

MAPS- Figure 1 a,b

Figure 1a: Map of the Cayman Islands located south of Cuba.

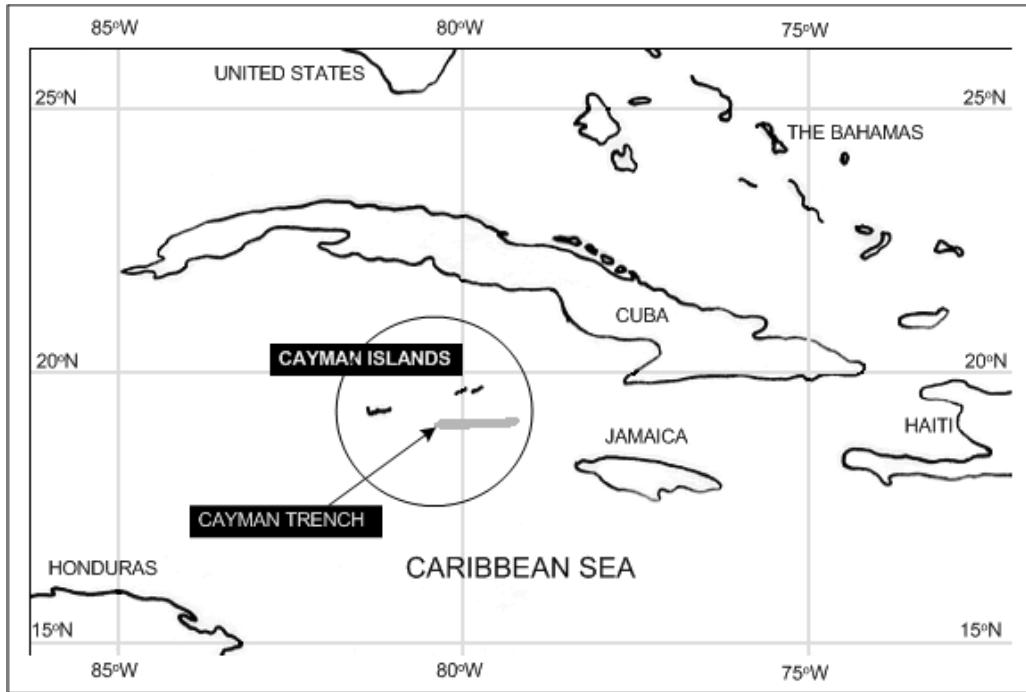


Figure 1b: Map of Little Cayman showing SPAG sites  and marine protected areas.

Little Cayman

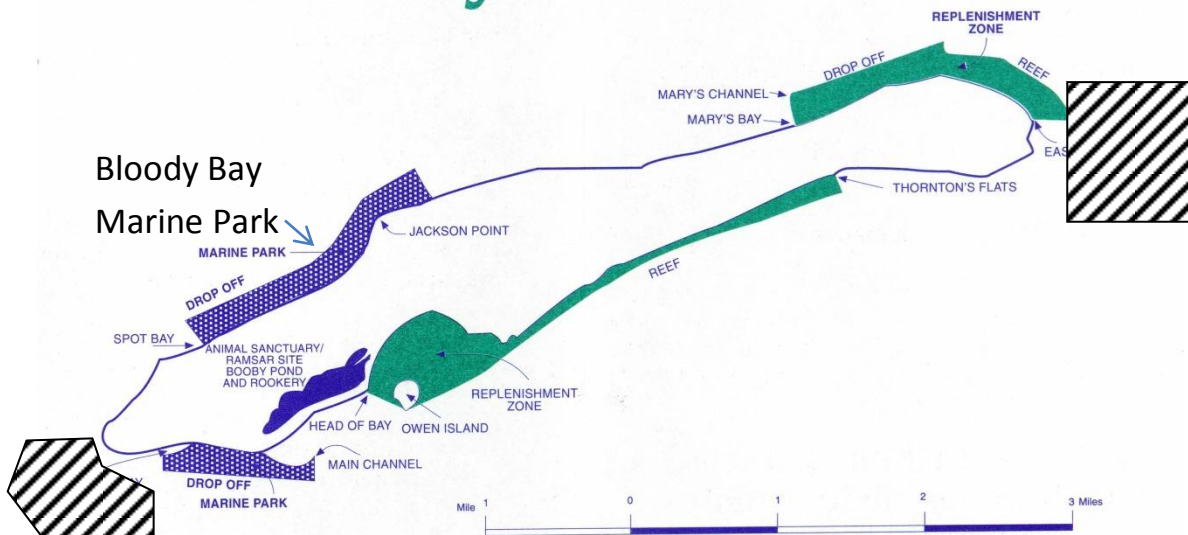


Figure 2, Sea Surface Temperatures at Little Cayman from OISST v2 (black line), *in-situ* data from the CREWS station (green), and temperature loggers in Bloody Bay Marine Park (blue). The horizontal dashed line indicates the maximum monthly mean (29.5 °C), the warmest temperature from the monthly climatology at Little Cayman. DHWs start to accumulate above this value (shaded red). (van Hooideonk et al., in review)

