

## **Implementing community based seagrass monitoring in the Wellesley Island Group.**

McKenna.S.A.<sup>1\*</sup>, M.A. Rasheed<sup>1</sup>, Taylor, H.A. <sup>1</sup> and T.L. Sankey<sup>1</sup>

<sup>1</sup>Northern Fisheries Centre Department of Primary Industries and Fisheries, Cairns QLD 4870

\*Skye.McKenna@dpi.qld.gov.au

A survey was commissioned in 2007 by the Carpentaria Land Council Aboriginal Corporation (CLCAC) and the North Australia Indigenous Land and Sea Management Alliance (NAILSMA) on behalf of the Traditional Owners of the Wellesley Island region who had raised concerns over unhealthy dugong and turtle reported from hunters. Traditional Owners felt that one possible cause of sick animals may have been as a result of seagrass dieback causing a shortage of food to the animals. To answer the concerns of the Traditional Owners, the Department of Primary Industries and Fisheries Marine Ecology Group was commissioned to survey the seagrass communities of the Wellesley Islands and to train Wellesley Islands Rangers on seagrass mapping techniques. This was the first time that seagrasses have been formally surveyed and mapped for 23 years in the Wellesley Islands. Seagrass communities were the dominant benthic habitat in intertidal and shallow subtidal areas with a high diversity (8 species) of coastal seagrass compared with other Gulf of Carpentaria locations. Evidence of heavy dugong feeding activity was observed on most intertidal seagrass meadows surveyed. The highest density of dugong feeding trails was observed in seagrass meadows dominated by *Halodule uninervis* (narrow leaf form) and/or *Halophila ovalis*. In addition, dugongs were regularly observed feeding in subtidal meadows from the helicopter during surveys. This survey was used to help fill gaps in knowledge and provide a baseline from which future monitoring could be conducted to identify research required to answer the uncertainties raised by the Traditional Owners, and to help with developing zoning plans for the management of their Sea Country.