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New Jersey Agricultural Experiment Station

A Comparison of Two BMSB Sampling Techniques in Peaches & Nectarines

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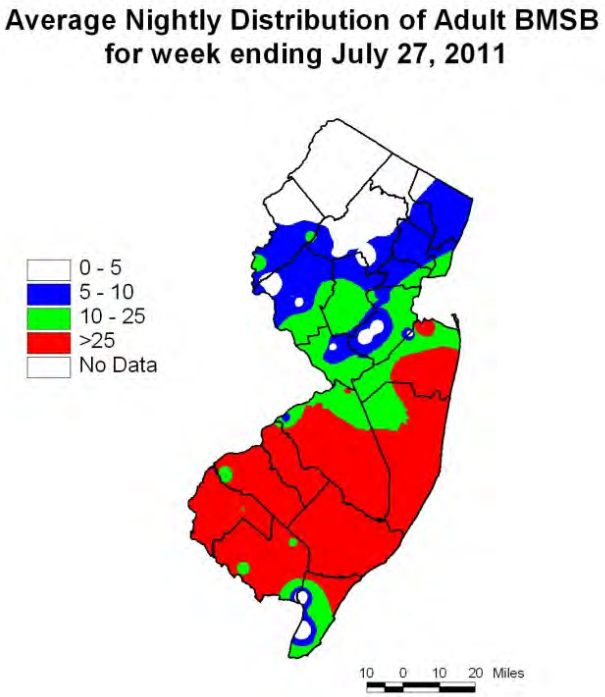
The BMSB Invasion

- Introduced in the mid-1990's
- Now established or detected in over 40 states and the District of Columbia
- Established in Canada
- Detected and/or established in Europe
- APHIS Florida find in flowers shipped from Columbia

Impact of Invasion

- 2009/10 explosion in the mid-Atlantic US
- Damage to field, nursery, tree fruit and vegetable crops
- Increased pyrethroid use
- Secondary pest outbreaks
- Need for effective monitoring techniques

