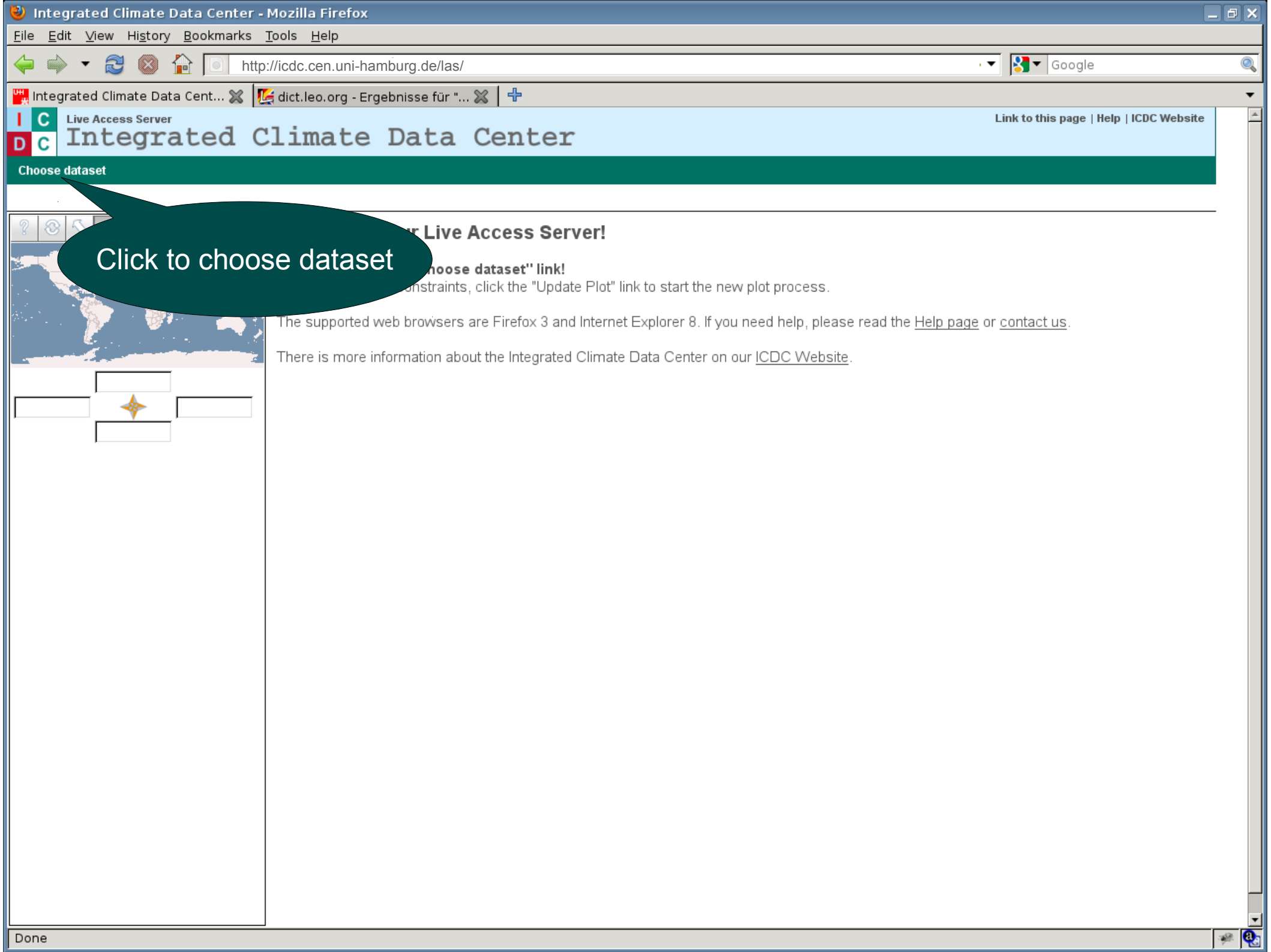


Live Access Server (LAS) Tutorial

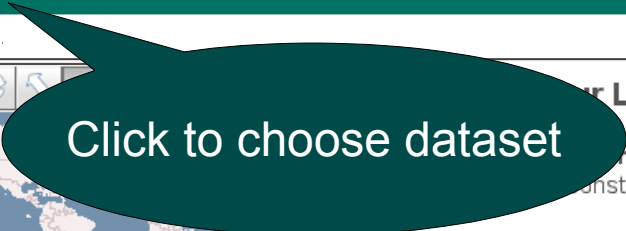
The Live Access Server (LAS) is a highly configurable web server designed to provide flexible access to geo-referenced scientific data.

This short tutorial shows step by step how to access datasets via LAS with the help of an example data set (GECCO).

To reproduce the following steps visit our LAS at <http://icdc.cen.uni-hamburg.de/las/>



Choose dataset



Live Access Server!

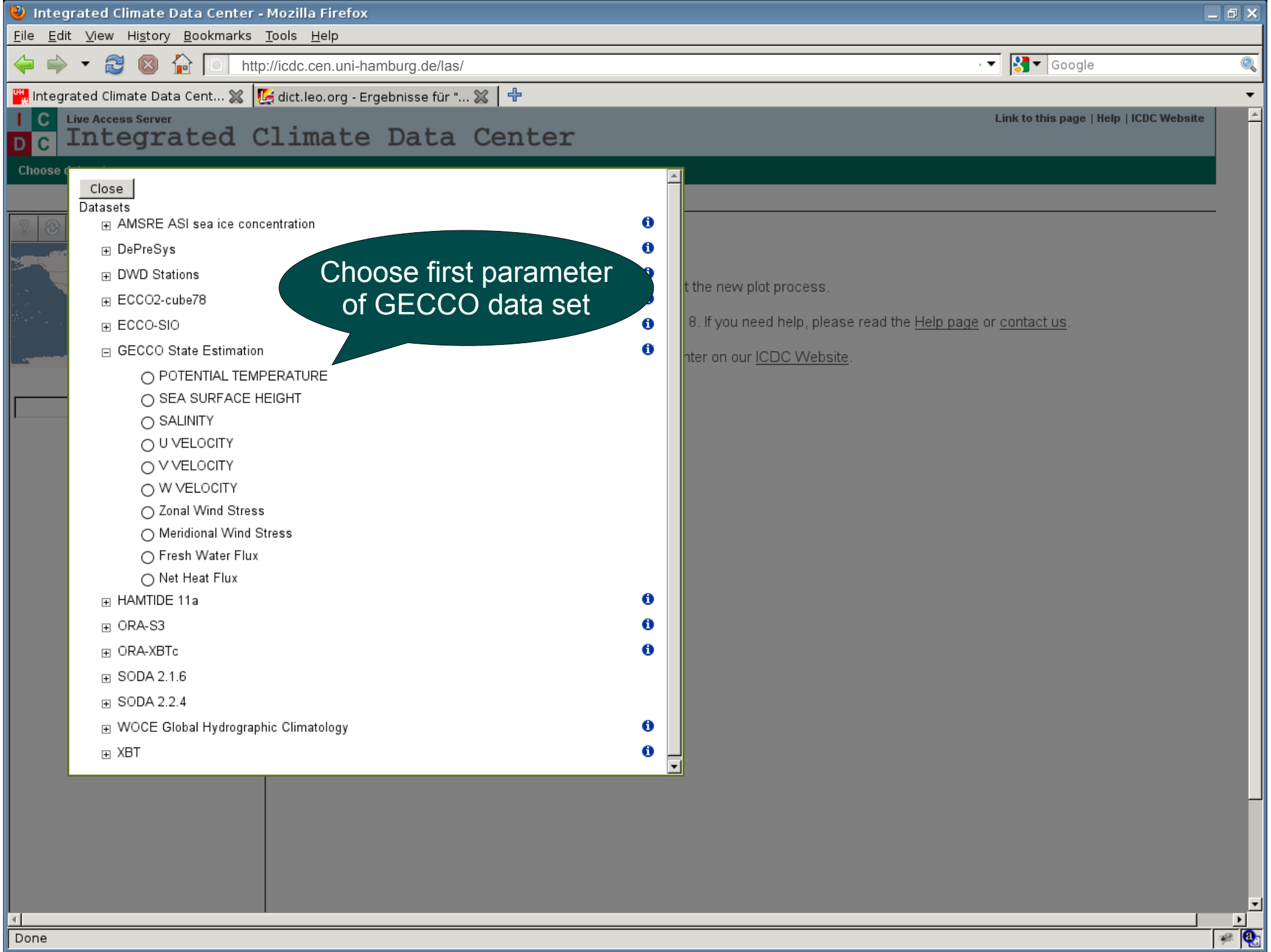
"choose dataset" link!

constraints, click the "Update Plot" link to start the new plot process.

The supported web browsers are Firefox 3 and Internet Explorer 8. If you need help, please read the [Help page](#) or [contact us](#).

There is more information about the Integrated Climate Data Center on our [ICDC Website](#).

A sidebar area containing a world map, a search bar with a magnifying glass icon, and several empty rectangular input fields.



Choose first parameter
of GECCO data set

Close

Datasets

- AMSRE ASI sea ice concentration i
- DePreSys i
- DWD Stations i
- ECCO2-cube78 i
- ECCO-SIO i
- GECCO State Estimation i
 - POTENTIAL TEMPERATURE
 - SEA SURFACE HEIGHT
 - SALINITY
 - U VELOCITY
 - V VELOCITY
 - W VELOCITY
 - Zonal Wind Stress
 - Meridional Wind Stress
 - Fresh Water Flux
 - Net Heat Flux
- HAMTIDE 11a i
- ORA-S3 i
- ORA-XBTc i
- SODA 2.1.6
- SODA 2.2.4
- WOCE Global Hydrographic Climatology i
- XBT i

t the new plot process.

8. If you need help, please read the [Help page](#) or [contact us](#).

enter on our [ICDC Website](#).

Link to this page | Help | ICDC Website

Integrated Climate Data Center

Link to this page | Help | ICDC Website

Choose dataset Update Plot Set plot options Compare Google Earth Show Values Export to Desktop Application Save As ... Print

