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http://www.zaks.com

Overview of Pest programs

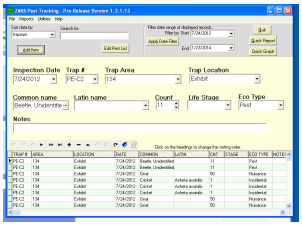
** Using a pest tracking program is not a necessity – you could type the collection information directly into MS Excel or a similar program. Using a program reduces typing mistakes and allows for more consistent and uniform data.*

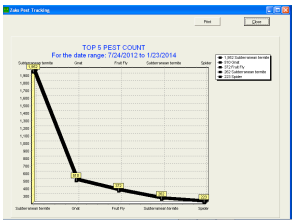
Zpests Standard – available for free download at Museumpests.net. Go to the home page of Museumpests.net, click on the search glass icon in the top right and enter "zpest" – hit enter and a link to the Zpest download page will show. Click on it and download. Currently zpest is only available for the PC.

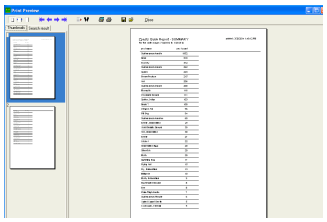
Zpests tracks the basic information as recommended by IPM WG

- Trap Number
- Location
- Inspection Date
- Common Name
- Scientific Name
- Life Stage
- Count
- Eco System
- Risk Factor

Main screen and sample report output (larger version in the appendix):







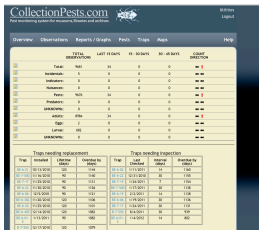
Collection Pests – available at http://collectionpests.com

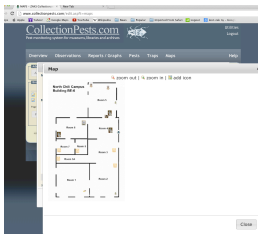
Tracks the recommended information plus:

- Enhanced information about the location – Site, Building, Floor, Room, Area
- Map placement – upload building / floor maps, place icons denoting various objects – traps, building events damage, leaks, …
- Enhanced trap information –trap type, photo, installation date, removal date, trap life
- Enhanced pest information – photos, pest notes
- Enhanced reports and graphs
    - Counts by room, building, risk, species, day and more
    - Trap inspections
    - Room inspections
    - Traps needing replacement (based on trap life)
    - Traps needing inspection
    - List of observations, traps, pests, maps
- Export of information with filtering
- Overview shows count trend

- Net based – available anywhere the net is available

Main screen and sample report output (larger version in the appendix):





What to do with the data?

The data from either Zpests or Collectionpests can be exported and then used to recover some very useful information.

Let's look at Inspection date vs. count. To do that I'll export the data from zpests.

In Zpests click on Utilities then Export. Save the file, on most systems it will want to save as a .txt file – that's ok. Save it, then rename it the_name_you_gave_it.csv. The system will probably warn you that you will be changing it, but it's OK, go ahead and change it.

Then (if you have Excel installed) when you find where you downloaded or exported it to you can double click it and it will open in Excel.

Once in Excel, we'll start by sorting by inspection date (Data, Sort, Inspection date)

Highlight the Date of Inspection column (Col A)

PC: Data, Sort, Date of Inspection

Mac: Home, Number, Date

For a graph, unless your' looking at a very small time period, detail by day is usually too many points.

We need to change format to month / year

PC: Select Inspection date then - Home, Format, Format Cells, Date, Month-year

Mac: Option 1, Format Cells, Date, Choose month/year format

Next I want to get sub totals of the count by month.

PC: Data, subtotals.

Mac: Data, subtotals

Then - At each change in: Date of Inspection, Use function: Sum, Add subtotal to;Count. Uncheck all others except Summary below data and Replace current subtotals.

Then to see just the subtotals –

PC/MAC: Click 2 in the far left column, toward the top, to show only date and count.

Now highlight the information – the first month in the first column to last count subtotal in the far right column.

