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**Container Surveys (Mastercontainer\_Public\_Archive.xlsx)**

*Sampling was completed 2012-2016 as detailed in the following table.*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | 2012 period\* 1 | 2012 period 2 | 2012 period 3 | 2013 period 1 | 2013 period 2 | 2013 period 3 | 2014 period 1 | 2014 period 2 | 2014 period 3 | 2015 period 1 | 2015 period 2 | 2015 period 3 | 2016 period 1 |
| Mosquito Density | X | X | X | X | X | X | X | X | X | X | X | X |   |
| Water Quality (Measured pH, TDS, NOx, NH4, PO4) | X | X | X | X | X | X |   |   |   |   |   |   |   |
| Sampled all water-holding containers | X | X | X | X (focal) | X (focal) | X (focal) |   |   |   |   |   |   |   |
| Recorded number of total containers (No Mosquito P/A) NONFOCAL blocks |   |   |   |   | X | X |   |   |   | X? | X? | X? | X? |
| Recorded yards with ZERO containers |   |   |   |   | X | X | X | X | X | X | X | X |   |
| Recorded Mosquito P/A in all accessible samples |   |   |   |   |   |   | X | X | X | X | X | X | X? |
| Sampled only Mosquito-positive containers |   |   |   |   |   |   | X | X | X | X | X | X (but not all, even focal) | X (focal) |

\*Periods 1, 2 and 3 began in mid-June, late July and mid-September, respectively.

