Porites white patch syndrome: an unreported coral disease on Western Indian Ocean reefs

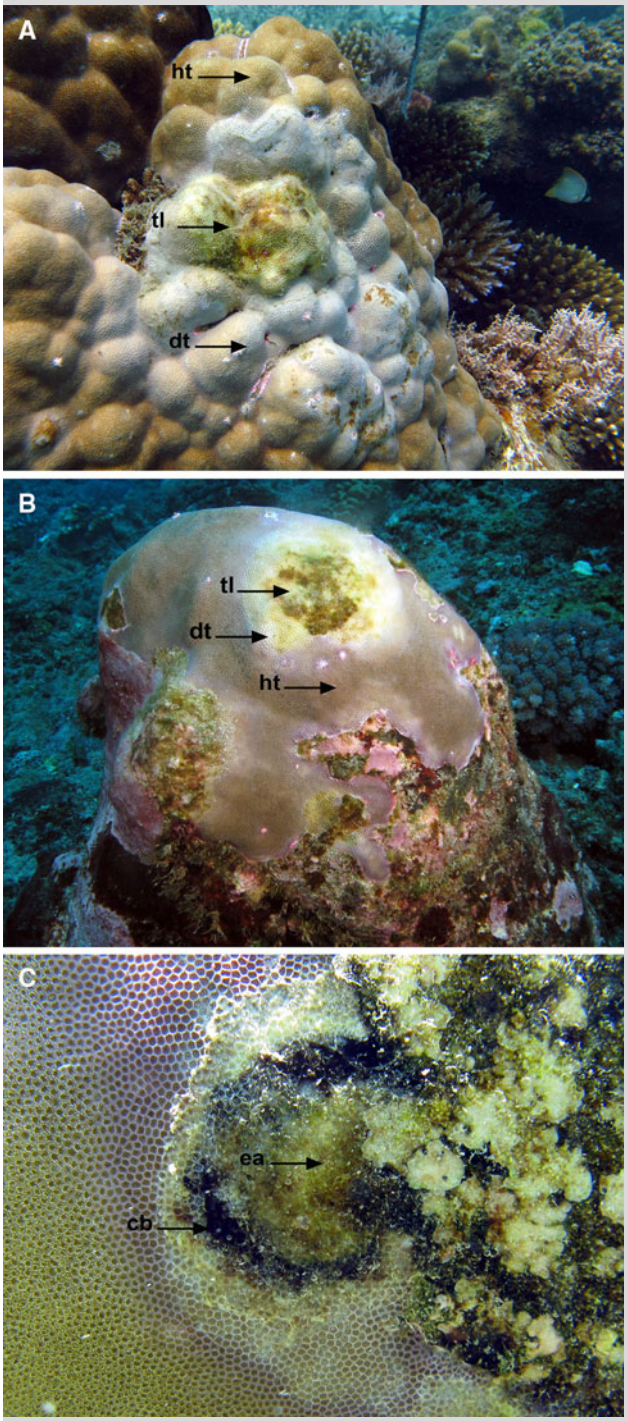

Fig. 1 *Porites* white patch syndrome on **a** *Porites lobata* and **b** *P. lutea*, showing healthy (ht), diseased (dt) and an area of tissue loss (tl). **c** PWPS colonized by epilithic algae (ea) and cyanobacteria (cb)

Coral diseases affecting reef-building corals in the Western Indian Ocean (WIO) are not well documented compared to those in the Caribbean. Surveys conducted at multiple sites (within five 10 × 2 m belt transects, perpendicular to the shore) in both Reunion Island (21°07′S, 55°32′E) and South Africa (Sodwana Bay, Two-mile Reef, 21°48.211′S, 35°30.156′E) from July 2010 to June 2011 revealed the presence of a previously unreported coral disease condition: *Porites* white patch syndrome (PWPS) (Fig. 1). This syndrome was found only on massive *Porites lobata* and *P. lutea* (Fig. 1a, b). Following standardized terminology (Work and Aeby 2006), PWPS is characterized by diffuse, medium to large (5.0–30.0 cm diameter), circular to oblong tissue loss, surrounded by a 1.0–20.0 cm width zone of swollen, paler tissues. The older exposed skeleton is progressively colonized by epilithic algae and cyanobacteria (Fig. 1c). It was observed at most survey sites. At Reunion Island, 6.4 % of the 1947 *P. lutea* colonies recorded on the fringing reef (0.5–1 m deep) to the outer slope (9–15 m deep) had signs of PWPS. In South Africa (9–12 m deep), 2.5 % of the 152 *P. lutea* colonies surveyed were affected. Histological and molecular studies on this disease condition are in progress.

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