

## An observed variability of Chlorophyll-a during 2015-2016 El Nino event in Mindanao Dome

\*Amali Iroshini Hettiarachchi<sup>1,2,3</sup>, Yi Chia Hsin<sup>2,1</sup>

1. Earth System Science Program, Taiwan International Graduate Program, Academia Sinica, Taipei, Taiwan, 2. Research Center for Environmental Changes, Academia Sinica, Taipei, Taiwan, 3. Graduate Institute of Hydrological and Oceanic Sciences, College of Earth Science, National Central University, Zhongli, Taiwan

The 2015-2016 El Nino was considered as one of the strongest on record, comparable to the 1982-1983 and 1997-1998 events that triggered widespread climate and ecosystem changes in the Pacific and in regions beyond. Mindanao Dome area is an important upwelling system of the Western Philippine Sea. This study aims in examining the variability of Chlorophyll-a and related physical parameters of the Mindanao Dome to assess the impact of the recent 2015-2016 El Nino event. This assessment was based on the data derived from observed satellite data and available data from underwater sensors on Triangle Trans-Ocean Buoy Network (TRITON) buoys. Results indicate that the Mindanao Dome region has been chronically enriched in Chlorophyll-a levels during this event. This increased primary productivity may influence the overall ocean productivity of the area.

Keywords: El Nino, primary productivity, western Philippine Sea, satellite data, TRITON buoy