

Distribution and Pest Status in the SE

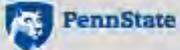
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Funding

 United States Department of Agriculture National Institute of Food and Agriculture
Specialty Crop Research Initiative

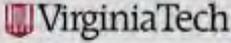
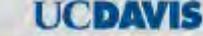
Collaborating Institutions

This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, Specialty Crop Research Initiative under award number 2016-51181-25409.

Pyramid/Sticky Trap Locations

- 14 sites in GA, 1 in SC
- Hosts:
 - Apple
 - Blueberry
 - Grape
 - Peach
 - Pecan
 - Soybean
 - Strawberry
 - Wooded areas
- Cooperators:
 - Glynn Tillman
 - David Buntin
 - Ted Cottrell
- General observations
 - One generation per year
 - First nymph observed in mid-May, max immatures in late July-early Aug., zero immatures by Sept. 6

Season Capture Summary

Trap Type	Males	Females	Nymphs
Sticky panel	708	788	1084
Pyramid	12,578	17,232	16,994

Grand total: 49,384

First capture: 03/22/17 (N 32.6614: W -83.7336)

Last capture: 11/03/17

Southern BMSB Hosts

- Orchard crops
 - Apple, peach, pecan
- Row crops
 - Corn, cotton, soybean
- Vegetable crops
 - Sweet corn, okra, snap bean, lima bean, pepper, eggplant, tomato
- Small fruit
 - Blueberry, blackberry, cane berry, raspberry, grape
- Ornamentals
 - Catalpa, hibiscus, tree of heaven
- Trees
 - Black cherry, mimosa, oak, locust

Egg Predation/Parasitism

- Collected <12 h old egg masses in the lab and froze at -20 C
- All frozen egg masses were ≤ 5 d old
- Distributed 20 frozen egg masses per site (17 sites) per month (May, June, July, Aug, Sept)
- States: AL, GA, SC
- Hosts:
 - Apple
 - Blueberry
 - Cotton
 - Muscadine grape
 - Peach
 - Pecan
 - Plum
 - Soybean
 - Tomato
 - Tree of heaven
 - Wine grape
 - Woodland

Natural Enemies Detected

- Parasitoids
 - *Trissolcus*
 - *edessae*
 - *euschisti*
 - *brochymenae*
 - *basalis*
 - *Gyron obesum*
 - *Telonomus podisi*
 - *Anastatus*
 - *reduvii*
 - *mirabilis*
- Predators
 - Lacewings
 - Fire ants
 - Grasshoppers
 - Empty eggs with a stylet sheath