*Spatial coverage:*

Blocks were sampled differentially throughout the years; in some cases, focal blocks were confused. 2012 and 2016 were truncated spatially or temporally. The following table lists the number of parcels visited for each block ID; 2012 and 2016 do not include parcels visited with zero containers. Blocks named NA were unnamed in the datasheet.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Block | 2012 period 1 | 2012 period 2 | 2012 period 3 | 2013 period 1 | 2013 period 2 | 2013 period 3 | 2014 period 1 | 2014 period 2 | 2014 period 3 | 2015 period 1 | 2015 period 2 | 2015 period 3 | 2016 period 1 | 2016 No Date |
| B1M | NA | NA | NA | 5 | 3 | 3 | 35 | 14 | 6 | 8 | 4 | 7 | NA | NA |
| B1N | NA | NA | NA | NA | 4 | 2 | 10 | 11 | 1 | 5 | 28 | 10 | NA | NA |
| B1S | NA | NA | NA | NA | 5 | 1 | 20 | 12 | 9 | 35 | 7 | 27 | NA | NA |
| B2N | NA | NA | NA | NA | 2 | 7 | 13 | 8 | 11 | 9 | 17 | 13 | NA | NA |
| B2S | NA | NA | NA | 6 | 6 | 4 | 12 | 9 | 9 | 10 | 20 | 14 | NA | NA |
| B3E | NA | NA | NA | NA | NA | 5 | 11 | 8 | 18 | 30 | 25 | 24 | NA | NA |
| B3W | NA | NA | NA | 8 | 4 | 2 | 11 | 9 | 7 | 10 | 9 | 14 | NA | NA |
| F1E | NA | NA | NA | 11 | 5 | 2 | 4 | 11 | 12 | 17 | 18 | 5 | 13 | NA |
| F1W | 6 | 1 | 2 | NA | 6 | 23 | 29 | 26 | 20 | 30 | 36 | 22 | 8 | NA |
| F2E | NA | NA | NA | 13 | 4 | 8 | 27 | 18 | 12 | 18 | 13 | 14 | 4 | NA |
| F2W | NA | 7 | 4 | 7 | 16 | 20 | 48 | 35 | 33 | 50 | 47 | 30 | 8 | NA |
| F3E | 3 | 7 | 6 | 14 | 9 | 6 | 10 | 16 | 22 | 28 | 14 | 41 | 10 | NA |
| F3W | NA | NA | NA | NA | 17 | 21 | 25 | 29 | 29 | 27 | 33 | 36 | 3 | NA |
| F4N | NA | NA | NA | 12 | 12 | 16 | 8 | 24 | 14 | 42 | 37 | 30 | NA | NA |
| F4S | NA | NA | NA | 33 | 6 | 23 | 19 | 31 | 18 | 45 | 18 | 46 | NA | NA |
| HM1E | NA | NA | NA | 13 | 17 | 15 | 7 | 17 | 14 | 12 | 31 | 17 | 10 | NA |
| HM1W | NA | NA | NA | NA | 3 | 11 | 19 | 21 | 18 | 43 | 17 | 29 | 18 | NA |
| HM2 | NA | NA | NA | NA | NA | 1 | NA | NA | NA | NA | NA | NA | NA | NA |
| HM2N | NA | NA | NA | NA | 7 | 2 | 6 | 8 | 12 | 9 | 6 | 15 | 12 | NA |
| HM2S | NA | NA | NA | 8 | 11 | 22 | 22 | 20 | 21 | 13 | 30 | 23 | 24 | NA |
| HP1E | NA | NA | NA | 20 | 14 | 38 | 23 | 38 | 29 | 50 | 30 | 38 | 31 | 1 |
| HP1W | NA | NA | NA | NA | 9 | 8 | 15 | 12 | 10 | 18 | 13 | 18 | 9 | NA |
| HP2E | NA | NA | NA | 16 | 18 | 22 | 30 | 20 | 21 | 30 | 33 | 34 | 22 | NA |
| HP2W | NA | NA | NA | NA | 8 | 11 | 26 | 26 | 10 | 39 | 28 | 29 | 24 | NA |
| HP3E | NA | NA | NA | 38 | 15 | 45 | 51 | 25 | 38 | 47 | 38 | 52 | 28 | NA |
| HP3W | NA | NA | NA | NA | 8 | 6 | 54 | 46 | 31 | 60 | 26 | 35 | 41 | NA |
| HP4E | NA | NA | NA | 17 | 6 | 20 | 31 | 23 | 8 | 22 | 35 | 23 | NA | NA |
| HP4W | NA | NA | NA | NA | 14 | 31 | 33 | 20 | 13 | 25 | 24 | 26 | NA | NA |
| HP5N | NA | NA | NA | 31 | 8 | 11 | 44 | 47 | 24 | 57 | 44 | 45 | NA | NA |
| HP5S | NA | NA | NA | NA | 7 | 33 | 69 | 50 | 34 | 44 | 35 | 32 | NA | NA |
| NA | 9 | 17 | 3 | NA | 2 | 1 | NA | NA | NA | NA | NA | NA | NA | NA |
| US1N | NA | NA | NA | NA | 8 | 8 | 8 | 8 | 12 | 21 | 17 | 22 | 12 | NA |
| US1S | NA | NA | NA | 1 | 12 | 17 | 25 | 32 | 30 | 17 | 42 | 35 | 3 | NA |
| US2E | NA | NA | NA | 1 | 6 | 10 | 9 | 14 | 11 | 7 | 19 | 20 | 5 | NA |
| US2W | 4 | 8 | 2 | NA | 2 | 2 | 9 | 6 | 10 | 28 | 19 | 40 | 13 | NA |

*Formatting changes and assumptions by spreadsheet in the Mastercontaine\_Public\_Archive.xlsx workbook:*

All Years/sheets:

* If a water sample was taken but no mosquito data are presented- assumed zeros for mosquito variables, otherwise, NA.
* Changed headings to match across sheets and added columns with NAs where needed.
* Container volume was modified such that values with < or > or L were changed to an integer (1, 5, 10)
* Replaced N/A with NA
* Values that were not recorded (container number, date, etc) were changed to NA, so not all NAs mean not applicable. They might mean no recorded value.
* Heading indicating container number indicates container ID for that parcel at that sampling time rather than the number of containers- this is assumed to be true across sampling years.

2012:

* Removed variables unique to 2012 and placed in a sheet called 2012\_unique\_variables
* Added container type, but did not have the ability to make distinctions among types (e.g. categorized all buckets as storage, but some may have been trash)
* Added focal and sample columns, populated as in other years (2013, 2014)
* Converted total container volume to L (from mL) to be consistent with other sheets, but retained precision

2015:

* Added yard (siteID) based on, where possible, earlier year spreadsheets, or based on the common protocol (StreetNumber, StreetLot, StreetPark, etc).
* One container had an unknown type and light situation as if the information was not recorded- it was set to NA (no container)