Potential Monitoring Methods



Potential Monitoring Methods

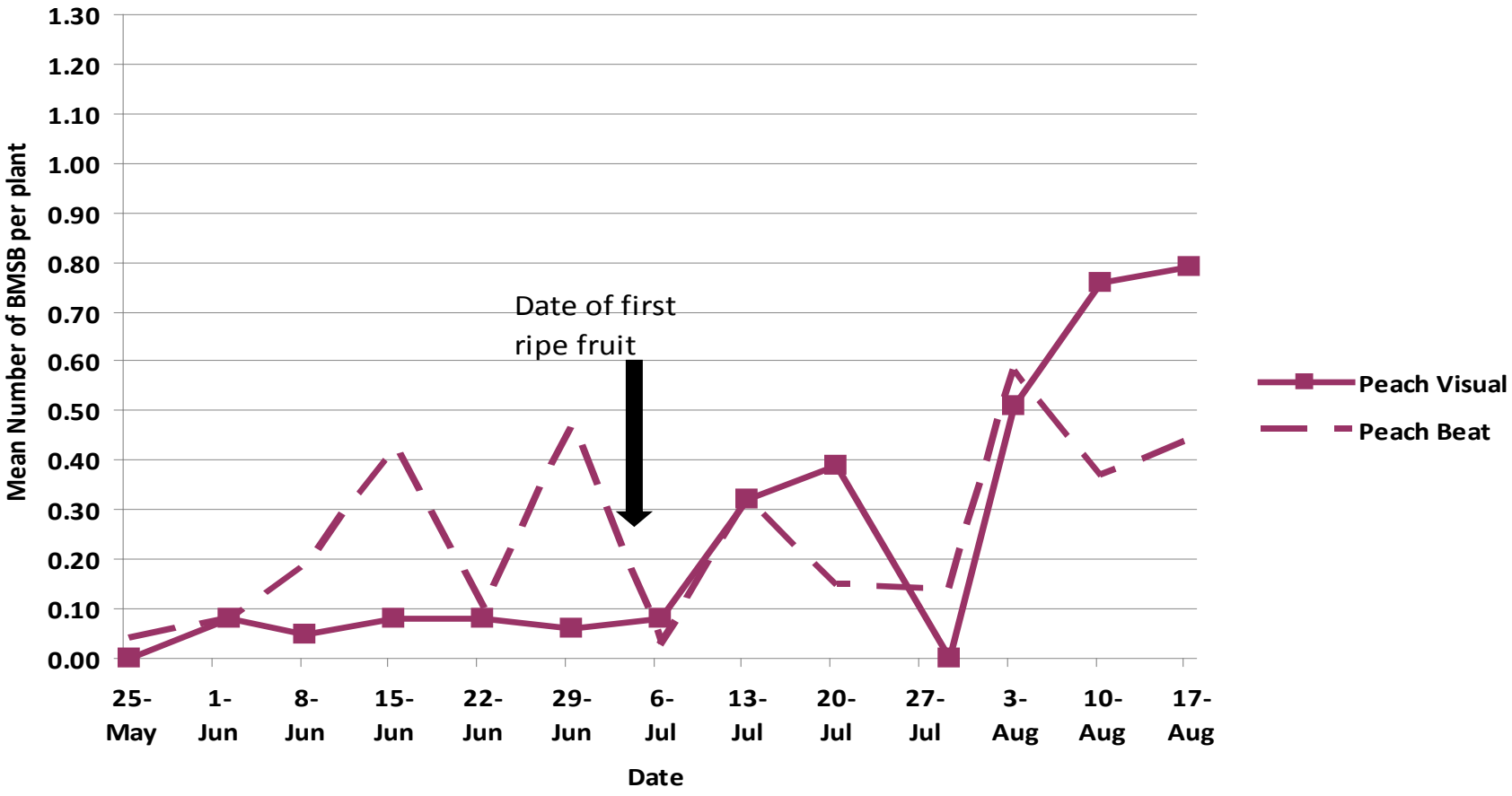
Potential Monitoring Methods

Hahn 2013

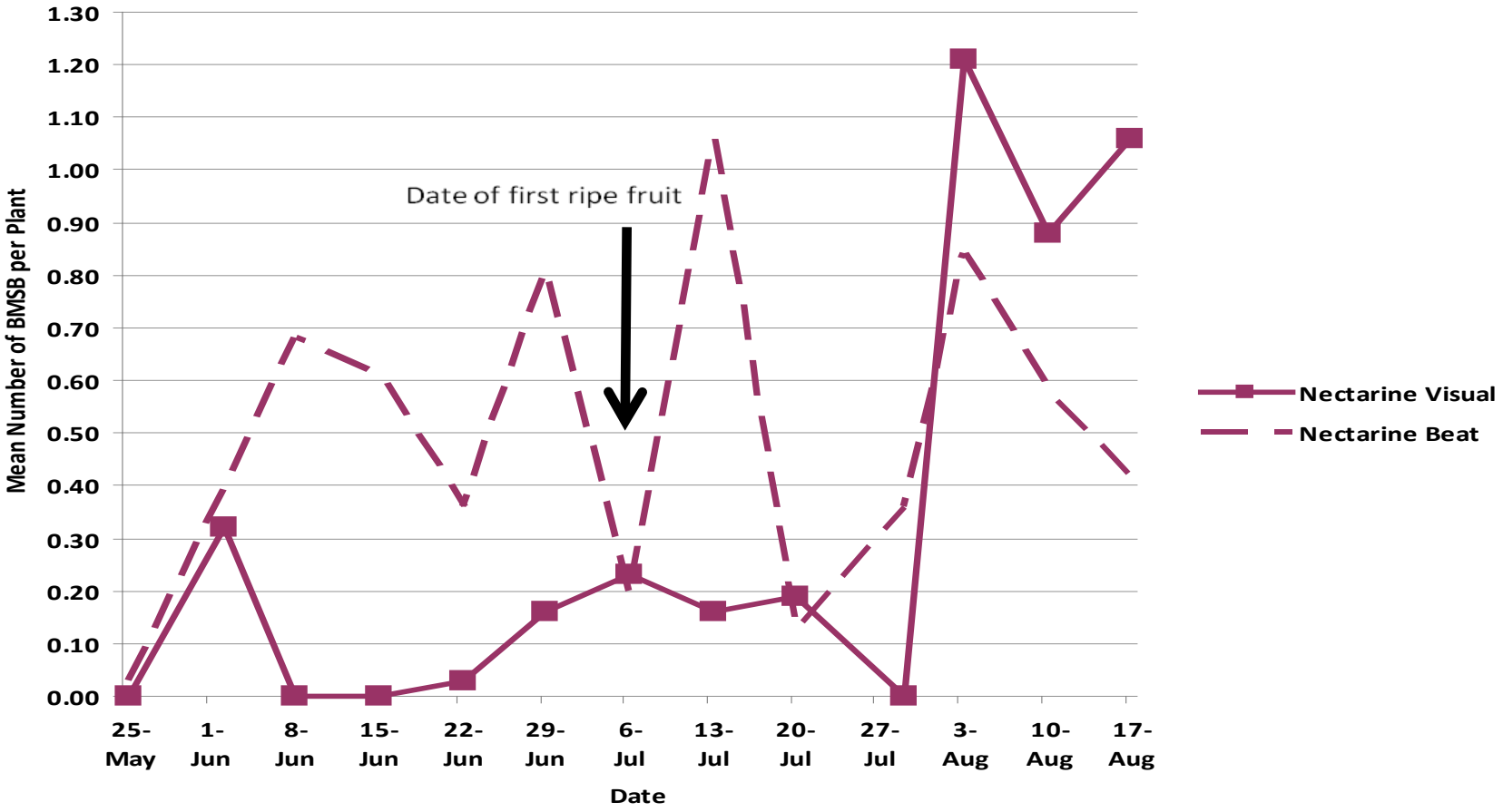
Study Design

- Cream Ridge Fruit Research Station
- Mixed block of peaches and nectarines
- Sampled once a week during the growing season in 2011 and 2012
- 1.5 minute visual samples, 5 beats per tree

