

Preface

In late January of 1994, cyclone Sadie brought intense rainfall to north Queensland catchments, the first significant monsoonal event since 1991. Several organisations responded, by monitoring the composition and fate of these riverine waters as they flowed through catchments and into nearshore marine waters of the Great Barrier Reef lagoon.

The Great Barrier Reef Marine Park Authority (GBRMPA) convened a workshop on cyclone Sadie on the 10 November 1994 in Townsville, Australia, with a view to:

- Presenting research findings on the composition and fate of the flood waters;
- Assessing the likely consequences of this event on coastal catchments and nearshore benthic and nektonic communities;
- Assessing factors governing magnitude and spatial extent of flood plumes;
- Quantifying the significance of flood plumes as new inputs of sediments and nutrients to the Great Barrier Reef lagoon; and
- Discussing methods of better integrating future efforts to monitor significant flood events.

The eight papers in this proceedings contribute to a growing database on the significance of monsoonal events to marine ecosystems. The increased nutrients, sediment and organic loads that can result from these monsoonal events are often far in excess of base-flow conditions, and can profoundly alter the structure and tropho-dynamic flow of the benthic communities they impinge upon. Comprehending their significance is essential in assessing the potential impact of other natural and anthropogenically induced phenomena.

Current efforts to retrospectively model past monsoonal events, and to predict the likely consequences of future events, rely on continued ground truthing of these events. This workshop, and other more recent meetings, have greatly improved our ability to respond rapidly, and in a coordinated fashion to future monsoonal events.

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