

Crab's strategy against air-exposure stress during no-water transportation

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Abstract:

The mud crab *Scylla paramamosain* is a commercially important marine species widely farmed in the Asian region especially in China South-East coastal areas. To lower the transportation expenses after capture, a no-water transportation method has been used in practice. However, this method might cause hypoxia to crabs which could lead to a high morbidity and mortality. In this research, we studied physical, biochemical, transcriptome and gene level change of mud crab after air-exposure stress and found that mitochondrial apoptosis pathway plays major role in controlling cell death against air-exposure stress. This research paved a way to get a better understanding for the aquatic animals' response mechanism under no-water transportation method.

Study on growth retardation in the giant freshwater prawn, *Macrobrachium rosenbergii*

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Abstract:

The giant freshwater prawn (GFP) is an important inland aquaculture species in China. However, in recent years, GFP aquaculture in China has been facing a serious problem with many prawns showing growth retardation. This study investigated growth retardation from two aspects, including the molecular regulation of growth and pathogen infection. Results showed that insulin-like peptide signaling pathway, *Enterobacter cloacae* infection, and *Crustaflavivirus infeprecoquis* infection might influence growth in GFP.