

LUCONIA BREAKERS (SOUTH LUCONIA SHOALS)

5°01'07.01"N, 112°38'31.56"E

Geographic area

Luconia Breakers is a shallow coral reef platform located at the southern tip of the Spratlys, in South Luconia Shoals. It is located just over 80NM northwest of the island of Borneo. The closest shallow geographic features are Herald Reef, 3NM southwest and Stigant Reef, less than 10NM west, that are both part of South Luconia Shoals. Luconia Breakers is a part of a long and narrow (600m or less) discontinuous coral cordon (it appears discontinuous in the satellite image but may be continuous at greater depths) that extends over 25km and is itself a part of South Luconia Shoals. This cordon is shaped like the letter 'T' positioned upside down. Luconia Breakers is 2.7km long along its northwest-southeast axis and reaches 700m along its northeast-southwest axis.

Land area above water

There is one above-water sand bank on this reef flat that is 100m long by 40m wide when the sea level is 30cm below Mean Sea Level. An increase in sea level of 1.06m is therefore expected at Mean High Water Spring that is likely to cover this sand bank unless it has a particular elevation, a measure that could not be derived from the satellite data acquired for this study.

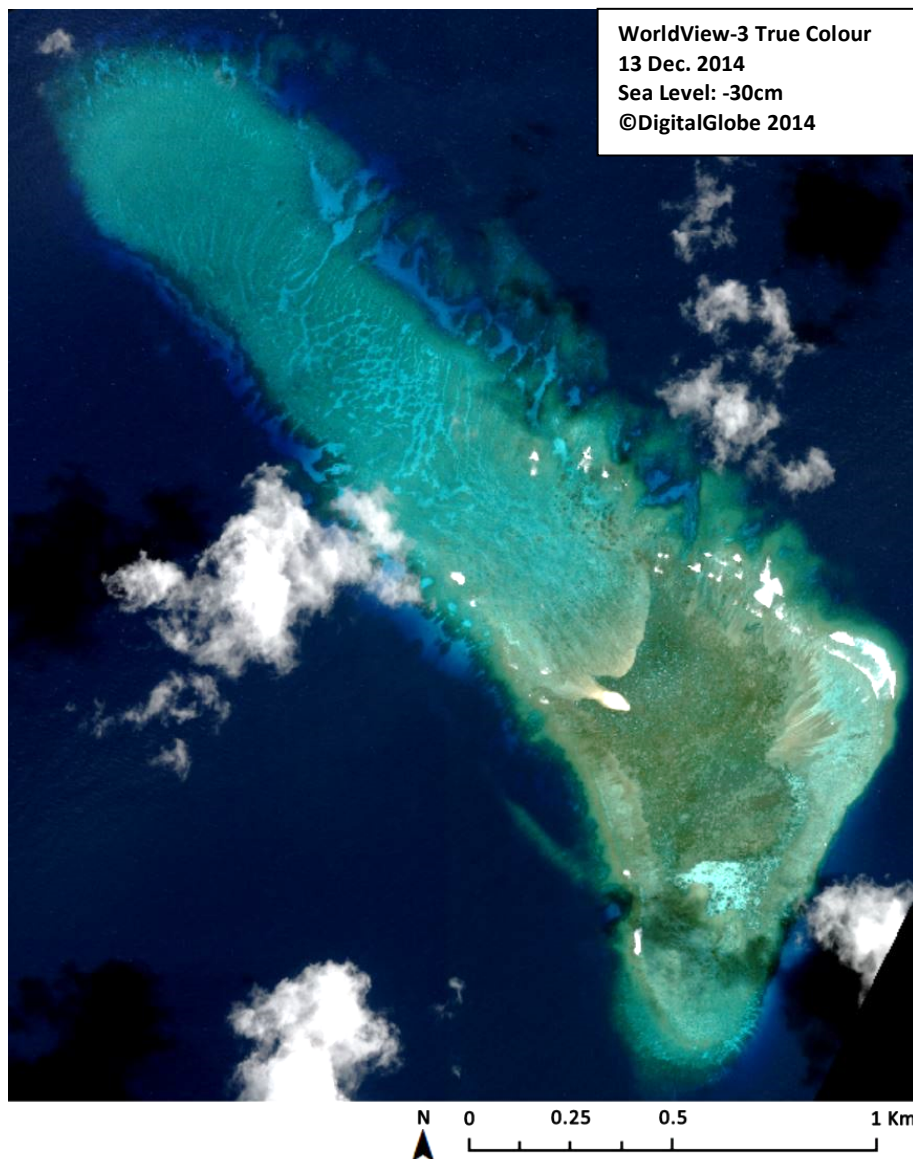
Human infrastructure

There are no man-made structures on this reef as at 13 December 2014.

