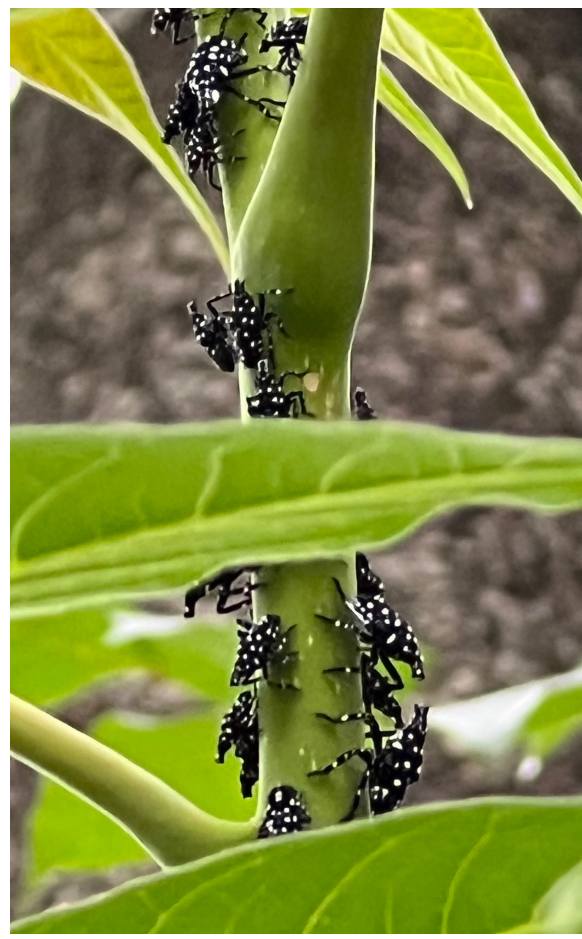
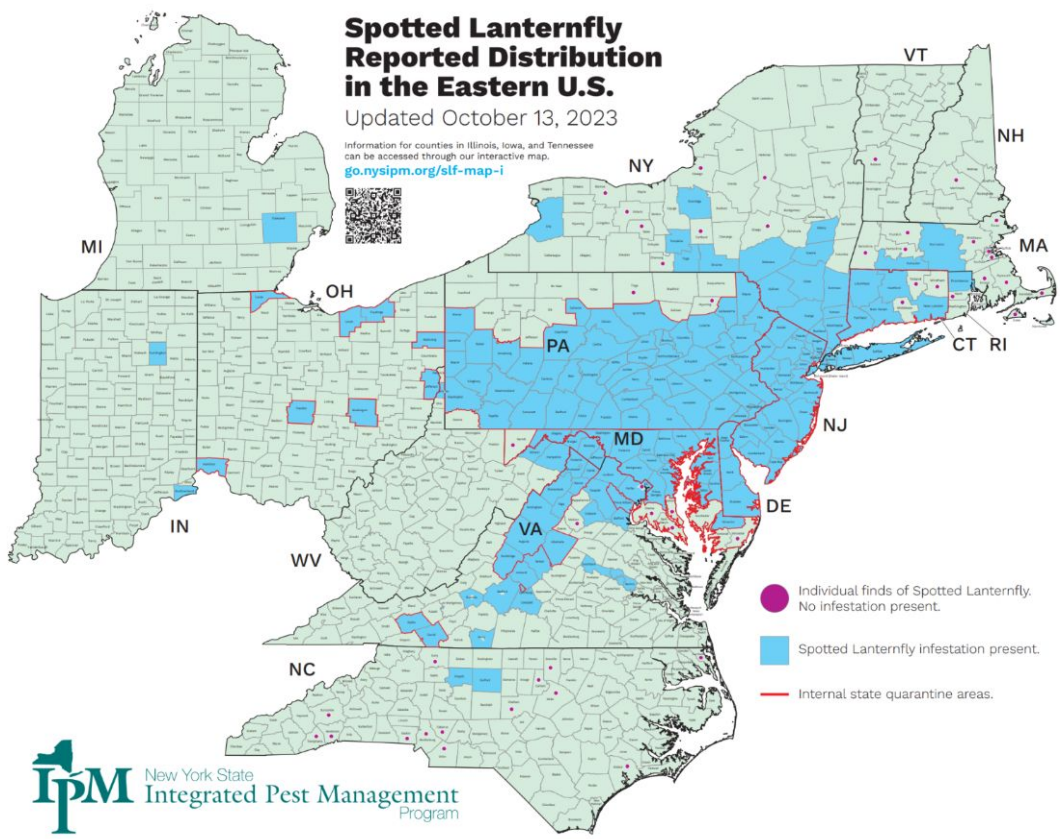