GECCO State Estimation POTENTIAL TEMPERATURE

79.5 N
0.5 E 0.5 W
79.5 S

MAPS

- Latitude-Longitude

LINE PLOTS

- Time series
- Depth
- Longitude
- Latitude

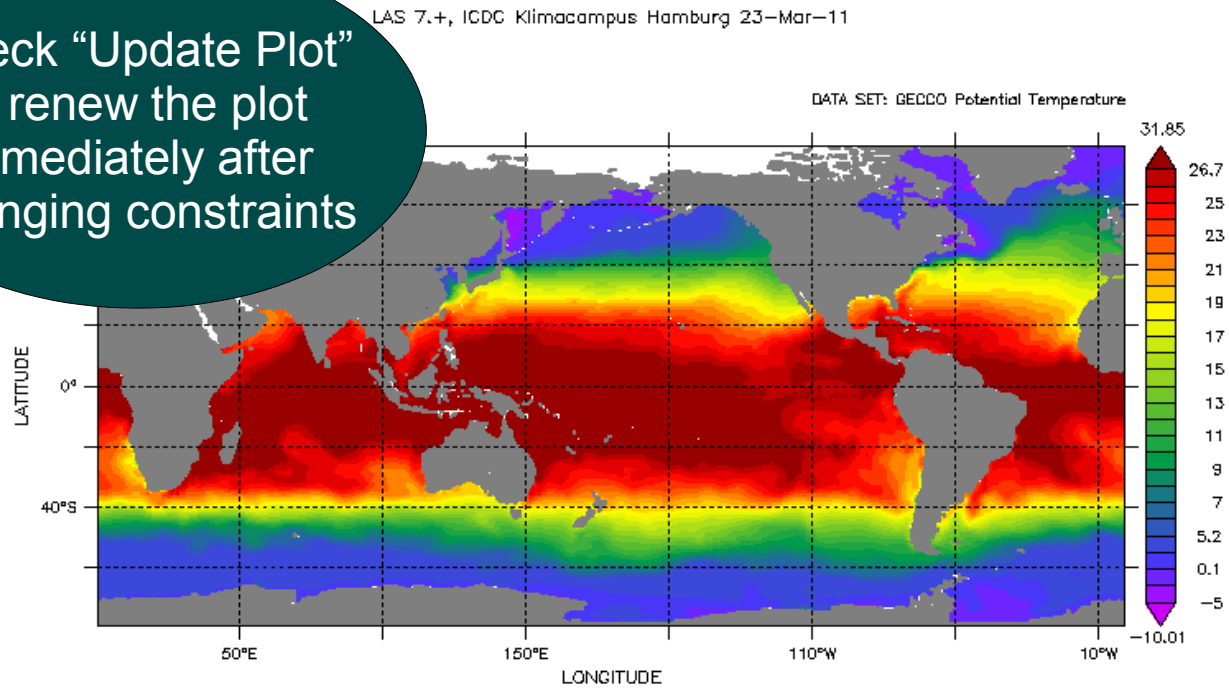
VERTICAL SECTION PLOTS

- Longitude-depth
- Latitude-depth

Date : Jan 1952

Depth (meters) : 5

Check "Update Plot" to renew the plot immediately after changing constraints



79.5 N
0.5 E 0.5 W
79.5 S

MAPS

- Latitude-Longitude

LINE PLOTS

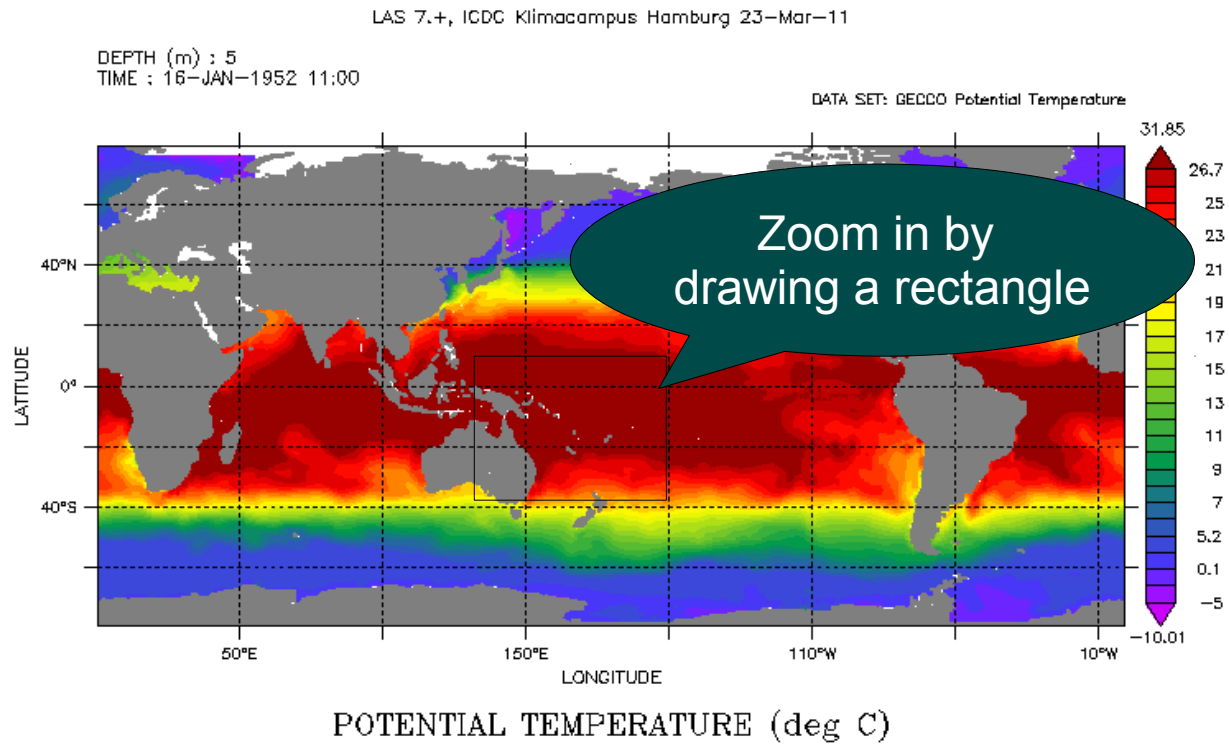
- Time series
- Depth
- Longitude
- Latitude

VERTICAL SECTION PLOTS

- Longitude-depth
- Latitude-depth

Date : Jan 1952

Depth (meters) : 5



GECCO POTENTIAL TEMPERATURE

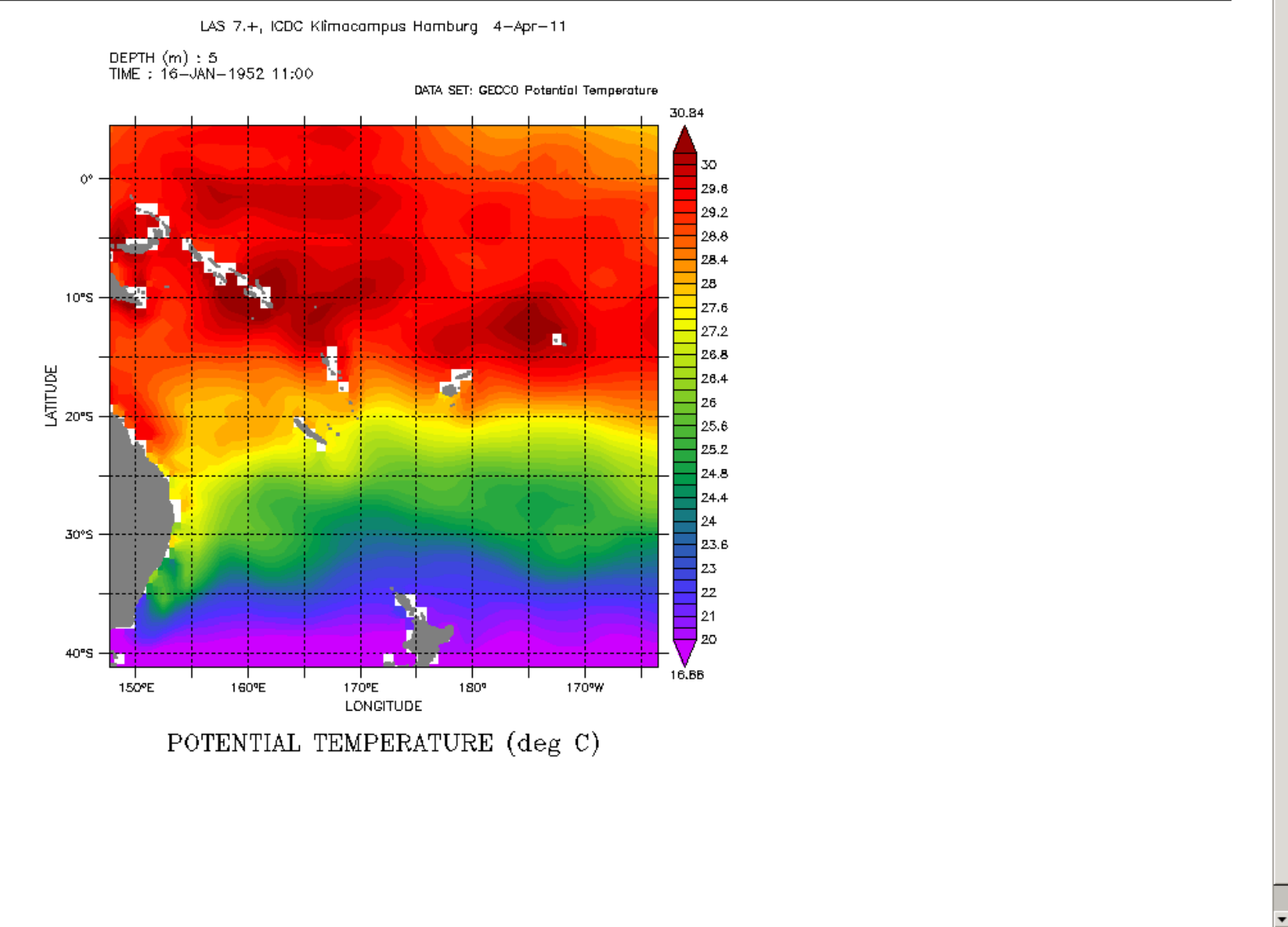
4.6 N
147.64 E 41.14 S 163.29 W

MAPS
 Latitude-Longitude

LINE PLOTS
 Time series
 Depth
 Longitude
 Latitude

VERTICAL SECTION PLOTS
 Longitude-depth
 Latitude-depth

Date : Jan 1952
Depth (meters) : 5



Zoom out to original size

Integrated Climate Data Center

Link to this page | Help | ICDC Website

Choose dataset Update Plot Set plot options Compare Google Earth Show Values Export to Desktop Application Save As ... Print

GECCO State Estimation POTENTIAL TEMPERATURE



LAS 7.+, ICDC Klimacampus Hamburg 23-Mar-11

DEPTH (m) : 5
TIME : 16-JAN-1952 11:00

DATA SET: GECCO Potential Temperature

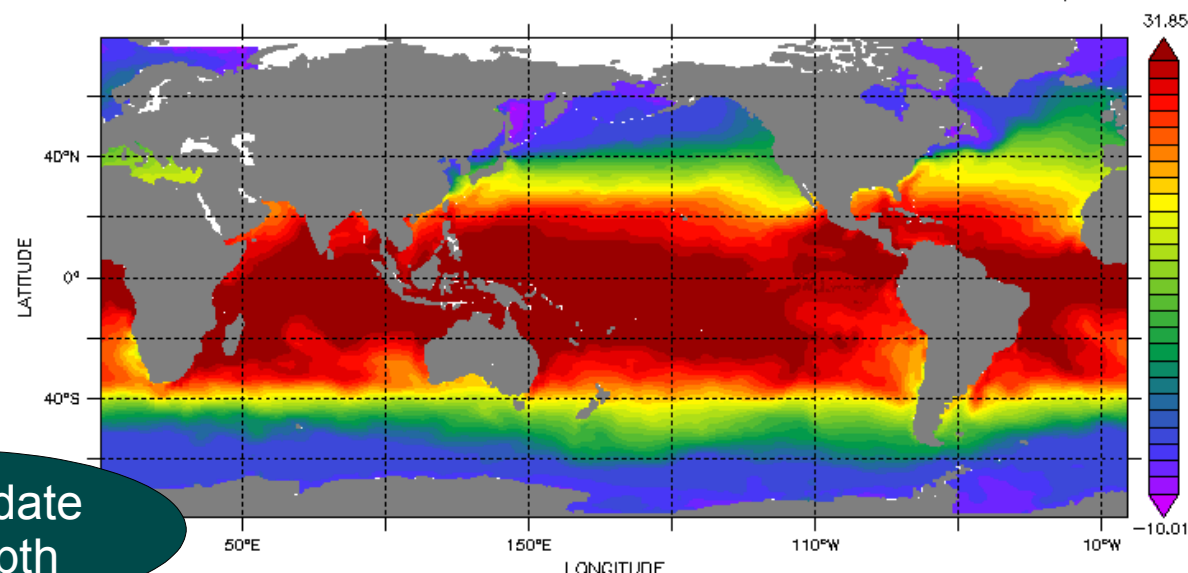


79.5 N

0.5 E

0.5 W

79.5 S



MAPS

Latitude-Longitude

LINE PLOTS

- Time series
- Depth
- Longitude
- Latitude

VERTICAL SECT

- Longitude-depth
- Latitude-depth

Date : Jan 1952

Depth (meters) : 5

Change date and depth

Integrated Climate Data Center

Choose dataset Update Plot Set plot options Compare Google Earth Show Values Export to Desktop Application Save As ... Print

GECCO State Estimation POTENTIAL TEMPERATURE



- POTENTIAL TEMPERATURE
- SEA SURFACE HEIGHT
- SALINITY
- U VELOCITY
- V VELOCITY
- W VELOCITY
- Zonal Wind Stress
- Meridional Wind Stress
- Fresh Water Flux
- Net Heat Flux

DEPTH (m) : 1180
DATE : 16-JAN-1952 11:00

LAS 7+, ICDC Klimacampus Hamburg 4-Apr-11

DATA SET: GECCO Potential Temperature

79.5 N
0.5 E 0.5 W
79.5 S

MAPS
 Latitude-Longitude

LINE PLOTS

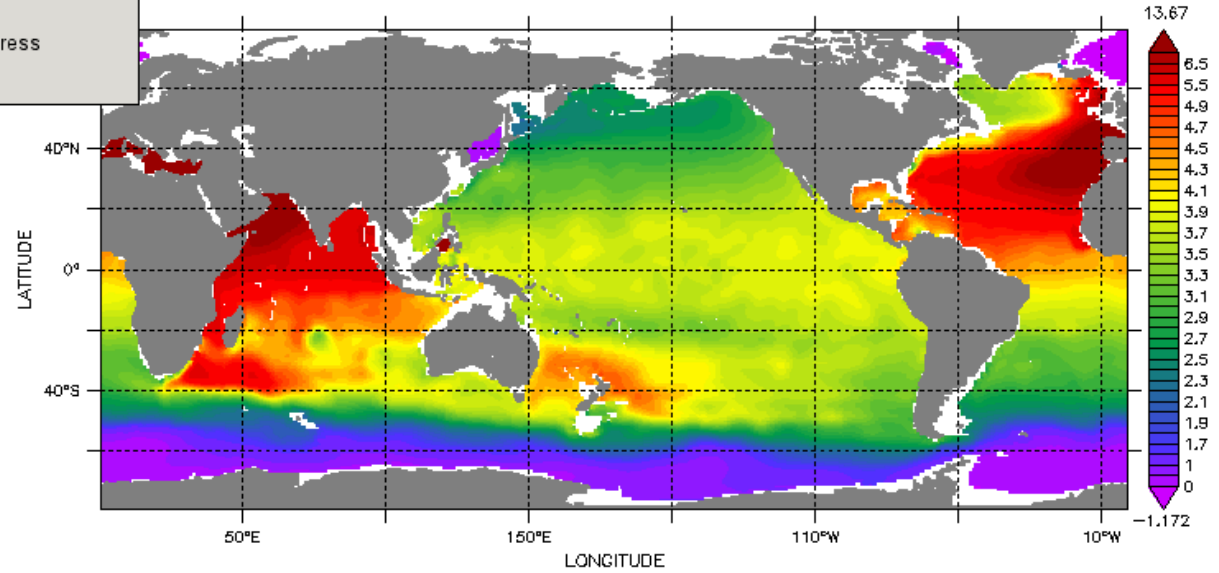
- Time series
- Depth
- Longitude
- Latitude

