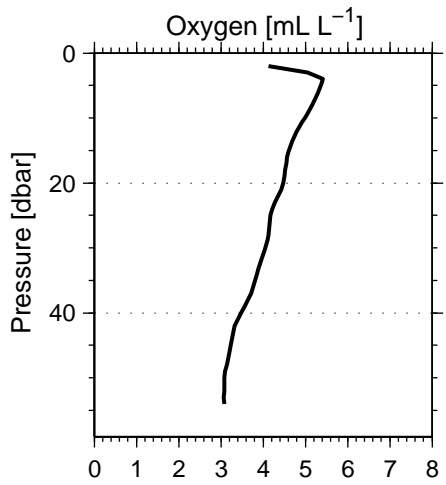
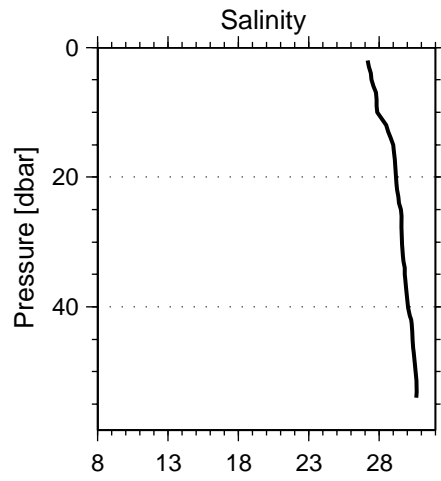
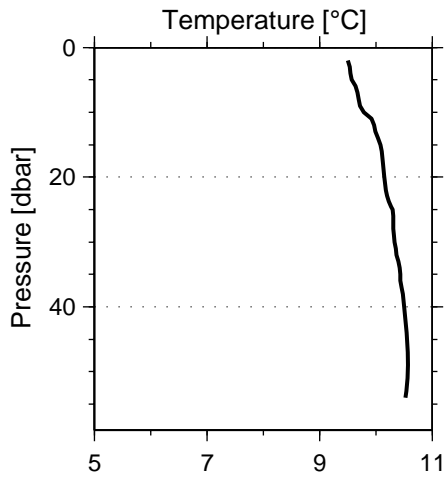
CRUISE	: Aysen July 2010	STATION	: CN	CAST	: 54
DATE	: 2010-07-25	LAT	: 45°25.658	Z-CTD	: 53 m
TIME	: 01:24	LON	: 72°54.636	DEPTH	: 73 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	9.505	27.198	20.943	4.132	0.194	-	-
3	9.539	27.305	21.021	5.048	0.185	-	-
4	9.556	27.418	21.106	5.423	0.188	-	-
6	9.636	27.634	21.263	5.308	0.182	-	-
8	9.704	27.824	21.401	5.166	0.169	-	-
10	9.787	27.892	21.441	4.988	0.145	-	-
12	9.977	28.512	21.895	4.805	0.113	-	-
14	10.038	28.832	22.134	4.664	0.094	-	-
16	10.107	29.090	22.324	4.570	0.084	-	-
18	10.136	29.176	22.387	4.525	0.077	-	-
20	10.151	29.216	22.416	4.473	0.073	-	-
22	10.177	29.288	22.467	4.363	0.070	-	-
24	10.243	29.441	22.576	4.219	0.068	-	-
26	10.316	29.610	22.696	4.161	0.068	-	-
28	10.316	29.617	22.701	4.124	0.067	-	-
30	10.336	29.645	22.720	4.055	0.066	-	-
35	10.433	29.846	22.860	3.812	0.065	-	-
40	10.509	30.083	23.032	3.477	0.065	-	-
45	10.532	30.405	23.279	3.237	0.065	-	-
50	10.528	30.614	23.443	3.090	0.065	-	-
53	10.526	30.651	23.472	3.075	0.065	-	-

Aysen July 2010
Station CN Cast 54



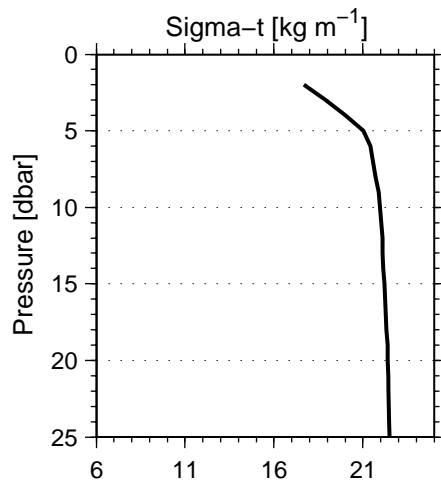
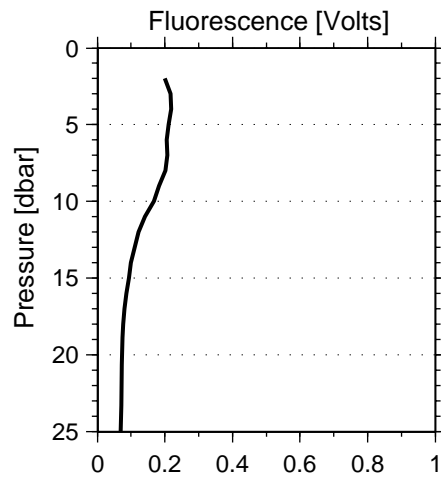
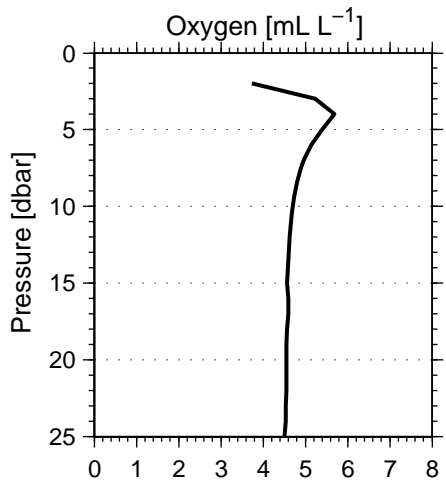
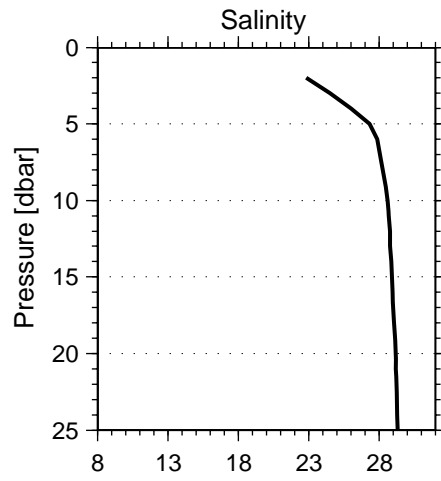
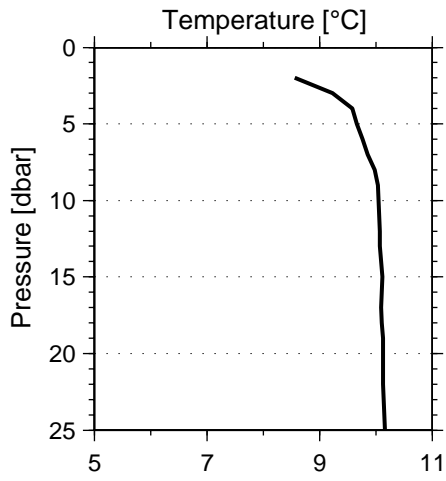
Aysen July 2010
Station CN Cast 54



