2005, *Oceanography* 18(4):50–61, http://dx.doi.org/10.5670/oceanog.2005.05

Sea Surface Temperature and its Variability in the Indonesian Region

Authors | First Paragraph | Full Article | Citation

Authors

Tangdong Qu | International Pacific Research Center, School of Ocean and Earth Science and Technology, University of Hawaii, Honolulu, HI, USA

Yan Du | International Pacific Research Center, School of Ocean and Earth Science and Technology, University of Hawaii, Honolulu, HI, USA

Jane Strachan | NCAS-Centre for Global Atmospheric Modelling, University of Reading, UK

Gary Meyers | CSIRO Marine Research, Hobart, Tasmania, Australia

Julia Slingo | NCAS-Centre for Global Atmospheric Modelling, University of Reading, UK

Top

First Paragraph

Lying at the confluence of the Eurasian Plate, the Indo-Australian Plate, and the Pacific Plate is the Indonesian archipelago. It is composed of more than 3,000 islands, covering a global surface area equivalent to the continental United States and with a cumulative coastal perimeter that is more than twice Earth's circumference. The mechanisms that generate and maintain sea surface temperature (SST) (Figure 1a) within the Indonesian seas are a consequence of the complex topography and connectivity between the Pacific and Indian Oceans. In addition to surface heat fluxes, intense tidal mixing of surface and thermocline waters and variability in thermocline depth driven remotely by winds over the Pacific and Indian Oceans play a role in generating and maintaining SST. Consequently, regional ocean dynamics and SST are important factors in regional climate, with important consequences for global climate.

Top

Full Article

1.46 MB pdf

Top

Citation

Qu, T., Y. Du, J. Strachan, G. Meyers, and J. Slingo. 2005. Sea surface temperature and its variability in the Indonesian region. *Oceanography* 18(4):50–61, http://dx.doi.org/10.5670/oceanog.2005.05.

Top