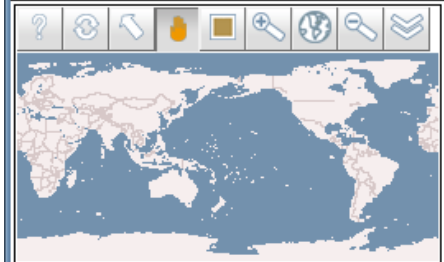
VERTICAL SECTION PLOTS

- Longitude-depth
- Latitude-depth

Date : Jan 1952

Depth (meters) : 1180

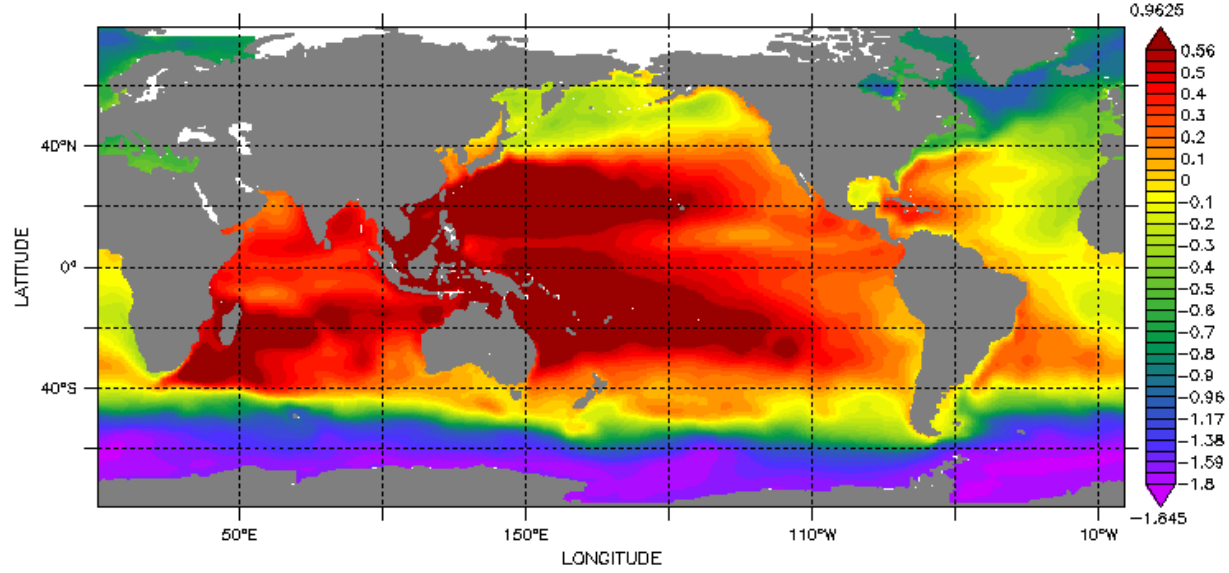




LAS 7.+, ICDC Klimacampus Hamburg 23-Mar-11

TIME : 16-JAN-1952 11:00

DATA SET: GECCO SEA SURFACE HEIGHT



Change plot type to Time series

- MAPS
- Latitude
- LINE PLOTS
- Time series
 - Longitude
 - Latitude
- Date : Jan 1952

Switch to circle tool to change location

Climate Data Center

Link to this page | Help | ICDC Website

Choose dataset Plot options Compare Show Values Export to Desktop Application Save As ... Print

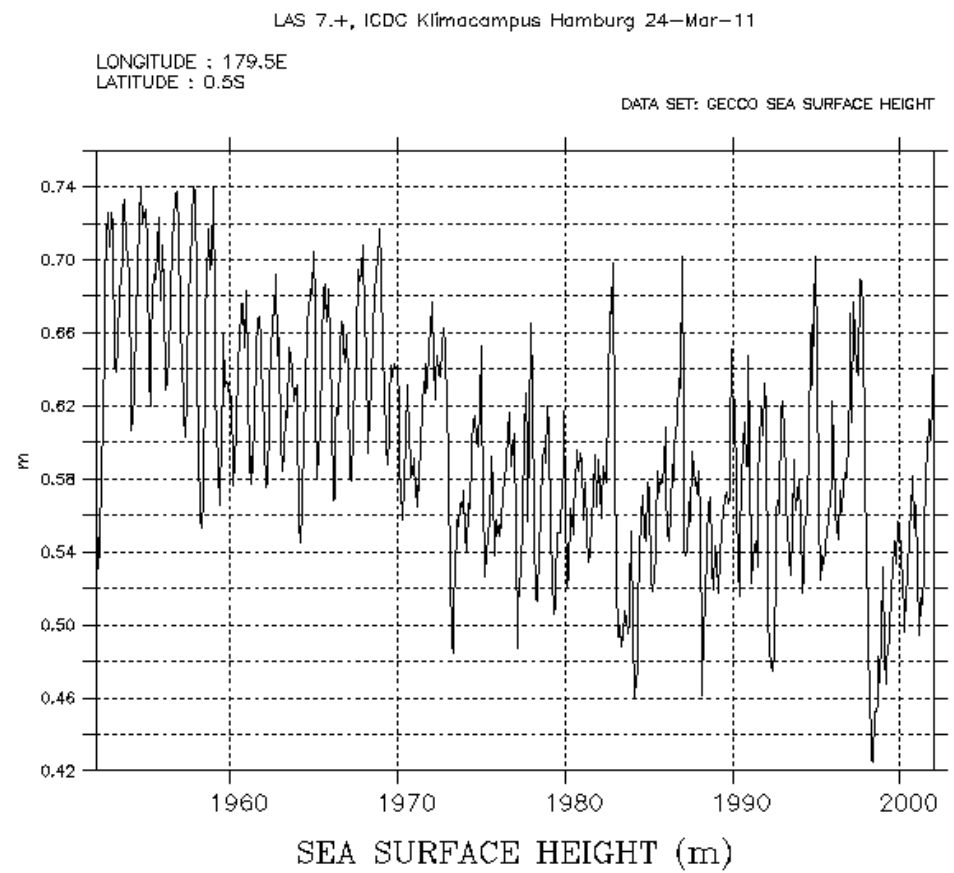
GECCO State Estimation SEA SURFACE HEIGHT

0 S
180 E 180 E
0 S


MAPS
 Latitude-Longitude

LINE PLOTS
 Time series
 Longitude
 Latitude

Start Date : Jan 1952
End Date : Dec 2001



[Link to this plot.](#)

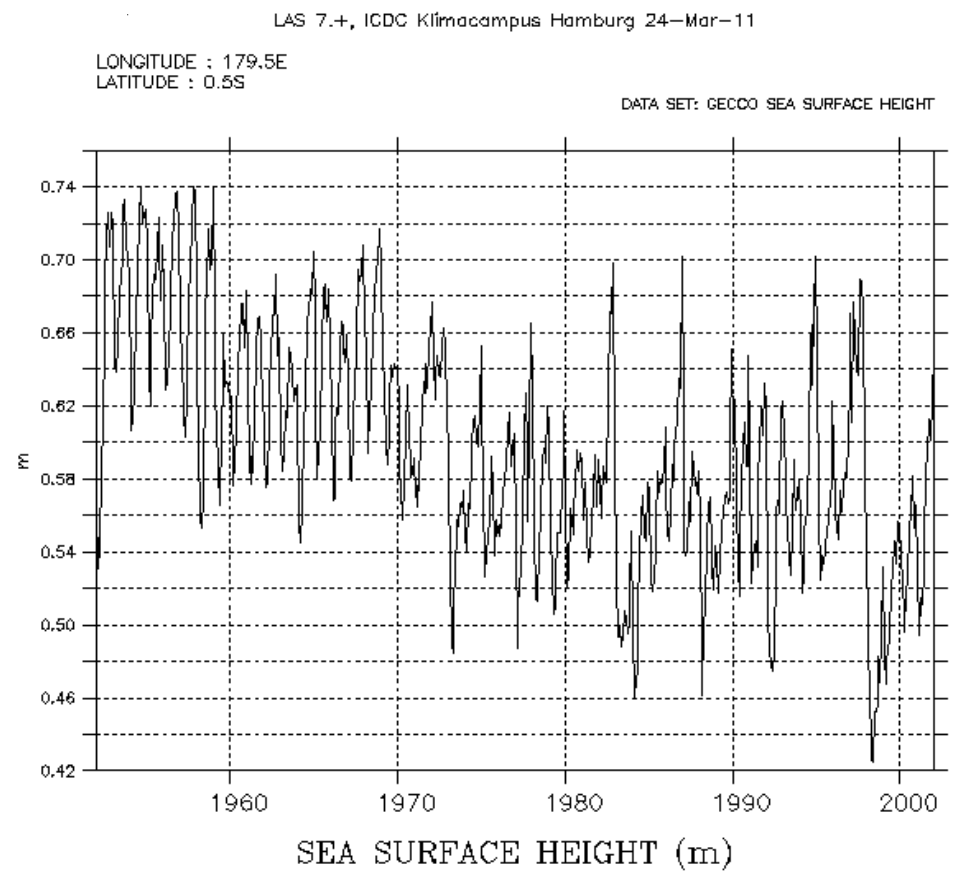


0 S
180 E 180 E
0 S

MAPS
 Latitude-Longitude

LINE PLOTS
 Time series
 Longitude
 Latitude

Start Date : Jan 1952
End Date : Dec 2001



[Link to this plot.](#)

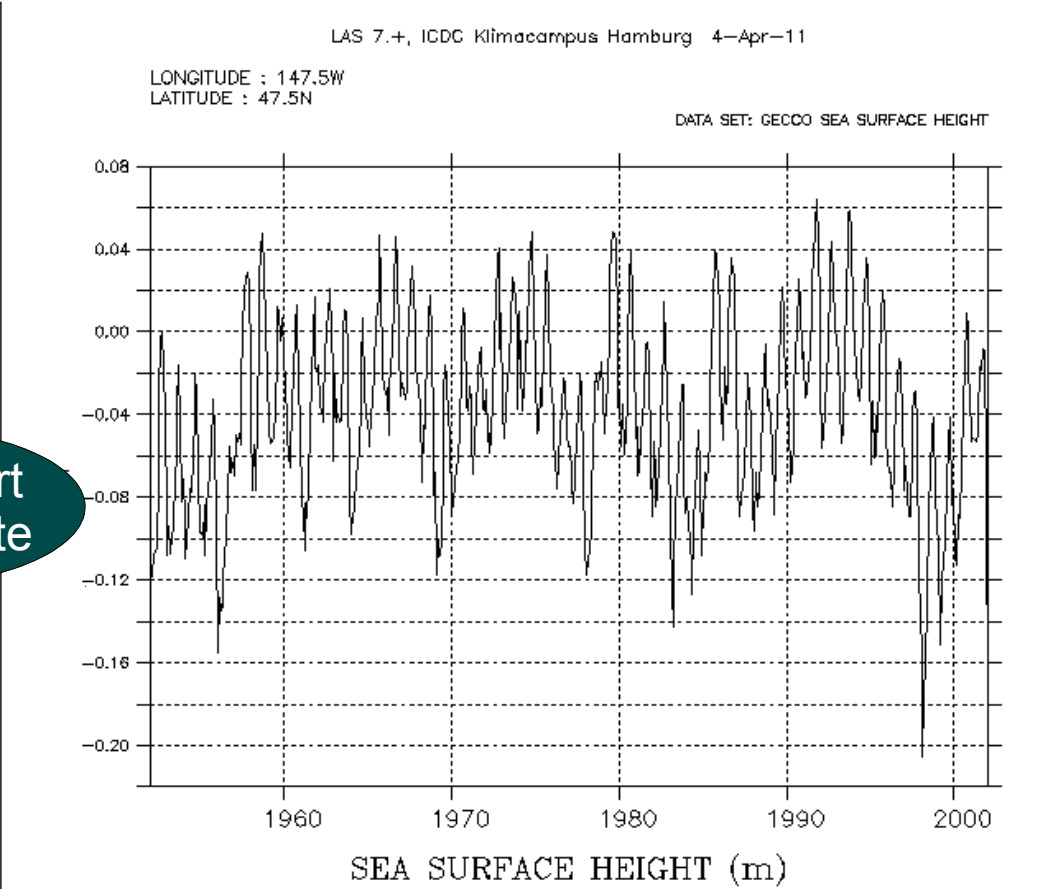
47.81 N
147.66 W 47.81 N
47.81 N

MAPS
 Latitude-Longitude

LINE PLOTS
 Time series
 Longitude
 Latitude

Start Date : Jan 1952
End Date : Dec 2001

Change start and end date



[Link to this plot.](#)

