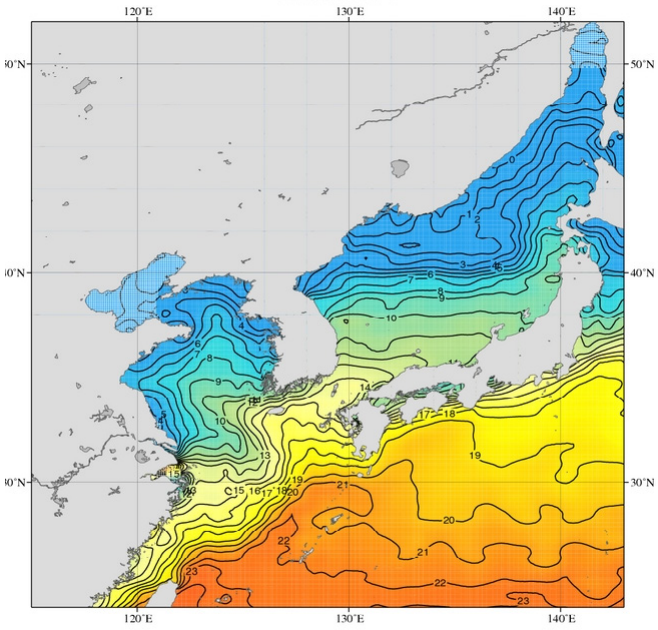
# East Asian Seas Regional Climatology: Online Atlas

http://www.nodc.noaa.gov/OC5/regional_climate/EASclimatology/

## Summary

The East Asian Seas Regional Climatology Version 2.0 is an update to the preliminary version released in May 2012. This update includes new temperature and salinity data spanning the database period from 1804 to 2013. The climatology was recalculated based on the new data received. This update includes new temperature and salinity data spanning the database period from 1804 to 2013. The climatology was recalculated based on the new data received. The East Asian Seas Regional Climatology is a set of objectively analyzed climatological fields of temperature and salinity at standard depth levels in the East Asian Marginal Seas. Climatologies were calculated for annual, seasonal, and monthly time periods on a 1°, 1/4°, and 1/10° latitude-longitude grid and are based on approximately 1.2 million temperature profiles and 0.6 million salinity profiles spanning the years of 1804 to 2013. This is a joint project between the National Oceanic and Atmospheric Administration / National Centers for Environmental Information (NOAA/NCEI), (formerly National Oceanographic Data Center, NODC), USA and the Ministry of Oceans and Fisheries / National Institute of Fisheries Science (MOF/NIFS), (formerly National Fisheries Research and Development Institute, NFRDI), Republic of Korea.




## Version History

*Version 2.0: This version of the regional climatology is an update to the preliminary version released in May 2012. This update includes new temperature and salinity data*

*spanning the database period from 1804 to 2013. The climatology was recalculated based on the new data received.*

*Version 1.0: This version of the regional climatology is the preliminary version released in May 2012. This update includes new temperature and salinity data spanning the database period from 1804 to 2012.*

## How to Cite

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Published paper citation
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## Brief description of the East Asian Seas Regional Climatology

**Study area:** 115.0° E to 143.0° E longitude and 24.0° N to 52.0° N latitude.

**Temporal resolution:** The climatologies for temperature and salinity use all available data regardless of year of measurement. Climatologies were calculated for the annual (all-data), seasonal, and monthly time periods. Seasons are defined as: Winter (Jan.-Mar.), Spring (Apr.-Jun.), Summer (Jul.-Sep.), Fall (Oct.-Dec.).

**Horizontal resolution:** Temperature and salinity are available on a 1x1, 1/4, and 1/10 latitude/longitude degree grid.

**Vertical resolution:** Annual and seasonal climatologies are available from the surface to 5500 meter depths. Monthly climatologies are available from the surface to 1500 meter depths.

**Data:** All data used to generate the EAS-RC is based on the most recent edition of the World Ocean Database 2013 (WOD13). A description of the WOD13 data sets can be found in World Ocean Database 2013 Introduction (6.8 MB).

**Data formats:** The EAS-RC objective analyses and statistics data are presented in ASCII, comma separated value (CSV), ArcGIS compatible and netCDF formats.

**Units:** Temperature units are °C. Salinity is unitless on the Practical Salinity Scale-1978 [PSS]. Data distribution units are in number of observations in each grid box.

**Bathymetry:** For the one degree and quarter degree climatologies, the mean value within a grid square from the ETOPO2 was used. For the one-tenth degree climatologies, the mean value within a grid square from the ETOPO1 was used.

**Method:** The methods used for calculating the mean climatological fields is described in Locarnini et al., 2013 for temperature and Zweng et al., 2013 for salinity.

Additional details on the 1/4° climatological calculation are found in Boyer et al., 2005. Table 1 gives radii of influence for all three passes through the objective analysis procedure for each horizontal resolution.

Table 1 gives radii of influence for all three passes through the objective analysis procedure for each horizontal resolution.

| Pass Number | 1° Radius of Influence (km) | 1/4° Radius of Influence (km) | 1/10° Radius of Influence (km) |
|---|---|---|---|
| 1 | 892 | 321 | 211 |
| 2 | 669 | 267 | 155 |
| 3 | 446 | 214 | 111 |

## References

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