Marine protect area number

Southeastern North America: from 2008 to 2018, no increasement, number is 463

Southeastern Asia: 0 area

Australia: 0 area

Hypothesis on marine protected area and bleaching

Trimmed t-test

T-statistic (trimmed): -2.4717715256372954

P-value (trimmed): 0.015358271717013991

Reject the null hypothesis: There is a significant difference in bleaching between MPAs and non-MPAs.

MPAs may be located in regions that are more prone to bleaching due to environmental conditions. MPAs may have been established in response to bleaching, so they might be located in areas already experiencing high stress. There might be a lag in the effectiveness of MPAs; newly established MPAs might not yet have had the time to contribute to the recovery and resilience of coral reefs.

Mann-Whitney U test

U-statistic: 686.5

P-value: 4.1733084719119223e-14