

Reefs east of Ingham such as Bramble, Britomart and Rib Reefs are sampled depending on the location of daily fish concentrations. This area was selected as it is a major spawning ground on the North-East Coast.

## Torres Strait

Northern Torres Strait, generally Bramble Cay. This area has been chosen as it is a major spawning ground for mackerel stock from the Torres Strait and the Gulf of Carpentaria.

## Data Collection

### Intensive Monitoring

On-board or independent observers monitor the catch from as many commercial vessels as possible for 14 fishing days. The fish, as filleted frames, are measured, sexed, reproductive maturity is assessed and gonads are weighed. The otoliths are sampled to estimate the age composition of the fish at the time of the year when all age classes occur in north Queensland waters. Specific ovary stages are retained to estimate relative egg production by time of year and age class.

### Extensive Monitoring

Spanish mackerel are sampled by a number of commercial operators throughout the spawning season. Fish are measured, sexed and the reproductive state is assessed for females.

The LTMP data will be analysed in association with available commercial and recreational production data. Risk assessments for various fish management and resource allocation strategies may then be assessed.



*Weighing Spanish Mackerel catch*

**To obtain the biological information and fishery data required to detect resource changes in the two Spanish Mackerel in Queensland**



## Background

The Department of Primary Industries (DPI) manages the harvest of Queensland's fish, mollusc and crustaceans and the habitats they live in. Part of this responsibility is to monitor the condition of populations and to determine if changes are occurring over time. This information is used to assess the effectiveness of fisheries management strategies and contributes to ensuring that the fisheries are sustainable.

The Long Term Monitoring Program (LTMP) was established in 1999 to collect information about the status of fish stocks and key habitats and to monitor major fishery species over many years.

The information collected will be linked with existing data from previous DPI studies and will contribute to the development of stock assessment models that explain fishery changes and why changes occur in Queensland's fisheries resources.

Queensland Fisheries Service (QFS), part of DPI, manages the monitoring program. Teams based in Cairns and Mackay Bay collect the data from locations throughout the Torres Strait.

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**For further information** navigate to [www.dpi.qld.gov.au/fishweb](http://www.dpi.qld.gov.au/fishweb), or contact the DPI Call Centre on 13 25 23 8 am to 6 pm Monday to Friday in Queensland. Call (07) 3404 6999 from elsewhere in Australia.



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