

Survey set to prove northern fish disease-free

March 5 2014, by Hamish Hastie



Prof Lymbery says the study will give some insight into northern freshwater fish populations. Credit: David Gardiner

A joint study about to begin will determine whether populations of freshwater catfish in the country's tropical and sub-tropical regions are free of the *Edwardsiella ictaluri* bacterium.

The [bacterium](#) can cause 'Enteric Septicemia of Catfish' and is potentially deadly to populations of [freshwater fish](#) in northern Australia.

Affected fish appear disorientated and can chase their tails.

Murdoch University's Alan Lymbery says the study will investigate high risk localities in the Kimberley, Northern Territory and northern Queensland and was prompted by reports of the bacterium in imported fish and aquarium facilities.

"As far as we know through passive surveillance it's not in wild populations, but there hasn't been an active survey at all—if it's here we think it would have come in with imported ornamental aquarium fish," Professor Lymbery says.

"The survey is a targeted design which is looking at high risk populations or high risk localities for the bacterium.

"We're looking at rivers which have major population centres on them and we're targeting our particular sites around major towns or immediately downstream from major towns."

Prof Lymbery says the survey for the study was designed in collaboration with an epidemiologist who specialises in the demonstration of disease freedom.

"We use a bacterial test first ... if it looks like we've got the bacterium then we'll go back and we'll do some DNA testing of that fish," he says.

"Given some assumptions, if we do not find the bacteria in around 20 fish from a number of [high risk](#) sites across northern Australia then we can be confident that native fishes are disease free."

Prof Lymbery says the study will give some insight into northern freshwater fish populations.

"The disease caused by the bacterium can be quite severe in fish populations and can be devastating to aquaculture," he says.

"The bacterium can have a quite high mortality and it can kill the fish rapidly.

"There is a big ornamental fish trade over the world ... so it has some

economic importance for Australia to be disease free.

"Australia has also got a very unique freshwater fish fauna, if there is anything we can do to keep exotic diseases out of our natural water ways it's going to help with the conservation of our freshwater fish fauna."

Prof Lymbery says he hopes the study will also raise awareness of the disease so fishers or [fish](#) owners can report it if they see it.

The surveys are expected to be completed by the end of the year.

Provided by Science Network WA

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