

GREAT CORMORANT AND BLACK BREAM IN THE GIPPSLAND LAKES

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The population of Great Cormorants around the Gippsland Lakes has fluctuated between 200 and 7,800 birds over the last 10 years. In 1992, an influx of these birds into the lakes led to concerns about the effect of their fish eating habits on the recreational and commercial fisheries. The Gippsland Lakes support the most important black bream commercial and recreational fishery in Victoria, and therefore in years when the numbers of cormorants are high, some fishers have called for their culling or dispersal. This, however, is not an option as the Great Cormorant is a protected wildlife species in Victoria. Scientists therefore set out in 1998 to determine just what effect the cormorants were having on fish populations in the lakes.

The study used aerial surveys and roost counts to estimate the number of Great Cormorants living around the lakes. The diet of the Great Cormorant was then determined by analysing the contents of the pellets regurgitated by the birds. From the size, number and shape of the otoliths or fish ear bones found in the pellets, it was possible to determine the length, weight, number and species of fish consumed by the cormorants.

The study clearly showed that Great Cormorants are capable of consuming large quantities of fish when their population is large. Eleven different fish species were identified in the pellets with a high proportion of the pellets only containing small black bream otoliths from fish less than 26cm in length. Scientists were able to estimate that the total fish consumption of all fish species by Great Cormorants in 1998 was about 261-531 tonnes, of which almost two thirds was black bream. For black bream, yellow eyed mullet and luderick the weight of fish consumed by cormorants may have been similar to the weight of the combined commercial and recreational catches.

This study highlighted the importance of gaining an understanding of the complex interactions that occur between fish and other wildlife species when managing fisheries. It is now clear that in years when predation by cormorants is high, it may greatly reduce the abundance of juvenile black bream before they reach the legal minimum length for the fisheries. By keeping a close eye on the cormorant populations around the Gippsland Lakes, fisheries scientists will be better able to forecast the abundance of black bream for the recreational and commercial fisheries.