2015.0\_included.Rready, 2014.0and NFincluded.Rready

* Replaced session with first date of each session, added yard and other variables as needed to combine with non zero data
* Added NA when sample was taken but no sample volume was given

## *Data dictionary*

|  |  |
| --- | --- |
| yard | parcel ID |
| address | physical address or lot name (REDACTED for public archive) |
| notes | occupation status of address |
| date | date |
| nbhd | neighborhood |
| blockID | block ID |
| survey | survey taken or not |
| Focal | focal block or not |
| Sample | sample taken or not |
| ContainerID | Container ID for this parcel at this time |
| ContainerDescription | description of container |
| ContainerType | yard, structural, trash, recreation, storage (functional = yard care, recreation, storage) |
| Mosquitoes | mosquito presence/absence in the container |
| OtherBiota | P/A of non-mosquito biota in the container |
| Light | light exposure of container |
| TotalVolume.L | water volume in container (L) |
| SampleVolume.mL | sample volume (mL) |
| Nitrite.ppm | sample nitrite concentration (ppm) |
| Nitrate.ppm | sample nitrate concentration (ppm) |
| Ammonia.ppm | sample ammonia concentration (ppm) |
| Phosphorus | sample P concentration (ppm) |
| pH | sample pH |
| TDS.ppm | sample total dissolved solids concentration (ppm) |
| PupaeCx | number of pupae in container - Culex |
| PupaeAE | number of pupae in container - Aedes |
| TotPupae | total pupae in container |
| EarlyCX | number of early instar in container -Culex |
| EarlyAE | number of early instar in container -Aedes |
| TotEarly | total early instar larvae |
| cxpi | TOTAL C. PIPIENS |
| cxre | TOTAL C. RESTUANS |
| aeal | TOTAL A. ALBOPICTUS |
| aetr | TOTAL A. TRISERIATUS |
| aeja | TOTAL A. JAPONICUS |
| Adults | Adults dead in container water |
| TotLate | total late instar larvae |
| SampleTotal | Total mosquitoes? |
| cxte | cxterritans |
| aeae | aeaegypti |
| aeve | vexans |
| toxo | toxo |
| cxsa |  |
| anop |  |

**Yard Matrices (YardMatrices.xlsx) hidden from public archive. contact LADEAUS@caryinstitute.org**

The data are compiled from the Container data above for easier analysis. The workbook contains a matrix (yardmat.year) for each year and a matrix for each year with sampling periods distinguished (season.year). 2016 had only one sampling period, so does not have a season.2016 tab. Assumptions made when estimating juvenile numbers: Estimated totals are count/sampleVol \* total vol. and Max vol used as total = 10L. Assume that containers bigger than 10L don't increase mosquito habitat linearly.

*Data summary:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | Number of Yards | Number of Blocks (including no name- NA) | Zeros (parcels without habitat) included | Sample periods |
| 2012 | 70 | 12 | No | 3 |
| 2013 | 752 | 35 | Yes | 3 |
| 2014 | 1233 | 33 | Yes | 3 |
| 2015 | 1516 | 33 | Yes | 3 |
| 2016 | 296 | 20 | No | 1 |

## *Data dictionary:*

|  |  |
| --- | --- |
| blockID | individual block |
| bcluster | 2-block cluster |
| nbhd | neighborhood |
| yard | parcel ID |
| period | sampling period: June, late July, Sept = 1,2,3 |
| totCont | total water holding containers per parcel |
| tot.pos | total containers with mosquitoes |
| tot.PupCx | total containers with pupae - Culex |
| tot.PupAe | total containers with pupae - Aedes |
| Func.tot | # functional containers per yard |
| Func.pos | # functional with mosquitoes |
| Func.posAeal | # functional with Aedes |
| Func.posCx | # functional with Culex |
| Struc.tot | Structural containers (as above) |
| Struc.pos |  |
| Struc.posAeal |  |
| Struc.posCx |  |
| trash.tot | Trash containers (as above) |
| trash.pos |  |
| trash.posAeal |  |
| trash.posCxpi |  |
| tot.Ecxpi | total number of Cx. pipiens larvae, estimated for all containers per parcel. |
| tot.EAeal | total number of Ae. Albopictus larvae, estimated for all containers per parcel. |
| tot.EAeja | total number of Ae. Japonicus larvae, estimated for all containers per parcel. |
| tot.ECxre | total number of Cx. Restuans larvae, estimated for all containers per parcel. |