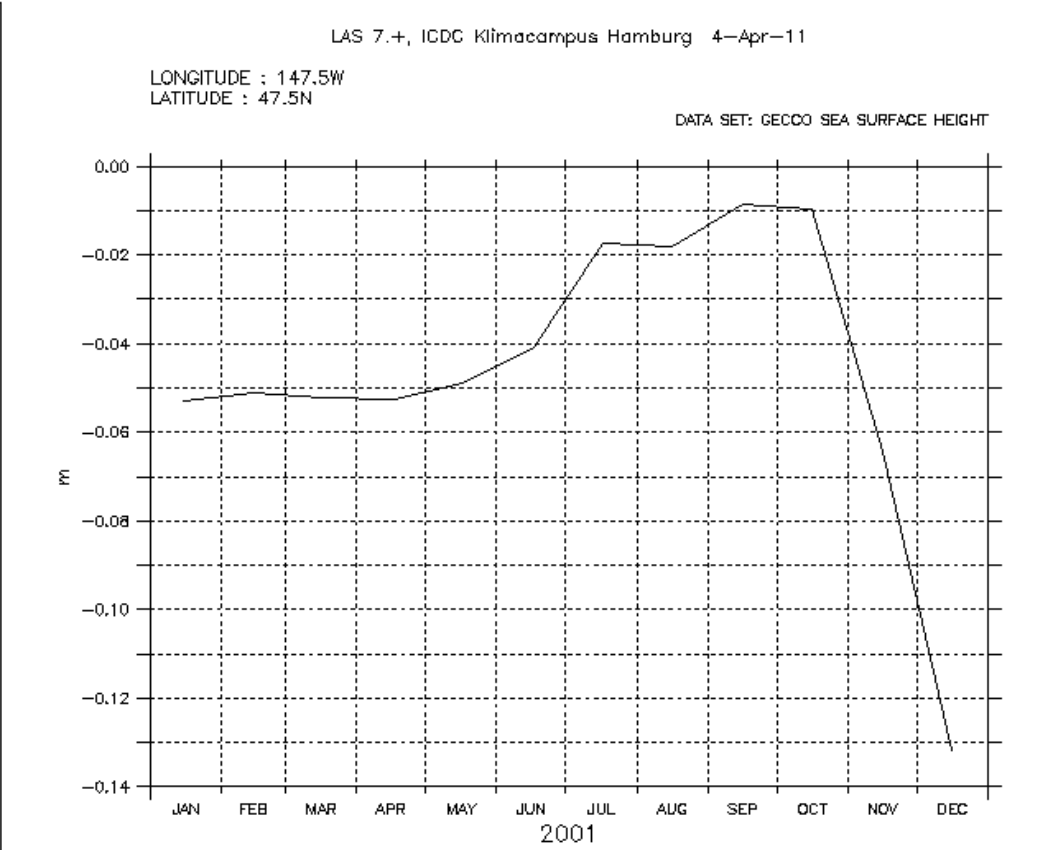
Change parameter to Salinity

47.81 N
147.66 W 47.81 N 147.66 W

MAPS
 Latitude-Longitude

LINE PLOTS
 Time series
 Longitude
 Latitude

Start Date : Jan 2001
 End Date : Dec 2001



SEA SURFACE HEIGHT (m)

[Link to this plot.](#)

MAP

0 S

180 E 180 E

VERTICAL SECTION PLOTS

Longitude-depth

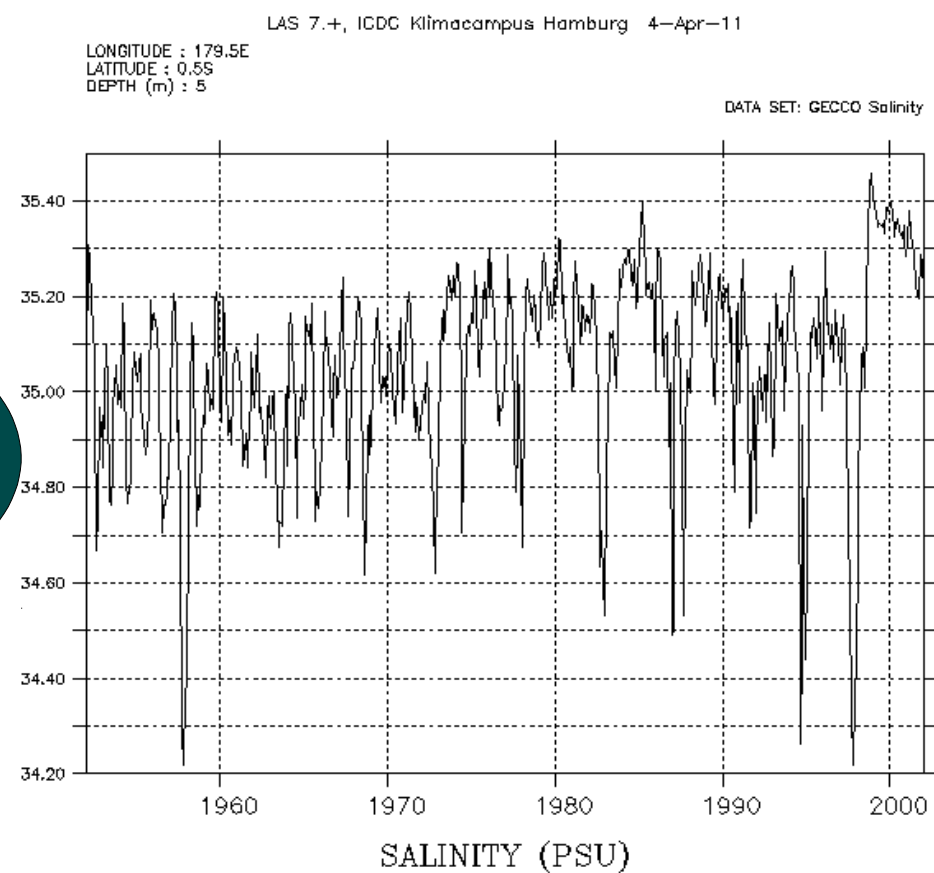
Latitude-depth

Start Date : Jan 1952

End Date : Dec 2001

Depth (meters) : 5

Change Plot type to section plot Longitude-depth



[Link to this plot.](#)

0 S
0.5 E 0.5 W
0 S

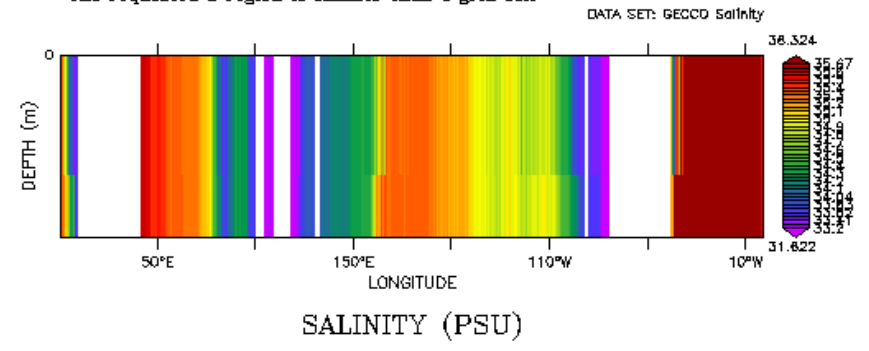
- MAPS**
- Latitude-Longitude
- LINE PLOTS**
- Time series
 - Depth
 - Longitude
 - Latitude
- VERTICAL SECTION PLOTS**
- Longitude-depth
 - Latitude-depth
- Date : Jan 2001

Minimum Depth (meters) : 5
Maximum Depth (meters) : 5

LATITUDE : 0.5S
TIME : 15-JAN-2001 17:00

LAS 7.+, ICDC Klimacampus Hamburg 4-Apr-11

The requested Z region is smaller than 1 grid cell



[Link to this plot.](#)

Adjust min. and max. depth

Switch to arrow tool to change section length and position

Integrated Mozilla Firefox

File Edit View Tools Help

en.uni-hamburg.de/las/

Google

Integrated Climate Data Center

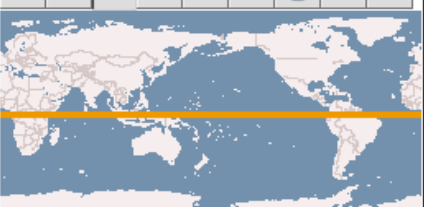
Link to this page | Help | ICDC Website

Choose data set Plot options Compare Show Values Export to Desktop Application Save As ... Print

GECCO Salinity Estimation SALINITY

LAS 7.+ , ICDC Klimacampus Hamburg 4-Apr-11

LATITUDE : 0.5S
TIME : 16-JAN-1952 11:00
DATA SET: GECCO Salinity



0 S
0.5 E 0.5 W
0 S

MAPS
 Latitude-Longitude

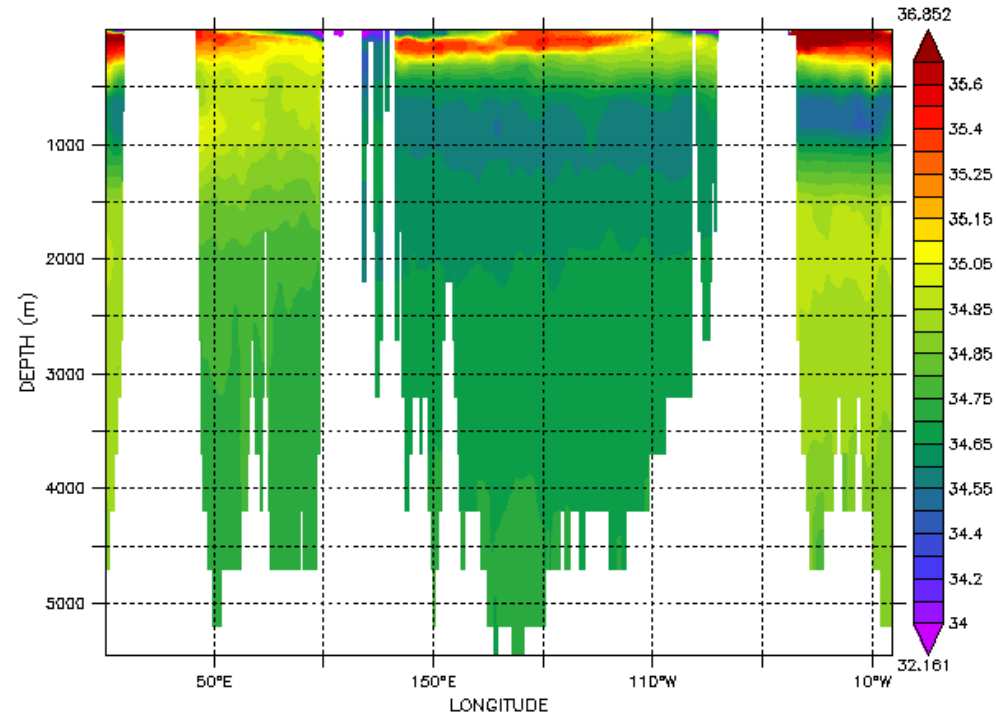
LINE PLOTS
 Time series
 Depth
 Longitude
 Latitude

VERTICAL SECTION PLOTS
 Longitude-depth
 Latitude-depth

Date : Jan 1952

Minimum Depth (meters) : 5

Maximum Depth (meters) : 5450



DEPTH (m)

LONGITUDE

SALINITY (PSU)

36.852
36.6
36.4
36.25
36.15
36.05
34.95
34.85
34.75
34.65
34.55
34.4
34.2
34
32.161

[Link to this plot.](#)