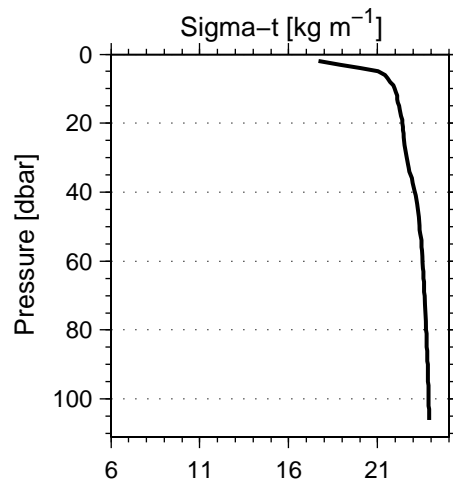
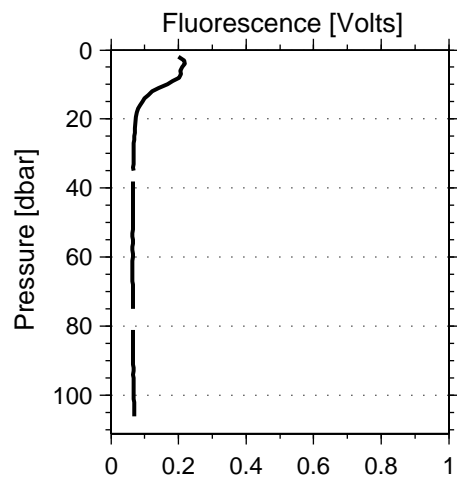
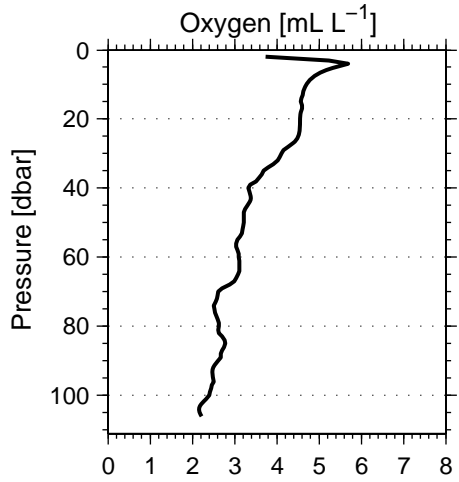
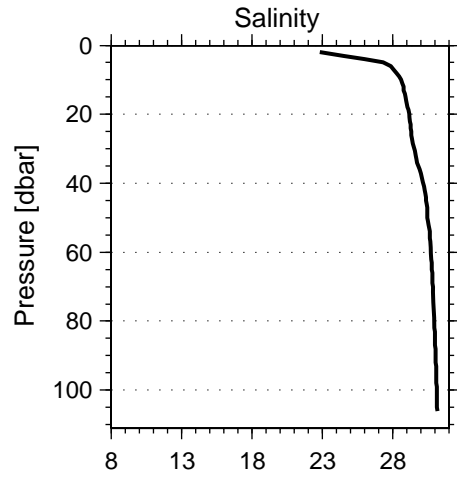
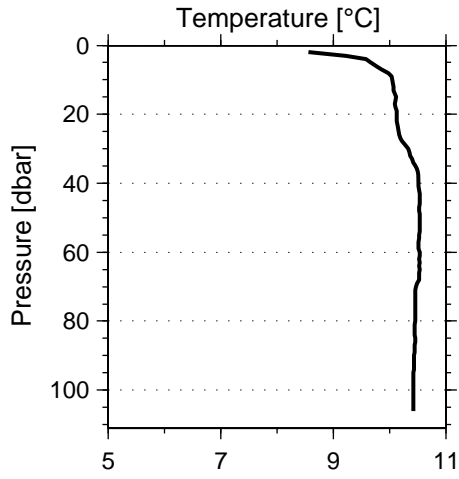
CRUISE : Aysen July 2010	STATION : CC	CAST : 55
DATE : 2010-07-25	LAT : 45°26.594	Z-CTD : 105 m
TIME : 01:44	LON : 72°54.769	DEPTH : 175 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-
2	8.562	22.843	17.677	3.733	0.200	-
3	9.230	24.526	18.899	5.238	0.216	-
4	9.586	26.002	19.998	5.687	0.218	-
6	9.770	27.871	21.428	5.140	0.205	-
8	9.986	28.275	21.708	4.834	0.202	-
10	10.054	28.614	21.962	4.708	0.167	-
12	10.071	28.784	22.092	4.635	0.122	-
14	10.100	28.870	22.154	4.578	0.100	-
16	10.112	28.989	22.245	4.594	0.086	-
18	10.109	29.084	22.319	4.574	0.076	-
20	10.134	29.194	22.401	4.555	0.072	-
22	10.136	29.247	22.442	4.552	0.071	-
24	10.150	29.299	22.480	4.532	0.070	-
26	10.180	29.351	22.516	4.455	0.069	-
28	10.229	29.424	22.565	4.270	0.067	-
30	10.334	29.560	22.654	4.108	0.067	-
35	10.463	29.833	22.846	3.691	0.067	-
40	10.518	30.182	23.108	3.333	0.066	-
45	10.545	30.397	23.271	3.308	0.065	-
50	10.535	30.496	23.349	3.218	0.065	-
60	10.535	30.729	23.531	3.102	0.065	-
70	10.466	30.865	23.648	2.612	0.066	-
80	10.455	30.970	23.732	2.627	NaN	-
90	10.443	31.074	23.815	2.608	0.066	-
100	10.427	31.142	23.870	2.398	0.067	-
105	10.428	31.181	23.901	2.169	0.068	-