Wait a sec - if you copy this, you get all the data, even what is not visible, we want just the visible data -

To do this PC/Mac: Edit, Go to, Special, Visible Cells Only, OK
Then Edit, Copy.

Note - for those that took the class – I found out what the ALT E, G was.

Next go to a new sheet (plus sign at the bottom of the main Excel page), Edit Paste.

Now a graph to view the data -

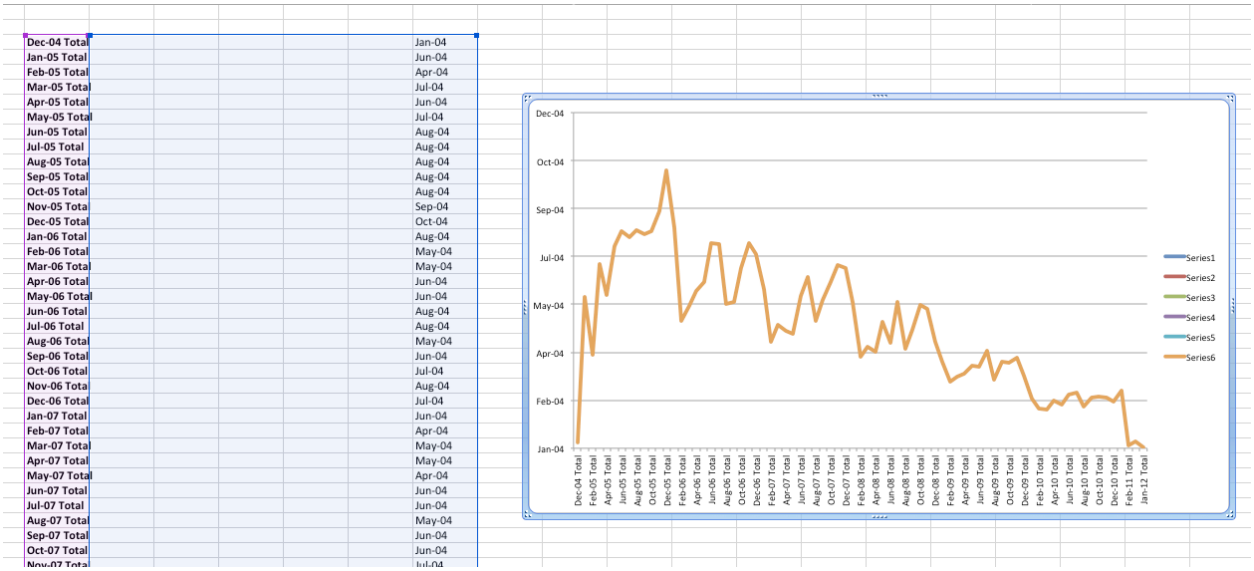
Highlight the data:

PC: choose Insert, Line Graph, and adjust the size

Mac: Charts, Line, Line graph and adjust the size

Here we finally get something useful – here's a sample:

What this shows is that our IPM is working. Over the years we've consistently decreased the amount of pests within the collection.



Now to add some information -

We'll add the average temp.

First - check for consecutive months – start at the top of the month column and look at each entry. Make sure it goes Jan, Feb, Mar, … If there are any missing months, just add a blank row with the month name and year. Most always missing a few months of data won't mess up the trend – as long as you have a long enough sample.

