

Figure F1. Coccolithophore assemblages along the transect across the Indian Ocean between Darwin and the Maldives. A. Absolute abundances (1000 cells/L) of the coccolithophore species as counted by light microscopy. Some categories in Table T1 are combined here; in particular the Others category includes all holococcoliths and *Syracosphaera* species. B. Same data as A, plotted as percentage abundances. C. Map of the Indian Ocean showing sampling localities.

Figure F2. Coccolithophore assemblages sampled within the Maldives during drilling. A. Absolute abundances (1000 cells/L) of the coccolithophore species as counted by light microscopy. Some categories in Table T1 are combined here; in particular the Others category includes all holococcoliths and *Syracosphaera* species. B. Same data as A, plotted as percentage abundances. C. Location map.

Figure F3. SEM images of common coccolithophores from samples collected within the Maldives. A. *Gephyrocapsa oceanica* (Sample Plkt-29). B. *Emiliania huxleyi* Type A (sensu Young and Westbroek, 1991) (Sample Plkt-26). C. *Umbellosphaera tenuis* Type I (sensu Kleijne, 1993) (Sample Plkt-41). D. *Umbellosphaera irregularis* (Sample Plkt-38). E. *Poricalyptra magnaghii* (Sample Plkt-38). F. *Helicosphaera hyalina* (Sample Plkt-38). G. *Syracosphaera exigua* (Sample Plkt-28). H. *Syracosphaera prolongata* (Sample Plkt-38). I. *Ceratolithus cristatus*-ceratolith stage, plain view (Sample Plkt-26). J. *Ceratolithus cristatus*-ceratolith stage, side view (Sample Plkt-32). K. *Ceratolithus cristatus*-heterococcolith stage (Sample Plkt-41).

Figure F4. SEM images of common coccolithophores from the transect across the Indian Ocean. A. *Rhabdosphaera clavigera* var. *stylifera* (Sample Plkt-01). B. *Gephyrocapsa oceanica* (Sample Plkt-10). C. *Umbellosphaera irregularis* (Sample Plkt-01). D. *Umbilicosphaera hultburtiana* (Sample Plkt-10). E. *Oolithotus antillarum* (Sample Plkt-07). F. *Emiliania huxleyi* Type C (sensu Young and Westbroek, 1991) (Sample Plkt-03). G. *Michaelsarsia adriatica* (Sample Plkt-09).