Done

GECCO S

22.5 N
116.73 E
22.5 N

Change section center

Change section length

MAPS

- Latitude-Longitude

LINE PLOTS

- Time series
- Depth
- Longitude
- Latitude

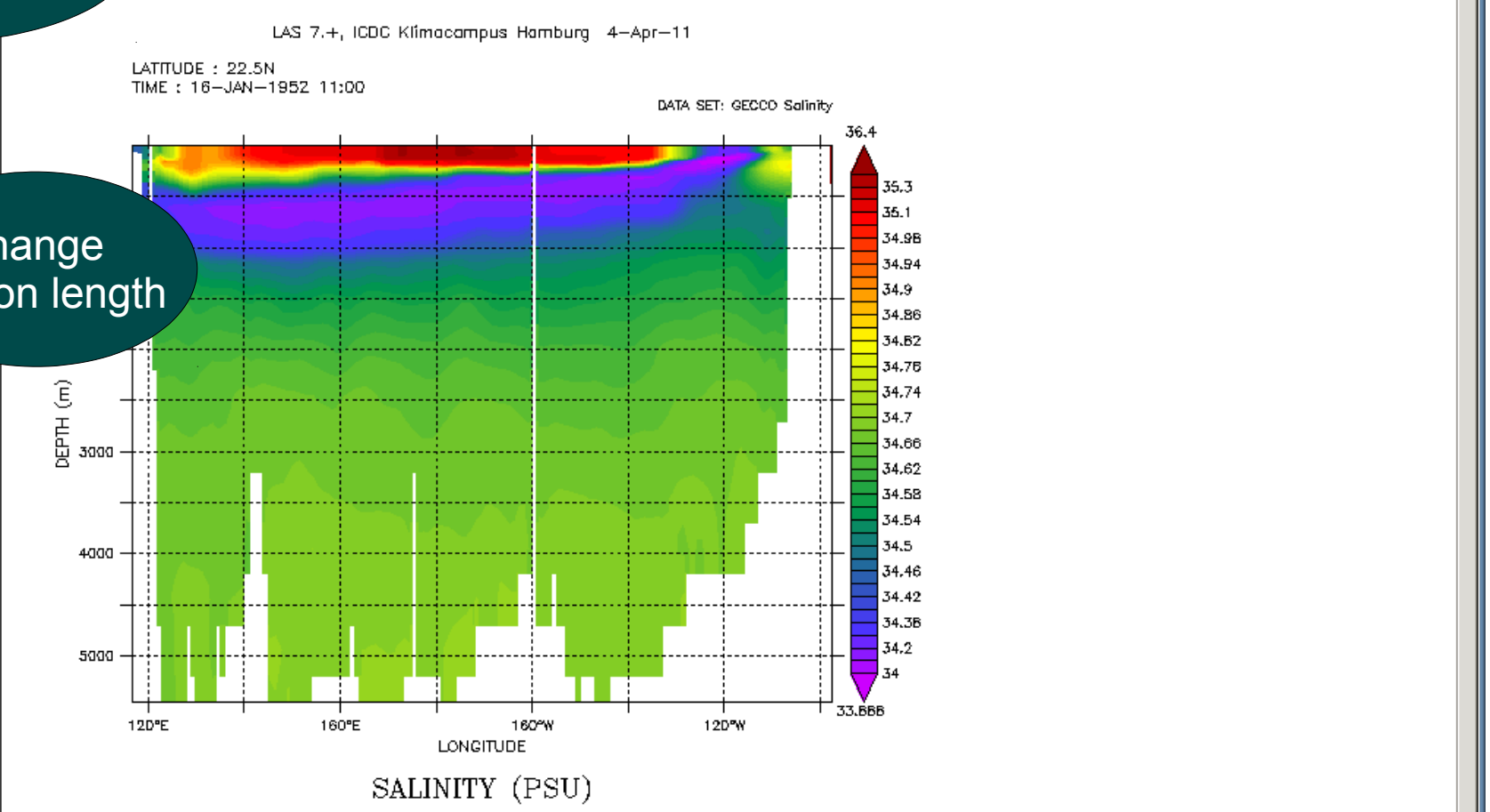
VERTICAL SECTION PLOTS

- Longitude-depth
- Latitude-depth

Date : Jan 1952

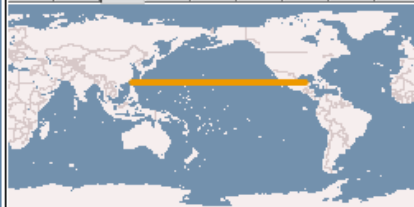
Minimum Depth (meters) : 5

Maximum Depth (meters) : 5450



[Link to this plot.](#)

Home Back Forward Stop Refresh Print Zoom In Zoom Out Full Screen



22.5 N
 121.44 E 90.5 W
 22.5 N

MAPS

Latitude-Longitude

LINE PLOTS

Time series

Depth

Longitude

Latitude

VERTICAL SECTION PLOTS

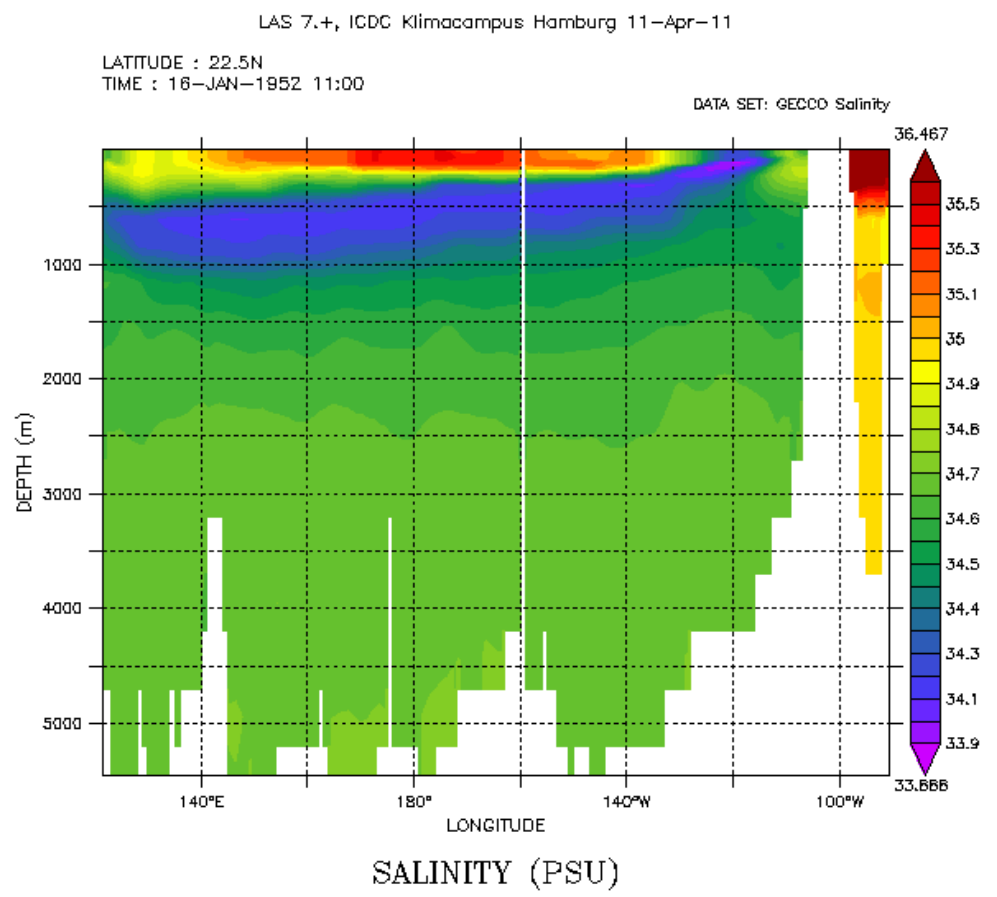
Longitude-depth

Latitude-depth

Date : Jan 1952

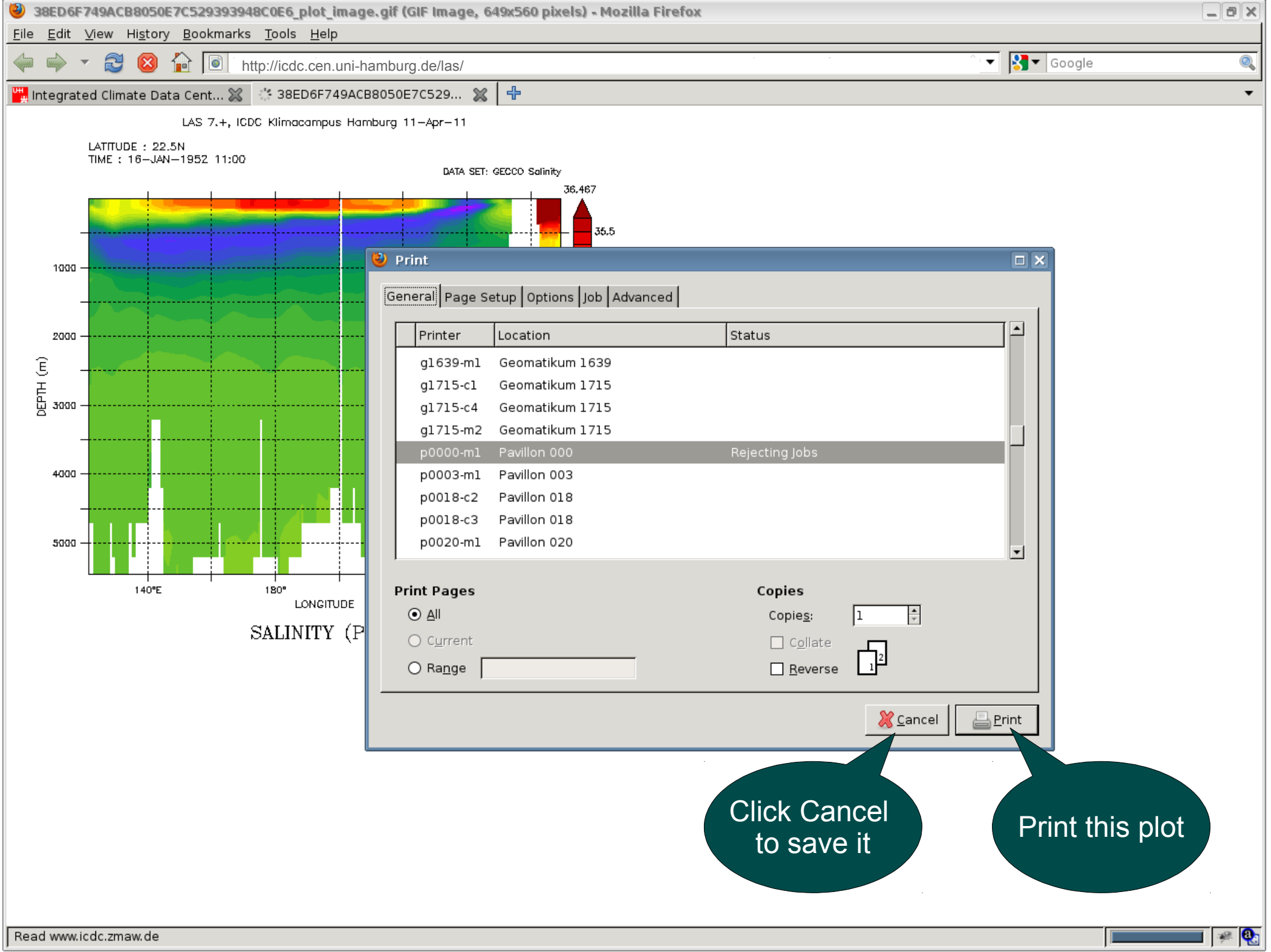
Minimum Depth (meters) : 5

Maximum Depth (meters) : 5450



Print or save this plot

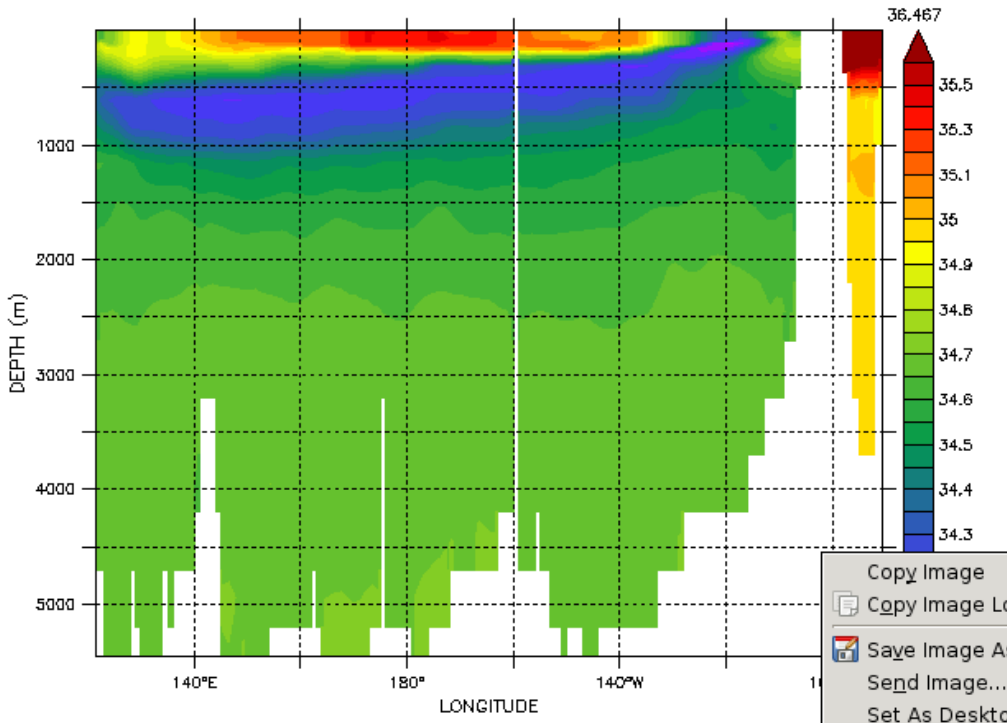
[Link to this plot.](#)



LAS 7+, ICDC Klimacampus Hamburg 11-Apr-11

LATITUDE : 22.5N
TIME : 16-JAN-1952 11:00

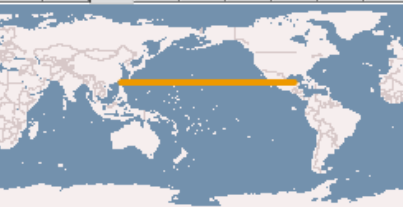
DATA SET: GECCO Salinity



Right click on the image and choose "Save Image As ..."