Aysen July 2010
Station CC Cast 55



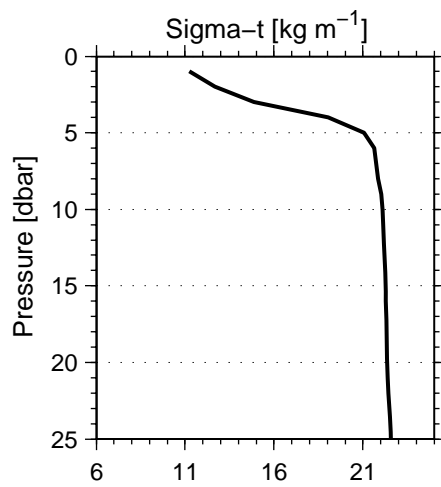
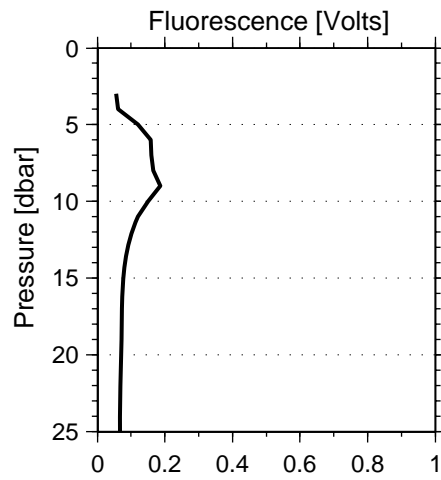
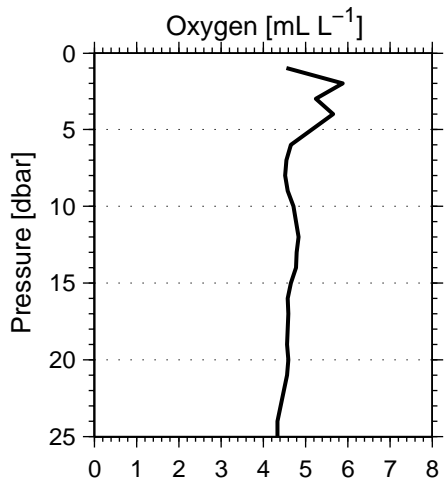
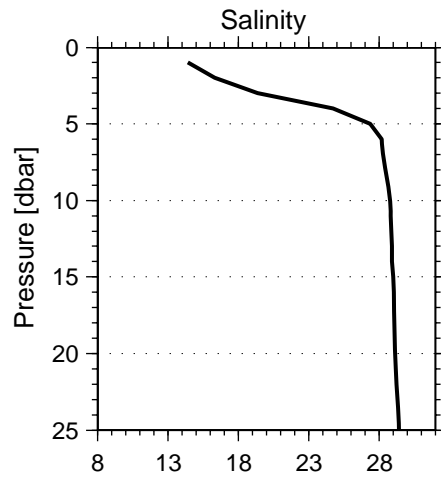
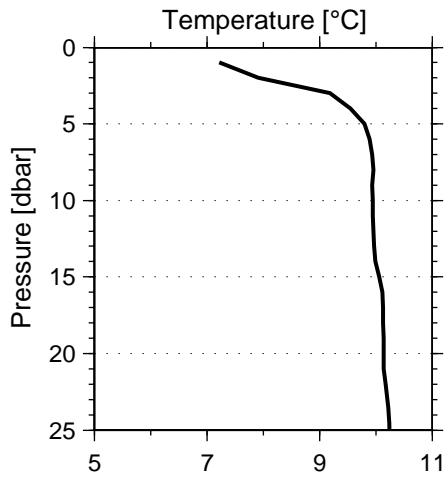
Aysen July 2010
Station CC Cast 55



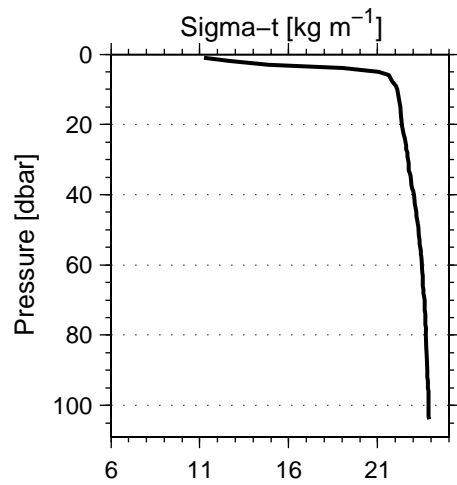
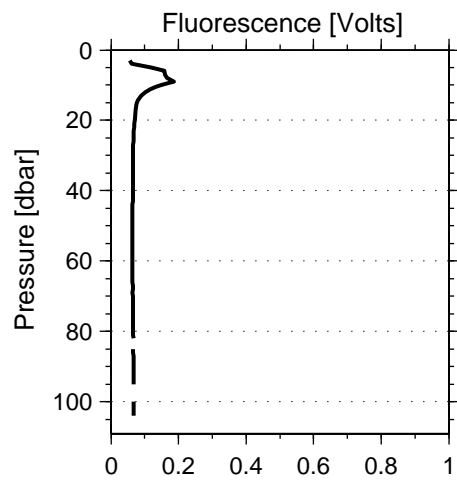
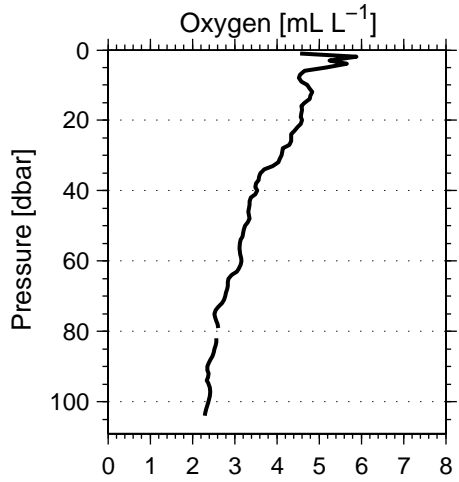
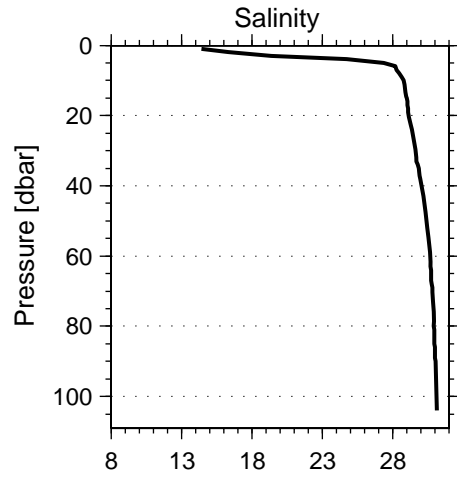
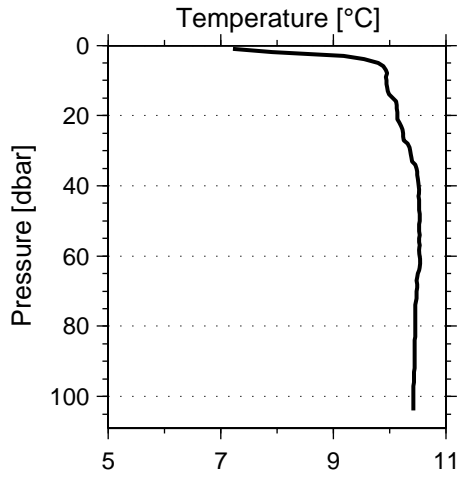
CRUISE	: Aysen July 2010	STATION	: CS	CAST	: 56
DATE	: 2010-07-25	LAT	: 45°27.406	Z-CTD	: 103 m
TIME	: 02:24	LON	: 72°54.862	DEPTH	: 156 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	7.221	14.412	11.230	4.556	NaN	-
2	7.915	16.344	12.671	5.884	NaN	-
3	9.193	19.366	14.881	5.252	0.056	-
4	9.549	24.762	19.037	5.665	0.061	-
6	9.894	28.183	21.651	4.658	0.158	-
8	9.962	28.463	21.859	4.527	0.166	-
10	9.944	28.783	22.111	4.723	0.150	-
12	9.966	28.870	22.176	4.835	0.104	-
14	9.995	28.953	22.235	4.773	0.083	-
16	10.117	29.052	22.294	4.589	0.076	-
18	10.131	29.100	22.328	4.584	0.072	-
20	10.140	29.148	22.364	4.592	0.071	-
22	10.175	29.256	22.443	4.493	0.068	-
24	10.237	29.384	22.533	4.346	0.067	-
26	10.249	29.481	22.606	4.348	0.067	-
28	10.328	29.574	22.666	4.144	0.066	-
30	10.368	29.645	22.714	4.113	0.065	-
35	10.485	29.869	22.870	3.613	0.065	-
40	10.519	30.082	23.030	3.534	0.065	-
45	10.530	30.269	23.174	3.343	0.064	-
50	10.539	30.426	23.294	3.246	0.064	-
60	10.543	30.685	23.495	3.155	0.063	-
70	10.482	30.849	23.633	2.778	0.065	-
80	10.457	30.953	23.718	NaN	0.066	-
90	10.446	31.047	23.793	2.350	0.067	-
100	10.429	31.136	23.865	2.379	0.068	-
103	10.428	31.157	23.882	2.304	0.067	-

