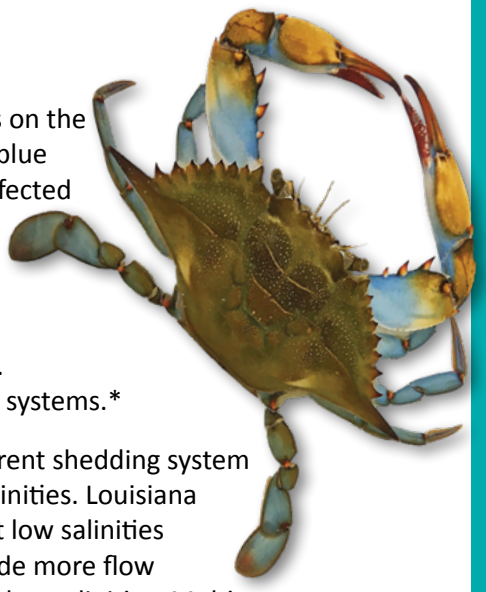
Blue Crab Shedding

CsRV1 in Blue Crab Shedding



Callinectes sapidus reovirus 1 (CsRV1) is found in blue crabs on the Atlantic and Gulf coasts. This virus is only transmissible among blue crabs and is not transmitted to humans or other crabs. Crabs infected with CsRV1 experience tremors, paralysis and death within three days to three weeks.

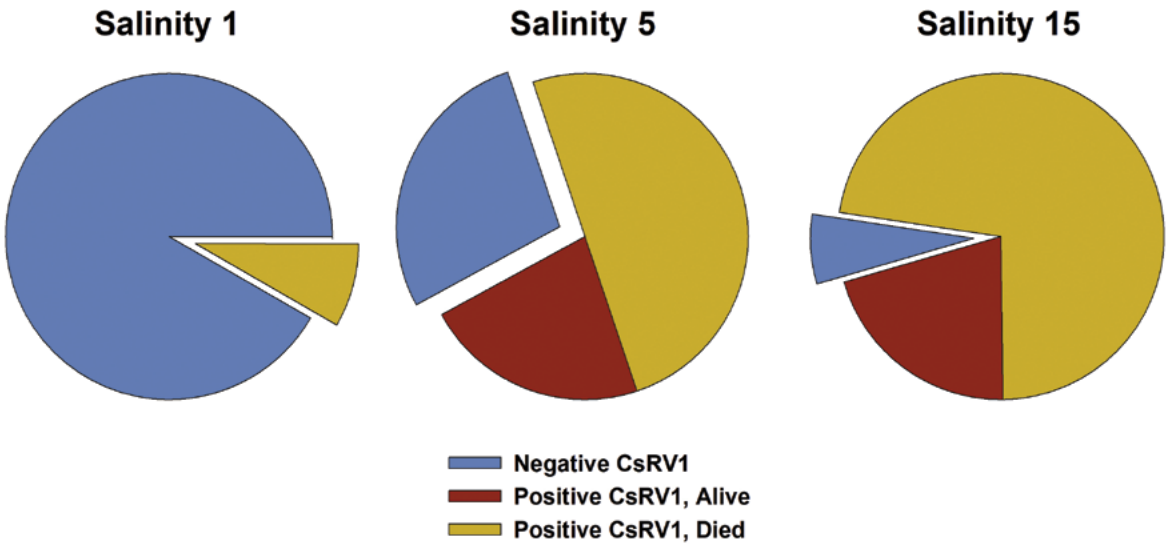
Previous research has shown that crab mortality by CsRV1 in soft shell systems differs by state.

- Louisiana: 22 percent crab mortality in shedding systems.
- Maryland/Virginia: 75 percent crab mortality in shedding systems.*

Differences in crab mortality may be due to the use of different shedding system designs (flow through systems vs. recirculating systems) and salinities. Louisiana shedding systems are primarily recirculating systems that run at low salinities (less than 5 ppt). Maryland and Virginia shedding systems include more flow through system designs that vary in water quality and run at higher salinities. Molting is already stressful, and changes in water temperature and quality in flow through systems can add to the stress.

Louisiana Sea Grant and LSU AgCenter tested the impact of salinity on the spread of CsRV1 through recirculating shedding systems and crab mortality.

- CsRV1 spread among crabs through the water.
- Spread of the virus was higher in high salinity treatments (15 ppt) than low salinity treatments (1 ppt).
- Mortality due to CsRV1 was greater at high salinity (15 ppt) than low salinity (1 ppt).



*Investigating risk factors for mortality and reovirus infection in aquaculture production of soft-shell blue crabs (*Callinectes sapidus*) MI Spitznagel, HJ Small, JA Lively, JD Shields, EJ Schott. Aquaculture 502, 289-295

Reducing the amount of time your crabs spend in your shedding systems may reduce the spread of the virus and mortality. Shedders should focus on stocking their systems with red line crabs and minimize the use of white line crabs.

To reduce the spread of the virus throughout the environment and in your shedding system:

- Remove crabs that appear sick from shedding systems as soon as possible.
- Discard dead crabs on the land. To prevent spreading the virus, do not discard crabs into the waterbody that you are using as your water.
- If using a flow through system, a disease outbreak could spread into your water-body from your shedding system or vice versa.
- Avoid shedding crabs during high mortality, summer months. See factsheet on "Mortality During Summer Months" for more information.
- Report large scale mortality events in your shedding systems to Louisiana Sea Grant.

www.laseagrant.org/outreach/projects/soft-shell-crab/

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