

2. PREVIOUS WORK

Descriptive zonation schemes have been devised for the GBR and for other reef systems of the world. Following work on atolls in the Marshall Islands, Ladd (1950), Wells (1957) and Tracey et al. (1948), developed descriptive zonation schemes for reef study. Similarly, Picard (1967) generated a general scheme of classification based mainly on work at Tuléar. For the GBR, a major advance in knowledge on geomorphological zonation was Maxwell's reef framework of 1968 (Maxwell, 1968). Maxwell attempted to cover all types of reefs. Consequently the categorisation level is too general for the needs of the BRIAN project and other detailed studies by GBR scientists today. Weick (1979) explains, 'if you try to secure any two of the virtues of generality, accuracy and simplicity, you automatically sacrifice the third one'.

A survey of the literature indicates that an ineffective communication exists between scientists since geomorphological zones and coral reef features are labelled inconsistently. For example, a dissensus on terms and a false consensus on meaning is evident in the use of the term 'reef block'. In 1814, Flinders used the terms 'negro head' and 'niggerhead' to label a feature which is currently labelled 'reef block'. By 1930, Spender had observed an inconsistency in its use: 'It is used to describe isolated rounded living coral colonies as well as reef top features' (Spender, 1930). Today, multiple labels for this 'reef top feature' or 'reef block' are still evident (for example, 'coral heads', 'bommies'). Flood and Scoffin in a 1978 publication state 'each boulder is normally one massive coral colony which formerly grew on the leeward flanks of the reef in shallow water as coral heads or 'bommies'' (Flood and Scoffin, 1978).

The survey also showed a difference between actual and perceived agreements on coral reef term usage. An example is given in a statement by Stoddart, McLean and Hopley (1978): 'Some of these old shingle ridges are misleadingly called dunes in the older literature'.

Actual and perceived agreements receive further detailed comment in Kuchler's Phd thesis, "Geomorphological separability, Landsat MSS and aerial photographic data: Heron Island Reef, Great Barrier Reef, Australia", (1984).

In relation to reef zonation, Taylor argues that 'diversity of life on coral reefs has tended to obscure the relations to a universal zonation scheme and make the analysis of various zonal communities more complex' (Taylor, 1968). This paper argues that it is possible to define zones using geomorphological properties of coral reefs, but that the nomenclature needs to be standardised, accepted and adopted by scientists to allow for the comparison and analysis of reefs.

All literature used in the formulation of the nomenclature proposed here is recorded in the references of this volume.