Pests in the collection: What's normal?

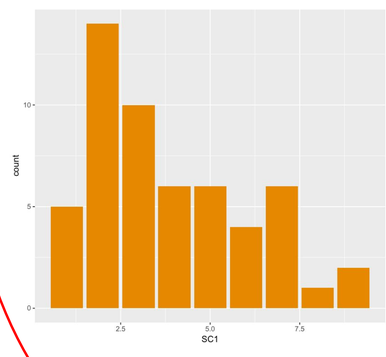
PennState
College of Agricultural Sciences

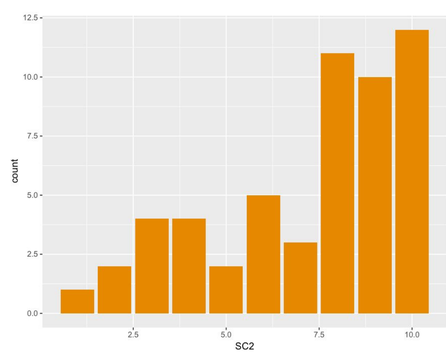
We recently established a regimented pest monitoring and IPM program, alongside some basic environmental recording (relative humidity and temperature), based on knowledge acquired through ECN's Collection Management Workshop (2016). After a year's worth of experience we wondered:

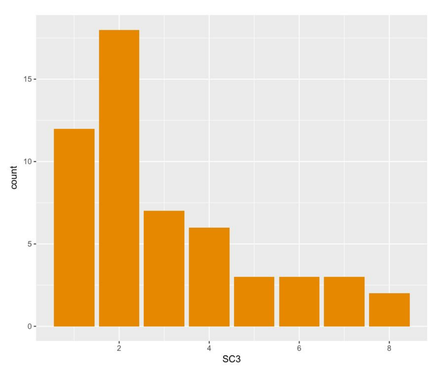
- What are other collections doing?
- What does a "normal" sticky trap look like?
- What do our sticky cards suggest about environmental conditions?
- Do we need more science-based IPM recommendations?
- Can ECN play a role in vetting or recommending best practices?

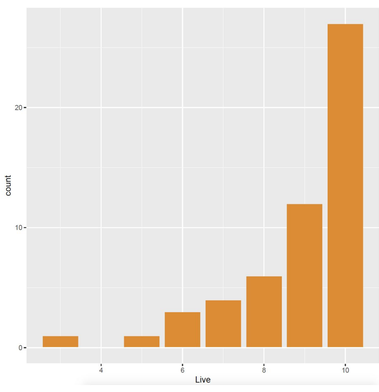
We aggregated our questions into a survey, which was administered through the ECN listserv in September 2017, which generated 54 responses.

Sticky Cards: Below each photo is the rating, on a scale from 1 to 10, in terms of concern.

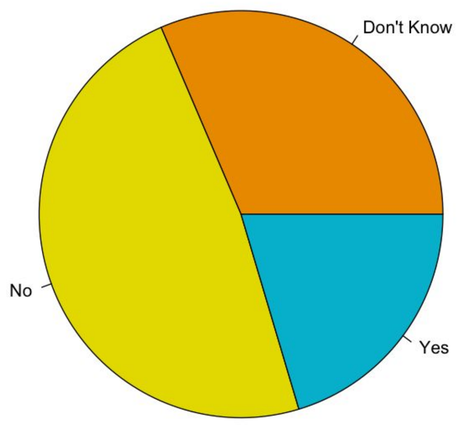








Do these sticky cards mirror what you see in our own collection?



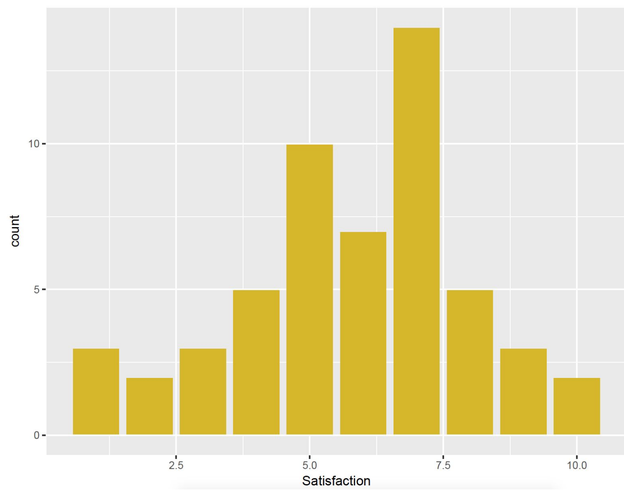
Choice quotes about our cards:

- *Mostly these seem to be pests you'd expect building-wide, and not specifically of concern to a collection (the Thysanurans an exception if the collection contains significant library resources). Without coordinating pest control with folks outside the collection I doubt you could do much about most of those.*
- *Ours usually are not this diverse*
- *Seems humidity is rather high and also access to external invertebrates is high. I have never seen so many organisms on any sticky trap in a month …*
- *Seems to be more points of egress to collection (at least based on greater diversity of adherents than what we see in our collection.)*
- *hAS ME WORRIED ABOUT THE COLLECTION*

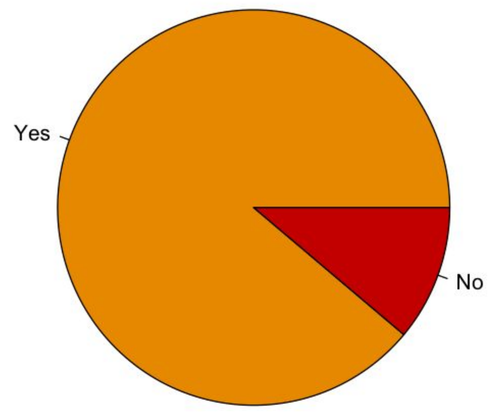
Other findings:

- 1/3 of respondents have **no dedicated collection manager**s
- 1/5 of respondents said that 0% of their collections have adequate climate control
- Respondents who monitor relative humidity **always** monitor temperature
- The most common response to any pest threat is to **examine nearby drawers** with the second most common is to **consult with colleagues**
- Upon discovering ***Scutigera*** or **Blattodea**, the most common response was to **take no action**

Satisfaction with current knowledge of IPM in museums:



Do we need more science-based IPM recommendations for collections?



Moving forward …

The survey results suggest we have more "visitors" than most collections managed by ECNers, and we have concrete leads to follow to fix this issue.

We also see opportunities for the ECN community to further evaluate current IPM strategies for entomological collections and to reach out to managers that are unaware of these issues. The Collection Management Workshop is one such mechanism, but a coordinated monitoring program and scientific approach to testing long standing practices (see pie chart above!) could lead to a more rigorous set of best practices.

Complete survey results

The full results are, of course, much richer than what we present here. The data set is available through Penn State's ScholarSphere:

https://scholarsphere.psu.edu (study # sn009w3621)

Acknowledgments

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Andrew R. Deans, Emily L. Sandall, and Michael Skvarla
Frost Entomological Museum, Department of Entomology, The Pennsylvania State University, University Park, PA USA
adeans@psu.edu