**Spatial information (spatial\_information.xlsx, blocks\_poly\_unproj.shp, tl\_2018\_24510\_roads.shp, Block\_map.R, archived map files, other shapefiles) - Locations beyond block ID code has been hidden for public archive. contact LADEAUS@caryinstitute.org**

This folder contains a variety of information regarding the geography and temporal condition data for the sampled blocks and trap sites and other miscellaneous site condition/treatment data. The files included are an Excel workbook with several sheets, shapefiles and R code for visualizing blocks and trap sites. Content, formatting changes, assumptions and data dictionaries are detailed below.

## *Excel file information*

### *BGS trap sites*

Geographical information regarding location of adult mosquito traps including address and spatial coordinates. Spatial coordinate data were gathered using the US Census geocoding service <https://geocoding.geo.census.gov/geocoder/locations/addressbatch?form>. Corrected address (corr.address column) rarely returned a lat/long location, so the original address was used. Where both failed, lat/long were located manually using Google Earth. Data dictionary follows:

|  |  |
| --- | --- |
| **BGS trap sites** |  |
| nbhd | neighborhood |
| blockID | individual block |
| trap | trap ID |
| FID\_parcel | parcel census FID (REDACTED for public archive) |
| address | parcel address (REDACTED for public archive) |
| corr.address | updated parcel address if traps were moved (REDACTED) |
| location | where on parcel trap was located |
| ST\_NAME | street name |
| ST\_TYPE | street name detal |
| BLDG\_NO |  |
| yard | parcel ID (REDACTED for public archive) |
| long | decimal longitude |
| lat | decimal latitude |
| survey\_ever | survey conducted at any time |
| abandon2012 | parcel abandoned 2012 |
| abandon2013 | parcel abandoned 2013 |
| abandon2014 | parcel abandoned 2014 |

### *Block locations*

Geographical information about sampled blocks as well as information regarding educational and habitat removal intervention. The coordinates for the northwest corner of each block and the bounding street data are slightly inconsistent in some cases- F2W, HP3E, HP3W (switched?), and US2E and US2W (also switched) being the most irregular. However, the block polygons (see geographic data below) were hand digitized based on the bounding street names. Data dictionary follows:

|  |  |
| --- | --- |
| **Block locations** |  |
| nbhd | neighborhood |
| bcluster | 2-block cluster |
| blockID | individual block |
| lat | decimal latitude, NW corner (appr) |
| long | decimal longitude, NW corner (appr) |
| Elevation.ft | elevation |
| Interv.juvenilehabitat.2016 | intervention (juvenile habitat removal) |
| St.Lukes2013.14 | intervention (juvenile habitat removal in collaboration with St. Luke's Church after school program) |
| PassEd.2013 | intervention (passive education- information fliers) |
| focal | focal block or not |
| traps | traps or not |

### *Segment surveys*

Records of walk around observational surveys for conditions/amenities in each block. Data dictionary follows:

|  |  |
| --- | --- |
| blockID | individual block |
| street | street |
| segment | segment ID |
| trees.abandoned | # trees on abandoned blocks |
| trees.managed | # trees on occupied lots |
| trees.street | # street trees |
| boarded.doors | #buildings with boarded doors (No red X) |
| boarded.window.bldg | # buildings boarded windows |
| boarded.w.x | # buildings with red X |
| num.parks | # estab. parks |
| grass.vacant | # vacant lots with grass |
| vacant.w.trees | # vacant lots with trees |
| grass.private | # green private yards |
| comm.garden | # community gardens |
| dumpster.tot | # dumpsters |
| dumpster.overflow | # overflowing dumpsters |
| dump.site | # semi-permanent dumping sites |
| num.litter.park | # litter on public space |
| abandoned.bldg | sum(boarded.w.x and boarded.doors) |
| vacant.lots | sum(vacant.w.trees, vacant.grass) |

