

# National surveillance program for white spot syndrome virus – summary of results

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# Key points

- A national surveillance program for white spot syndrome virus (WSSV), causing white spot disease, was initiated in 2017 following the detection of the virus in south-east Queensland in late 2016.
- The program has included surveillance of wild prawn populations and farmed prawns from around Australia.
- Despite comprehensive surveillance, WSSV has not been detected anywhere in Australia outside of the Movement Restriction Area (MRA) in south-east Queensland where WSSV has been detected previously.
- More than 50,000 crustaceans were sampled from areas outside of the MRA and all tested negative for WSSV. The data provides strong evidence that WSSV does not occur in Australia outside of the south-east Queensland MRA.
- Completion of the national surveillance program was possible due to collaboration among the Australian, state and Northern Territory governments, and the prawn farming and fishing industries around Australia.
- It is important that everyone continue to play their part to protect Australia's aquatic environments and industries from the spread of this disease. Any suspected signs of disease should be reported immediately to state or territory government authorities.

# Context

WSSV was first detected on a prawn farm in the Logan River area of south-east Queensland in November 2016. The virus was later eradicated from seven affected prawn farms in the area. WSSV was also found in wild crustaceans in Moreton Bay in March 2017. A movement restriction area (MRA) in south-east Queensland was put in place to prevent the spread of the virus by restricting movement of high-risk animals (e.g. uncooked prawns).

### What did we want to know?

The surveillance program aimed to gather surveillance data that would allow Australia to demonstrate national freedom from WSSV (if eradication of the virus were successful) or zone freedom for all areas of Australia outside of the affected area (if WSSV persisted in south-east Queensland).

# What did we do?

The national surveillance program was developed based on the international standards set out by the World Organisation for Animal Health (OIE) for demonstrating disease freedom following an outbreak.

Populations of wild crustaceans were chosen for sampling by considering factors that might increase the likelihood of WSSV being introduced and establishing, and which would increase the chance of detection if the virus were in fact present. Using this approach, sampling sites from all around Australia were identified. Additional data were collected from the testing of wild caught prawns that are collected for use as broodstock by prawn farms.

Surveillance also occurred on prawn farms across Australia. WSSV is highly likely to be detected if it occurs on prawn farms because it causes disease and rapid mortalities in farmed prawns.

In addition to surveillance outside of the MRA, the Queensland Department of Agriculture and Fisheries (QDAF) conducted regular surveillance across 55 sampling sites in Moreton Bay to determine if WSSV would persist following its initial detection in wild populations in early 2017.

All State, Northern Territory and Australian governments developed and participated in the program. Surveillance occurred from 2017 to 2020.

## What did we find out?

Over 100,000 crustacean samples were tested as part of the surveillance program. Key findings of the surveillance program include:

#### WSSV does not occur outside of the south-east Queensland MRA

There is strong evidence that WSSV does not occur in farmed or wild crustaceans in Australia in any areas outside the south-east Queensland MRA, including negative results from:

- testing of more than 21,000 wild crustaceans from a total of 59 sites from around Australia
- testing of more than 27,000 wild caught broodstock and post larvae prior to stocking of farms
- testing of more than 5,700 prawns sampled from northern Queensland prawn farms
- passive surveillance on all prawn farms in Australia.

#### WSSV continues to be detected at low levels within the south-east Queensland MRA

Surveillance of wild crustaceans within Moreton Bay has included testing of more than 30,000 crustaceans sampled from 55 sites. Details of this surveillance are provided on the QDAF website (www.daf.qld.gov.au/) and key findings include:

- WSSV was detected in northern Moreton Bay in early 2020, after not being detected there for almost 2 years
- WSSV was also detected on two farms in the Logan River area in early 2020 for the first time since the disease was eradicated from Logan River farms in 2017
- genetic analysis indicates that the WSSV strain detected in 2020 is the same as the one involved in the original outbreak in 2016/2017.

### What will happen next?

All State, Northern Territory and Australian governments have agreed on the ongoing surveillance needed to maintain confidence that WSSV remains contained to the south-east Queensland MRA. The approach has been developed considering the surveillance conducted to date and the international standards of the OIE.

For more information, please contact: Aquatic Pest and Health Policy Section, Department of Agriculture, Water and the Environment (<u>aah@awe.gov.au</u>)