Intertidal and submerged area

The aerial coverage of Luconia Breakers is 2.20km² comprising a reef flat of 0.73km² and a reef slope of 1.47km². Apart from two small shallower areas of 200m by 100m and 100m by 40m that are on the northwestern and eastern part of the reef flat respectively, where the water depth is 1m or less. The rest of the reef

flat is 1.5-3m deep or more. The visible reef slope is generally narrow (60m or less seaward) off the southwest-, southeast- and northeast-facing sides but it extends close to 2km off the northwest-facing side where pronounced spurs and grooves are visible (although these are often not more than 50cm high). Spurs and grooves on the deeper part of the reef slope, especially along the northeast facing side, are deeper, reaching 2-3m or more.

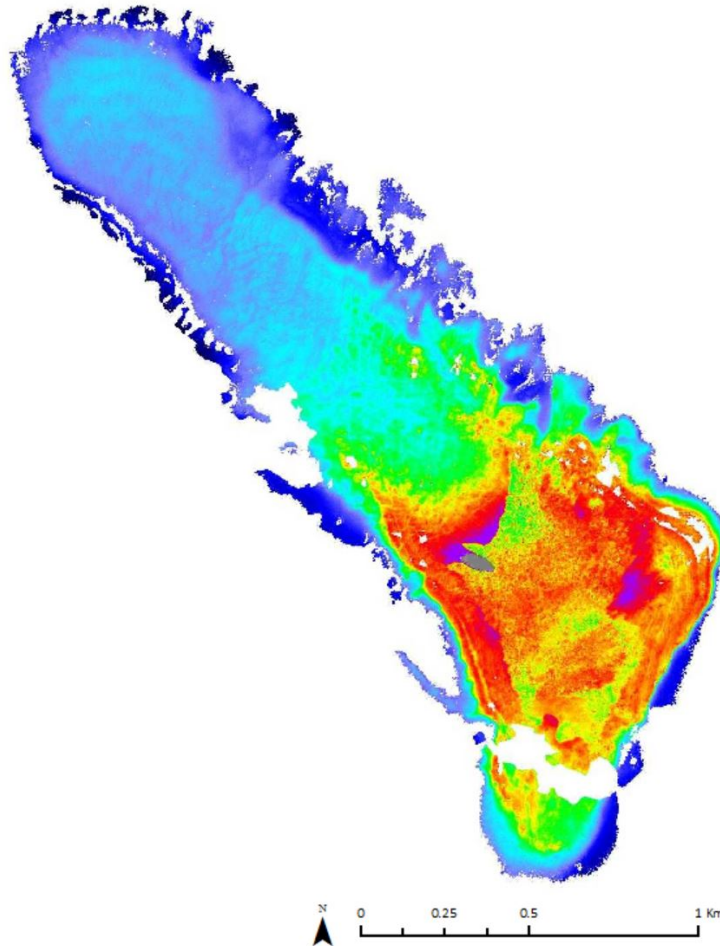


LUCONIA BREAKERS (SOUTH LUCONIA SHOALS)

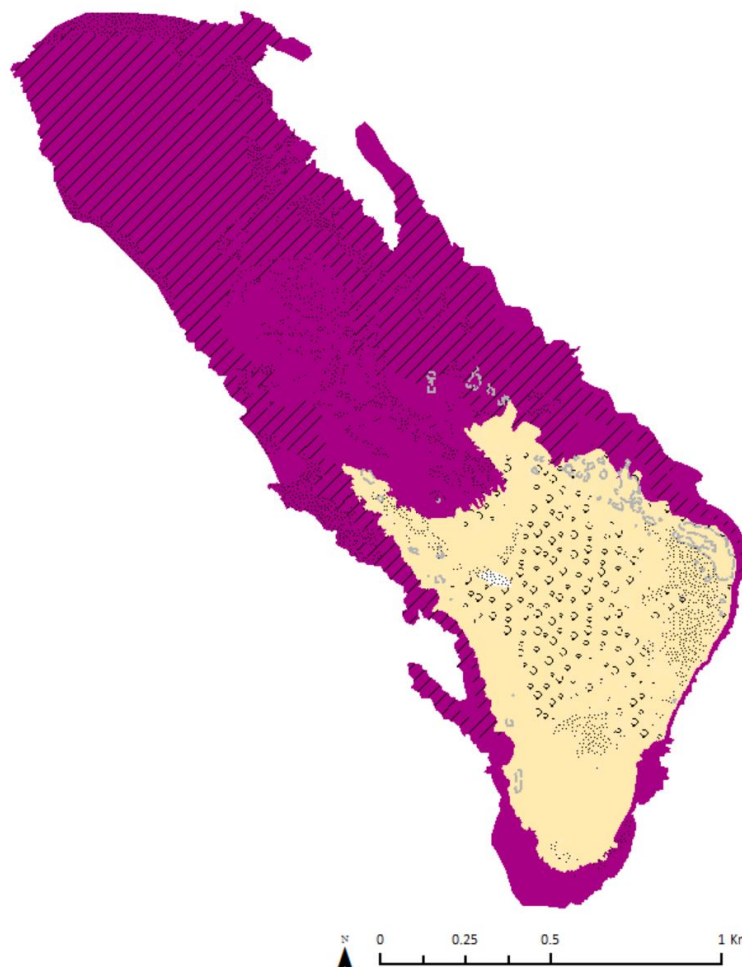
5°01'07.01"N, 112°38'31.56"E

Derived from WorldView-3 satellite data captured on 13 December 2014 [Sea Level: -30cm]

