## The Quest to Find Trissolcus japonicus in California



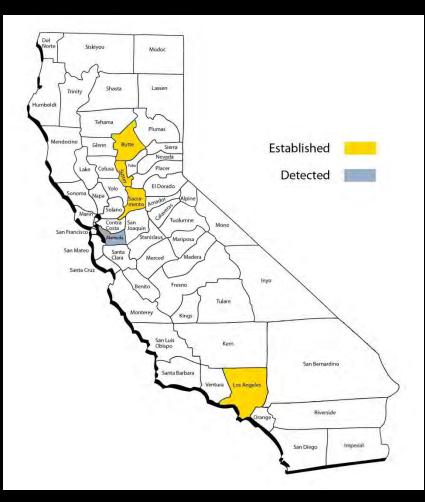
Ricky Lara<sup>1</sup>, Charlie Pickett<sup>1</sup> & Mark Hoddle<sup>2</sup>

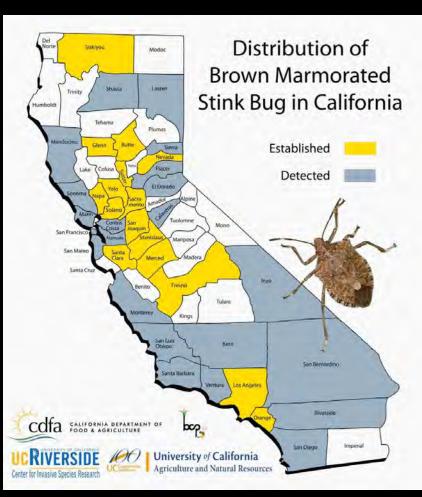
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February 2020

### Why Monitoring Matters!

2013 2020





BMSB continues to spread within CA.

This has generated problems in the San Joaquin Valley.

Effective natural enemies are needed!

Established in 4, detected in 1

Established in 16, detected in 22

### What about resident egg parasitoids?

- Deployment of >20,000 sentinel BMSB eggs (frozen)
- Recovered several stink bug egg parasitoids:
  T. brochymenae, T. euschisti, Anastatus sp.
- As a group do these show promise for BMSB control?
  Field results and lab studies?

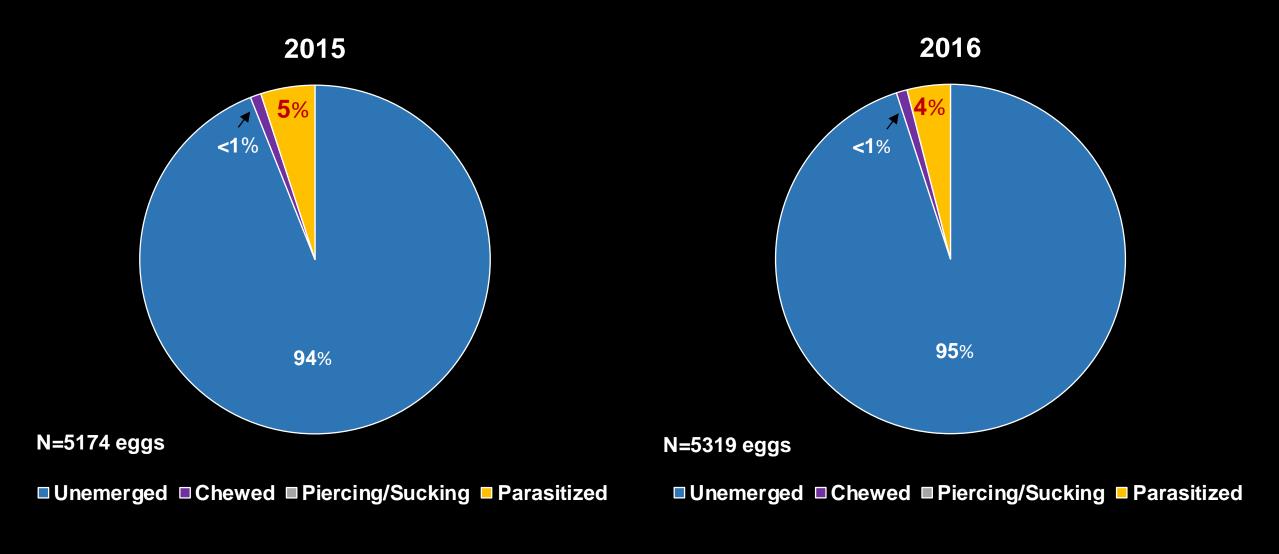








#### LA County Sentinel Cards\*



**Low Parasitism** 

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### What about *Trissolcus japonicus*?

