

Marine environments of the Gold Coast: out with the old, in with the new

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Introduction

The marine environments of the Gold Coast comprise one of the most highly modified and heavily utilised waterways in Australia. Chapters 2 and 3 discussed changes in the historic land use patterns. Just what has this meant to the marine environments of the Gold Coast? In this chapter the contemporary marine habitats of the Gold Coast are described, along with the fauna that those habitats support. We talk about how the current status of the habitats compares with various historical points in time, and the role of novel habitats. Given the importance of recreational fishing to both tourists to and residents of the Gold Coast, knowledge of the condition and trends of marine habitats is of significance.

Overview of significant changes

The Gold Coast marine environments are affected by a suite of impacts that are common to coastal cities. This includes reclamation of saltmarsh, mangroves and tidal flats, increased nutrients and pollutants from both point (e.g. sewage treatment discharge) and non-point sources (general run-off), hydrology and sedimentation and the general increase in human usage of waterways.

Change in the marine environment of the Gold Coast can be categorised as event-based (e.g. construction of the Gold Coast Seaway), with these events overlaid on continuous and cumulative impacts from urbanisation in general. A major feature that sets the Gold Coast apart was the creation of the Gold Coast Seaway and Wavebreak Island in the mid 1980s. This altered the tidal flow of the region. Then there was the large-scale creation of a series of residential canals that are most pronounced in the Nerang River, but that also occur in the Coomera River, Tallebudgera Creek and Currumbin Creek. This series of residential canals was modelled on the Florida region.

The Gold Coast Seaway

Prior to the creation of the Gold Coast Seaway, the Southport Bar was a highly mobile surf bar that varied significantly and unpredictably in depth, making navigation across it