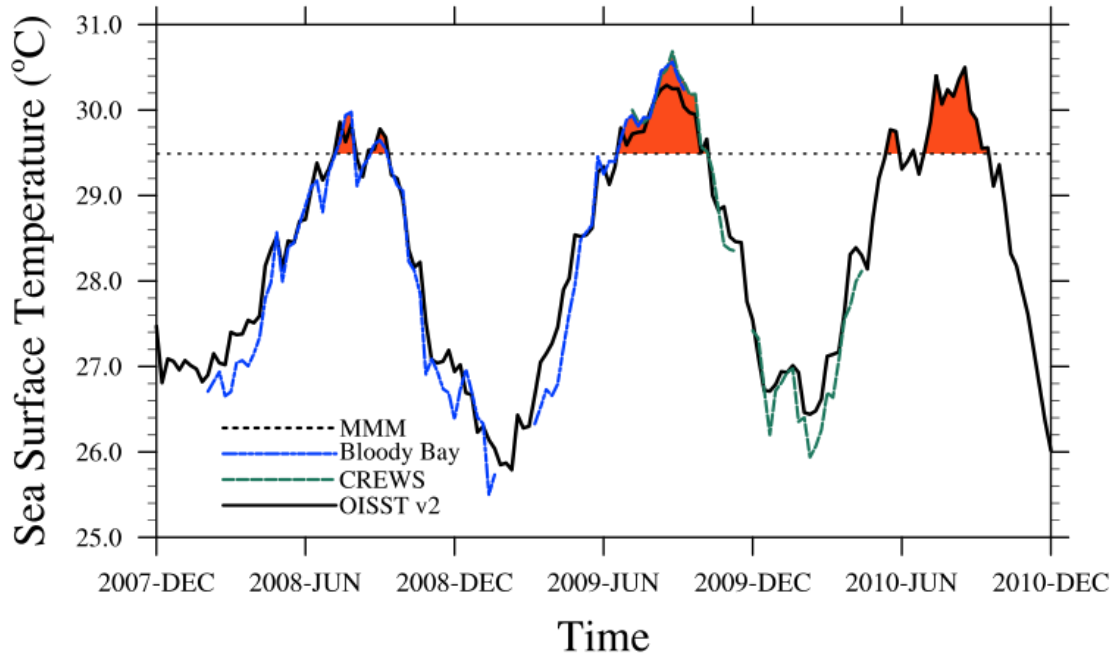


Figure 3, Maximum Degree Heating Weeks (DHW) per year for the period 1982-2010 calculated from OISST v2 data at Little Cayman. The horizontal line represents the optimal bleaching threshold of 4.2 DHWs. DHWs above this threshold are red, indicating that bleaching is predicted, whereas below this threshold the bars are colored blue and no bleaching is projected. (van Hooijdonk et al., in review)

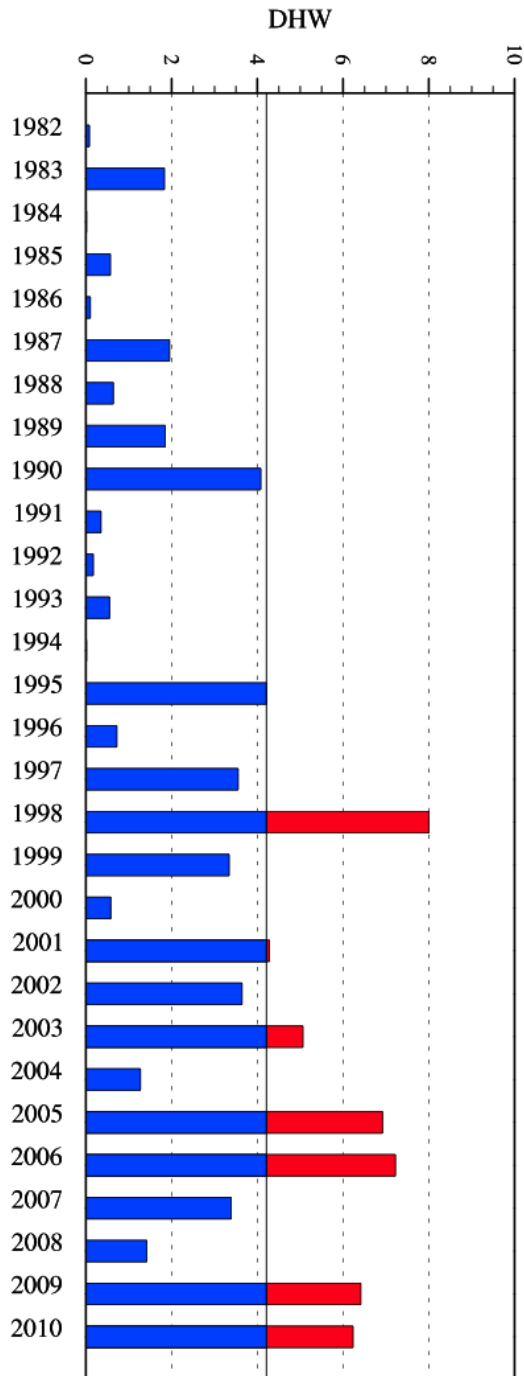


Figure 4. Graph showing the decline and recovery of the shallow coral community at Little Cayman. Between 1999 – 2004 the relative coral cover declined by 40 %. From 2009 – 2011 the average coral cover has almost increased to the 1999 levels. Mean coral cover ranges from 20 – 40% on the shallow reefs (Manfrino et al, in prep).