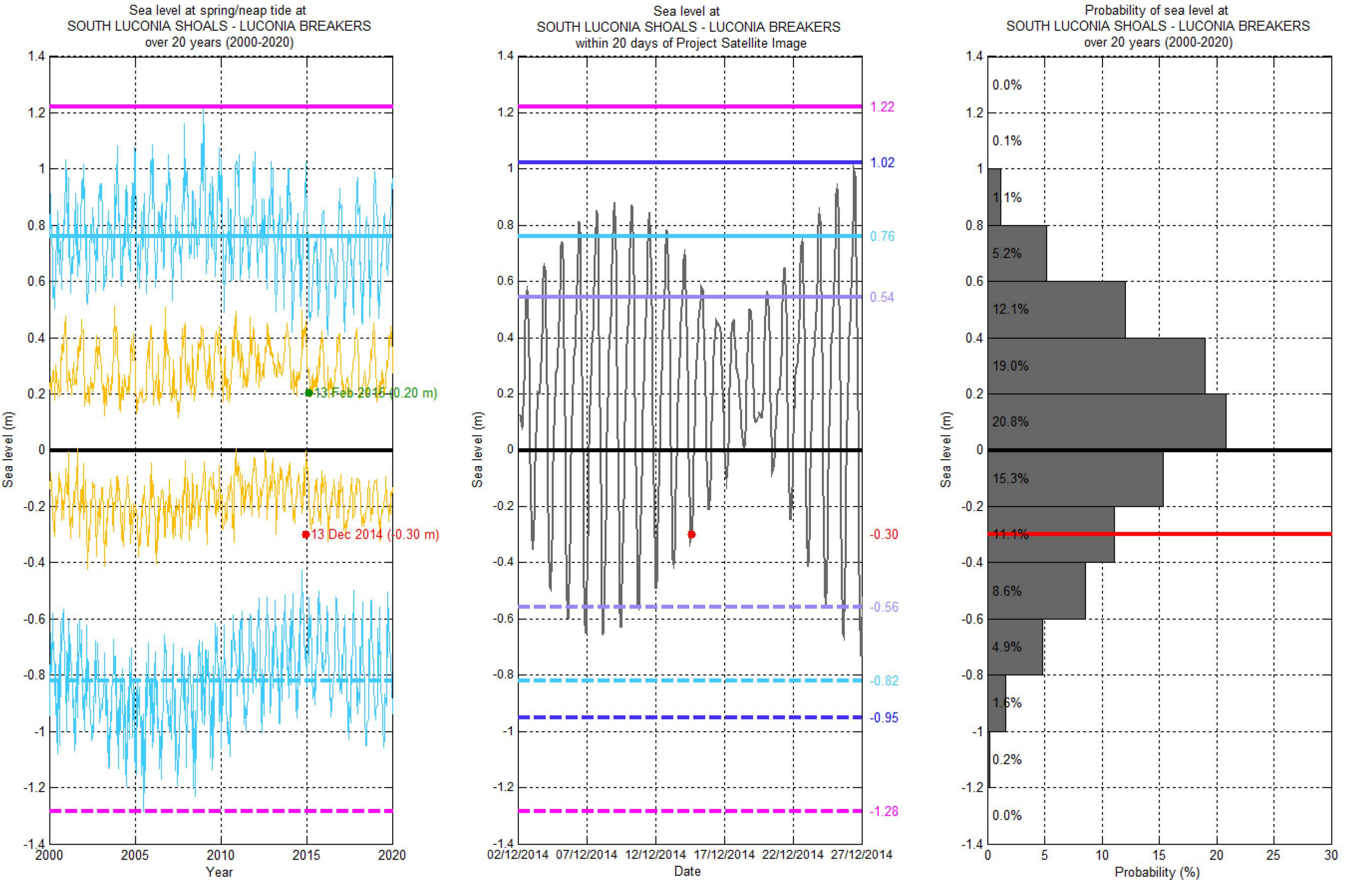
Bathymetry Map



Habitat Classification and Land Cover Map



Sea level (SL) at LUCONIA BREAKERS (SOUTH LUCONIA SHOALS)
[5°01'07.01"N, 112°38'31.56"E]



Hourly sea level SL at spring tide SL at Mean High Water Spring SL at highest tide of the year SL at Mean Higher High Water SL at Highest Astronomical Tide Project Satellite Image
Mean Sea Level SL at neap tide SL at Mean Low Water Spring SL at lowest tide of the year SL at Mean Lower Low Water SL at Lowest Astronomical Tide Google Earth and Landsat satellite images