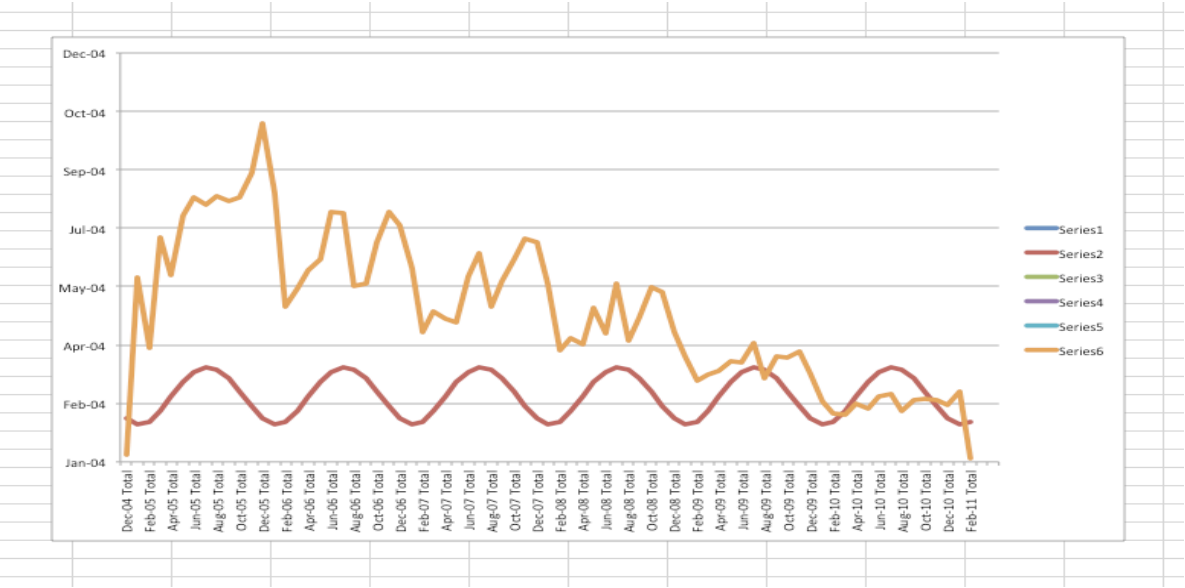
If you only have one year, missing a few months won't do. But if you've been collecting data for a three years and you miss a year here and there or three years in a row in one year it will not have ruined your data. Go ahead and graph it and you will see it doesn't have that large of an effect.

Next - find the average temp from Google where the observations were from. You don't need detail or daily temps, the monthly AVG will do.

Post the average in one of the included columns.

The data shows a cyclic data pattern. It also shows the detail temp is not needed.

Here's a with the average temps added:



This shows that the pest count is following the average temperatures. One possible reason, if you have climate control on your space, is that the pests are coming mostly from the outside environment. If the pest count didn't follow the outside temperatures I would investigate the pests coming from internal sources – storage items or loans.

From this point you can add various items -

Events / exhibitions each month – especially those that bring in food.

Loans / traveling shows.

The amount of money spent on IPM.

Try various things and look for patterns.

Pivot Table

The 2

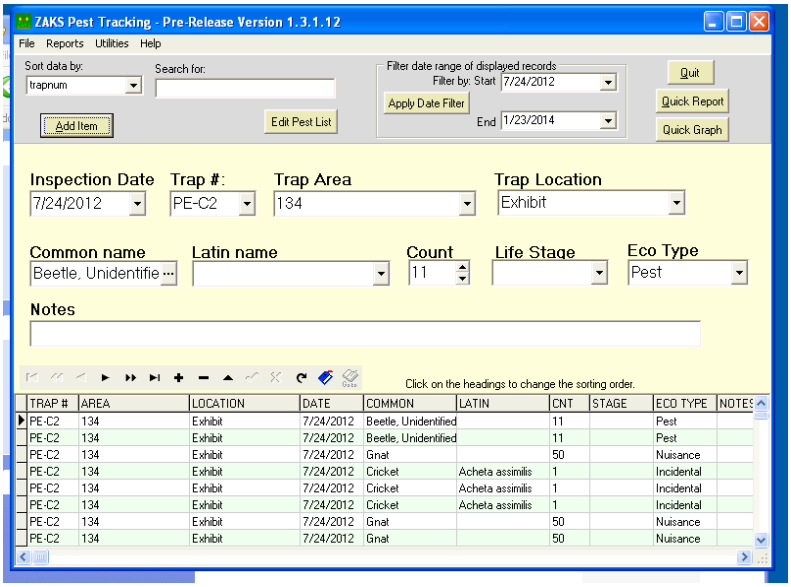
Select Data, Insert, Pivot table.

