

# An automatic notification system for the detection of soft-shelled black crab molting through image processing.



## Issues and resolutions



"The solidification of a new shell"

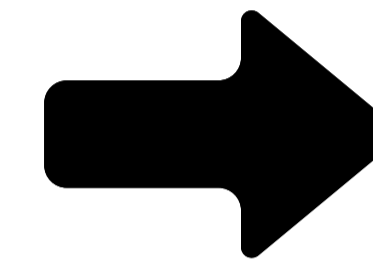
**That occurred rapidly.**

**Creating challenges for farmers in the production of soft-shell crabs**

Consequently, a system was developed to address the issue.



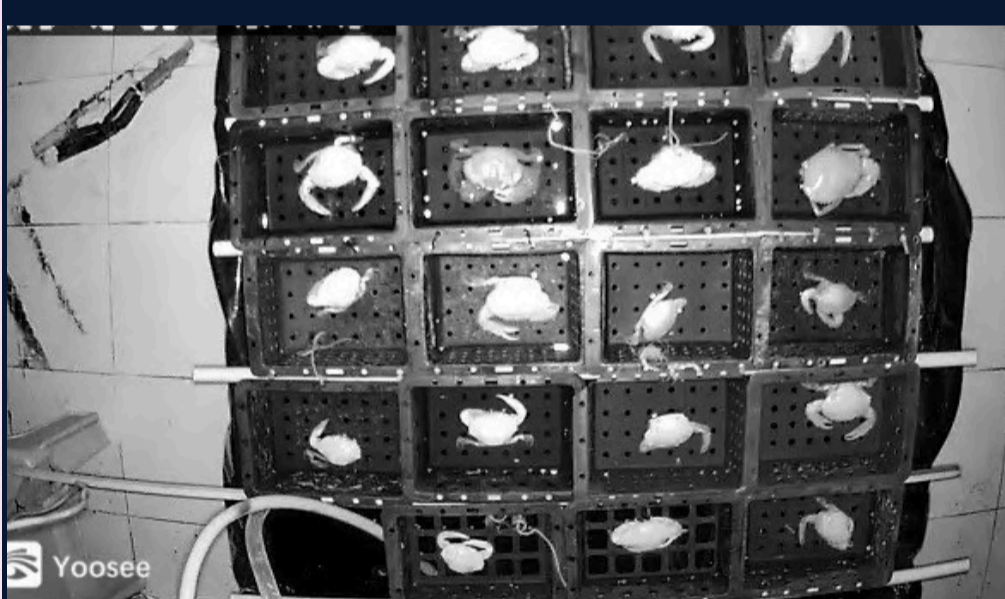
OLD



OUR

## STEP 1

Retrieve images using RTSP



camera

Transmit information

Internet infrastructure

Transmit information

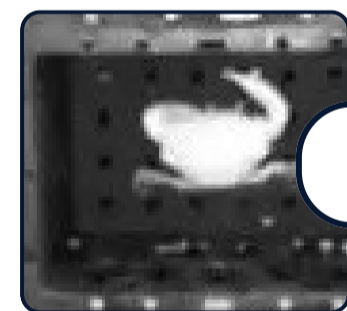
RTSP

REAL-TIME STREAMING PROTOCOL

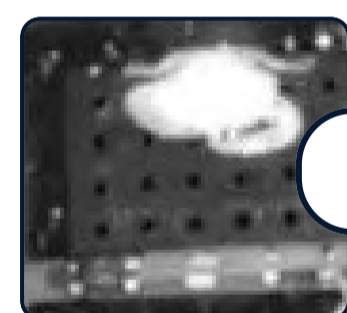
## STEP 2

Individual Box Handling

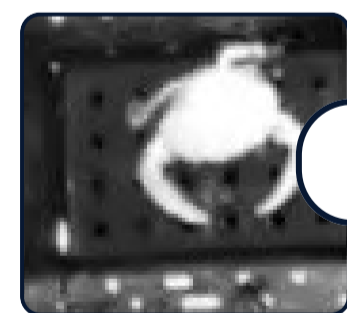
Label every box.  
Before analyzing the molting



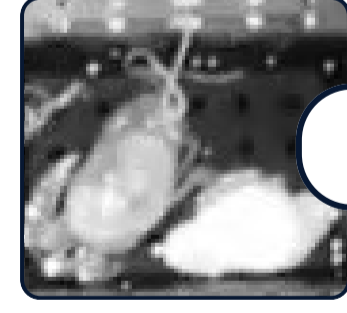
Number 3



Number 5



Number 8

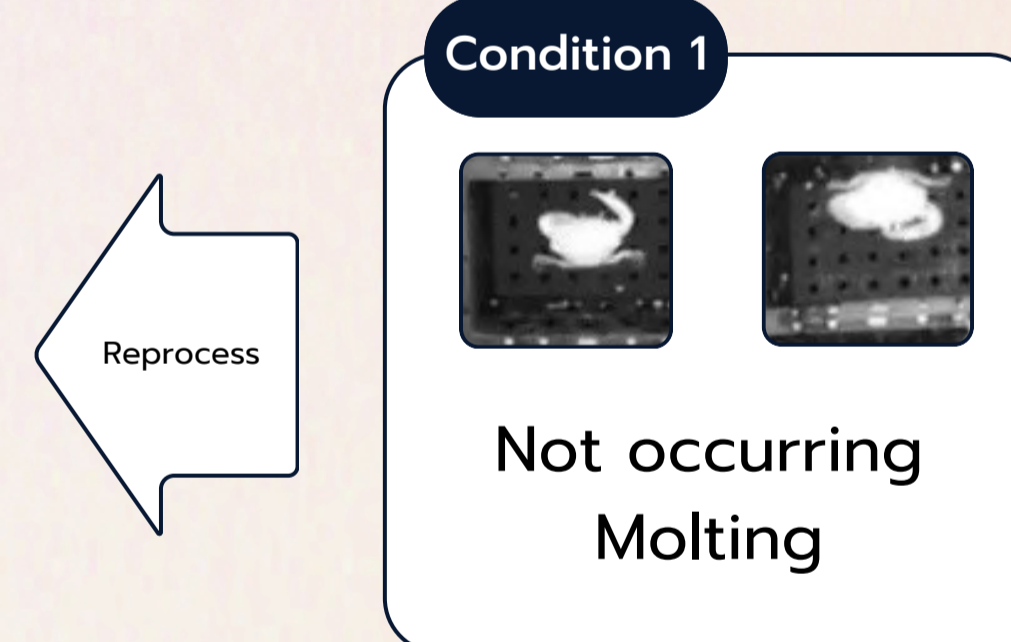


Number 10

## STEP 3

Examine for molting

Establish circumstances  
To examine for molting



## STEP 4

Notification through Line



Frequency of cultivation	Number of crabs in farming	Number of crabs undergoing molting	Number of molting crabs observed	Detection precision (%)
1	17	17	16	94.12
2	17	17	16	94.12
3	17	17	17	100

The findings from the experiment regarding the innovation of the automatic warning system for detecting the molting of soft-shelled black crabs through image processing revealed that the system is capable of effectively detecting the molting of crabs.

In alignment with the outlined goals

Exhibits a high average accuracy value of

# 96.75%