- Copy Image
- Copy Image Location
- Save Image As...
- Send Image...
- Set As Desktop Background...
- Block Images from icdc.zmaw.de
- View Image Info
- Open With Editor
- Web Developer
- Inspect Element

? Home Refresh Back Forward Print Zoom In Zoom Out Full Screen Reload



22.5 N
 121.44 E 90.5 W
 22.5 N

MAPS

Latitude-Longitude

LINE PLOTS

Time series

Depth

Longitude

Latitude

VERTICAL SECTION PLOTS

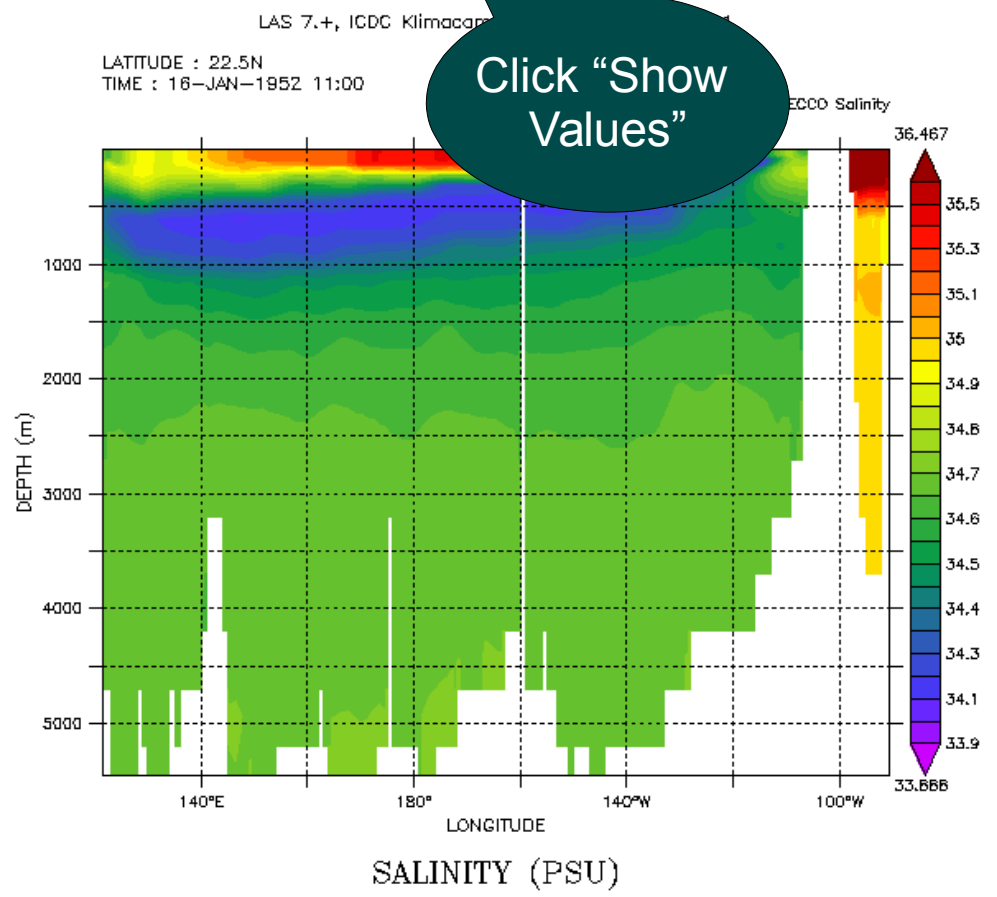
Longitude-depth

Latitude-depth

Date : Jan 1952

Minimum Depth (meters) : 5

Maximum Depth (meters) : 5450



Click "Show Values"

[Link to this plot.](#)

Choose a plot type: Desktop Application Save As ... Print

GECCO

Evaluate expression

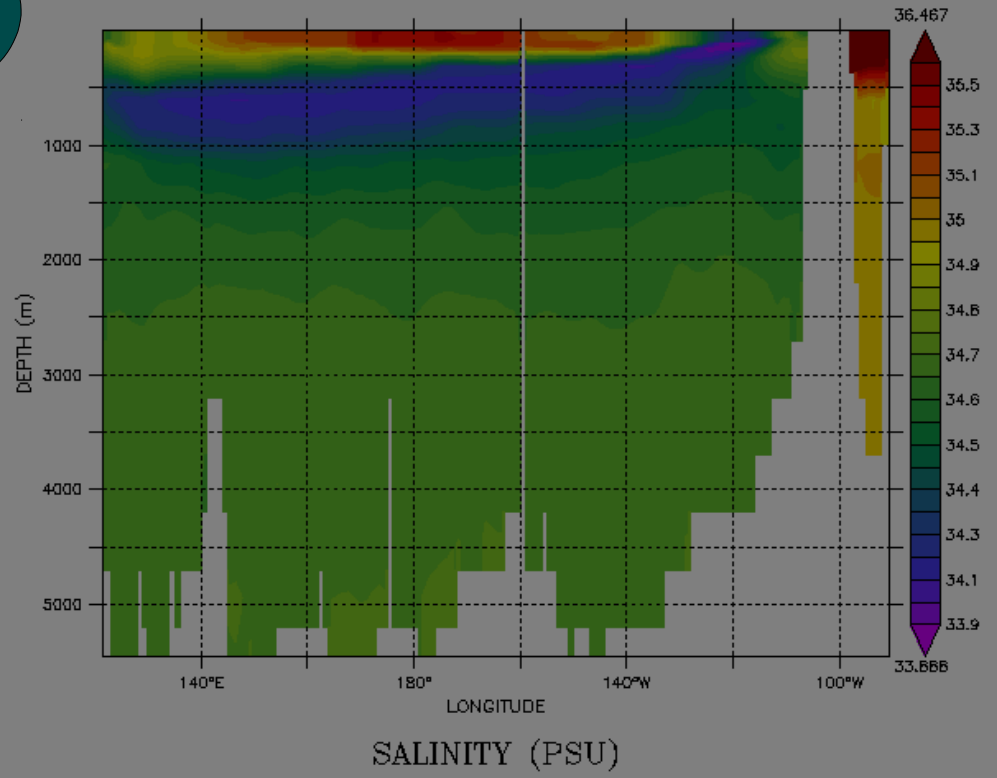
Interpolation normal to plot Off

OK Reset Cancel

Click OK

LATITUDE : 22.5N
TIME : 16-JAN-1952 11:00

DATA SET: GECCO Salinity



[Link to this plot.](#)

22.5 N

121.44 E 90.5 W

22.5 N

MAPS

Latitude-Longitude

LINE PLOTS

- Time series
- Depth
- Longitude
- Latitude

VERTICAL SECTION PLOTS

- Longitude-depth
- Latitude-depth

Date : Jan 1952

Minimum Depth (meters) : 5

Maximum Depth (meters) : 5450

Table of Values

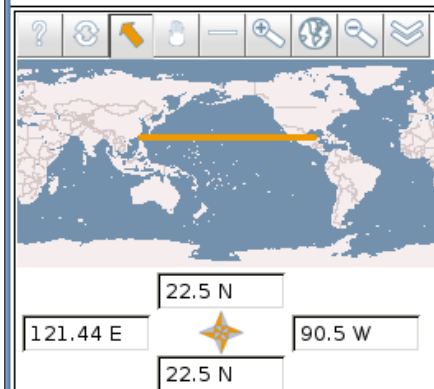
Close the new browser tab to get back

```

VARIABLE : SALINITY (PSU)
FILENAME : salt.nc
FILEPATH : http://www.icdc.zmaw.de:8880/thredds/dods
SUBSET   : 149 by 23 points (LONGITUDE-DEPTH (m))
LATITUDE : 22.5N
TIME     : 16-JAN-1952 11:00
... listing every 2th point

```

		121.5E	123.5E	125.5E	127.5E	129.5E	131.5E	133.5E	135.5E	137.5E	139.5E	141.5E	143.5E	145.5E	147.5E	149.5E	151.5E	153.5E	155.5E	157.5E	159.5E	161.5E	163.5E	165.5E
		122	124	126	128	130	132	134	136	138	140	142	144	146	148	150	152	154	156	158	160	162	164	166
5	/ 1:	34.67	34.71	34.76	34.89	34.91	34.90	34.89	34.91	34.95	34.98	35.00	35.02	35.06	35.09	35.11	35.11	35.14	35.17	35.19	35.20	35.20	35.20	35.17
15	/ 2:	34.67	34.71	34.76	34.89	34.91	34.90	34.89	34.91	34.95	34.98	35.00	35.02	35.06	35.09	35.11	35.11	35.14	35.17	35.19	35.19	35.20	35.20	35.17
27.5	/ 3:	34.67	34.71	34.76	34.89	34.91	34.90	34.89	34.91	34.95	34.98	35.00	35.02	35.06	35.09	35.11	35.11	35.14	35.17	35.19	35.19	35.20	35.19	35.17
45	/ 4:	34.67	34.71	34.76	34.89	34.91	34.90	34.89	34.91	34.95	34.98	35.00	35.02	35.06	35.09	35.11	35.11	35.14	35.17	35.19	35.19	35.20	35.19	35.17
65	/ 5:	34.67	34.71	34.76	34.89	34.91	34.90	34.89	34.91	34.95	34.98	35.00	35.02	35.06	35.09	35.11	35.11	35.14	35.17	35.19	35.19	35.20	35.19	35.17
87.5	/ 6:	34.68	34.71	34.76	34.89	34.91	34.90	34.89	34.91	34.95	34.98	35.00	35.02	35.06	35.09	35.11	35.11	35.14	35.17	35.19	35.19	35.20	35.19	35.17
117.5	/ 7:	34.68	34.76	34.76	34.89	34.91	34.90	34.89	34.91	34.94	34.96	34.99	35.01	35.04	35.05	35.04	35.04	35.06	35.08	35.09	35.10	35.12	35.14	35.14
160	/ 8:	34.80	34.91	34.88	34.90	34.91	34.89	34.88	34.89	34.90	34.92	34.95	34.97	34.98	35.00	35.01	34.99	34.99	34.97	34.95	34.95	34.97	34.96	34.91
222.5	/ 9:	34.74	34.81	34.85	34.90	34.92	34.89	34.85	34.84	34.84	34.84	34.86	34.87	34.88	34.90	34.88	34.86	34.84	34.80	34.77	34.77	34.78	34.78	34.76
310	/ 10:	34.62	34.65	34.72	34.80	34.84	34.80	34.75	34.73	34.71	34.71	34.70	34.70	34.70	34.72	34.73	34.72	34.68	34.61	34.56	34.54	34.54	34.56	34.58
435	/ 11:	34.43	34.41	34.44	34.52	34.58	34.55	34.49	34.47	34.45	34.43	34.42	34.40	34.38	34.37	34.37	34.38	34.37	34.34	34.33	34.33	34.33	34.33	34.30
610	/ 12:	34.37	34.31	34.25	34.23	34.24	34.20	34.16	34.15	34.15	34.14	34.13	34.12	34.10	34.09	34.10	34.12	34.13	34.12	34.11	34.11	34.12	34.13	34.14
847.5	/ 13:	34.46	34.42	34.38	34.32	34.28	34.28	34.27	34.25	34.24	34.23	34.23	34.23	34.22	34.21	34.22	34.24	34.26	34.26	34.25	34.25	34.25	34.26	34.29
1160	/ 14:	34.60	34.60	34.59	34.57	34.54	34.52	34.50	34.50	34.50	34.49	34.49	34.48	34.47	34.47	34.47	34.46	34.47	34.49	34.49	34.49	34.48	34.49	34.49
1542.5	/ 15:	34.57	34.59	34.60	34.60	34.59	34.59	34.60	34.60	34.59	34.58	34.58	34.59	34.58	34.57	34.56	34.57	34.58	34.58	34.58	34.58	34.57	34.58	34.59
1975	/ 16:	34.62	34.62	34.62	34.62	34.62	34.63	34.63	34.63	34.63	34.63	34.63	34.63	34.63	34.63	34.63	34.63	34.63	34.62	34.62	34.61	34.62	34.63	34.63
2450	/ 17:	....	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.66	34.66	34.67	34.67	34.67	34.67	34.66	34.66	34.66	34.66	34.66	34.66	34.66	34.67	34.67
2950	/ 18:	....	34.67	34.67	34.66	34.66	34.67	34.66	34.66	34.66	34.67	34.67	34.67	34.67	34.67	34.68	34.68	34.67	34.67	34.67	34.67	34.67	34.67	34.67
3450	/ 19:	....	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	34.67	....	....	34.68	34.68	34.68	34.69	34.69	34.68	34.68	34.68	34.68	34.68	34.68
3950	/ 20:	....	34.68	34.68	34.68	34.67	34.67	34.67	34.67	34.67	34.67	....	....	34.69	34.69	34.69	34.70	34.70	34.70	34.70	34.69	34.69	34.69	34.69
4450	/ 21:	....	34.68	34.68	34.69	34.69	34.69	34.68	34.67	34.68	34.68	....	....	34.69	34.69	34.69	34.69	34.70	34.70	34.70	34.69	34.70	34.69	34.69
4950	/ 22:	....	34.68	34.68	34.69	34.69	34.69	34.67	34.70	....	....	....	....	34.70	34.70	34.69	34.69	34.69	34.70	34.70	34.70	34.70	34.70	34.70
5450	/ 23:	....	34.67	34.67	34.69	....	....	....	....	....	....	....	....	34.70	34.70	34.70	34.69	34.70	....	....	....	....	....	34.70