### *Census block data*

US census/ACS data for education, income and poverty data for each sampled block. Data dictionary follows:

|  |
| --- |
| **census block data** |
| blockID | individual block |
| GEOID | Census GEOID |
| label | Census label |
| mhi13 | 2013 Estimate; Median household income in the past 12 months (in 2013 inflation-adjusted dollars) -- - Total: |
| moe13 | 2013 Margin of Error; Median household income in the past 12 months (in 2013 inflation-adjusted dollars) -- - Total: |
| mhi14 | 2014 Estimate; Median household income in the past 12 months (in 2014 inflation-adjusted dollars) -- - Total: |
| moe14 | 2014 Margin of Error; Median household income in the past 12 months (in 2014 inflation-adjusted dollars) -- - Total: |
| hs13 | 2013 Total; Estimate; Percent high school graduate or higher |
| bd13 | 2013 Total; Estimate; Percent bachelor's degree or higher |
| hs14 | 2014 Total; Estimate; Percent high school graduate or higher |
| bd14 | 2014 Total; Estimate; Percent bachelor's degree or higher |
| pp13 | 2013 Percent below poverty level; Estimate; Population for whom poverty status is determined |
| pp14 | 2014 Percent below poverty level; Estimate; Population for whom poverty status is determined |

### *Parcel status*

Occupancy status of sampled parcels over time. Data dictionary follows:

|  |  |
| --- | --- |
| nbhd | neighborhood |
| blockID | individual block |
| yard | parcel ID (REDACTED for public archive) |
| Status 2012 | Occupation status in 2012 (A: abandoned- vacant with derelict building, O: occupied, V: vacant, C: church) |
| Status 2013 | As in 2012 above |
| Status 2014 | as above |
| Status 2015 | as above |
| Status 2016 | as above |
| Notes | Status change/no change |

## *Geographic visualization data*

Shapefiles, coordinate data from spatial\_information.xlsx and a brief R script allow for simple viewing of the neighborhoods, sampled blocks and adult trap locations. One visualization requires Census Tiger/LINE road data (included as a shapefile). As stated above, the point block locations are imprecise in some cases; however, the block polygon data were manually digitized based on bounding street data in the block locations spreadsheet.

## *Other archived data*

During each container survey (up to three times a year), site condition and other information were documented on paper maps, which are archived. ArcGIS shapefiles beyond what are discussed earlier are also archived.

**Survey Data (Masterkapsurvey\_Public\_Archive.xlsx)**

Surveys of residents in sampled blocks were conducted in 2012, 2013, 2014 and 2016; this workbook contains a sampling design overview in the overview tab, the results of the surveys in five tabs, and the actual surveys for 2013, 2014 and 2016 in two tabs. 2013 block data are contained in two worksheets- one worksheet is dedicated to two blocks (F2W and US2W), but the data are duplicated in the SURVEY\_2013 sheet. 2012, which was a pilot year, did not have the typical blockID, so using block ID was determined by aligning the 2012 survey data with 2012 master container data to get the block names. The assumption is that the spreadsheets are consistent across datasets/universes. 2013 was first full sample of all 5 neighborhoods, 2014 was revisit to increase numbers on specific blocks. 2016 was a resample of all five neighborhoods.