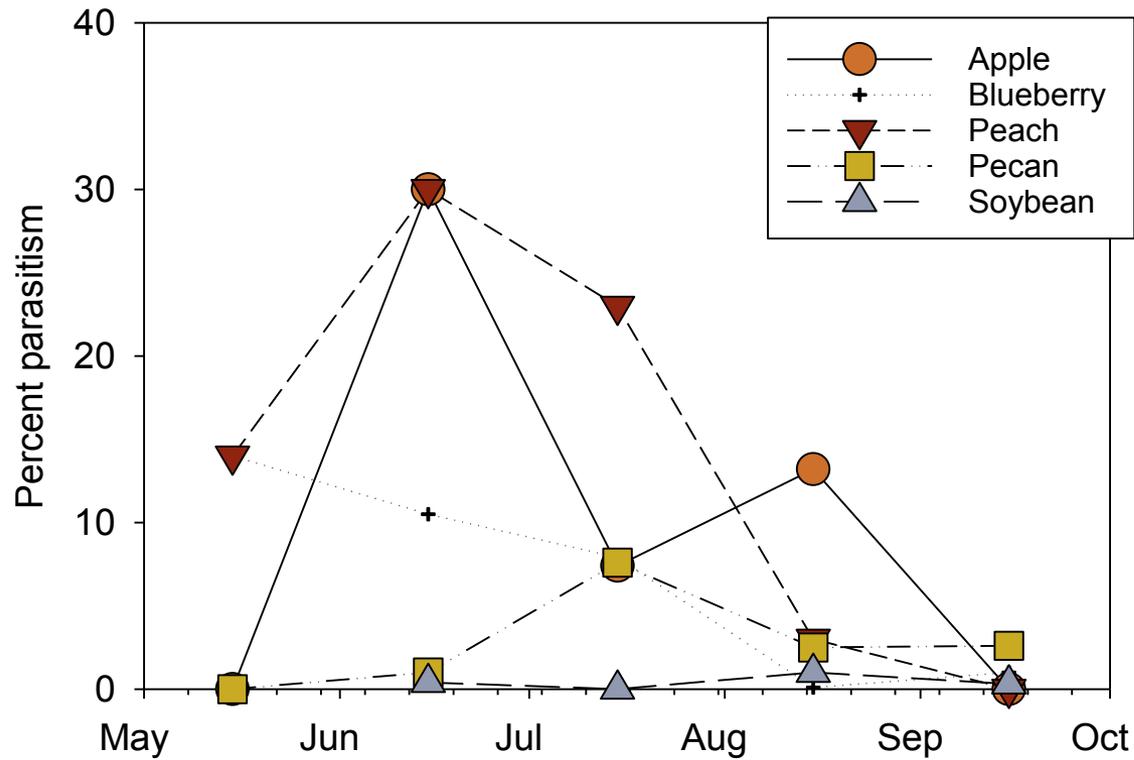
*No *Trissolcus japonicus*



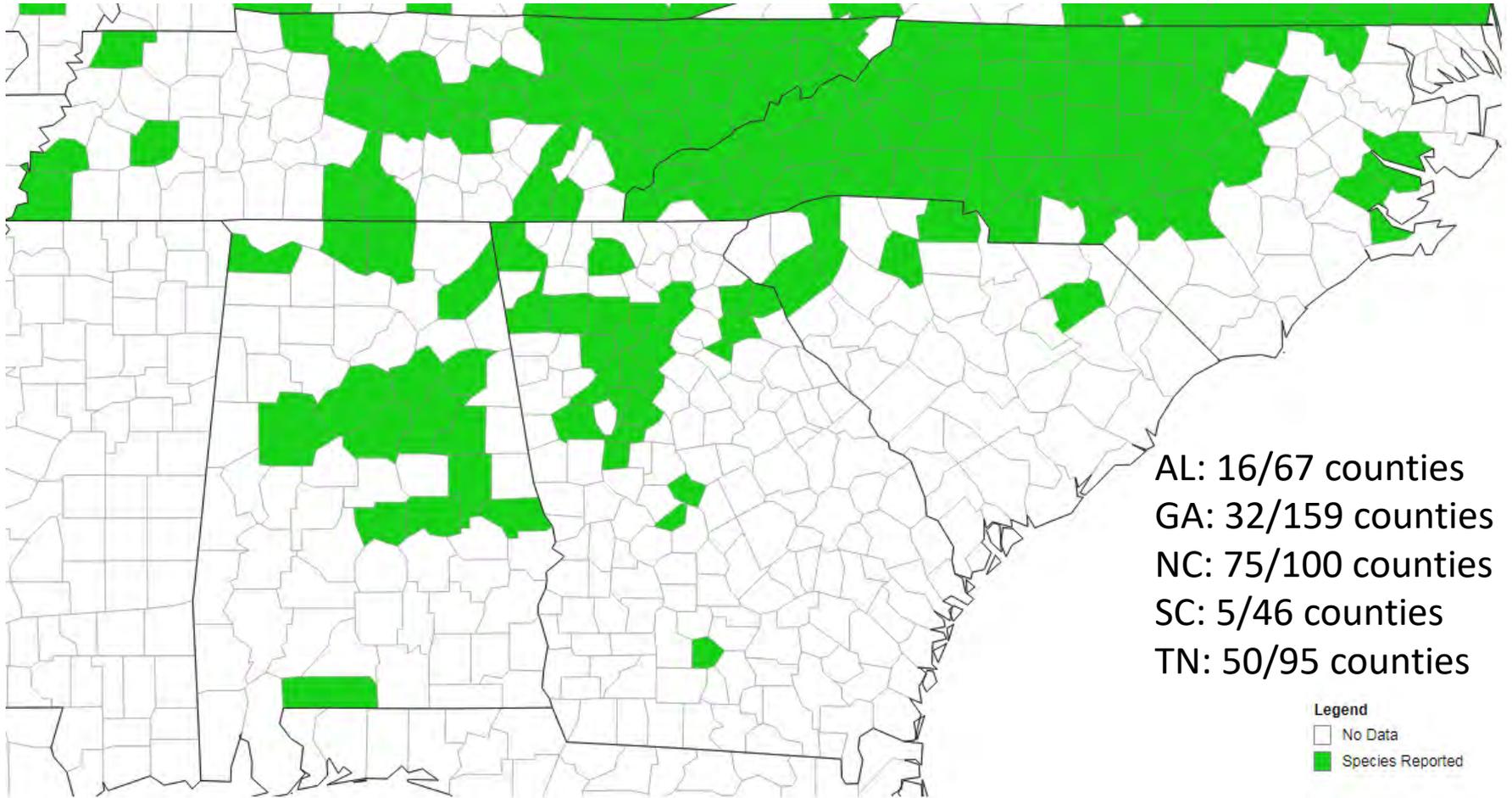
Bio Control Summary

Host	% Predation	% Parasitism
Apple	0-10	0-30
Blueberry	1-36	0-18
Cotton	26-72	0-2
Peach	2-34	2-30
Pecan	2-13	0-7
Plum	1-30	6.5-10
Soybean	48-83	0-1
Tomato	1-33	0.1-12
Tree of heaven	19-47	0-20
Wine grape	0.5-2.3	0-21
Woodlands	3-26	0-9.1

