Vast reef-like accumulation of the hydrocoral *Errina antarctica* (Cnidaria, Hydrozoa) wiped out in Central Patagonia

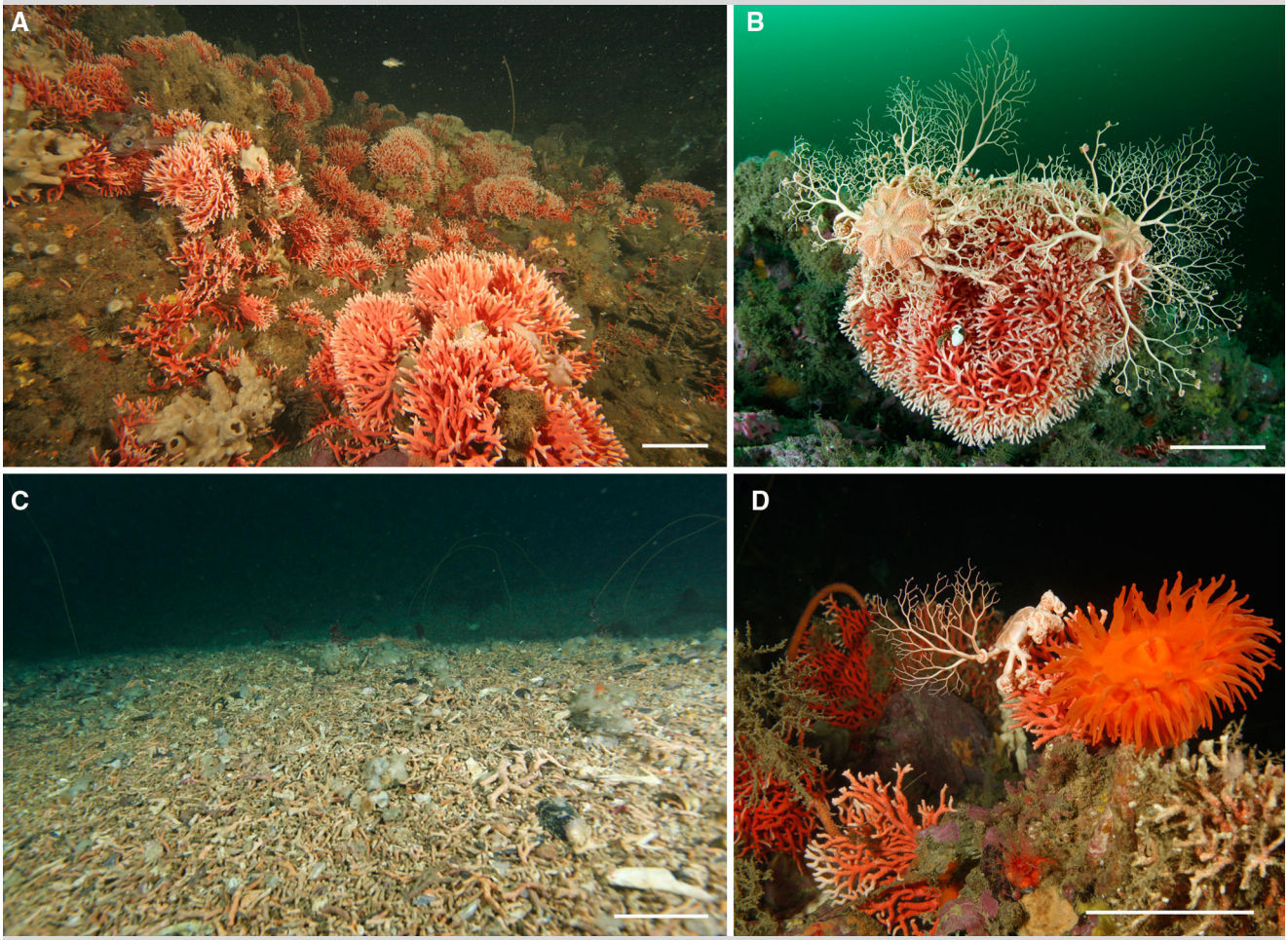

Fig. 1 *Errina antarctica* in shallow water of Chilean Patagonia (*scale bar* 10 cm)

The hydrocoral *Errina antarctica* is described around southern South America (south of 50°S; Fig. 1) and along the Scotia Arc down to 771 m (Cairns 1983). In Chile, we found *E. antarctica* in diving depths as far north as 43°25′S. It has been identified as key structural species creating important habitats for a multitude of organisms (Häussermann and Försterra 2007; Fig. 1b, d), but the colonies are slow growing and easily damaged (Miller et al. 2004). In 2006, we discovered impressive reef-like accumulations of large colonies of *E. antarctica* on slopes below 10 m and on the bottom of Copihue Channel in the Madre de Dios archipelago (50°S) (Häussermann and Försterra 2007; Fig. 1a).

In April 2013 at exactly the same spot, we only found *Errina* rubble accumulated in dips on the bottom of the approx. 250 m long, 50 m wide and 20–40 m deep channel (Fig. 1c), and only a hand full of small recruits scattered over the area. Estimating from the level of erosion and age of epibionts on the fragments, all colonies had died more than 2 yrs ago. Local seafood divers observed colonies in the Copihue Channel with dark filamentous overgrowth in 2009 or 2010. This may refer to hydrozoan overgrowth (typical for dead stylasterid colonies in this area), which could indicate that the corals were already dead by then but physically undamaged. Subsequently they must have eroded quickly which may have been enhanced by strong overgrowth, by the considerable currents in this channel and by boring organisms that are abundant in this limestone dominated area. At a study site 3.5 km south-east, we found large healthy colonies and no indication of enhanced mortality (Fig. 1b, d). The cause of the mortality in this case is still completely unknown and subject of a planned study. The finding underlines the vulnerability of Patagonian hydrocorals and the need for efficient protection.

References

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