



Yellowfin bream

Monitoring update

Biological monitoring

Fisheries Queensland monitors key commercial and recreational species such as yellowfin bream, by investigating the length, sex and age of fish caught by commercial and recreational fishers.

Fisheries Queensland uses this information to assess the status of the yellowfin bream stock to ensure the sustainability of the fishery and to evaluate the effectiveness of fisheries management strategies. Yellowfin bream are currently assessed as **sustainably fished**.

Length and age data have been collected routinely for yellowfin bream since 2007 between Baffle Creek (north of Bundaberg) and the QLD-NSW border. In Queensland, similar data were collected routinely for yellowfin bream in the mid 1990's, and during a number of other research projects investigating the basic biology of the species, which date back to the 1970's.

An interesting biological fact about yellowfin bream is that most fish change sex, from male to female, during their life. This is referred to as being "protandrous".

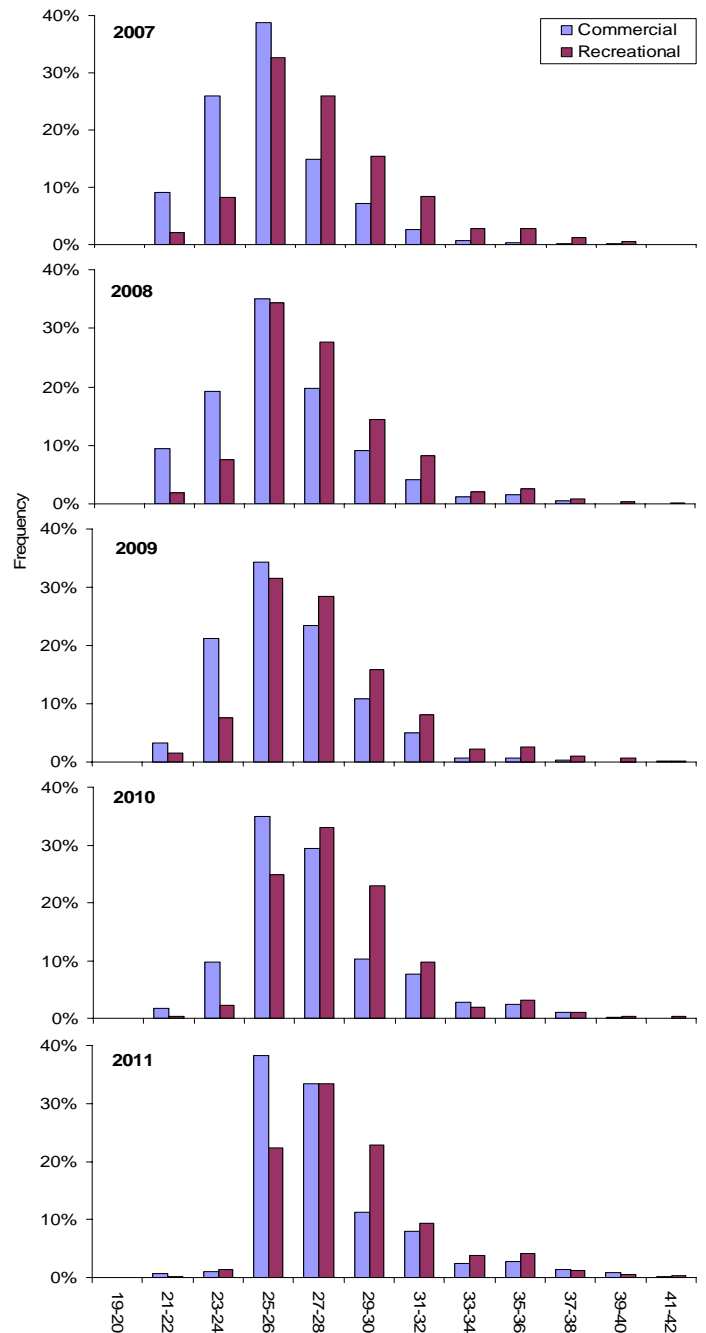
The monitoring program for collecting biological data relies on the voluntary participation of stakeholders, who allow scientific staff to measure fish and collect frames.

