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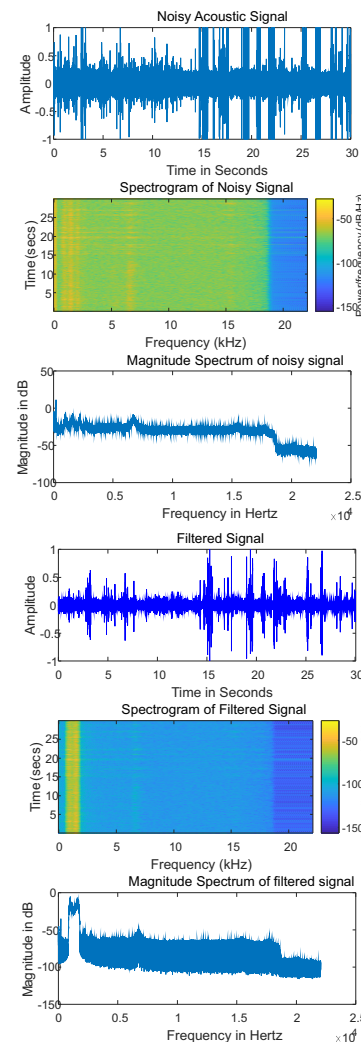
## ACOUSTIC DETECTION OF STEM AND ROOT BORER NEOPLOCAEDERUS FERRUGINEUS (COLEOPTERA: CERAMBYCIDAE) INFESTATION IN CASHEW

Lead Developer : **Dr. Maruthadurai R.**

Associate Developers : T. Veerakumar

### TECHNOLOGY DETAILS

- **Standardized acoustic based** early detection technique for stem and root borer *Plocaederus spp* infestation in cashew.
- **The success rate of prediction is 90.3 %, 96.67%, 96.15%, 96.67% and 100%** in the first, second, third, fourth, and fifth instar, respectively.
- The detection performance of the acoustic device under field conditions shows that infested trees are correctly detected with **91% accuracy**. The possibility of not detecting healthy trees is **85%**.



### IMPACT

- Early detection enables to save the cashew trees around **70-75%** from stem borer damage.
- The developed methodology or algorithm could be tested or modified for early detection of other wood borers and hidden insect pests on various agricultural and horticultural crops.

### PUBLICATION

- **Maruthadurai. R,** Veerakumar, T, Veershetty, C and Satish, A.N.C (2022) Acoustic detection of stem and root borer *Neoplocaederus ferrugineus* (Coleoptera: Cerambycidae) in cashew. *Journal of Asia Pacific Entomology*.25(3):101968. <https://doi.org/10.1016/j.aspen.2022.101968> (NAAS Score: 7.58)



INDIAN COUNCIL OF AGRICULTURAL RESEARCH

Certified that

**Dr. Maruthadurai. R**  
(Lead Developer)

**Associate Developer**  
**Dr. T. Veerakumar**

of

**ICAR-Central Coastal Agricultural Research Institute**  
**Goa**

has developed the technology

**Acoustic detection of stem and root borer**  
**Neoplocaederus ferrugineus (Coleoptera: Cerambycidae)**  
**infestation in cashew**

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New Delhi

(Vishaw Bandhu Patel)  
Assistant Director General (F&PC)

(Tilak Raj Sharma)  
Deputy Director General (HS)