Aysen July 2010
Station CS Cast 56



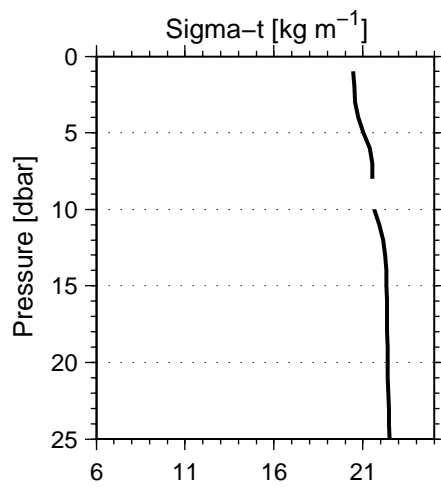
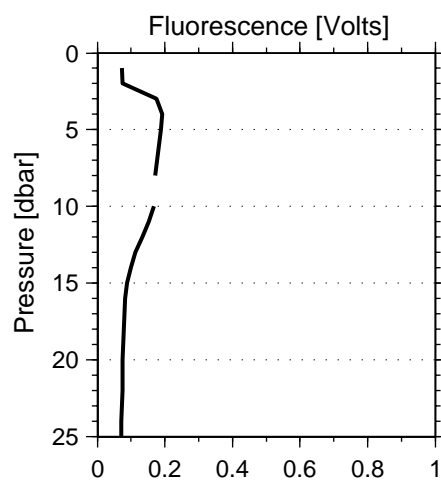
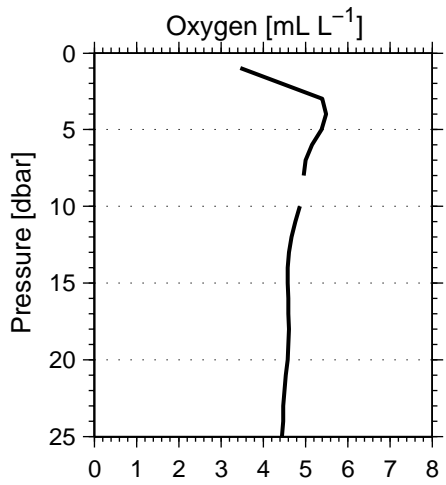
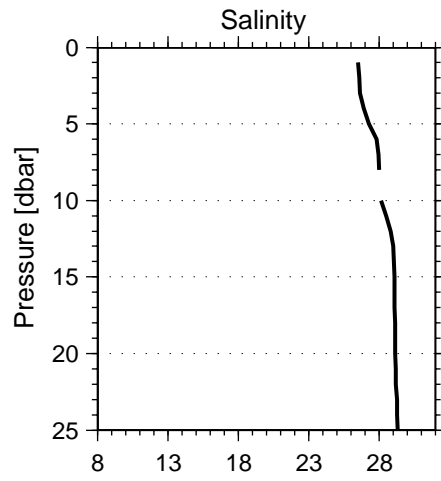
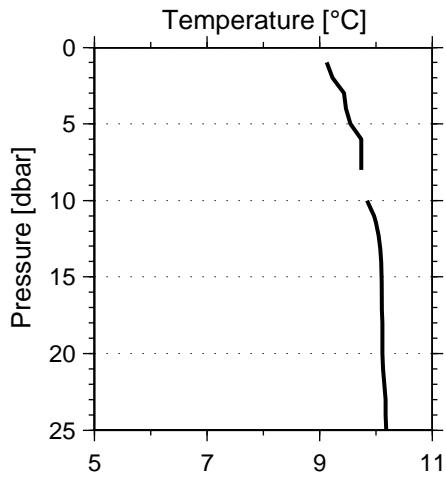
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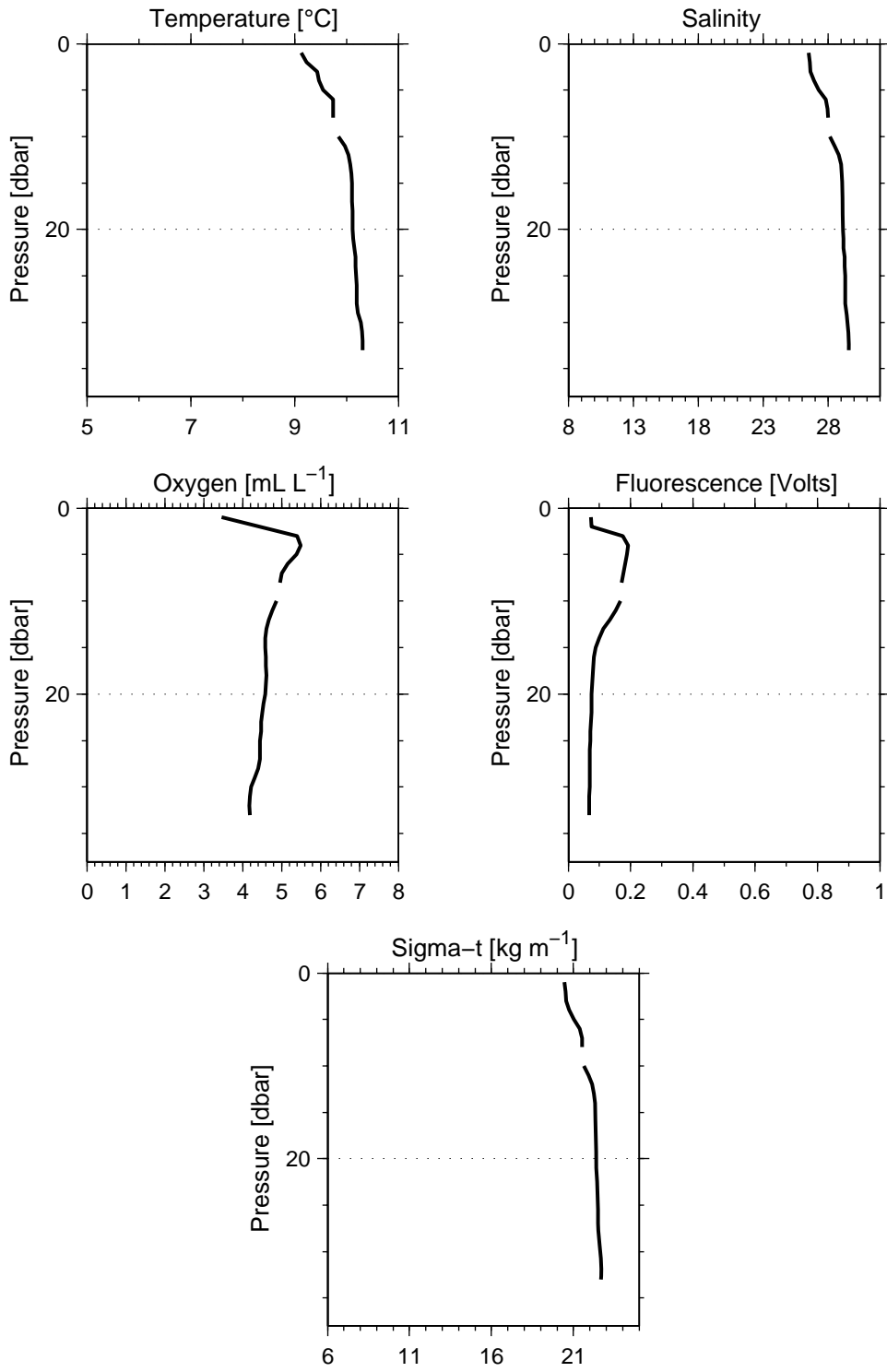
CRUISE	: Aysen July 2010	STATION	: CN	CAST	: 57
DATE	: 2010-07-25	LAT	: 45°25.676	Z-CTD	: 32 m
TIME	: 03:55	LON	: 72°54.562	DEPTH	: 46 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	9.134	26.510	20.461	3.465	0.073	-
2	9.238	26.622	20.532	4.438	0.074	-
3	9.440	26.681	20.549	5.407	0.176	-
4	9.473	26.921	20.732	5.497	0.193	-
6	9.741	27.832	21.401	5.160	0.183	-
8	9.739	28.007	21.538	4.964	0.171	-
10	9.850	28.149	21.632	4.871	0.167	-
12	10.039	28.840	22.141	4.667	0.134	-
14	10.097	29.075	22.314	4.588	0.099	-
16	10.108	29.113	22.343	4.595	0.083	-
18	10.116	29.149	22.369	4.606	0.078	-
20	10.116	29.172	22.387	4.582	0.075	-
22	10.149	29.225	22.423	4.504	0.074	-
24	10.176	29.301	22.478	4.477	0.071	-
26	10.195	29.345	22.509	4.440	0.070	-
28	10.201	29.358	22.518	4.406	0.069	-
30	10.281	29.526	22.636	4.226	0.069	-
32	10.310	29.591	22.682	4.178	0.067	-