*Spatial coverage:*

Blocks were sampled for survey data differentially throughout the years. The following table indicates the number of parcels for which a survey was completed by block, year and sampling period.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| blockID | 2012 period 1 | 2012 period 3 | 2012 period 2 | 2013 period 1 | 2013 period 2 | 2013 period 3 | 2014 period 1 | 2016 period 1 |
| B1M | NA | NA | NA | 5 | 4 | 4 | NA | 7 |
| B1N | NA | NA | NA | NA | 5 | 2 | 11 | 11 |
| B1S | NA | NA | NA | NA | 6 | 2 | 6 | 7 |
| B2N | NA | NA | NA | NA | 3 | 2 | 5 | NA |
| B2S | NA | NA | NA | 4 | 3 | 5 | NA | 3 |
| B3E | NA | NA | NA | NA | 5 | 6 | 9 | 12 |
| B3W | NA | NA | NA | 6 | NA | 2 | NA | 1 |
| F1E | NA | NA | NA | 4 | 1 | 2 | NA | NA |
| F1W | 2 | 1 | NA | NA | 5 | 3 | NA | 6 |
| F2E | NA | NA | NA | 3 | 1 | NA | NA | 2 |
| F2W | NA | NA | 2 | 4 | 2 | 2 | NA | 2 |
| F3E | 3 | 1 | 1 | 7 | 1 | 1 | NA | 5 |
| F3W | NA | NA | NA | NA | 7 | 3 | NA | 2 |
| F4N | NA | NA | NA | 11 | 2 | 2 | NA | NA |
| F4S | NA | NA | NA | 8 | 4 | 5 | NA | NA |
| FS1E | NA | NA | NA | NA | NA | NA | NA | 2 |
| FS2W | NA | NA | NA | NA | NA | NA | NA | 2 |
| FS3W | NA | NA | NA | NA | NA | NA | NA | 5 |
| HM1E | NA | NA | NA | 4 | 8 | 1 | NA | 3 |
| HM1W | NA | NA | NA | NA | 10 | 7 | NA | 2 |
| HM2N | NA | NA | NA | NA | 6 | 1 | 4 | 3 |
| HM2S | NA | NA | NA | 9 | 5 | 7 | NA | 4 |
| HP1E | NA | NA | NA | 6 | 3 | 3 | NA | 5 |
| HP1W | NA | NA | NA | NA | 2 | 1 | NA | NA |
| HP2E | NA | NA | NA | 2 | 1 | 1 | NA | NA |
| HP2W | NA | NA | NA | NA | 1 | 3 | NA | 1 |
| HP3E | NA | NA | NA | 2 | NA | 1 | NA | 3 |
| HP3W | NA | NA | NA | NA | 4 | 2 | NA | 2 |
| HP4E | NA | NA | NA | 7 | 3 | 3 | NA | 3 |
| HP4W | NA | NA | NA | NA | 5 | 1 | NA | 3 |
| HP5N | NA | NA | NA | 15 | 11 | 4 | NA | 7 |
| HP5S | NA | NA | NA | NA | 5 | 3 | NA | 7 |
| US1N | NA | NA | NA | NA | 7 | 1 | 5 | 4 |
| US1S | NA | NA | NA | 2 | 5 | 2 | 6 | 5 |
| US2E | NA | NA | NA | 2 | 3 | 6 | NA | 4 |
| US2W | 4 | 2 | NA | NA | 2 | 5 | 6 | 6 |
| NA | 17 | 18 | 16 | NA | NA | NA | NA | NA |

*Data dictionary:*

|  |  |
| --- | --- |
| YEAR | year |
| nbhd | neighborhood |
| date | date |
| blockID | individual block (REDACTED for public archive) |
| yard | parcel ID |
| address | Address (REDACTED for public archive) |
| Many Columns: Q… | Responses to survey questions follow |
| Several Columns: K, A, or P… | Summary of preceding data follow KAP (Knowledge, Attitude, Practices) survey responses |

**Adult Mosquito data (MASTERadult.xlsx)**

These data provide counts and identification of (primarily) female adult mosquitoes that were actively trapped over years and block clusters. The data are presented in one .xlsx file with one worksheet per year (2013-2017) and one extra worksheet with data corresponding specifically to GAT traps used in 2013.

## *Spatial/Temporal coverage*

Block clusters, time period sampled, number of traps/block cluster, deployments/trap and general length of deployment are provided below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2013 | 2014 | 2015 | 2016 | 2017 |
| Block cluster | # Weeks | # Deployments | # Traps | Trap Nights | # Weeks | # Deployments | # Traps | Trap Nights  | # Weeks | # Deployments | # Traps | Trap Nights | # Weeks | # Deployments | # Traps | Trap Nights | # Weeks | # Deployments | # Traps | Trap Nights |
| BH1 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | NA | NA | NA | NA |
| BH2 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | NA | NA | NA | NA |
| BH3 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | NA | NA | NA | NA |
| FS1 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | NA | NA | NA | NA |
| FS2 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | NA | NA | NA | NA |
| FS3 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | 8 | 7 | 5 | 1-2 |
| HM2 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | 8 | 7 | 2 | 1-2 |
| HP1 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | 8 | 7 | 2 | 1-2 |
| HP2 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | 8 | 7 | 2 | 1-2 |
| HP3 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | 8 | 7 | 2 | 1-2 |
| US1 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | NA | NA | NA | NA |
| US2 | 16 | 7 | 2 | 2 | 24 | 9 | 2 | 1-2 | 21 | 7 | 2 | 1-2 | 18 | 7 | 3 | 2 | 8 | 7 | 2 | 1-2 |
| HM1 | NA | NA | NA | NA | NA | NA | NA | NA | 21 | 7 | 2 | 1-2 | 18 | 7 | 2 | 2 | 8 | 7 | 5 | 1-2 |
| HP3NF | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 8 | 7 | 2 | 1-2 |
| HP4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 8 | 7 | 2 | 1-2 |
| HPN | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 8 | 7 | 4 | 1-2 |