MAPS
 Latitude-Longitude

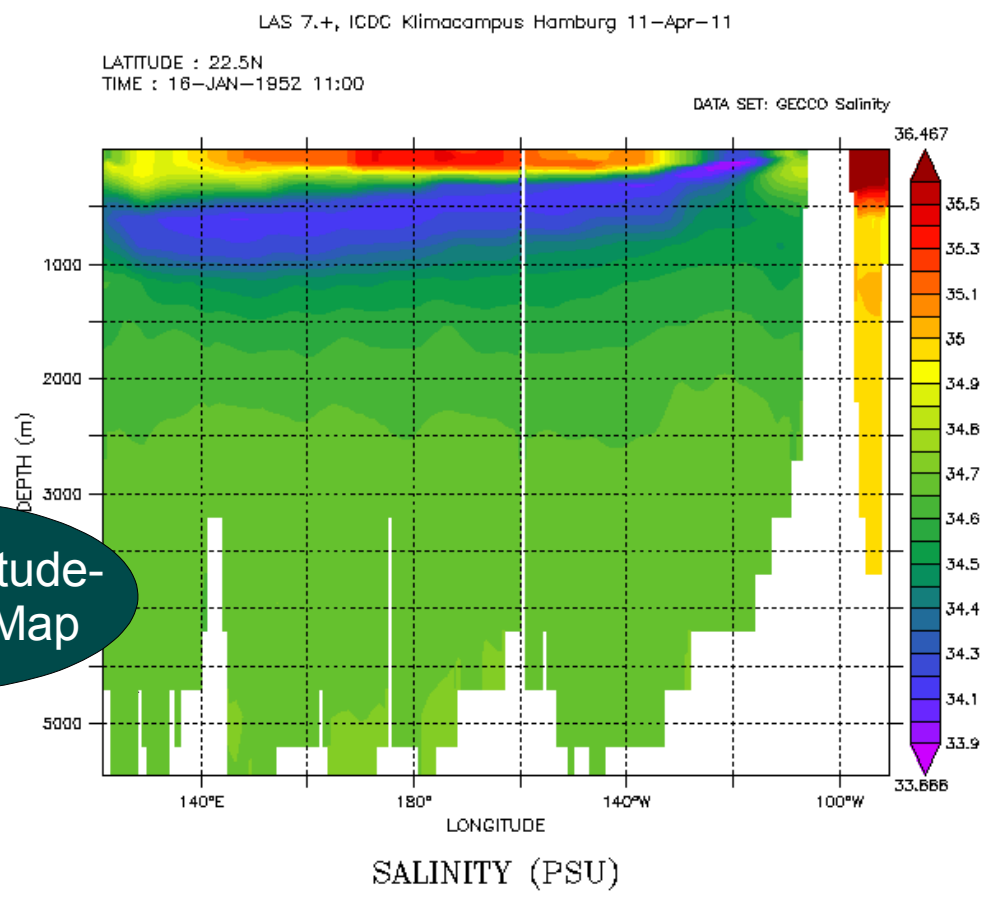
LINE PLOTS
 Time series
 Depth
 Longitude
 Latitude

VERTICAL SECTION
 Longitude-depth
 Latitude-depth

Date : Jan 1952

Minimum Depth (meters) : 5
Maximum Depth (meters) : 5450

Choose Latitude-Longitude Map



[Link to this plot.](#)

LAS 7.+, ICDC Klimocampus Hamburg 11-Apr-11

Click "Set plot options"

11:00

DATA SET: GECCO Salinity

36.512

35.6
35.2
35.1
35
34.9
34.8
34.7
34.6
34.5
34.4
34.3
34.2
34.1
34
33.9
33.8
33.7
33.6
33.2
32.8

40°N
30°N
20°N
10°N
0°

120°E 160°E 180°W 120°W 30°W

LATITUDE

LONGITUDE

SALINITY (PSU)

51 N
113.45 E 82.52 W
6 S

MAPS

- Latitude-Longitude

LINE PLOTS

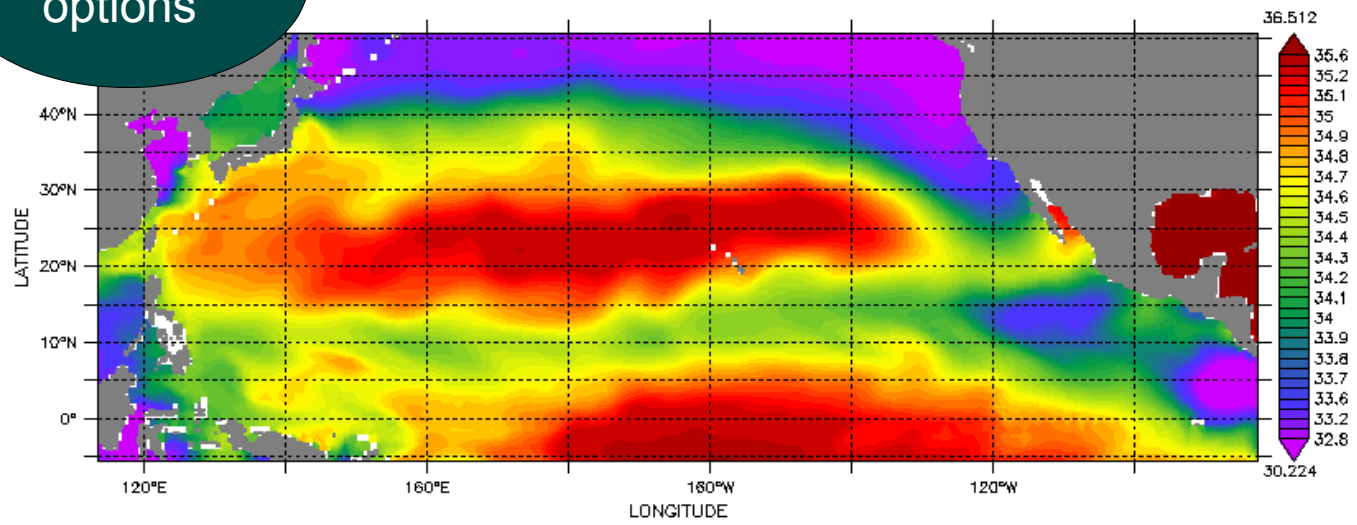
- Time series
- Depth
- Longitude
- Latitude