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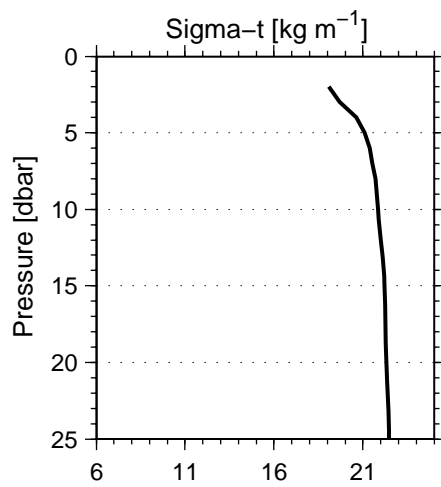
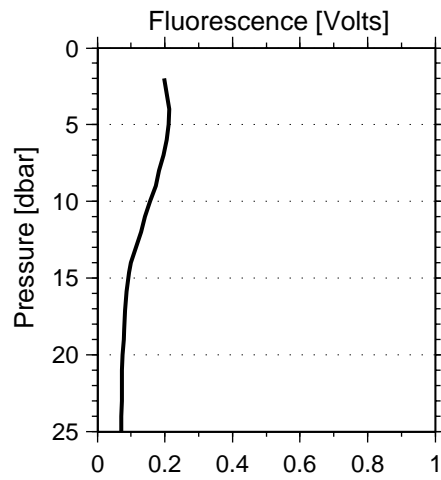
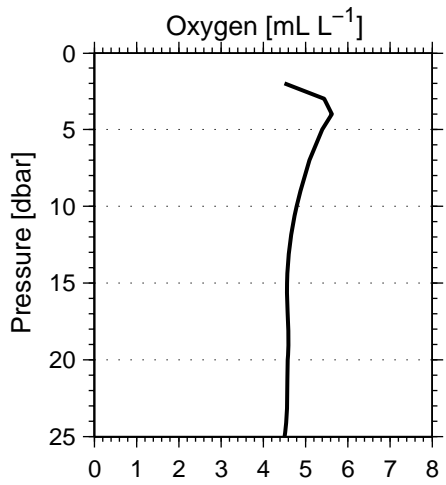
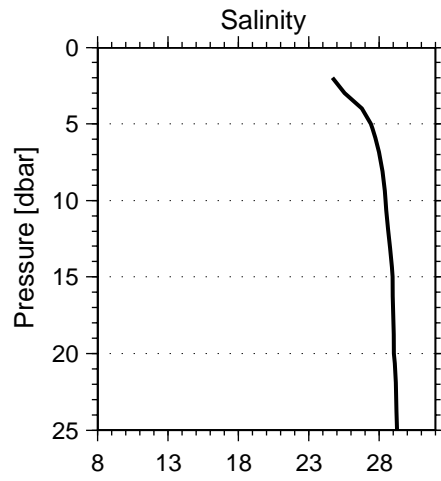
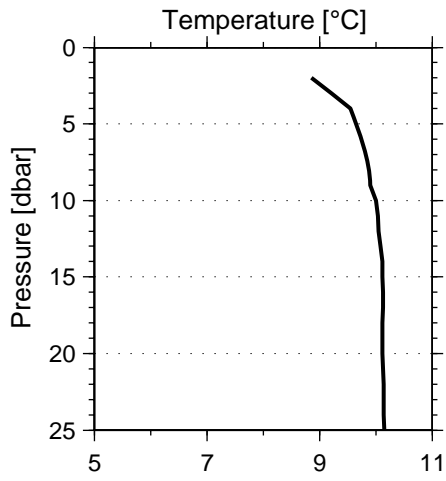
Aysen July 2010
Station CN Cast 57