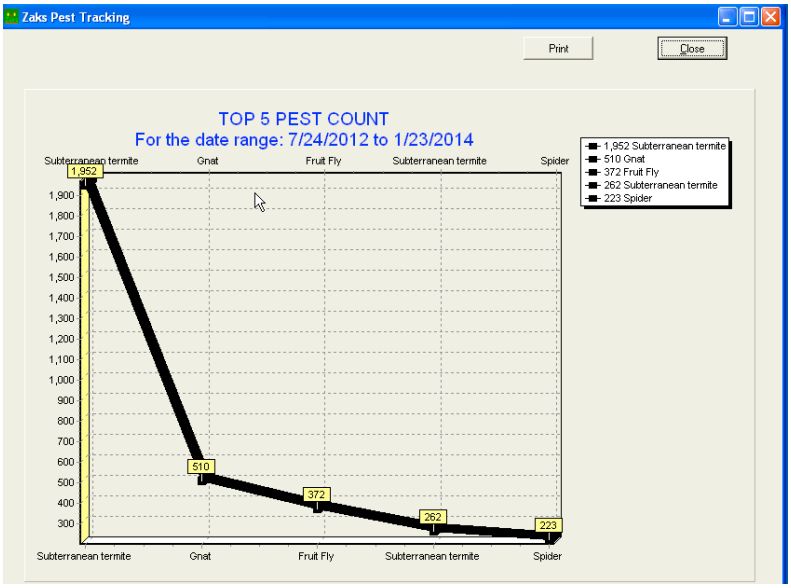
What's next?

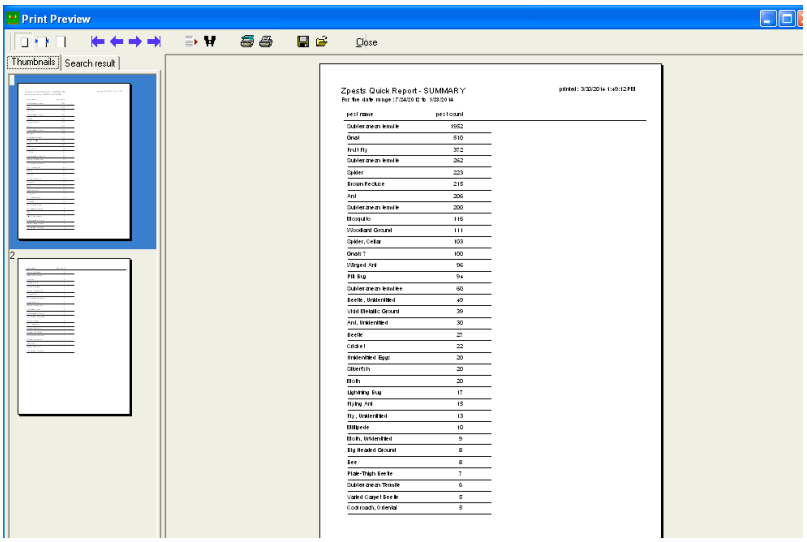
In the works and with a completion target of the end of the 2nd quarter of 2014 is an online-based enhanced Zpest program. Advancements in technology and the internet have opened up a whole new realm of possibilities for Zpest. Stay tuned.