Fish size – Length

Overall, recreational and commercial fishing sectors harvest a similar length range of Yellowfin bream (23 cm to over 40 cm). Yellowfin bream greater than 27 cm make up a higher percentage of the recreational catch than the commercial catch (see graphs to the right).

In March 2010, the minimum legal size (MLS) of yellowfin bream was increased from 23 cm to 25 cm. The change in rules can be seen in the graphs (right) with the 23–24 cm length class greatly reduced, for both sectors when compared with the previous years' results. Yellowfin bream

are thought to become mature females at 22–24 cm total length, they mature as males when slightly smaller.



Length structure of harvested yellowfin bream (2007-2011) by sector, showing the relative abundance of fish caught within each length class.

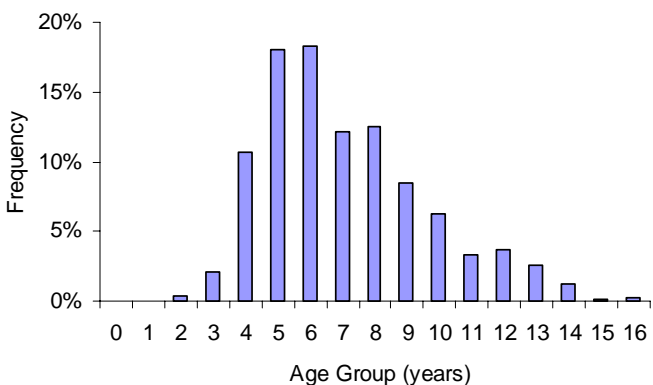
Fish Age

The age of most species of fish, including yellowfin bream, can be estimated by examining otoliths (ear bones). Each year 250–300 yellowfin bream otoliths are aged.

For yellowfin bream whole otoliths are examined using a microscope. Opaque bands are identified and counted, which gives an estimate of the fishes age, in years, as yellowfin bream produce one opaque band every twelve months.



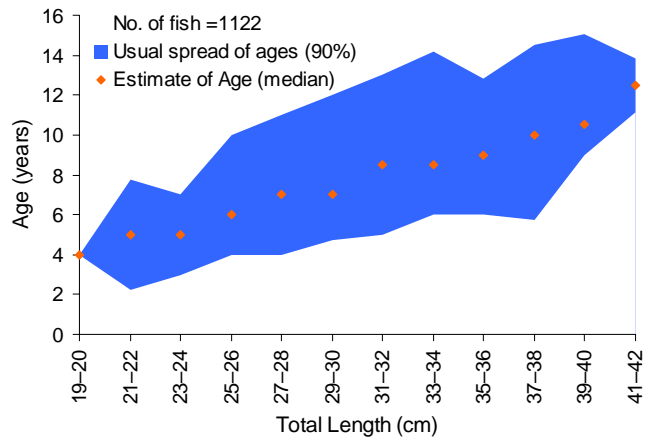
Six year old yellowfin bream comprise the most common age group harvested by the fishery. Overall, fish in the four to ten year old age groups account for the majority of the harvest (86%).



An example of an age distribution of yellowfin bream harvest (all sectors combined) for a single year (2009).

How old is your fish?

Measure the total length of your fish then estimate its age using the graph below. As is the case for many fish in the Sparid family, yellowfin bream have variable growth rates, so fish length is not a good predictor of exact age. For example a 30 cm yellowfin bream would likely be seven years of age, but it could quite likely be as young as four or as old as twelve.



Thank you to all the recreational and commercial fishers, as well as the seafood wholesalers and retailers who generously assisted with the monitoring program by retaining and donating fish frames or by allowing scientific staff to measure fish catches.

Want to find out more?

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