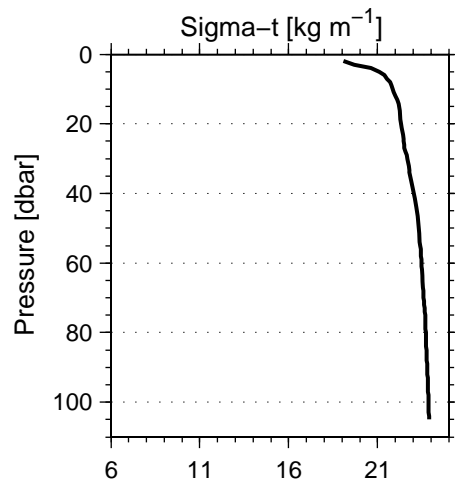
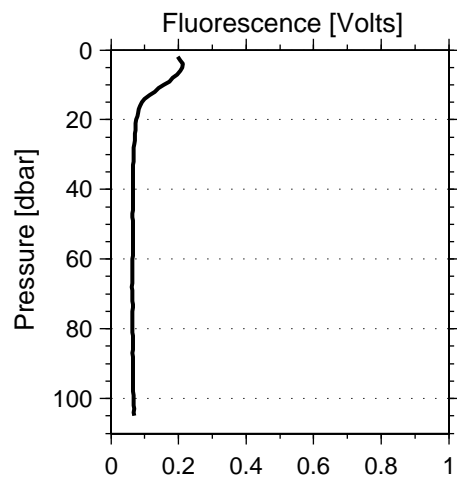
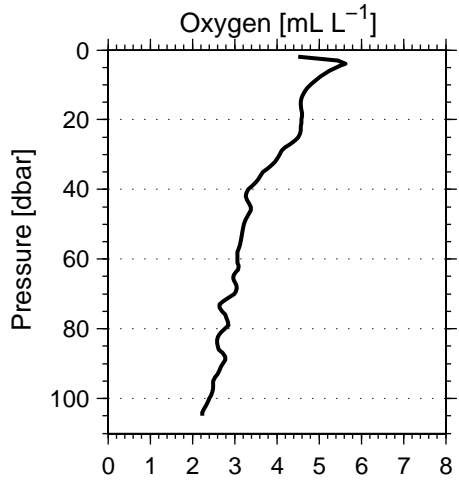
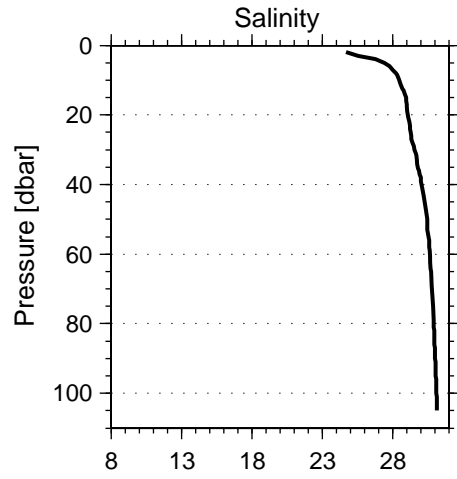
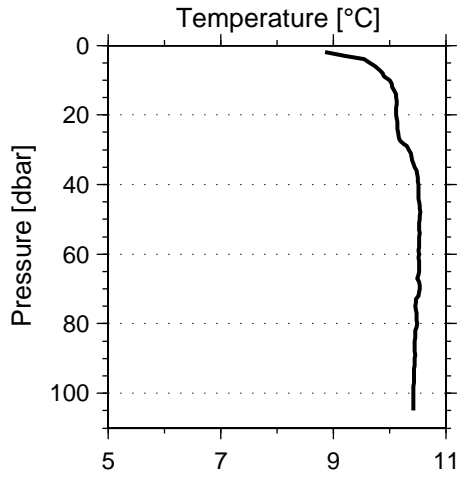
CRUISE	: Aysen July 2010	STATION	: CC	CAST	: 58
DATE	: 2010-07-25	LAT	: 45°26.577	Z-CTD	: 104 m
TIME	: 04:14	LON	: 72°54.762	DEPTH	: 176 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	8.854	24.703	19.089	4.505	0.198	-	-
3	9.205	25.555	19.705	5.452	0.205	-	-
4	9.556	26.811	20.634	5.625	0.212	-	-
6	9.739	27.801	21.378	5.244	0.205	-	-
8	9.876	28.252	21.708	4.986	0.182	-	-
10	10.007	28.462	21.851	4.797	0.157	-	-
12	10.056	28.662	22.000	4.665	0.129	-	-
14	10.115	28.901	22.176	4.589	0.100	-	-
16	10.129	28.996	22.247	4.573	0.086	-	-
18	10.124	29.029	22.274	4.591	0.080	-	-
20	10.117	29.082	22.317	4.587	0.075	-	-
22	10.136	29.201	22.407	4.571	0.072	-	-
24	10.142	29.256	22.448	4.555	0.071	-	-
26	10.163	29.320	22.494	4.425	0.070	-	-
28	10.233	29.442	22.578	4.195	0.068	-	-
30	10.346	29.590	22.675	4.061	0.067	-	-
35	10.452	29.816	22.834	3.677	0.066	-	-
40	10.516	30.079	23.028	3.333	0.066	-	-
45	10.534	30.316	23.210	3.379	0.065	-	-
50	10.534	30.460	23.321	3.222	0.065	-	-
60	10.523	30.654	23.474	3.063	0.064	-	-
70	10.537	30.811	23.594	2.990	0.064	-	-
80	10.496	30.950	23.709	2.776	0.064	-	-
90	10.453	31.043	23.789	2.727	0.065	-	-
100	10.428	31.134	23.865	2.401	0.067	-	-
104	10.427	31.166	23.889	2.236	0.068	-	-