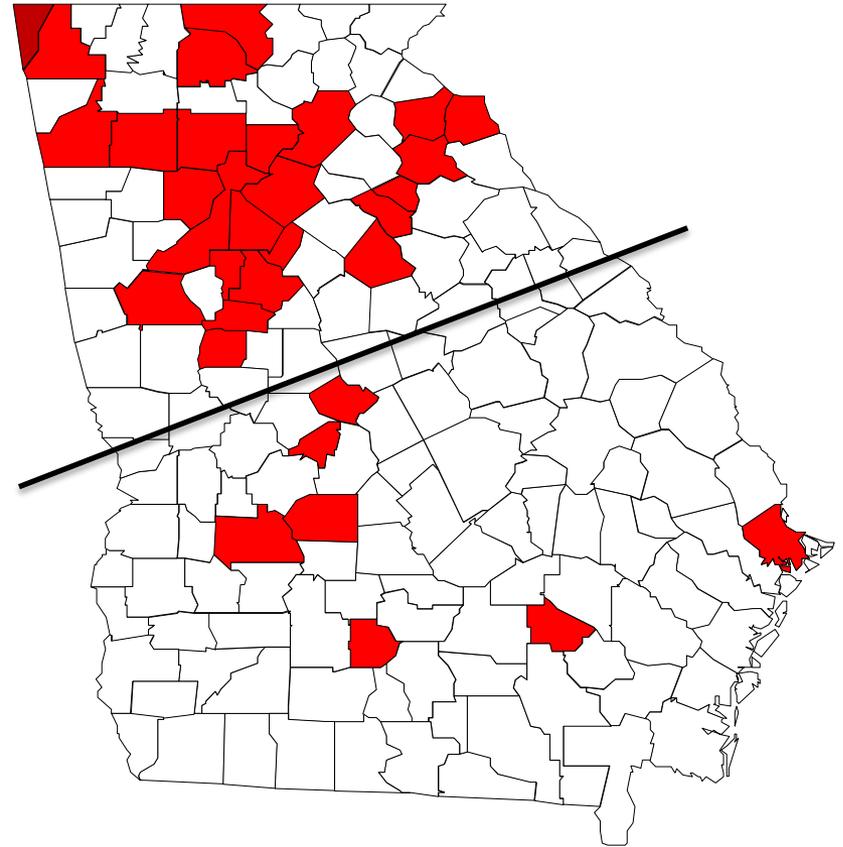
Timing of Parasitism



Southeastern BMSB Distribution

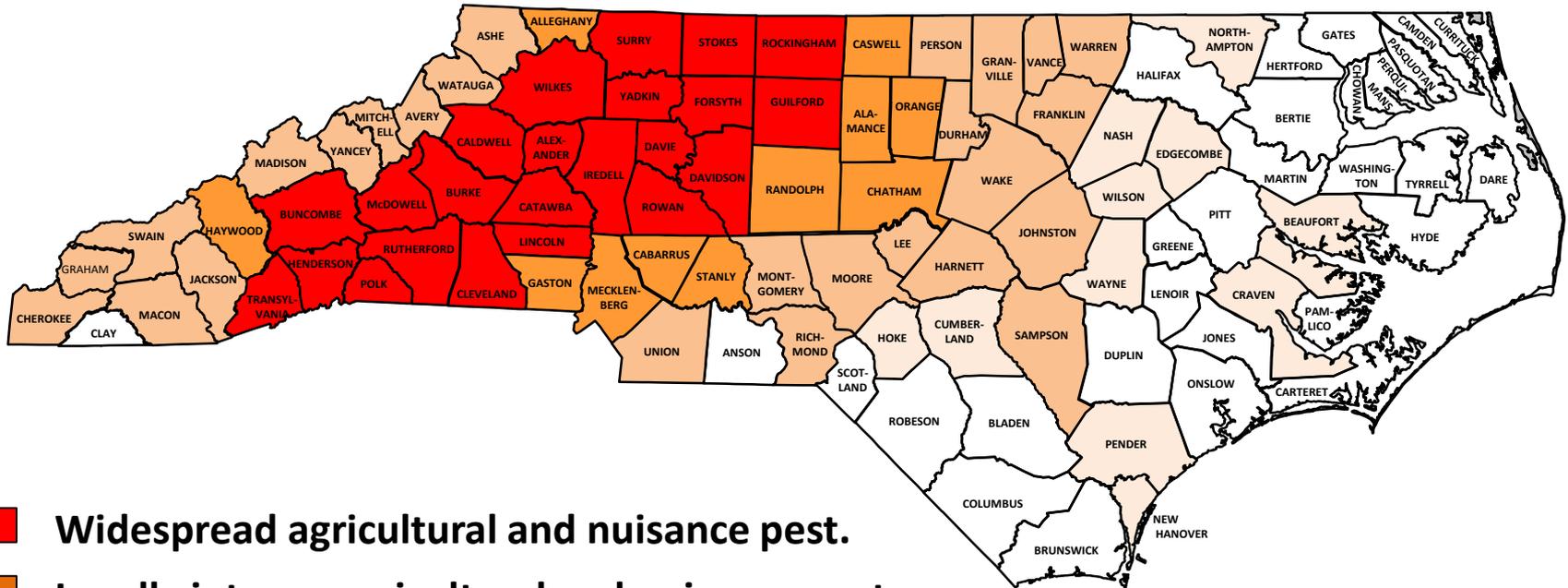


Georgia Distribution



Currently detected in 32/159 counties

BMSB Population Intensity in North Carolina

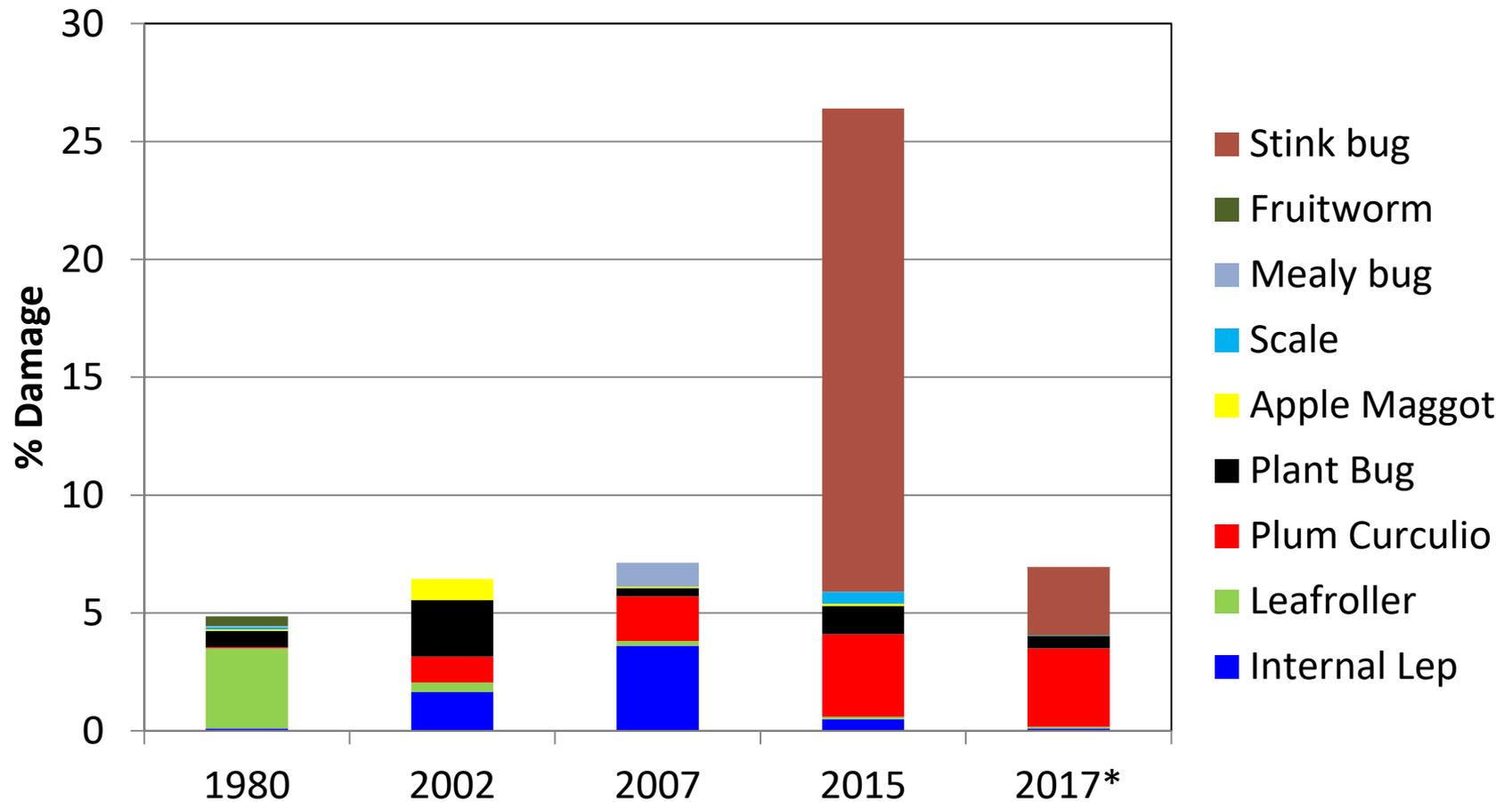


- **Widespread agricultural and nuisance pest.**
- **Locally intense agricultural and nuisance pest.**
- **Established in low numbers, non-pest status**
- **Detections only**
- **Not detected**

NC Crops Requiring Insecticides to Management BMSB

- Apples and peaches
- Fruiting vegetables and sweet corn
- Cotton
 - Cotton in two piedmont counties was affected
 - Vast majority of cotton is in coastal plain region where BMSB is not a problem

Mean Insect Damage to Apples



*Intense pyrethroid use targeting BMSB