**DAY 30: Wed Nov 5 CA red-legged frog by**

Care N Use of Collections

1. **10:00-10:03 Business—MAKE THIS AS SHORT AS POSSIBLE**
   1. **the eval—please take it (5 so far, and the comments are really helpful!)**
   2. Message Box comments
      1. Don’t quote the text. Summarize
      2. For previous work, write what was studied, not who did the studies
      3. Make sure to write out both what data were gathered and how the data were analyzed (historical resurvey *and* logistic regression!)
      4. The importance of the research is big picture, like ecological changes due to biodiversity loss and disease spread from southern species moving into northern areas
   3. any comments on their projects—remind them the background is due on next Monday
   4. **Wed 2:30-5 reception with Robert Krulwich—**1 pt on final grade of extra credit if you come and ask about science engagement and send me a 5 sentence description of the interaction, what you asked and how he answered
   5. For Friday: celebration of the mind (no extra credit) Satirday 1-5pm
2. **10:03-10:50 Activity 1 Finding the support for the interpretation**
   1. On your board write:
   2. **10:03-10:08: 5 min (3 min to write it, 2 min to talk) The research question(s) investigated in this paper**—be specific
      1. What are the patterns of geographic decline and abundance change for red-legged frog? Are these change a result of climate, UV-B, Habitat destruction or pesticides
   3. **10:08-10:16** For each potential cause (should have been id’d in the big question), what are the **expected patterns** in decline (i.e. the predictions)? **(8 min, 5 to write, 3 to talk)**
   4. **10:16-10:40** For each potential cause, identify the important figure/table that support the finding and **annotate how it supports or doesn’t support the hypothesis🡪Do these in order** (Table 1, Figure 3 and Table 2 in case we don’t get enough time to do all three)
   5. **10:40-10:50** Talk about support and grade each other

**THEIR PREP:**

Message Box for paper

Reading Guide said they had to list each hypothesis and the predictions. I hope they did it, because it will make this class go a lot more smoothly…

Davidson, Carlos, H. Bradley Shaffer, and Mark R. Jennings. "Declines of the California red-legged frog: climate, UV-B, habitat, and pesticides hypotheses."*Ecological applications* 11.2 (2001): 464-479.

**MY PREP:**

* **For me**: message box for paper and notes in this agenda, practiced the activity to try to figure out timing
* **Grade their exam regrades**
* **Give comments on their topics**
* **Grade their message boxes (saved some to have an example)**
* **Team folders**
  + Activity description
  + One copy per group of the paper

**Exam Questions:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Climate change**  ***Greater declines in the south/latitude and at lower altitudes/elevations***  ~~Fig 2 OK (showing greater declines in SoCal)~~  Table 1:  not supportive (shows greater declines at higher elevations,  Weak support for more frogs present at higher latitudes  Fig 3. Not supportive  No greater decline at lower altitude than higher  no greater decline in the south than the north  Table 2 (with or without regions and in SoCal)  (not supportive) more frogs at higher latitudes (or, fewer declines at lower latitudes  (not supportive) more frogs at lower elevation | **UV-B**  ***Greater declines at higher elevations, gradient of decline increasing to the south***  ~~Fig 2 OK (showing greater declines in SoCal)~~  Table 1  Supports: greater declines at higher elevations  Weak support more frogs at higher latitudes  Fig 3 supports: more extinction at higher elevation  Table 2:  Supports: more frogs at lower elevations (or, fewer frogs at higher elevations) in statewide and SoCal  supports: statewide without regions and SoCal: lower latitude has fewer frogs (pos relationship between latitude and frogs) | **Habitat destruction**  ***Declines near urban and ag sites***  Table 1 supports: greater percentage of urban and AG has more absent frogs  Not supported by Fig 3 (no more extinct sites with more urban or ag nearby)  Table 2  Supports: Statewide with and without regions and central coast: neg relationship between percent urban 2-km and frogs (supports!)  Supports: Central Coast % aG 2-km supports (neg relationship with frogs)  Supports: SoCal pos relationship between frogs and distance to AG | **Pesticides**  ***Declines downwind of ag sites***  Supports: Table 1: Upwind Ag has more absent frogs  Supports: Table 1: randomly Ag triangle has no effect  Supports: Fig 3. More extinct sites with greater percentage of upwind agriculture (somewhat weak support)  Supports: Table 2: supports neg relationship between frogs and upwind AG in Statewide with and without regions and Central Valley-Sierra Nevada |

* 1. **DON’T GIVE THEM FIGURE 2! Too difficult to interpret. Table 1 is a good one**
  2. **Figure 3 seems pretty quick to interpret🡪could cut out the portion of it that supports or doesn’t support the hypothesis**