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Station CC Cast 58



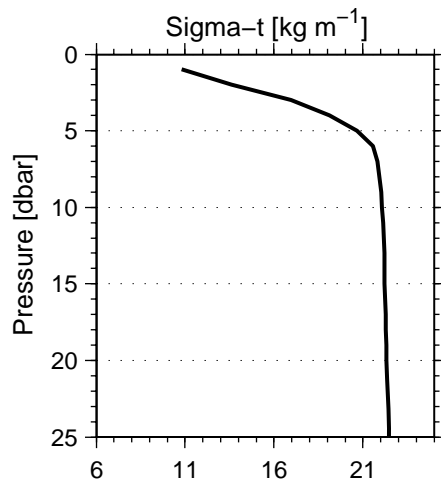
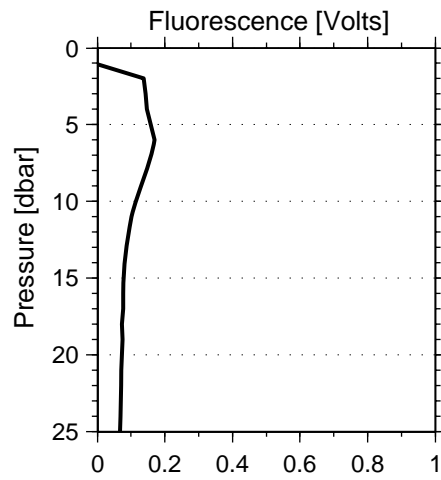
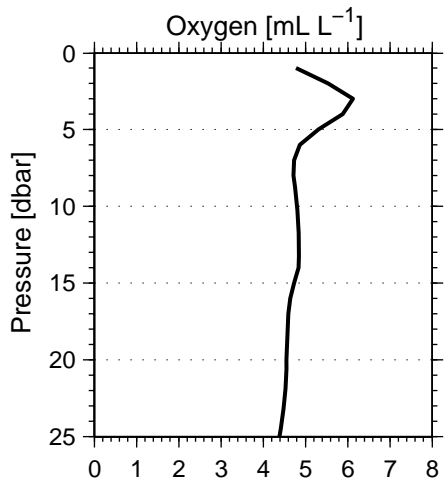
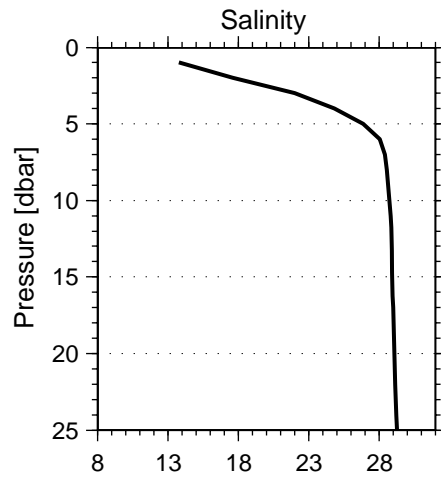
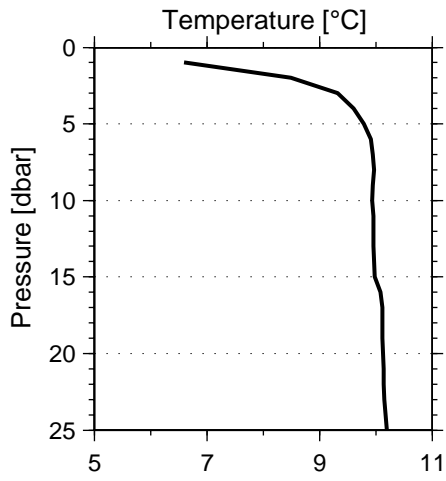
Aysen July 2010
Station CC Cast 58



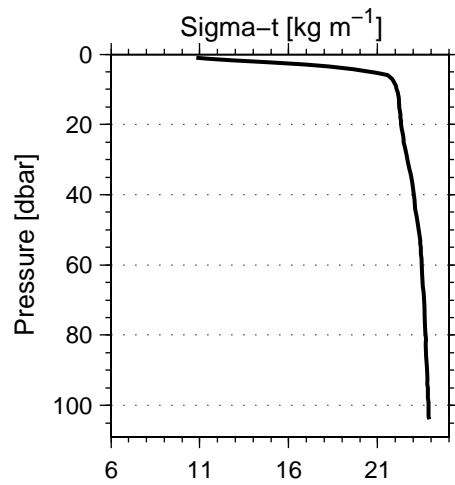
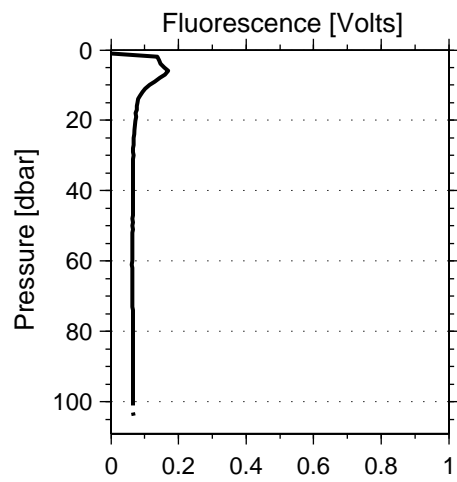
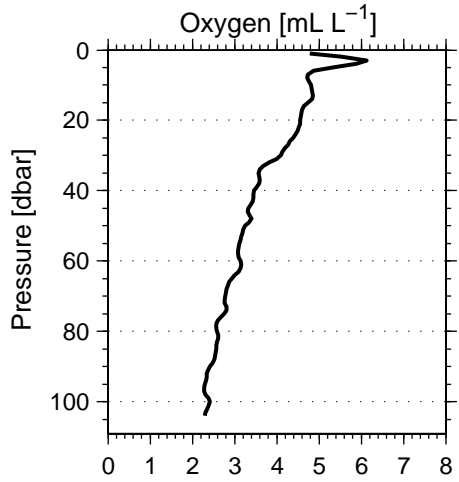
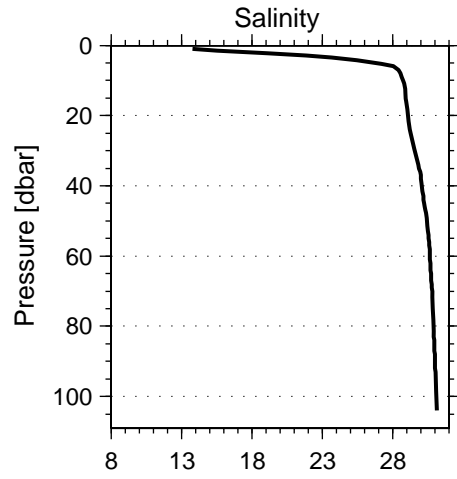
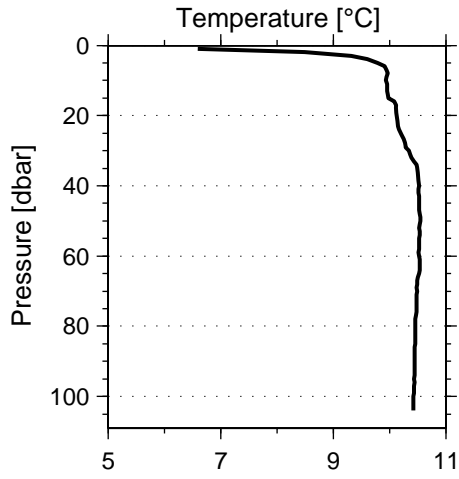
CRUISE	: Aysen July 2010	STATION	: CS	CAST	: 59
DATE	: 2010-07-25	LAT	: 45°27.428	Z-CTD	: 103 m
TIME	: 04:32	LON	: 72°54.864	DEPTH	: 156 m

Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	6.598	13.796	10.818	4.786	-0.010	-
2	8.497	17.609	13.595	5.541	0.136	-
3	9.328	22.041	16.948	6.123	0.144	-
4	9.609	24.852	19.099	5.891	0.146	-
6	9.915	28.086	21.573	4.869	0.169	-
8	9.971	28.551	21.926	4.725	0.144	-
10	9.943	28.749	22.085	4.817	0.116	-
12	9.962	28.885	22.188	4.846	0.094	-
14	9.970	28.922	22.215	4.839	0.081	-
16	10.083	28.994	22.254	4.640	0.077	-
18	10.123	29.057	22.297	4.586	0.073	-
20	10.131	29.099	22.328	4.559	0.072	-
22	10.143	29.163	22.376	4.529	0.071	-
24	10.179	29.260	22.446	4.450	0.069	-
26	10.232	29.363	22.517	4.314	0.067	-
28	10.275	29.497	22.615	4.192	0.066	-
30	10.343	29.589	22.675	4.092	0.067	-
35	10.493	29.903	22.895	3.572	0.065	-
40	10.523	30.089	23.034	3.465	0.065	-
45	10.531	30.251	23.159	3.325	0.065	-
50	10.548	30.457	23.317	3.247	0.064	-
60	10.524	30.671	23.488	3.140	0.063	-
70	10.490	30.827	23.615	2.775	0.064	-
80	10.460	30.927	23.698	2.586	0.065	-
90	10.448	31.027	23.778	2.414	0.066	-
100	10.432	31.125	23.856	2.412	0.066	-
103	10.428	31.152	23.878	2.317	0.066	-

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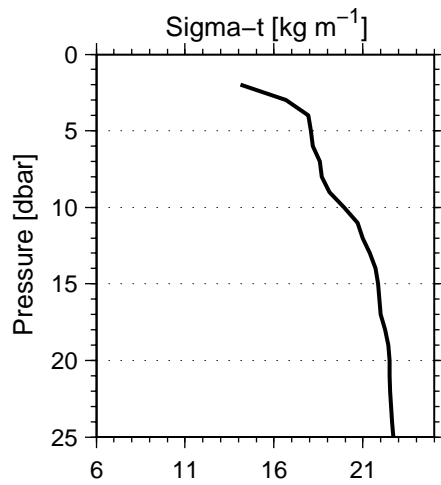
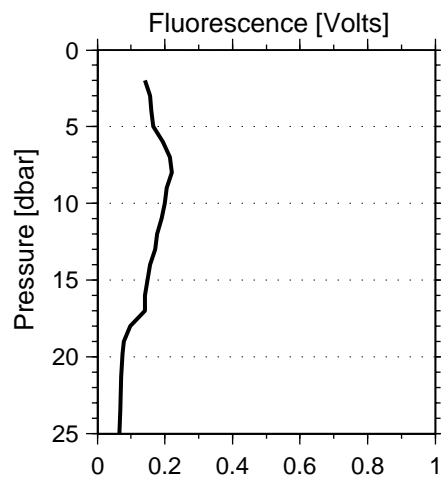
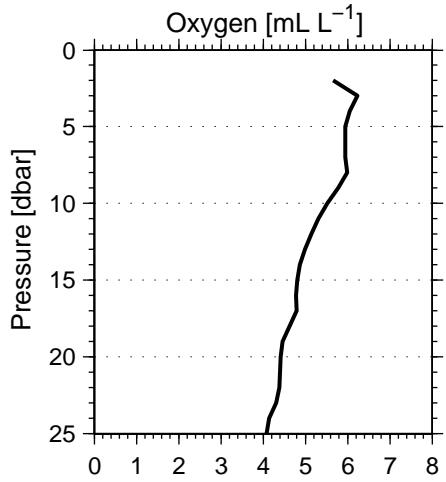
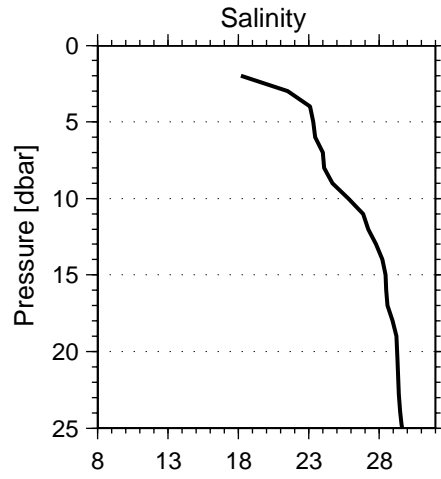
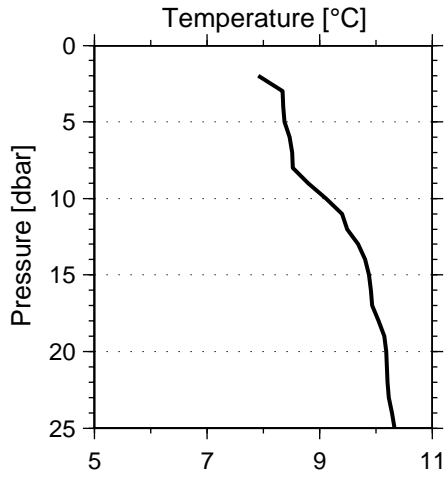
Aysen July 2010
Station CS Cast 59



CRUISE	: Aysen July 2010	STATION	: CN	CAST	: 60
DATE	: 2010-07-25	LAT	: 45°25.646	Z-CTD	: 53 m
TIME	: 14:53	LON	: 72°54.612	DEPTH	: 84 m

	Pressure (dbar)	Temperature (°C)	Salinity (PSU)	Sigma-t (kg m ⁻³)	Oxygen (mL L ⁻¹)	Fluorescence (Volts)	PAR
1	-	-	-	-	-	-	-
2	7.917	18.196	14.119	5.663	0.141	-	
3	8.351	21.517	16.665	6.242	0.157	-	
4	8.360	23.124	17.920	6.047	0.159	-	
6	8.467	23.471	18.178	5.946	0.194	-	
8	8.532	24.115	18.672	5.986	0.221	-	
10	9.123	25.845	19.943	5.517	0.200	-	
12	9.494	27.263	20.995	5.148	0.177	-	
14	9.817	28.236	21.705	4.875	0.156	-	
16	9.914	28.544	21.930	4.784	0.142	-	
18	10.054	28.957	22.230	4.621	0.098	-	
20	10.186	29.313	22.485	4.418	0.075	-	
22	10.211	29.370	22.526	4.385	0.070	-	
24	10.285	29.541	22.648	4.143	0.067	-	
26	10.351	29.677	22.743	4.060	0.066	-	
28	10.376	29.731	22.780	3.997	0.065	-	
30	10.393	29.766	22.805	3.971	0.065	-	
35	10.442	29.870	22.878	3.752	0.064	-	
40	10.517	30.144	23.078	3.462	0.064	-	
45	10.525	30.284	23.186	3.343	0.064	-	
50	10.534	30.395	23.271	3.306	0.064	-	
53	10.532	30.453	23.316	3.202	0.064	-	

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Station CN Cast 60



Aysen July 2010
Station CN Cast 60

