Use of diverse database aggregation for the study of variability in oceanographic parameters of the Japan/East Sea

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Main Goals:

• Using the aggregate data bases from multiple sources as united information space on base of the conceptual data model for analyses of observed and model-based ocean and atmosphere parameters

• Reveling interaction of Japan/East Sea thermohaline structure and long-term variability in “ocean-atmosphere” system
Review of information resource

Aggregate of data

- Observed data
- Computed data

Multi-sources oceanographic Data Bases (MODB)

Meteo data

POI
NODC
JODC
JMA
CORDY

Grid data

- Dayli SST 0.25 degy
- Monthly SST 1 degy

Different types of grid data

HadISST_1870-2002
Review of information resource

MODB stations distribution by sources
Daily meteorological data

<table>
<thead>
<tr>
<th>Longitude</th>
<th>Latitude</th>
<th>STATION</th>
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</thead>
<tbody>
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<td>VLADIVOSTOK</td>
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<tr>
<td>130.80</td>
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T° C in February
1870-2002 monthly average

HADLEYsst 1 degree grid

$t\degree C$ in February at 4 point
The fragment of the logical model of MGDB

**SOURCE**
- Code_source
- Specification

**GRIDD_CLASS**
- Code_class
- Code_source
- Code_sizetime
- Code_size_region
- Code_calculate

**DATE_CLASS**
- Code_sizeti
- Specification: Daily, Monthly, Yearly, Main

**DATE_CEIL**
- Code_gridd
- Code_class
- Code_ceil
- Date

**TEMPERATURE**
- Code_grid
- Level
- Tempr

**CEIL**
- Cod_ceil
- Latitude
- Longitude

**SALINITY**
- Code_grid
- Level
- Saliniti

**CALCULATE_CLASS**
- Code_calculate
- Specification: Average, Min, Max, Median
## SOURCE

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The figure shows a comparison of minimum (min sst), average (average sst), and maximum (max sst) sea surface temperatures (SST) over the years 1996 to 2005. The maps and graphs illustrate spatial and temporal variations in SST, with color gradients indicating temperature differences. The years 2000 and 2001 are highlighted, showing variations in SST patterns during these years. The data points and trend lines on the graphs demonstrate the fluctuation in SST over time, with peaks and troughs indicating the occurrence of El Niño and La Niña events. The maps provide a visual representation of these temperature anomalies, with lighter colors indicating warmer temperatures and darker colors indicating cooler temperatures.
Daily sst diagram in cold period

Day averaged sst in February over 2000-2003

PDO variability over different season
2001 (January - March)

WINTER Median SST

Median day distribution (1-90)
We plan to involve new available data sets

NCEP/NCAR Reanalysis Monthly Means and Other Derived Variables

Data set identifier: NCEP/NCAR Reanalysis

One-line description: NCEP/NCAR Reanalysis Data Derived Products

Detailed description:

The NCEP/NCAR Reanalysis project is using a state-of-the-art analysis/forecast data assimilation using past data from 1948 to the present. A subset of this data is now available.
Thanks for attention

Спасибо за внимание