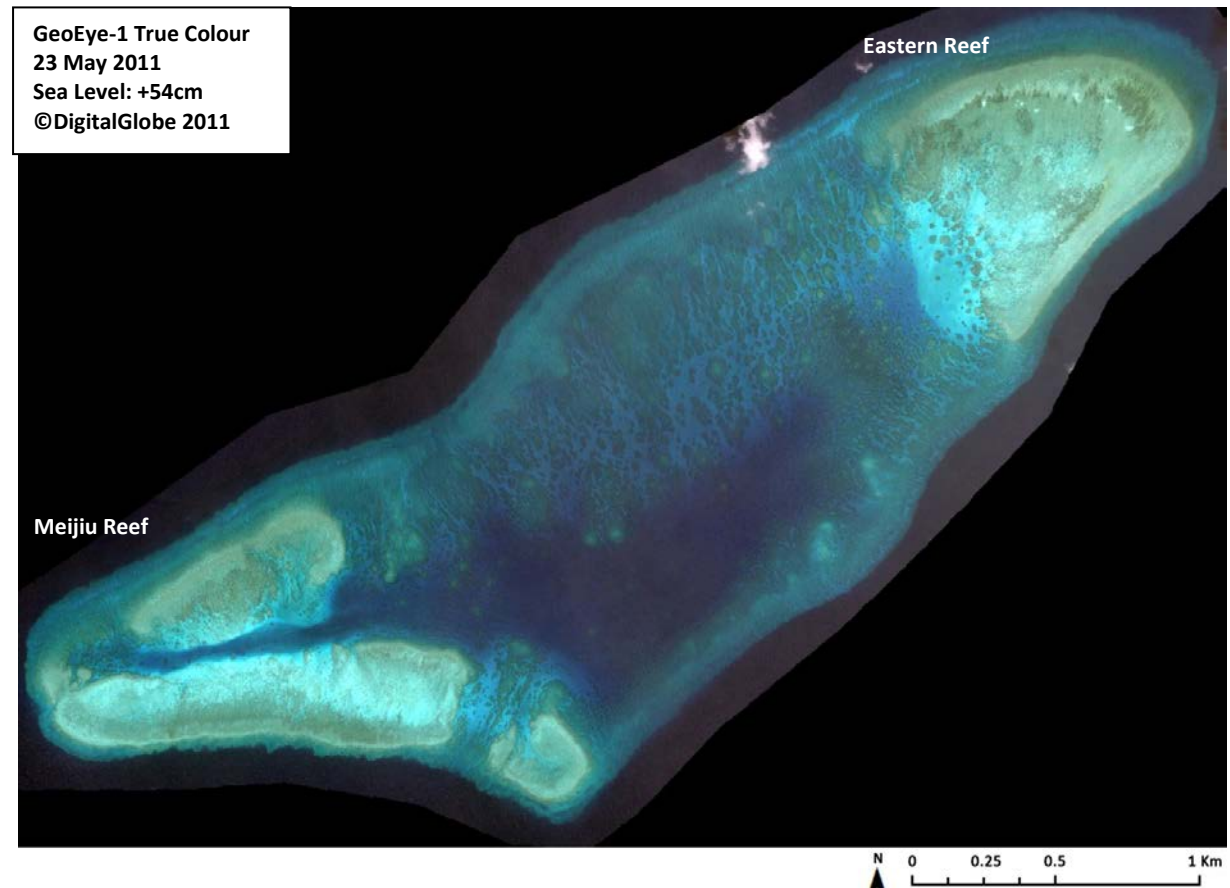


EASTERN REEF AND MEIJIU REEF (THITU REEFS)

11°05'21.93"N, 114°22'18.99"E

Geographic area

Meijiu Reef and Eastern Reef form one of the two atolls of Thitu Reefs, the eastern atoll. They are therefore connected by a shared reef slope. Their reef flats are at least 4km apart from each other. Eastern Reef forms the northeastern tip of this atoll and is located 17NM southeast of South Reef on North Danger Reef, 18NM southwest of Lys Shoal and over 16NM northwest of Loaita Bank. Meijiu Reef forms the southwestern and southern tips of this atoll. It is less than 1NM east of the shallow reef platform on which Thitu Island is located. The shallow part of Eastern Reef measures 1.7km along its northeast-southwest axis and 1.4km along its northwest-southeast axis. Meijiu Reef has three reef flat areas that together extend over 4km along their overall west-east axis and 1.8km along their north-south axis.



Land area above water

There are no above-water land areas in the satellite images from 23 May 2011 and 28 February 2015.

Human infrastructure

There are no man-made structures on this reef as at 28 February 2015.