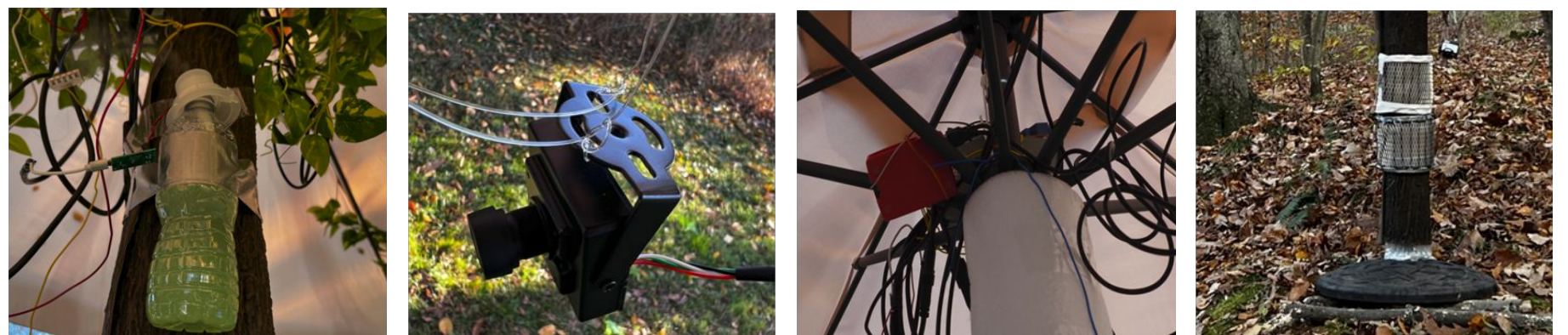
# Creation of ArTreeficial: the first AI-tree solution to reducing invasive spotted lanternfly populations



