Indian Ocean coral bleaching

Early Warning System for the Western Indian Ocean

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Degree Heating Week 30 days animation Feb1-29-Feb 2024 (NOAA)

SSTA-Copernicus
Healthy coral

Water temperature increases

Prolonged temperature stress

Days - Weeks

Healthy coral

Bleached coral

Bleached coral

Dead coral

Days - Weeks

Weeks - Months

Water temperature returns to normal

Zooxanthellae

Coral polyp
A before and after photo of coral bleaching on Lizard Island, Great Barrier Reef, Queensland. Photo credit: The Ocean Agency.
Services

GIS dashboard - Bleaching alert web tool

1. Western Indian Ocean - Regional coral bleaching alert

   DATE OF ALERT: 01 January 2023

   http://www.cordio.net/bleachingalert/

   Bleaching Alert Level
   - ENSO & Indian Ocean Dipole forecasts
   - SST Anomaly
   - SST Hotspots

   Bleaching observations to date

2. Bleaching conditions in the Western Indian Ocean (WIO)

   Global & Regional Indicators
   - The long protracted La Niña event that began in 2019 is gradually ending. The El Niño condition anticipates 2023 to be hotter than 2022 UK Met Office

   ENSO and Indian Ocean Dipole forecasts
   - SST Anomaly
   - SST Hotspots

   Bleaching conditions in the WIO region

   At the beginning of 2023, the WIO basin is relatively cool, and no cyclones or storms have formed so far.

   Cyclones
   - In 2022, a total of 12 tropical storms were formed but only 5 developed into cyclones in the WIO region.

   At the beginning of 2023, the WIO basin is relatively calm, and no cyclones or storms have formed so far.

   No bleaching observations to date

3. Indian Ocean Coral Bleaching Observations 2016 - Present

   Total Observations from 2016 to

   854

   Bleaching alert web tool
Western Indian Ocean Coral Bleaching Observations 2009-2024

Total reports: 1.1k

Reporting countries:
- Mauritius
- Gabriël Seechelles
- Illes d'Apars
- Indonesia

WIO Bleaching Alert Report.

Reports submitted by Year

Regional % Bleaching observation

Regional % Mortality Observation

Last update: 38 seconds ago

Live Demo: https://www.arcgis.com/apps/dashboards/99a8c1212f264cbab7a3adb2982e0b6f
THANKS FOR YOUR ATTENTION

For details on WIO 2024 bleaching activities and to join our mailing list, please contact us at bleeding@cordioea.net, or jmbugua@cordioea.net.

Your engagement is pivotal in our shared commitment to coral conservation.