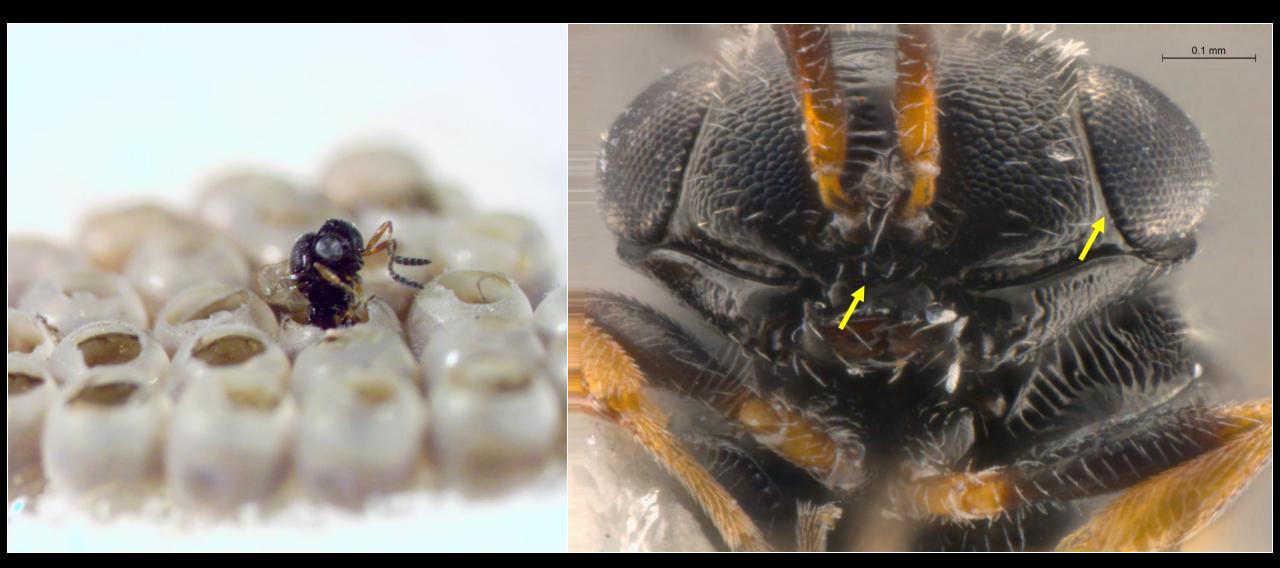
1. Is TJ in California yet?

2. Are we rearing it?

3. Will TJ establish in key parts of the state?

4. What are we doing now?

# 1. Adventive arrival of TJ (2018)



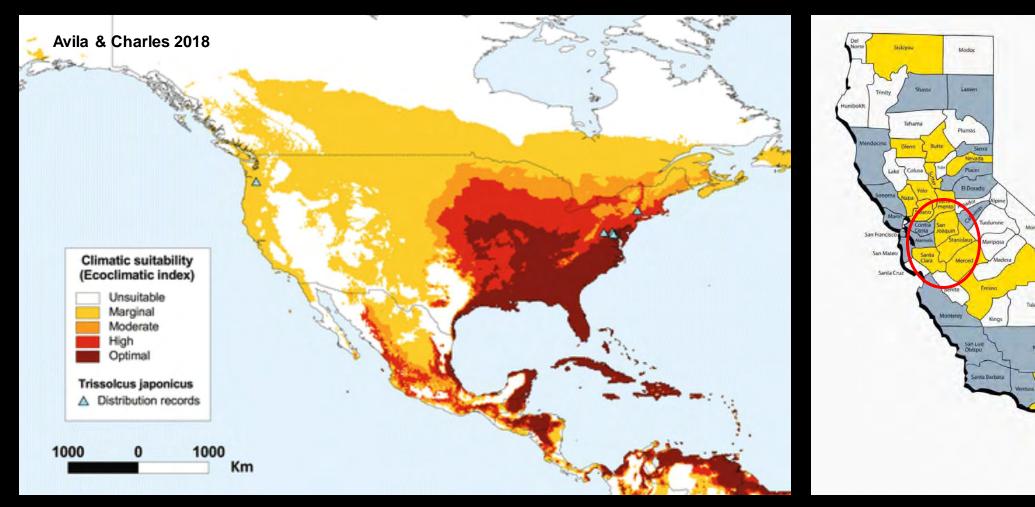
## 2. We're still in the Game!

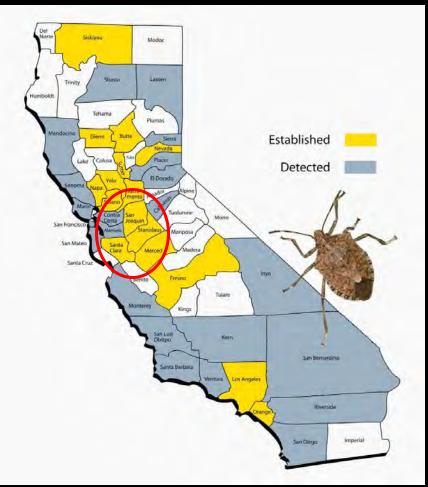


Parasitized egg masses from detection sites

Parasitoid screening (resident species)

## 3. Can TJ establish in California?





# 4. What's happening in 2020?



#### Thanks to the following collaborators:

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