
Richard P. Dunne

West Briscoe, Baldersdale, Barnard Castle, Co Durham, DL12 9UP, UK
RichardPDunne@aol.com

ABSTRACT: In 2010, coral bleaching at Phuket, Thailand was accompanied by monthly mean sea temperatures that were elevated above a proposed bleaching threshold of 30.11°C for four months from March to June. This extended warm period was accurately identified in both HadSST2 and IGOSS sea surface temperature datasets, but not the HadISST1.1 data which consistently under-recorded the true temperature by up to 1.38°C. HadISST1.1 also failed to differentiate between the 2010 hiatus and the same period in 1998, when less severe but widespread bleaching occurred. In both cases, had the HadISST1.1 data been relied upon to predict or explain the bleaching severity it would have produced an incorrect result. Although the error may only be a one-off event, nonetheless it highlights the caution that should be exercised when using remotely sensed, temperature datasets, even from seemingly reliable and trusted sources.

Keywords: Sea temperature, coral bleaching