



Two of the most common juvenile recruits in the Chagos
Acropora (upper left) and *Pavona* (lower right)

Early coral recruitment in the Chagos Archipelago

When severe bleaching hit the reefs of the Chagos Archipelago in 1998 there was concern that the reefs would take a long time to recover because mortality of corals growing in shallow water (less than 40m) was so high. In 2001, a survey of juvenile corals (2–16mm diameter) was conducted to measure the abundance of young corals that had settled on the newly exposed hard surfaces of the damaged reefs¹.

The results were encouraging. Typically 32–78 juvenile corals per square metre of hard substrate were recorded, indicating that rates of coral recruitment were high and the reefs were able to produce enough larvae for a rapid recovery. Recruits of fast-growing *Acropora* species were the most commonly observed, and they showed a strong preference for settling on dead *Acropora* tables relative to other substrates. *Pavona* was over-represented in the juvenile community relative to the adult population, reflecting this family's highly successful reproductive strategy. Massive framework-building species, including faviids and *Porites*, were also relatively common, indicating that the physical structure of the reef may also recover in time.

The near isolation of the Chagos Archipelago means that the corals' recovery from a severe disturbance depends on recruitment from within the atolls rather than from reefs upstream. Following the 1998 bleaching event, rates of recovery on shallow reefs in the Maldives² has been far slower than those in the Chagos Archipelago. The reason is unknown but it is possible that reefs experiencing less human activity are more resilient to large scale disturbance³.

¹ Sheppard, C. R. C., Spalding, M., Bradshaw, C. & Wilson, S. 2002. Erosion vs. recovery of coral reefs after 1998 El Niño: Chagos reefs, Indian Ocean. *Ambio* Vol 31, No.1. pp 40 – 48.

² Loch, K., Loch, W., Schuhmacher, H. & See, W. 2004. Coral Recruitment and Regeneration on a Maldivian Reef Four Years after the Coral Bleaching Event of 1998. Part 2: 2001-2002 *Marine Ecology* 25: 145–154.

³ Westmacott, S., Teleki, K., Wells, S., & West, J. 2000. Management of Bleached and Severely Damaged Coral Reefs. IUCN, Gland, Switzerland and Cambridge,

The **Chagos Conservation Trust** is a charity (Registered in the UK No. 1031561), whose aims are to promote conservation, **scientific** and historical research, and to advance education concerning the archipelago. The Trust is a non political association.

If you would like more information on the publications or membership, please contact the Secretary at simonhughes@hughes-mccormack.co.uk or visit www.chagos-trust.org