## Issue Statement

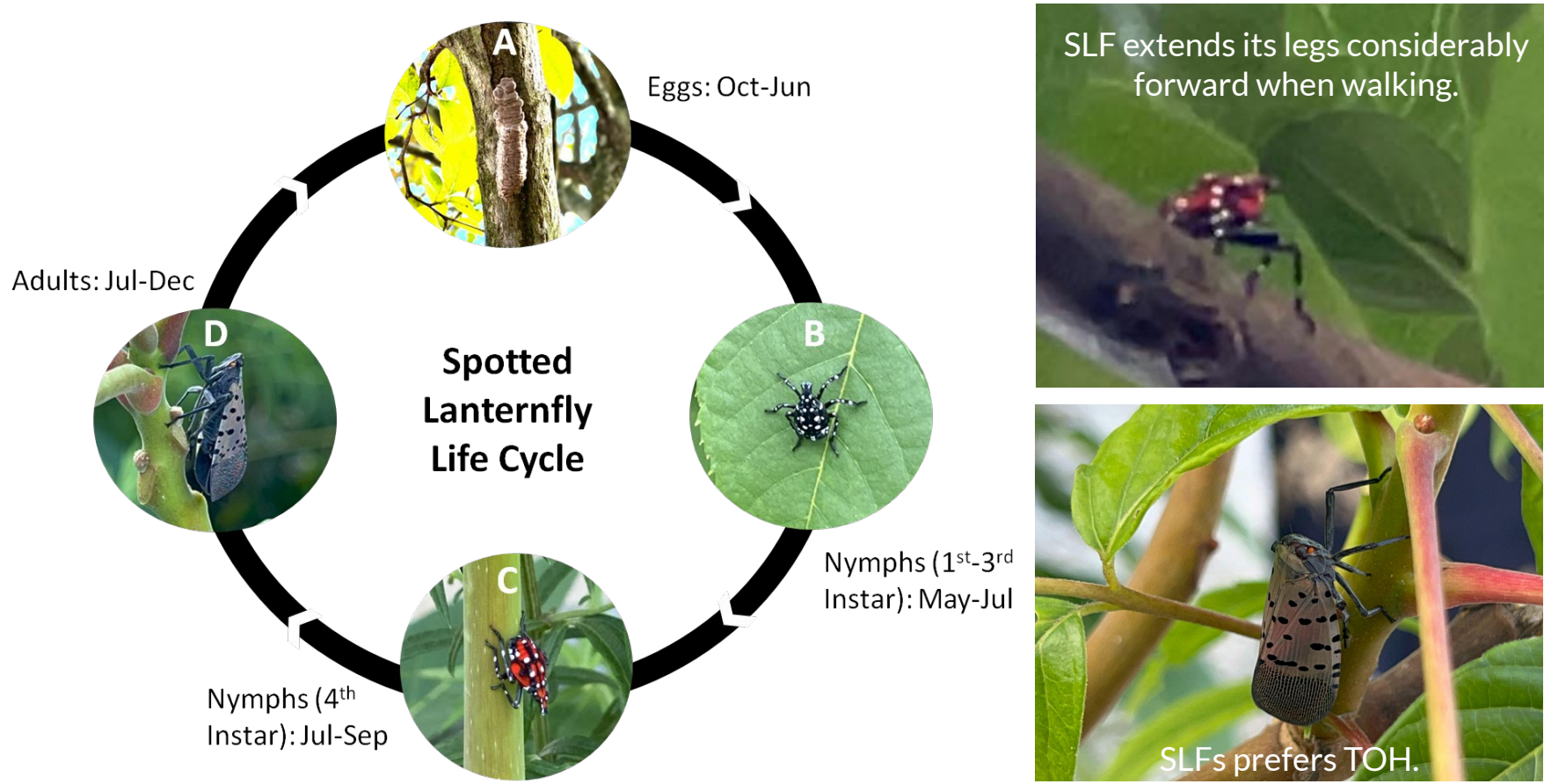


## Demonstration of ArTreeficial in East Coast

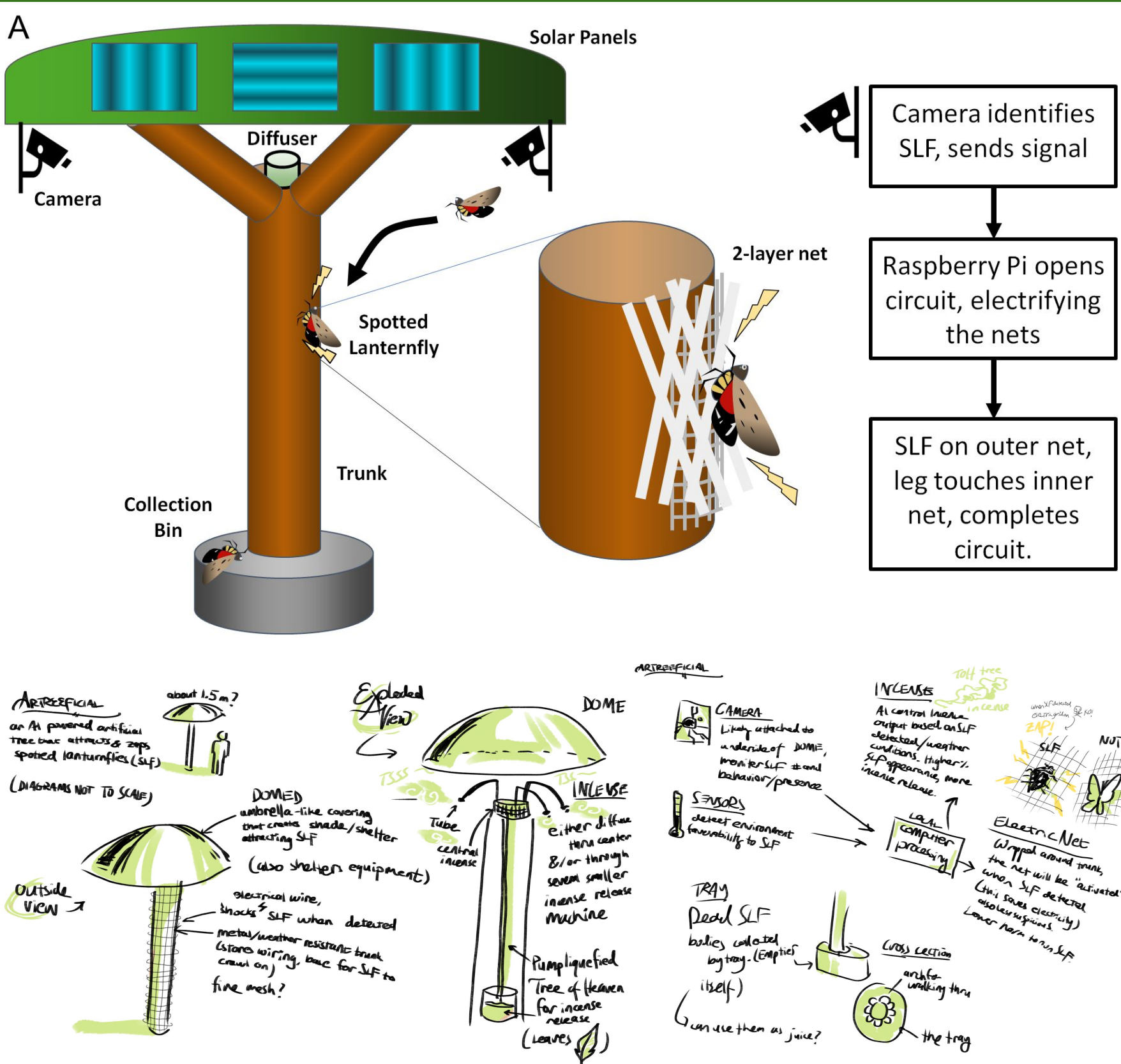