Intertidal and submerged area

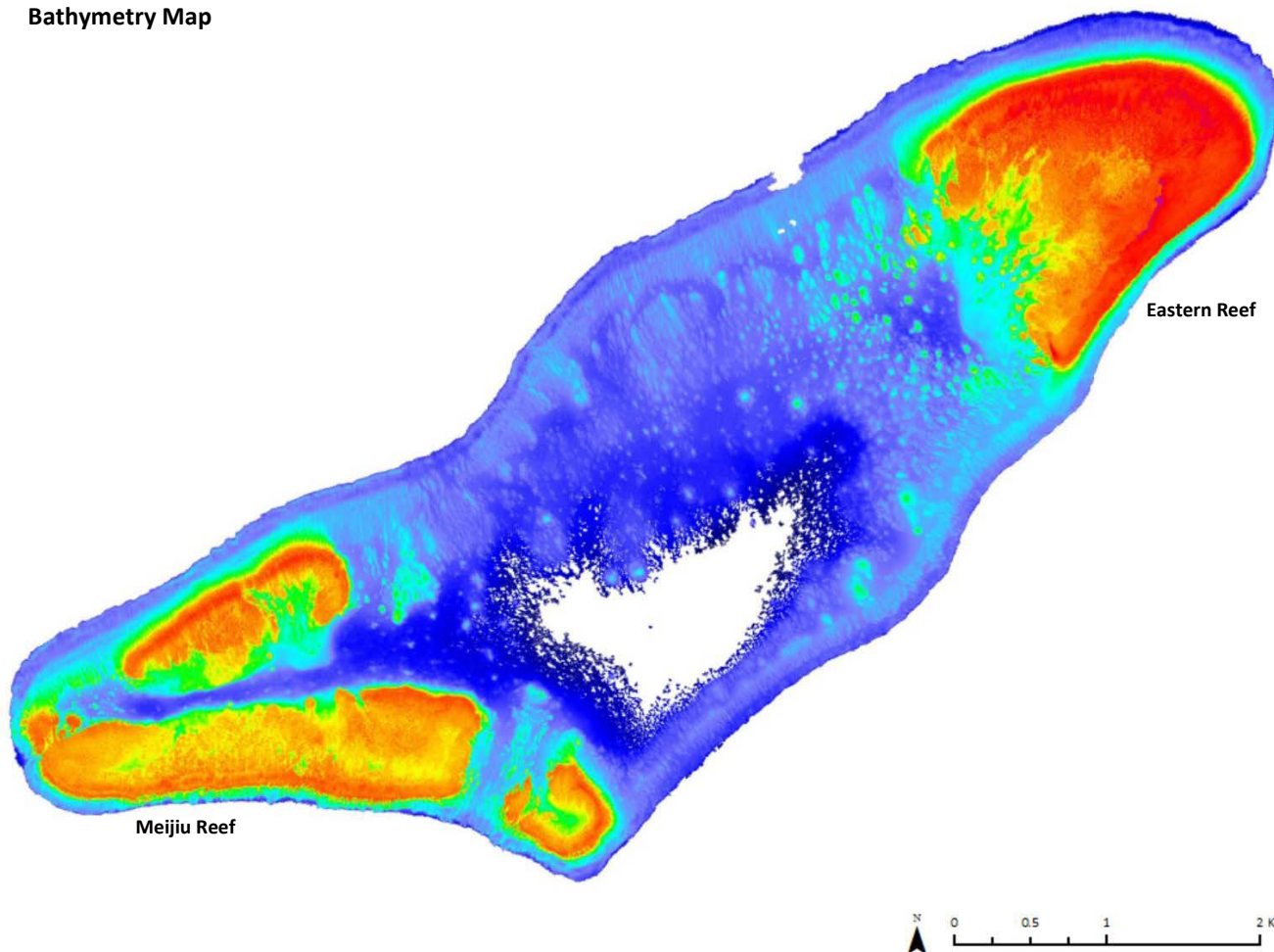
The aerial coverage of the coral reef area for the eastern atoll of Thitu reefs is 20.57km², of which 2.79km² make up the reef flat of Eastern Reef, 2.69km² make up the reef flats of Meijiu Reef (overall), 8.30km² consist of reef slope and 6.79km² consist of lagoon, including knolls and other reef formations in the lagoon. Eastern Reef is shallower than Meijiu Reef, with a reef flat that is around 1.4-1.8m deep (except over some small sand banks where the depth is closer to 1m), whilst the reef flats of Meijiu Reef are 2-3m deep. The 23 May 2011 satellite image was taken when the sea level is expected to have been 54cm above Mean Sea Level. Parts of Eastern Reef and fewer from Meijiu Reef are therefore expected to be exposed at Lowest Astronomical Tide when the sea level is expected to decrease by 1.62m. The reef slope has long and pronounced spurs and grooves on the lagoon side. The reef slope on the northwestern side of the atoll extends over 300m from the reef flats, whereas it is narrower on the southern and southeastern sides where it generally extends not more than 100m, suggesting that these sides are steeper. The lagoon is characterised by a reticulate reef system, the middle of which is too deep for depth measurements to be extracted from satellite data. Along the reef slope, it is 6-9m deep. Deep dredging marks are visible in the 2011, 2014 and 2015 satellite images. On-going dredging activities are visible in 2014 and 2015 with 31 dredgers and their sand plumes visible over Meijiu Reef on 5 March 2014 and 8 dredgers and their sand plumes visible on 28 February 2015. Several 30m-long vessels can be observed in the lagoon in satellite images where dredgers are present.

EASTERN REEF AND MEIJIU REEF (THITU REEFS)

11°05'21.93"N, 114°22'18.99"E

Derived from GeoEye-1 satellite data captured on 23 May 2011 [Sea Level: +54cm]

Bathymetry Map



Habitat Classification and Land Cover Map