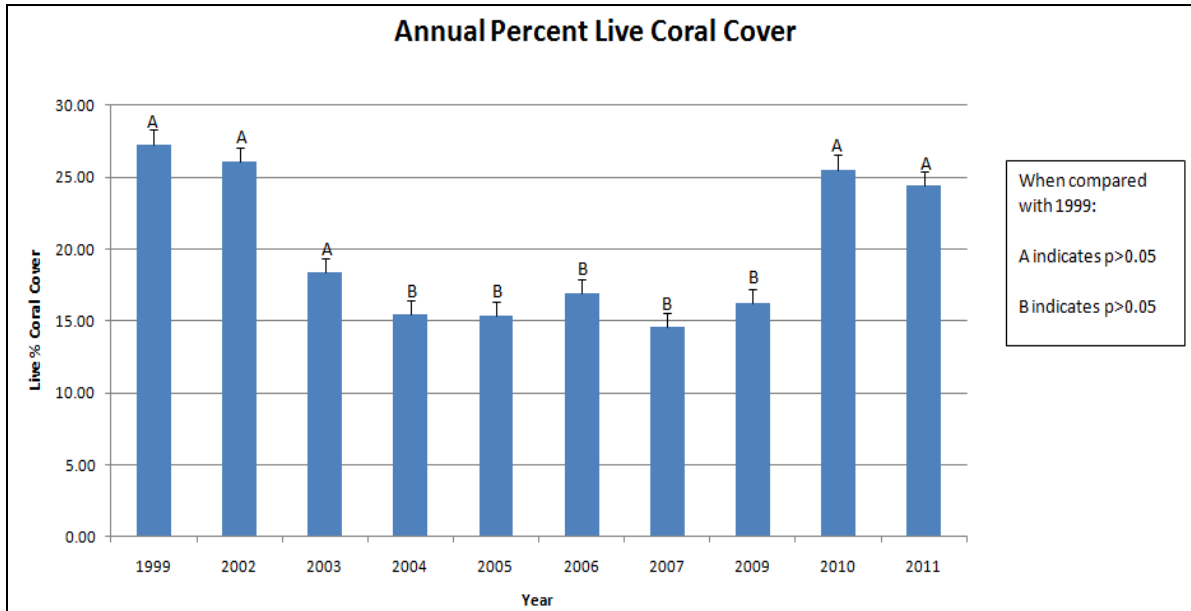


Table 1. List of hard coral genera and species found in Little Cayman during this study. Except for Millepora and Stylaster, which are hydrocorals (class Hydrozoa), all other coral genera are scleractinian (class Anthozoa, order Scleractinia) (from Coelho and Manfrino 2007)

| <i>Genus</i> | <i>Species</i> |
|--------------------------------|--|
| <i>Acropora</i> | <i>A. cervicornis</i> <i>A. palmata</i> |
| <i>Agaricia</i> | <i>A. agaricites</i> <i>A. fragilis</i> <i>A. tenuifolia</i> |
| <i>Colpophyllia</i> | <i>C. natans</i> |
| <i>Dendrogyra</i> | <i>D. cylindras</i> |
| <i>Dichocoenia</i> | <i>D. stokesii</i> |
| <i>Diploria</i> | <i>D. labyrinthiformes</i> <i>D. strigosa</i> <i>D. clivosa</i> |
| <i>Eusmilia</i> | <i>E. fastigiata</i> |
| <i>Favia</i> | <i>F. fragum</i> |
| <i>Helioceris (Leptoseris)</i> | <i>H. cucullata</i> |
| <i>Isophyllia</i> | <i>I. sinuosa</i> |
| <i>Madracis</i> | <i>M. mirabilis</i> |
| <i>Manicina</i> | <i>M. areolata</i> |
| <i>Meandrina</i> | <i>M. meandrites</i> |
| <i>Millepora</i> | <i>M. alcicornis</i> <i>M. complanata</i> |
| <i>Montastraea</i> | <i>M. annularis</i> <i>M. cavernosa</i> <i>M. faveolata</i> <i>M. franksi</i> |
| <i>Mussa</i> | <i>M. angulosa</i> |
| <i>Mycetophyllia</i> | <i>M. ferox</i> <i>M. lamarckiana</i> <i>M. reesi</i> |
| <i>Porites</i> | <i>P. astreoides</i> <i>P. divaricata</i> <i>P. furcata</i> <i>P. porites</i> |
| <i>Siderastrea</i> | <i>S. radians</i> <i>S. siderea</i> |
| <i>Solenastrea</i> | <i>S. bournoni</i> |
| <i>Stephanocoenia</i> | <i>S. mechelini</i> |
| <i>Stylaster</i> | <i>S. roseus</i> |