Black bream show signs of recovery following fish kill

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Murdoch research assistant James Keleher with a 43 cm black bream caught and released in the Vasse Wonnerup. Credit: Dr James Tweedley

A popular recreational fish species in the Vasse-Wonnerup estuary is showing signs of recovering from a major fish kill event three years ago.

Murdoch University researchers have been monitoring the black bream population in the estuary since early 2012 and have found substantial numbers of juveniles in the waterway for the first time since the fish kill.

Dr James Tweedley, from the School of Veterinary and Life Sciences, said scientists had found little evidence of juvenile black bream in the 18 months covering two breeding seasons following the fish deaths in Easter 2013. He believes the results of the surveys in November 2015 and

February 2016 were 'encouraging'.

"Despite being tough fish, black bream populations are particularly vulnerable to fish kill events like the one seen in the Vasse-Wonnerup in 2013 because they spawn and live within the estuary throughout their life span," he said.

"This characteristic means that, unlike other species like mullets, depleted black bream populations cannot be replenished from fish in the marine environment or from other estuaries.

"It's not clear why we found very little evidence of successful breeding in the two years following the fish kill, so it's important that monitoring continues to help us understand the factors which influence black bream reproduction. This will help us to ensure a viable population of this iconic recreational fish in the Vasse-Wonnerup for many years to come."

Dr Tweedley said the Vasse-Wonnerup was likely to continue to come under environmental pressure because the estuary and its catchment had been highly modified and suffered from years of excess nutrients. The recent formation of the Vasse Taskforce provided a chance to improve the system and preserve its important ecological and social values, he added.

Dr Tweedley and co-researchers Dr Alan Cottingham and Dr Stephen Beatty, also recorded numbers of larger black bream in the deeper waters of the estuary, finding that catch rates remained at the levels recorded immediately after the fish kill.

"This is unsurprising, given the lack of successful breeding in the estuary in recent years," said Dr Tweedley. "We hope the juveniles recorded in the shallow waters during our study survive for the next few years to breed successfully and help continue the recovery."

Provided by Murdoch University