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SAND FLATHEAD – A "BREAD AND BUTTER" CATCH

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Sand flathead are the species most commonly caught by recreational fishers in Port Phillip Bay, making up about 60% of the total recreational catch by number. While they are not the most desired species, they are a "bread and butter" catch, providing an easy feed for boat anglers. In comparison, the commercial catch is only about 10% of the recreational catch.

During the 1990s, there were concerns that sand flathead numbers were in decline and that the average size of the fish had decreased. These concerns prompted a MAFRI scientists to examine the population dynamics of sand flathead in Port Phillip Bay.

To gain basic biological information, the age of many thousands of fish was determined by examining growth rings on their ear bones. These data has revealed that sand flathead live for a lot longer than previously thought. The maximum estimated age for sand flathead is 23 years old.

MAFRI scientists have also found that the growth of sand flathead is highly variable meaning that big fish are not necessary old fish. For example the study revealed that a 7 year old female fish could be anything between 22 and 37 cm long and a female fish, measuring 30 cm could be 3 years old or it could be 23 years old.

The size of sand flathead was also influenced by its sex. Female sand flathead, the study showed, are larger on average than male sand flathead. Average size of male and female flathead were 23 cm and 25 cm respectively. The minimum legal size limit for sand flathead is 25cm.

The study has shown that sand flathead are most common in the central basin of Port Phillip Bay, in waters with at least 17 m depth and become less abundant in shallower areas. Large female sand flathead, the study revealed, are most abundant in the shallower areas, while smaller male and female sand flathead are most common in the deeper regions of the bay.

Annual trawl surveys conducted by MAFRI have also revealed interesting patterns in the biology of sand flathead. Recruitment of sand flathead within Port Phillip Bay appears to be highly variable from year to year. Fish abundance can vary by as much 200% between years depending on the success of recruitment in previous years. MAFRI scientists found that recruitment is highly correlated with environmental variables such as river discharge and long-term climate fluctuations predicted by the southern oscillation index, influences recruitment success and are collecting data to validate this theory.

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For more information about sand flathead research, contact Matt Koopman at MAFRI on 52580342.