ArTreeficial, a solution uniting hardware and software, is deployed in the wild.

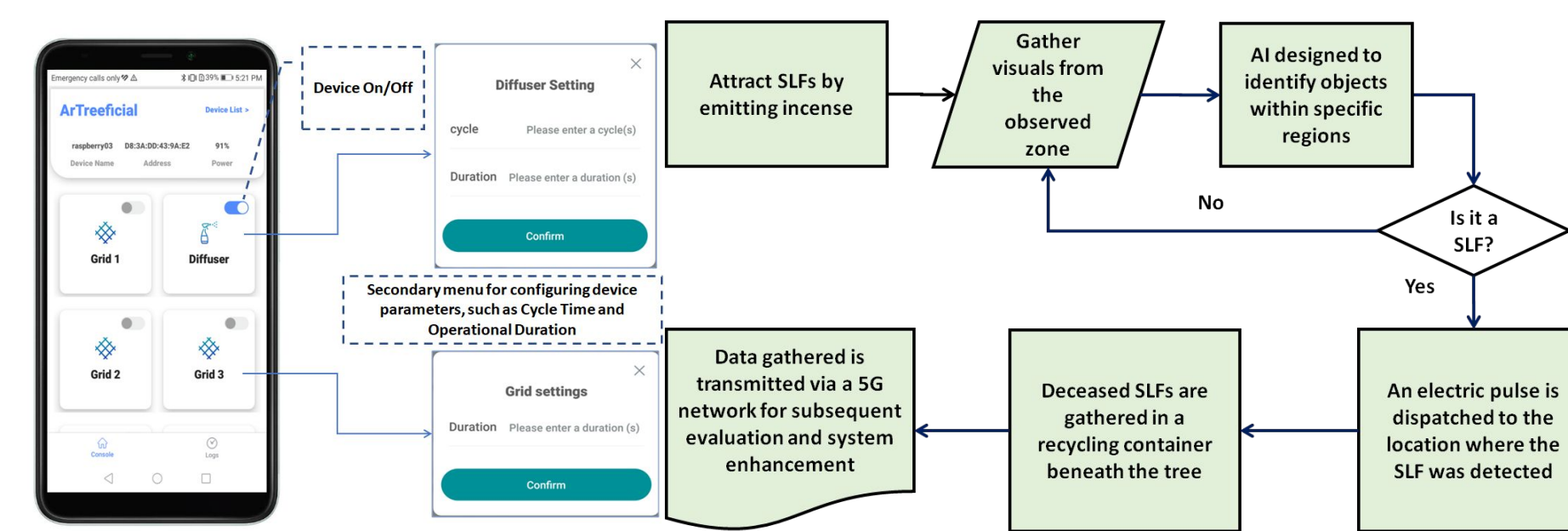
## My Field Studies of Spotted Lanternfly Behavior