Appendix

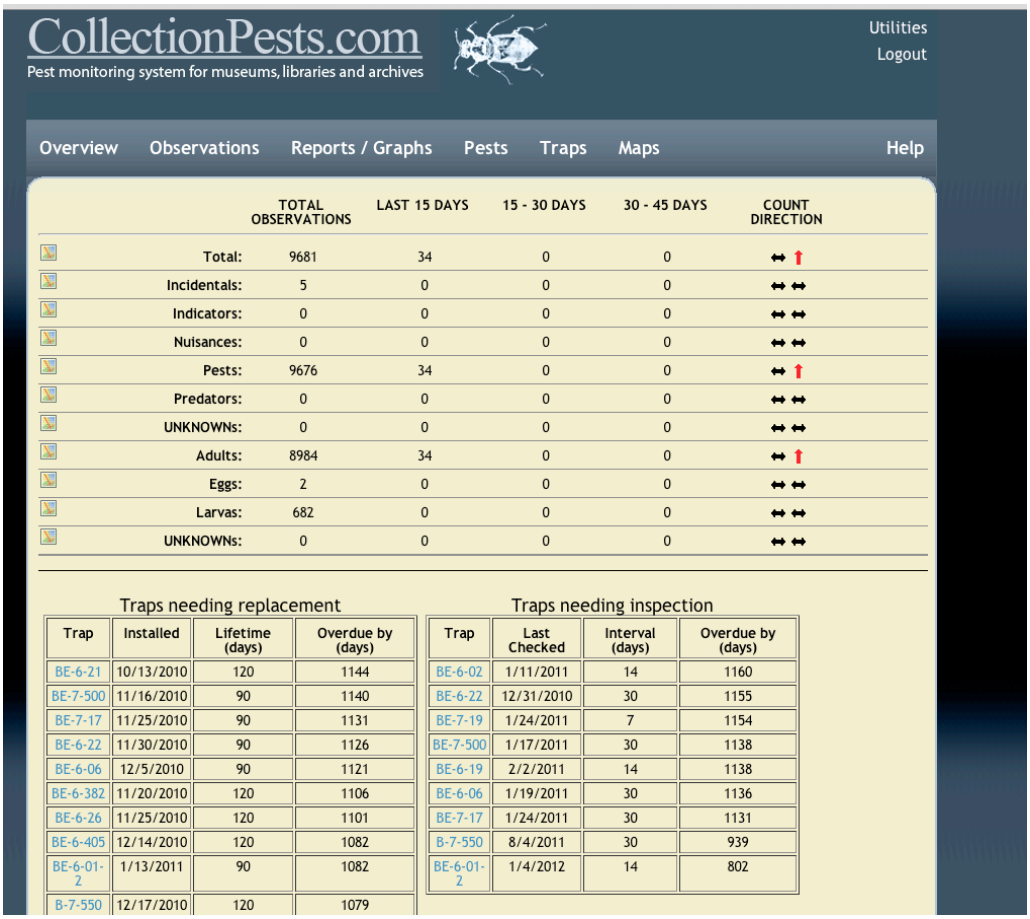
Image 1 – Zpest main screen:







Collectionpests.com:



