Introduction

The once-ubiquitous long-spined sea urchin *Diadema antillarum* suffered a Caribbean-wide mortality in 1983-84 and a second mortality in the Florida Keys beginning in April 1991 (Forcucci 1994). The demise of this important reef herbivore is considered one of several factors responsible for coral reef change in the Florida Keys. However, published studies on *Diadema* density and/or size in the Florida Keys prior to 1983 are limited to just a few studies (e.g. Randall et al. 1964, Bauer 1980).

Urchin Surveys at Middle Sambo, 1972

Benthic surveys at nine reefs in the lower Keys were conducted during 1970-72. Quadrat counts of *Diadema* at Middle Sambo during July 1972 were made on the spur top (1.6-2 m, 30 m²), spur side (4-4.6 m, 28 m²), and sand groove (4.5-5 m, 25 m²).

Results and Conclusions

Kissling recorded *Diadema* densities as high as 6 individuals per m² in 1972. By the early 1990s, densities at the same reef were one-tenth this level, but apparently recovering from the 1983 mortality event before a second mortality event in April 1991. By 1992, *D. antillarum* densities were two orders of magnitude lower and remained so through 2009, although maximum sizes are increasing.

Acknowledgments


References

Randall et al. (1964) Carib J Sci 4: 421-433