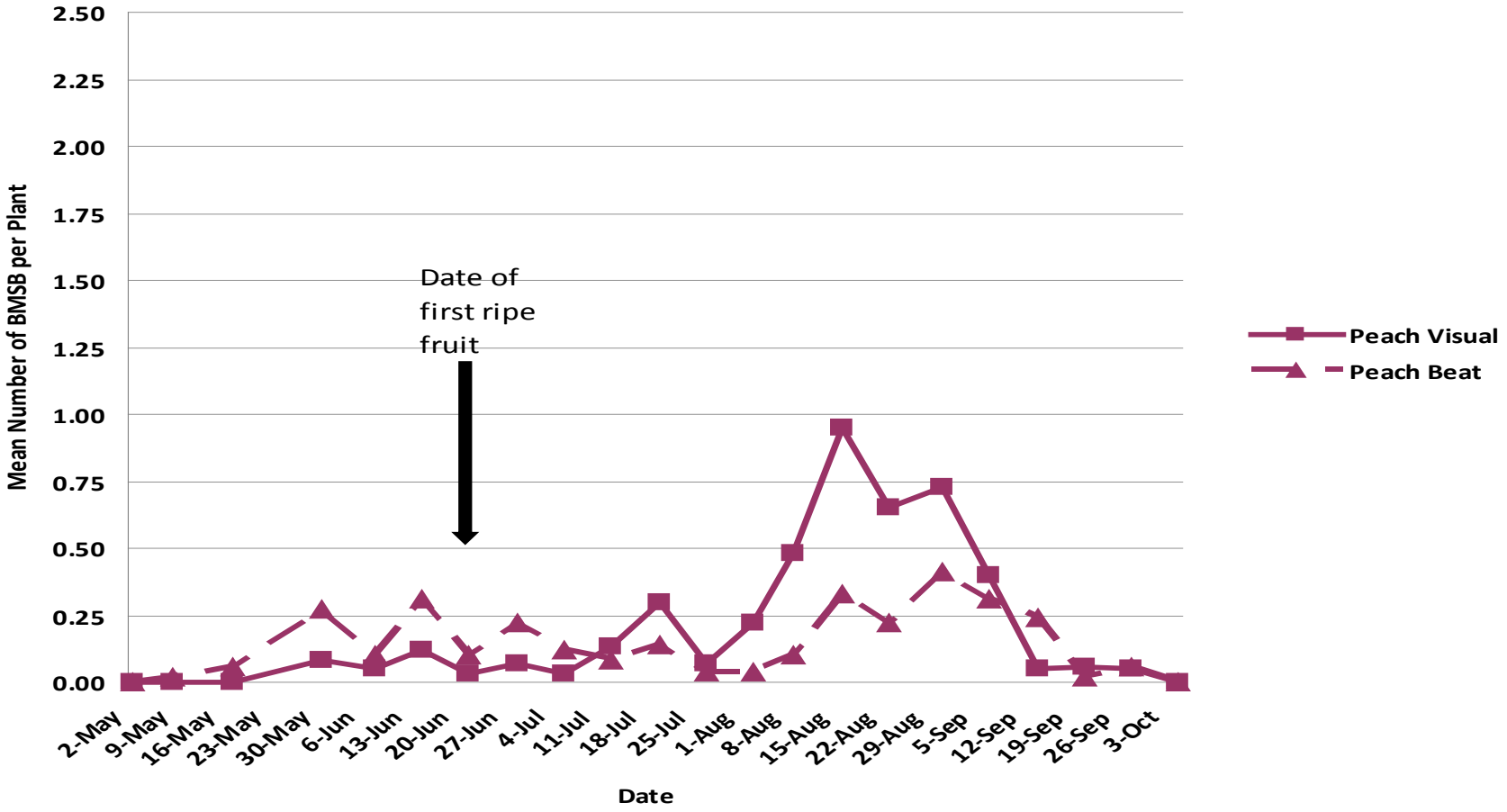
Peaches 2011



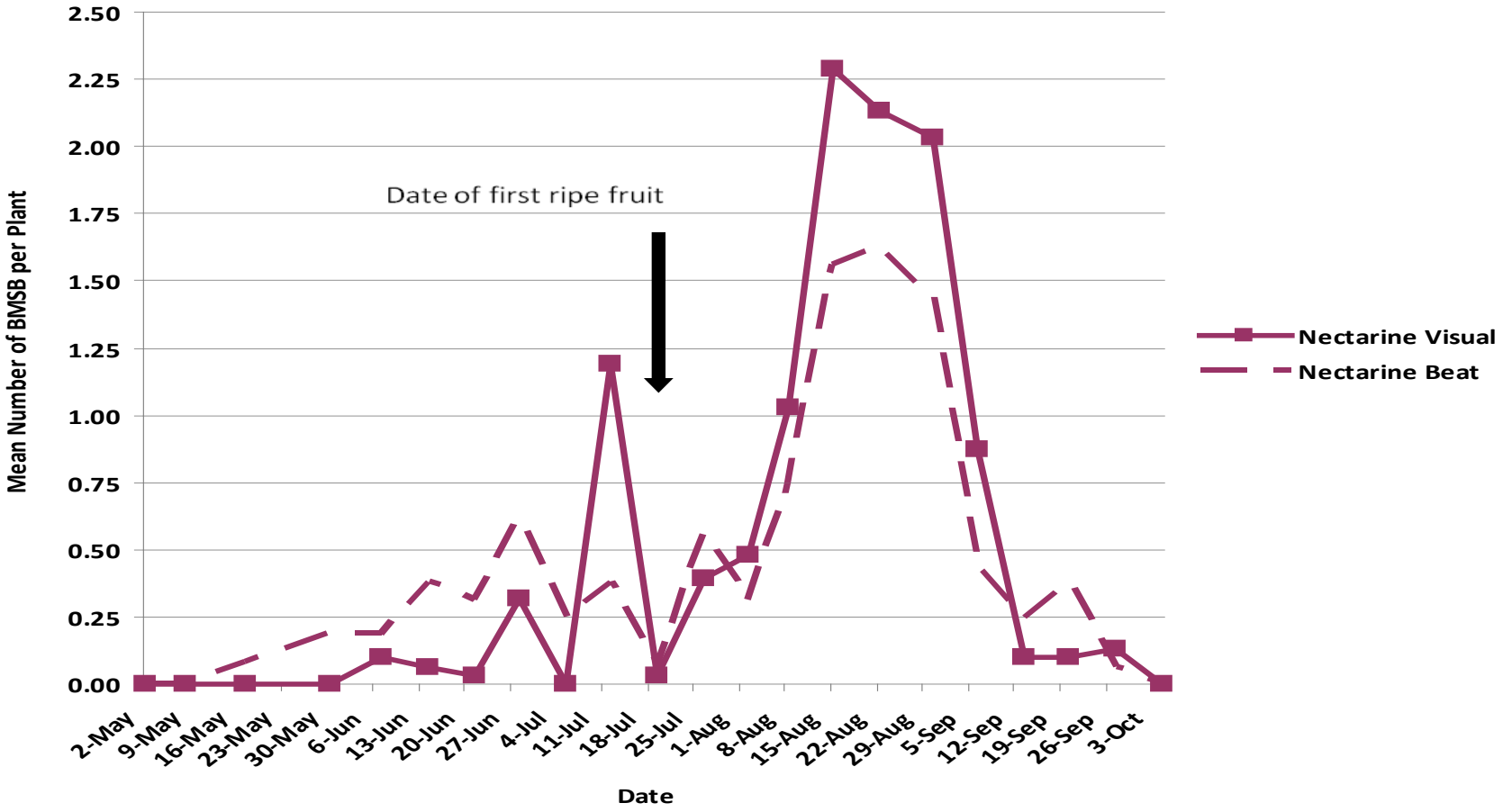
Nectarines 2011



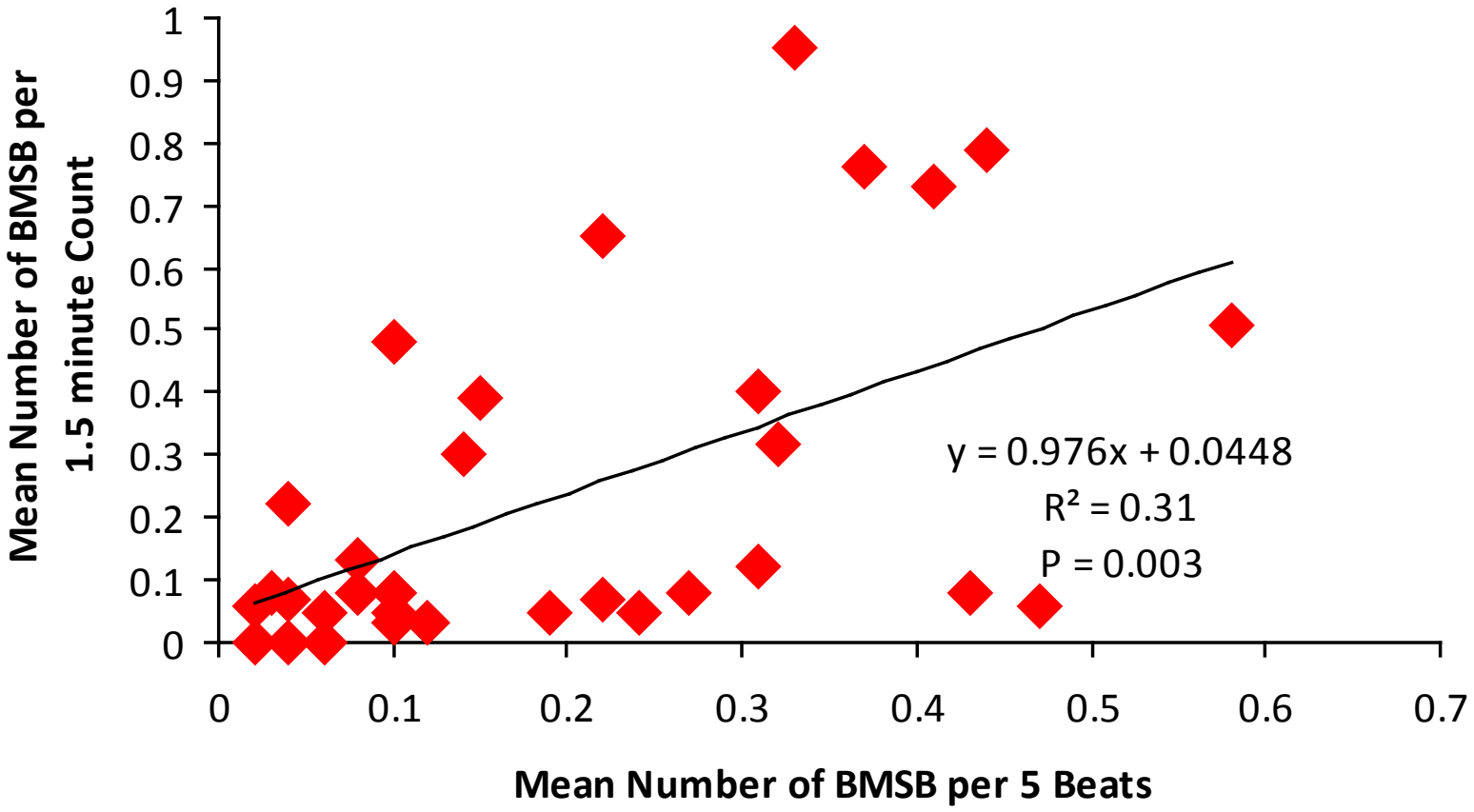
Peaches 2012



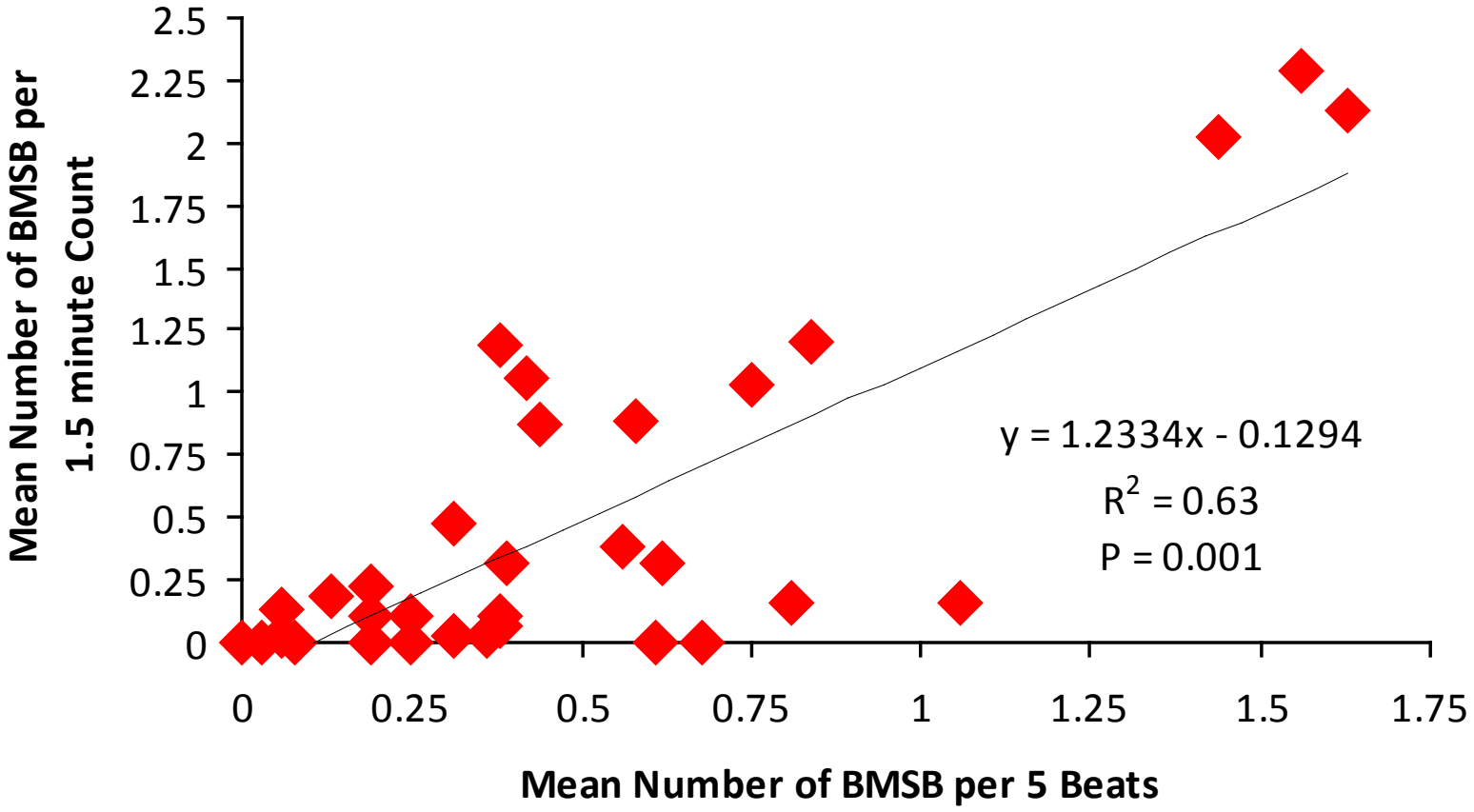
Nectarines 2012



Beat Sampling vs. Visual Counts, Peaches



Beat Sampling vs. Visual Counts, Nectarines



Conclusions and Next Steps

- Beat sheets worked best in early season
- A significant relationship between beat samples and visual counts was found
- The models developed need further refinement
- Determine if the data can be combined

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