New encyclopedia reveals reef secrets

IT weighs as much as a baby but a locally compiled encyclopedia contains a body of work based on years of experience.

James Cook University professor David Hopley has produced an earth science encyclopedia on coral reefs in what is likely the most comprehensive record of work carried out in the area since Charles Darwin first attempted to understand reef evolution.

The 4kg compilation took three years of full-time work with 154 contributors.

The publication, titled *Encyclopedia of Modern Coral Reefs: Structure, Form and Process* covers a wide range of topics, including biological, chemical and physical processes, exploration and the history of geoscientific studies, theories of reef growth, reef classification, reef islands, climate change and descriptions of the major reef areas.

Professor Hopley said coral reefs were the largest landforms built by plants and animals and their study incorporated a wide range of disciplines. “This encyclopedia approaches coral reefs from an earth science perspective, concentrating especially on modern reefs,” he said. “Currently coral reefs are under high stress, most prominently from climate change with changes to water temperature, sea level and ocean acidification particularly damaging.

“Modern reefs have evolved through the massive environmental changes of the recent glacial epochs with long periods of exposure during glacially lowered sea level times and short periods of interglacial growth.”

The encyclopedia is expected to be used extensively by reef researchers, graduate students and reef managers.

Alexis Gillham
Encyclopedia of Modern Coral Reefs
Structure, Form and Process
Hopley, D. (Ed.)
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