The number of trap nights (days deployed) differed across sampling bouts and is summarized below. Note that SampleBout is sequential and doesn’t indicate sampling at the same time of year across years.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SampleBout | 2013 Deployment Length (Days) | 2014 Deployment Length (Days) | 2015 Deployment Length (Days) | 2016 Deployment Length (Days) | 2017 Deployment Length (Days) |
| 1 | 2 | 1 | 2 | 2 | 2 \* |
| 2 | 2 | 2 | 2 | 2 | 1 |
| 3 | 2 | 2 | 2 | 2 | 1 |
| 4 | 2 | 2 | 2 | 2 | 1 |
| 5 | 2 | 2 | 1 | 2 | 1 |
| 6 | 2 | 2 | 2 | 2 | 1 |
| 7 | 2 | 2 | 2 | 2 | 1 |
| 8 | NA | 2 | NA | NA | NA |
| 9 | NA | 2 | NA | NA | NA |

\*In 2017, all block clusters/traps had two trap nights in sampling bout one except for block cluster HPN which had one trap night for all sampling bouts.

## *Assumptions and comments on data*

In 2013 and 2017, both males and females were identified (at least to genus where possible), so the number of columns is longer than that of the remaining years. In 2014-2016, only females were identified to genus and/or species. Fem.ae may include all individuals from the genus (2015-2017) or only individuals that could not be identified to species (2014), so the column was renamed unid.fem.Ae in 2014. In the latter case, it was presumed that the mosquitoes were unidentifiable due to age or condition. For females, the totals of other, unid, Cx, Aeal and Aeja should sum to the F (females) column. Missing numbers are likely due to damage rendering individuals unidentifiable.

Heads are included in 2016 and 2017 because there were a considerable number of mosquito heads (without bodies) in the traps these years. The fem.aedes/aeal.plus.heads and fem.culex.plus.heads columns in 2016 and 2017 are a count of both intact individuals and heads for that trap. 2017 also differed from other years in block cluster names and trap identifiers- new and a larger number of traps were used in some locations. Some trap identifiers were listed several times in a given block cluster for a given trap night; this is likely because traps were separated by blocks in the 2017 spreadsheet, whereas only block cluster identifiers were provided in 2013-2016.

Some sampling dates in the 2014 spreadsheet were listed as 2015 (week 38, sample bout 7). Since the year column stated 2014 and the dates were quite different for that sample bout in 2015, I assumed this was a mistake and made the dates 2014 instead of 2015.

## *Data Dictionary*

|  |  |
| --- | --- |
| Ae | male and female Aedes sp. |
| aeal | male and female aeal |
| aeja | male and female aeja |
| bcluster | 2-block cluster |
| Cx | male and female Culex sp |
| date | date |
| ENGORGED | bloodmeal detected in individual |
| F | female adult count |
| unid.fem.Ae | female Aedes not identified to species due to age |
| fem.Ae | female Aedes (either all Aedes or identified to only genus- see notes) |
| fem.aeal | female aeal |
| fem.aeja | female aeja |
| fem.culex | female Culex |
| fem.other | females of other genera/species |
| fem.vexans | female Vexans |
| femaedes.plus.heads | sum of intact female Aedes and female Aedes heads |
| femcx.plus.heads | sum of intact female Culex and female Culex heads |
| heads.ae | Aedes heads |
| heads.cx | Culex heads |
| initial.total | Initial mosquito count (m/f all) |
| M | male adult count |
| nbhd | neighborhood |
| notes | notes |
| Other | other species |
| period | sampling period: June, late July, Sept = 1,2,3 corresponds to juvenile surveys |
| SampleBout | generally a two day sampling period- seven total per year |
| trap | trap ID |
| unid | unidentified adults |
| weeknum | week number |
| Year | year |
| male.aeal | male aeal |
| male.culex | male Culex |
| male.jap | male aeja |
| male.vexans | male Vexans |
| an.punctipenis | an.punctipenis |
| an.quadrimaculatus | an.quadrimaculatus |
| annopheles sp. | annopheles sp. |
| Ae.aegypti |  |
| Coq | Coquitidiae |
| Culiseta |  |
| Oc. Stimulas |  |