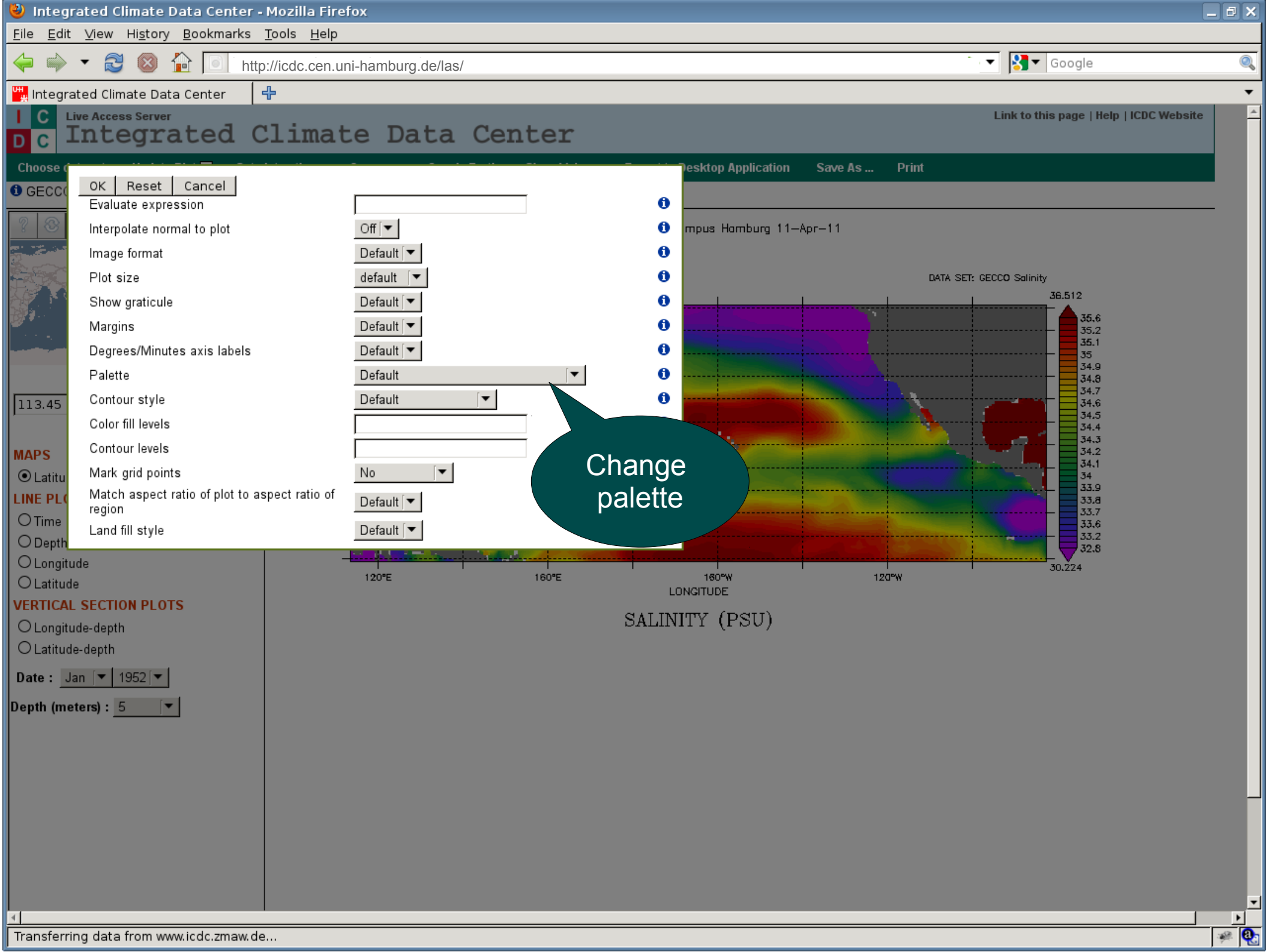
VERTICAL SECTION PLOTS

- Longitude-depth
- Latitude-depth

Date : Jan 1952

Depth (meters) : 5





Integrated Climate Data Center

Choose desktop Application Save As ... Print

GECCO

113.45

MAPS

LINE PLOTS

VERTICAL SECTION PLOTS

Longitude-depth

Latitude-depth

Date : Jan 1952

Depth (meters) : 5

113.45

MAPS

LINE PLOTS

VERTICAL SECTION PLOTS

Longitude-depth

Latitude-depth

Date : Jan 1952

Depth (meters) : 5

113.45

MAPS

LINE PLOTS

VERTICAL SECTION PLOTS

Longitude-depth

Latitude-depth

Date : Jan 1952

Depth (meters) : 5

113.45

MAPS

LINE PLOTS

VERTICAL SECTION PLOTS

Longitude-depth

Latitude-depth

Date : Jan 1952

Depth (meters) : 5

OK Reset Cancel

Evaluate expression

Interpolate normal to plot

Image format

Plot size

Show graticule

Margins

Degrees/Minutes axis labels

Palette

Contour style

Color fill levels

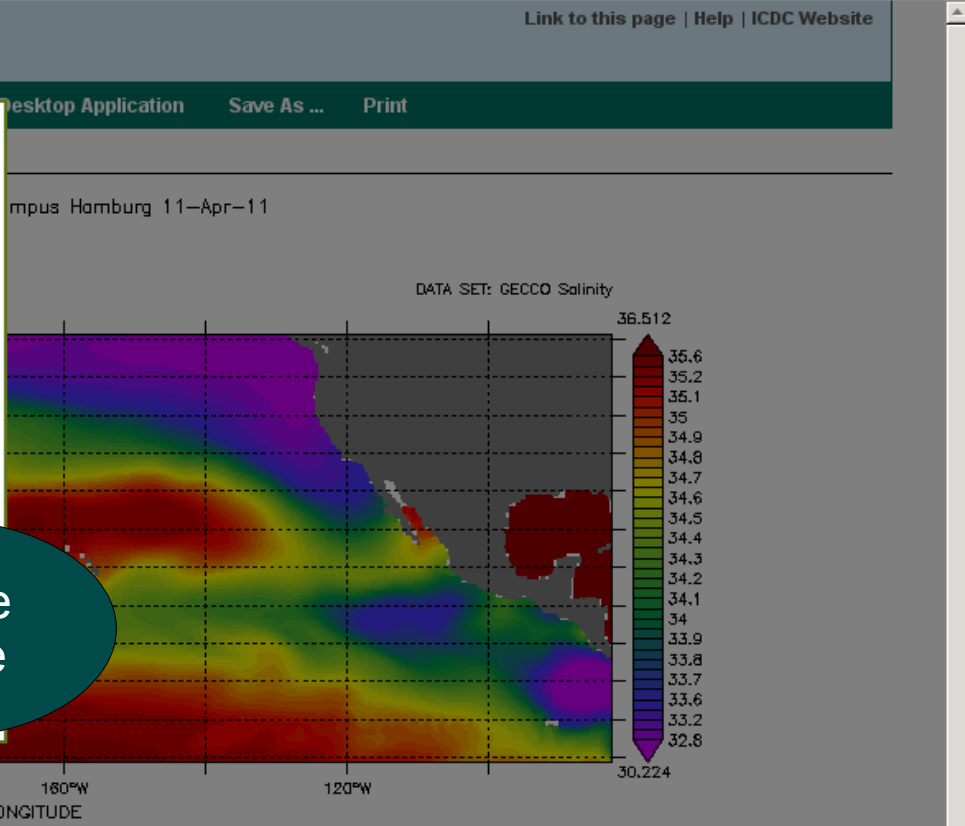
Contour levels

Mark grid points

Match aspect ratio of plot to aspect ratio of region

Land fill style

Change palette



OK Reset Cancel

Evaluate expression

Interpolation normal to plot

Interpolation

Show

Margins

Degrees/Minutes axis labels

Palette

Contour style

Color fill levels

Contour levels

Mark grid points

Match aspect ratio of plot to aspect ratio of region

Land fill style

Off

Default

default

Default

Default

Default

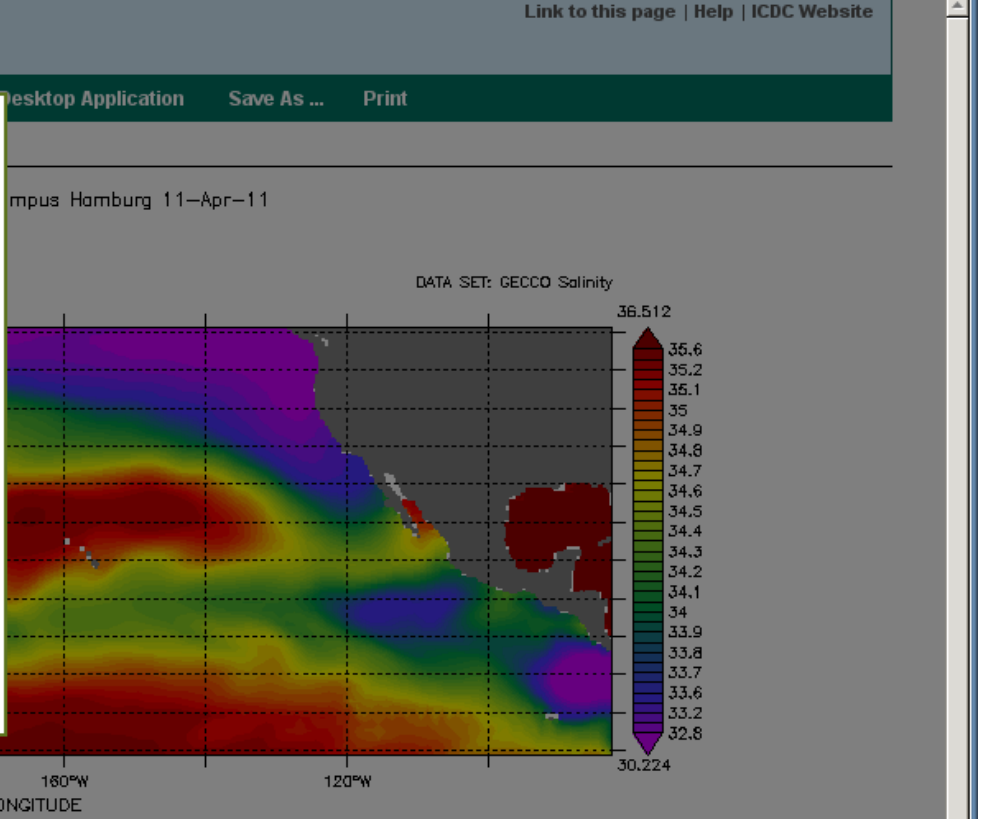
alternative rainbow

Default

No

Default

Default



- 113.45
- MAPS
- Latitude
 - Longitude
 - Latitude
- LINE PLOTS
- Time
 - Depth
 - Longitude
 - Latitude

- VERTICAL SECTION PLOTS
- Longitude-depth
 - Latitude-depth

Date : Jan 1952

Depth (meters) : 5

GECCO State Estimation SALINITY

LAS 7.+, ICDC Klimocampus Hamburg 11-Apr-11

Click Set plot options again

51 N
113.45 E 82.52 W
6 S

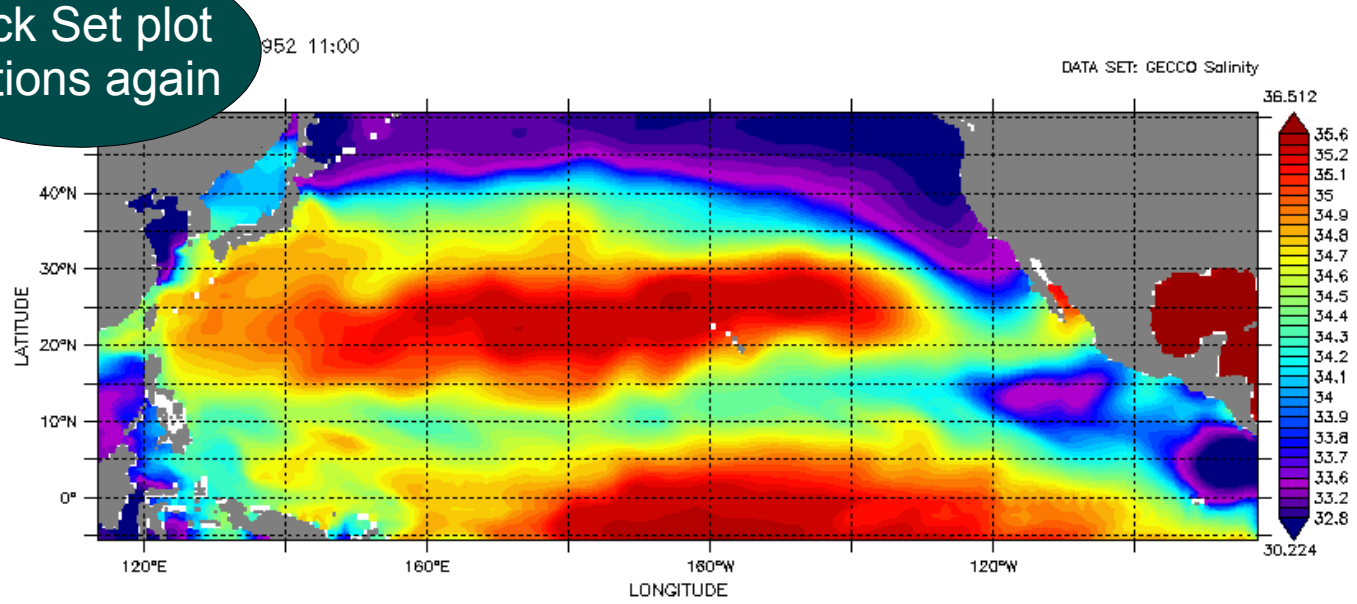
MAPS
 Latitude-Longitude

LINE PLOTS
 Time series
 Depth
 Longitude
 Latitude

VERTICAL SECTION PLOTS
 Longitude-depth
 Latitude-depth

Date : Jan 1952

Depth (meters) : 5



SALINITY (PSU)

Integrated Climate Data Center - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://icdc.cen.uni-hamburg.de/las/

Integrated Climate Data Center

Live Access Server

Integrated Climate Data Center

Link to this page | Help | ICDC Website

Choose desktop Application Save As ... Print

GECCO

113.45

MAPS

Latitu

LINE PLO

Time

Depth

Longitude

Latitude

VERTICAL SECTION PLOTS

Longitude-depth

Latitude-depth

Date : Jan 1952

Depth (meters) : 5

OK Reset Cancel

Evaluate expression

Interpolate normal to plot Off

Image format Default

Plot size default

Show graticule Default

Margins Default

Degrees/Minutes axis labels Default

Palette alternative rainbow

Contour style Default

Color fill levels (30,36,1)

Contour levels

Mark grid points No

Match aspect ratio of plot to aspect ratio of region Default

Land fill style Default

DATA SET: GECCO Salinity

36.512

35.6

35.2

35.1

35

34.9

34.8

34.7

34.5

34.6

34.4

34.3

34.2

34.1

34

33.9

33.8

33.7

33.6

33.2

32.8

120°E

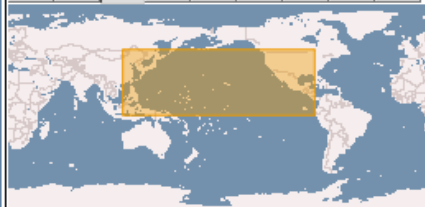
120°W

30.224

Enter (30,36,1) in Color fill levels, then Click OK

Done

? Home Refresh Stop Print Zoom In Zoom Out Full Screen



MAPS

- Latitude-Longitude

LINE PLOTS

- Time series
- Depth
- Longitude
- Latitude

VERTICAL SECTION PLOTS

- Longitude-depth
- Latitude-depth

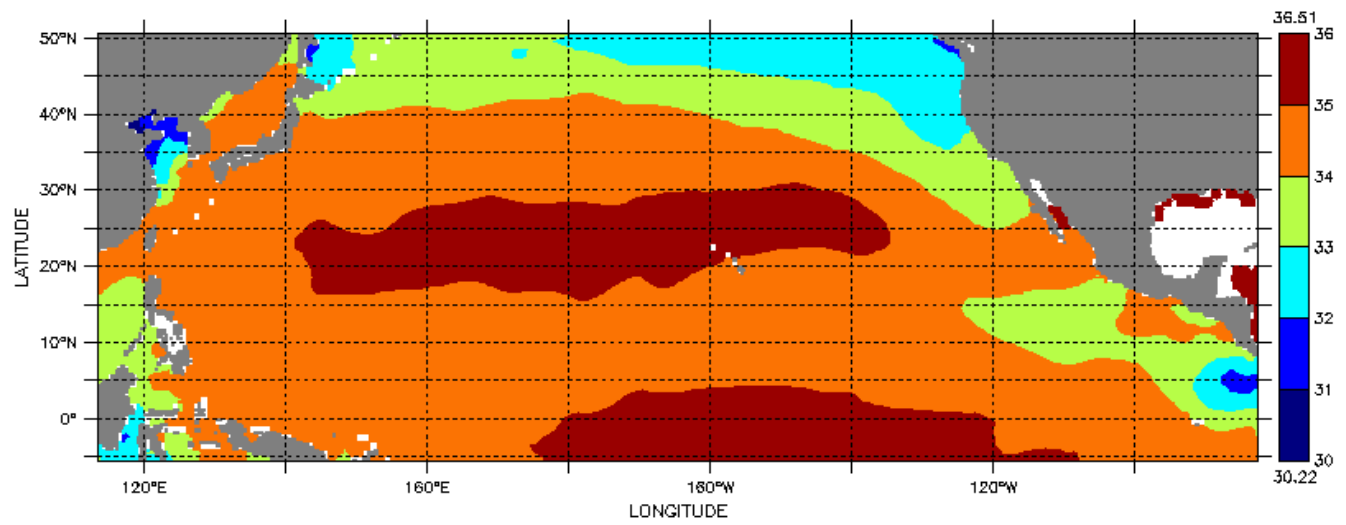
Date :

Depth (meters) :

LAS 7.+, ICDC Klimocampus Hamburg 11-Apr-11

DEPTH (m) : 5
TIME : 16-JAN-1952 11:00

DATA SET: GECCO Salinity



SALINITY (PSU)

Conclusion

This is only a very basic tutorial of LAS.

If you want to know more about LAS, visit the developer website

<http://ferret.pmel.noaa.gov/LAS/home>

or contact the ICDC team

<http://icdc.cen.uni-hamburg.de/beratung.html?&L=1>

Your ICDC team,

Hamburg, 5.10.2016

Integrated Climate Data Center

<http://icdc.cen.uni-hamburg.de>