CollectionPests.com
Pest monitoring system for museums, libraries and archives

Utilities
Logout

Overview | Observations | Reports / Graphs | Pests | Traps | Maps | Help

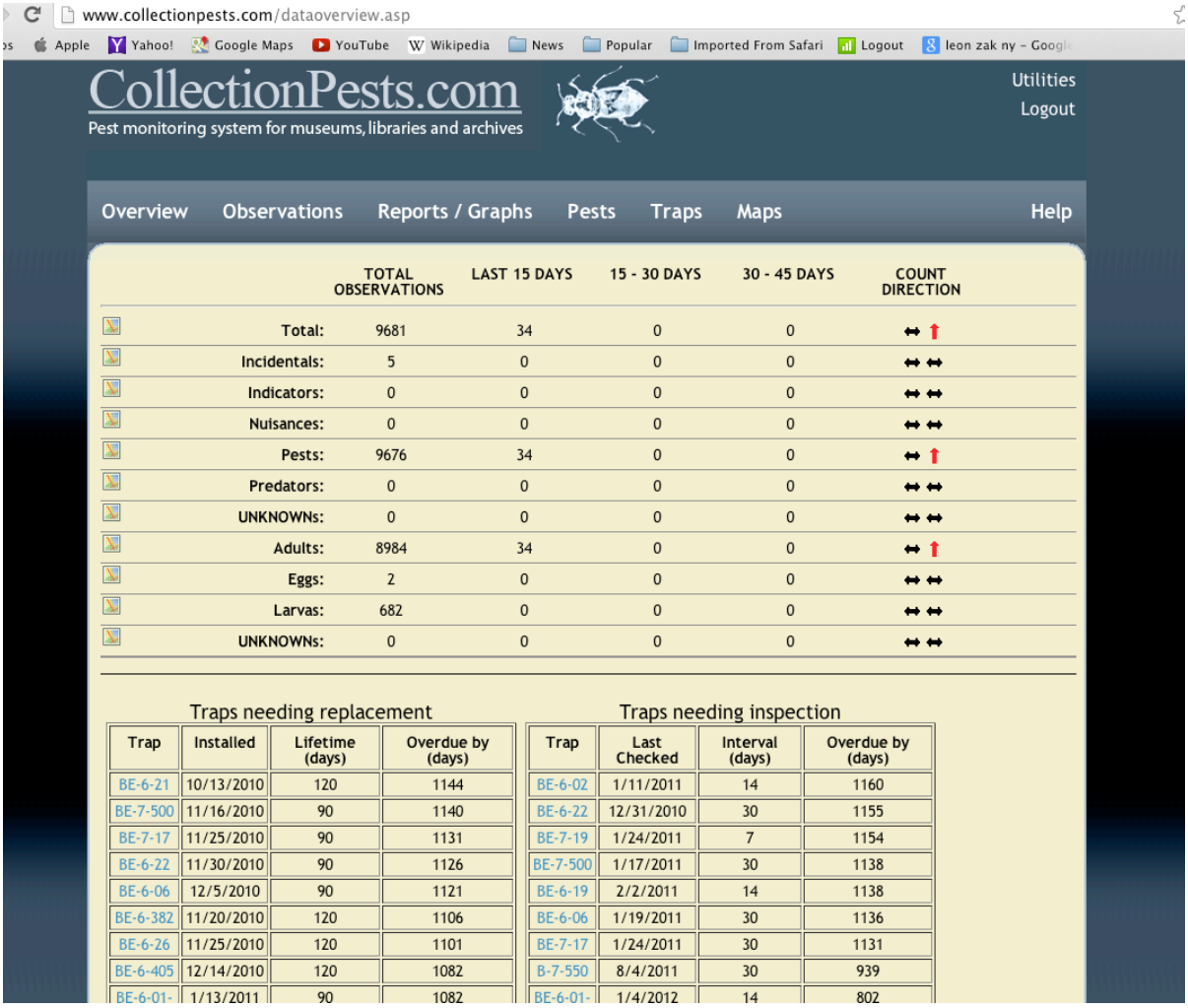
	TOTAL OBSERVATIONS	LAST 15 DAYS	15 - 30 DAYS	30 - 45 DAYS	COUNT DIRECTION
Total:	9681	34	0	0	↔ ↑
Incidentals:	5	0	0	0	↔ ↔
Indicators:	0	0	0	0	↔ ↔
Nuisances:	0	0	0	0	↔ ↔
Pests:	9676	34	0	0	↔ ↑
Predators:	0	0	0	0	↔ ↔
UNKNOWNs:	0	0	0	0	↔ ↔
Adults:	8984	34	0	0	↔ ↑
Eggs:	2	0	0	0	↔ ↔
Larvas:	682	0	0	0	↔ ↔
UNKNOWNs:	0	0	0	0	↔ ↔

Traps needing replacement

Trap	Installed	Lifetime (days)	Overdue by (days)
BE-6-21	10/13/2010	120	1144
BE-7-500	11/16/2010	90	1140
BE-7-17	11/25/2010	90	1131
BE-6-22	11/30/2010	90	1126
BE-6-06	12/5/2010	90	1121
BE-6-382	11/20/2010	120	1106
BE-6-26	11/25/2010	120	1101
BE-6-405	12/14/2010	120	1082
BE-6-01-2	1/13/2011	90	1082
B-7-550	12/17/2010	120	1079