## *Mosquito counts by species/block cluster/sample bout (code)*

The Adults.R scriptfile will calculate summaries of the adult mosquito ID data by block cluster and sample bout over a year or by block cluster for the entire year.

**Blood meals (MASTER\_Bloodfed.xlsx)**

Includes identification of blood meal source of 2015 and 2016 subsamples of adult female mosquitoes. The data are separated into two worksheets- one for each year.

## *Spatial/temporal distribution*

The number of mosquitos sampled for blood meal analysis was distributed across block clusters and time as follows:

|  |  |  |
| --- | --- | --- |
| Block Cluster | 2015 | 2016 |
| BH1 | 4 | 0 |
| BH2 | 12 | 0 |
| BH3 | 4 | 4 |
| FS1 | 36 | 7 |
| FS2 | 37 | 10 |
| FS3 | 26 | 37 |
| HM1 | 18 | 16 |
| HM2 | 25 | 10 |
| HP1 | 32 | 7 |
| HP2 | 14 | 11 |
| HP3 | 19 | 25 |
| US1 | 12 | 4 |
| US2 | 47 | 4 |
| US3 | 8 | 0 |

## *Data dictionary*

|  |  |
| --- | --- |
| month |  |
| year |  |
| Date  |  |
| Sample ID | sample ID |
| Label | sample label |
| bcluster | 2-block cluster |
| trap | trap ID |
| nbhd | neighborhood |
| trapMethod |  |
| Genus | mosquito genus |
| species | mosquito species |
| Result.group | bloodmeal source identified group |
| Results | bloodmeal source identification (species or genus) |
| worked | 0 means that did not amplify or sequences came back inconclusive (non specific amplification) |
| notes |  |

**iButtons (Master\_iButton.xlsx)**

Raw relative humidity and temperature data recorded by iButton during 2015-2017 as well as year-long summaries by sensor for 2016 and 2017. Description of placement of iButton sensors: iButtons were all at A trap location and were attached to tape on a metal pole. Layer of tape, iButton, tape. Duct tape - black. All in shade. All within 1 meter of trap.

## *Spatial/temporal distribution*

iButton distribution varied slightly over time. The following table indicates the number of weeks for which an iButton datalogger was deployed in a given block cluster.

|  |  |  |  |
| --- | --- | --- | --- |
| Block Cluster | 2015 | 2016 | 2017 |
| BH1 | 20 | 25 | NA |
| BH2 | 20 | 25 | NA |
| BH3 | 21 | NA | NA |
| FS1 | 21 | 25 | NA |
| FS2 | 21 | 25 | NA |
| FS3 | 21 | 25 | 18 |
| HM2 | 21 | NA | 18 |
| HP1 | 21 | 25 | 18 |
| HP2 | 21 | 25 | 18 |
| HP3 | 21 | 25 | 18 |
| US1 | 21 | 25 | NA |
| US2 | 21 | NA | 18 |
| HP3.1 | NA | NA | 18 |
| HP4 | NA | NA | 18 |

## *Data dictionary*

|  |  |
| --- | --- |
| date |  |
| month |  |
| weeknum | calendar week number |
| bcluster | 2-block cluster |
| nbhd | neighborhood |
| dC | Degrees (Celsius) |
| rel.humid | relative humidity |
| date |  |
| time | twelve hour time |
| day.night | 0=night, 1= day |
| am.pm |  |
| year |  |

## *Weekly summaries by block cluster (code)*

The iButtons.R script file will summarize iButton data and provide weekly minimum, maximum, mean and daily range for both temperature and relative humidity.

**Viral testing (Results by Trap Site 2015-2016)…**

A subset of adult females were tested for West Nile virus infection. The tab ‘Pools’ is the raw data here and other tabs are summaries.