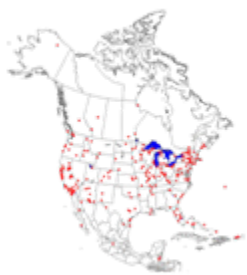




# Exercise: Design tables from NPP data

| DATE     | SITE | WEB | PLOT | QD | SPECIES | OBS | COVER | HEIGHT | COUNT | PHEN | COMMENTS |
|----------|------|-----|------|----|---------|-----|-------|--------|-------|------|----------|
| 2/3/1999 | FPC  | 1   | E    | 1  | ERPU8   | 1   | 0.5   | 4      | 13    | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 1  | ERPU8   | 2   | 0.1   | 2      | 16    | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 1  | GUSA2   | 1   | 0.01  | 4      | 2     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 1  | GUSA2   | 2   | 0.1   | 5      | 1     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 1  | GUSA2   | 3   | 0.5   | 12     | 1     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 1  | LEFE    | 1   | 0.25  | 5      | 1     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | LATR2   | 1   | 7     | 36     | 2     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | LATR2   | 2   | 2     | 32     | 3     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | LATR2   | 3   | 8     | 61     | 1     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | LATR2   | 4   | 3     | 45     | 1     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | LATR2   | 5   | 2     | 24     | 1     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | ERPU8   | 1   | 0.25  | 3      | 3     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | ERPU8   | 2   | 0.05  | 2      | 11    | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | LEFE    | 1   | 0.1   | 4      | 3     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | LEFE    | 2   | 0.25  | 5      | 8     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 2  | GUSA2   | 1   | 0.01  | 5      | 1     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 3  | LATR2   | 1   | 3     | 39     | 1     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 3  | LATR2   | 2   | 2     | 21     | 2     | V    | NA       |
| 2/3/1999 | FPC  | 1   | E    | 3  | ERPU8   | 1   | 0.25  | 4      | 23    | V    | NA       |

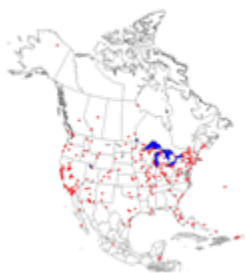




## Exercise Plan

- Form into groups of 2-3 people
- Work for 20 Minutes:
  1. Split tables
  2. Designate column types
  3. Determine relations
- Discuss





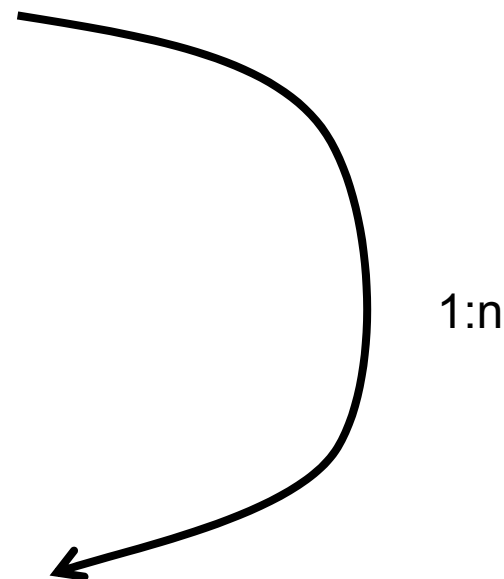
# Exercise Results – What I would do (version 1)

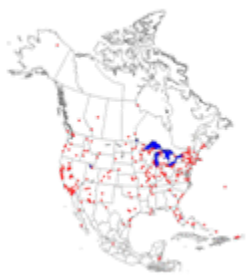
Location

|                  |                       |
|------------------|-----------------------|
| Site             | enum('B','C','G','P') |
| Web              | integer(1)            |
| Plot             | enum('N','S','E','W') |
| Quad             | integer               |
| Location_id (PK) | integer               |

Observation

|                     |                    |
|---------------------|--------------------|
| Date                | date               |
| Species             | char(6)            |
| Observation         | integer            |
| Cover               | float              |
| Height              | float              |
| Count               | integer            |
| Phen                | enum('V','F','NA') |
| Comments            | text               |
| Location_id (FK)    | integer            |
| Observation_id (PK) | integer            |





# Exercise Results – What I would do (alternate version)

Locations

|                  |
|------------------|
| Site             |
| Web              |
| Plot             |
| Quad             |
| Location_id (PK) |

→  
1:n

Observations

|                     |
|---------------------|
| Visit_id (FK)       |
| Species_id (FK)     |
| Observation         |
| Cover               |
| Height              |
| Count               |
| Phen                |
| Comments            |
| Location_id (FK)    |
| Observation_id (PK) |

←  
1:n

Species

|                 |
|-----------------|
| Species         |
| Scientific Name |
| Common Name     |
| Species_id (PK) |

Visits

|               |
|---------------|
| Date          |
| Personnel     |
| Visit_id (PK) |

→  
1:n