Traps needing inspection

Trap	Last Checked	Interval (days)	Overdue by (days)
BE-6-02	1/11/2011	14	1160
BE-6-22	12/31/2010	30	1155
BE-7-19	1/24/2011	7	1154
BE-7-500	1/17/2011	30	1138
BE-6-19	2/2/2011	14	1138
BE-6-06	1/19/2011	30	1136
BE-7-17	1/24/2011	30	1131
B-7-550	8/4/2011	30	939
BE-6-01-2	1/4/2012	14	802



www.collectionpests.com/dataoverview.asp

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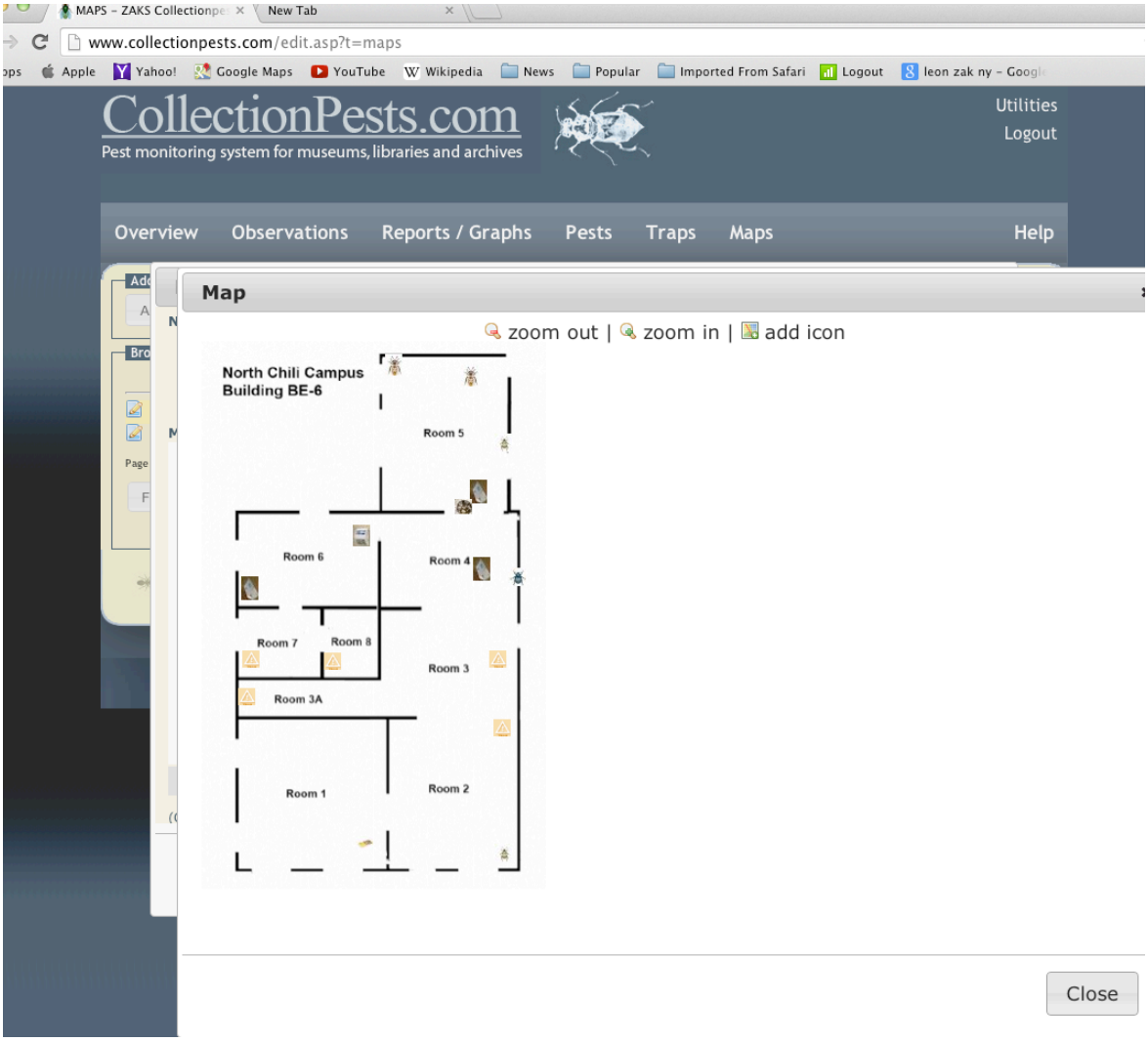
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Maps
Help
Map
zoom out | zoom in | add icon
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Building BE-6
Room 5
Room 6
Room 4
Room 7
Room 8
Room 3
Room 3A
Room 1
Room 2
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