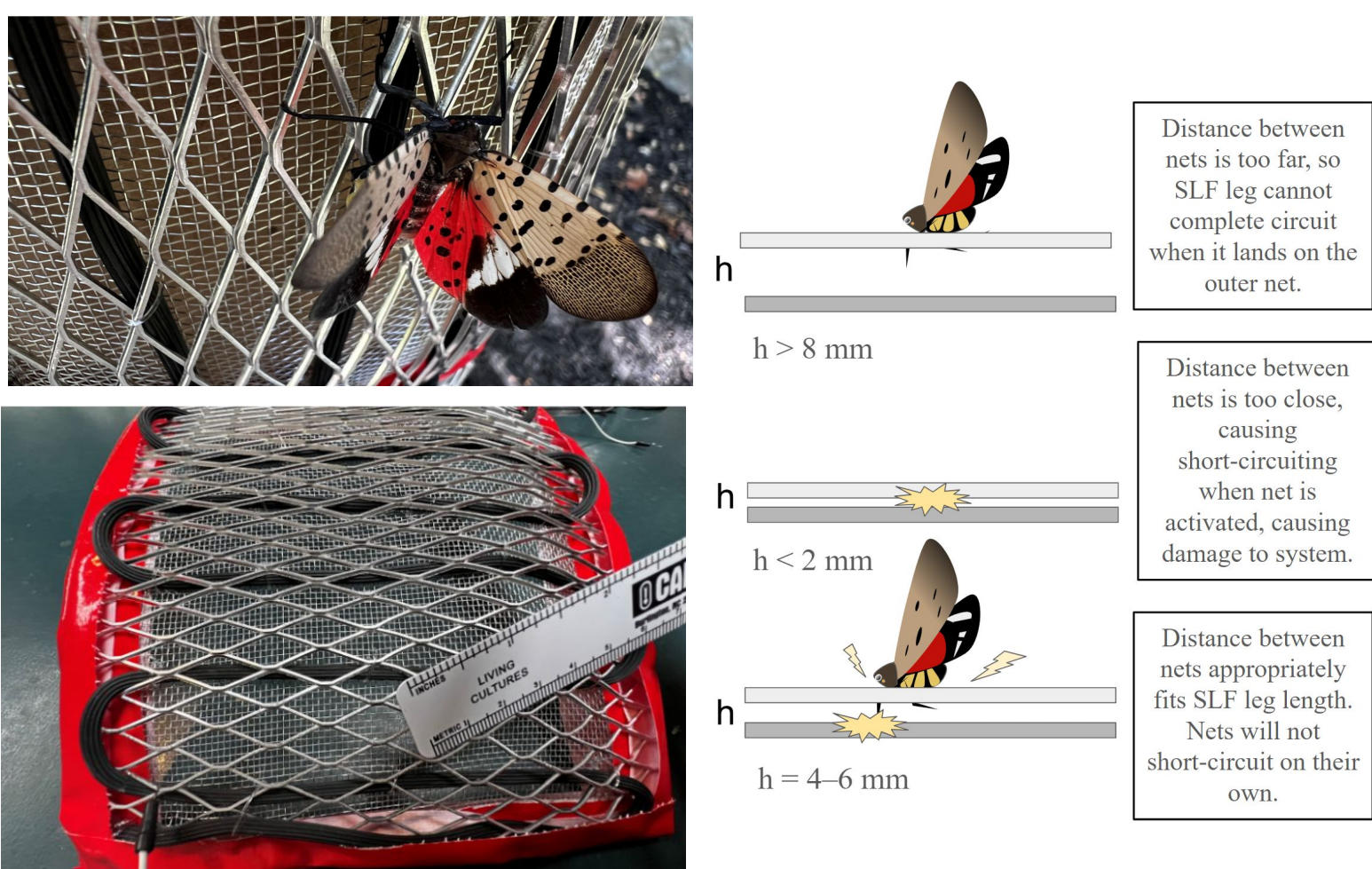
## Integration of AI technology in ArTreeficial



## YOLO Computer Vision Identifying SLFs and Remote ArTreeficial App



## Double-Layered Electric Net Design and SLF Interaction with the Net



## Future of ArTreeficial: ArTreeforest IoT and Paradigm for AI-powered Pest Control

**Wakie et al 2019**

Long-horned Beetle (CFDA.gov), Emerald Ash Borer (USDA), Japanese Beetle (CFDA.gov), Spongy Moth (Cornell CALS)

- ArTreeficial as a paradigm for dynamic pest control
- Can be extrapolated to controlling other pests, wildlife observation, monitoring land health...
- Can be applied to many fields (agriculture, forestry...)
- Future extensions: ArTreeforest/ OurForestry IoT, cloud computing, modes of mobility, ease of set-up, and live AI model training and updates.

IoT and live cloud updates

All images and diagrams are by author unless otherwise noted.