



WOODS INSTITUTE  
FOR THE ENVIRONMENT  
STANFORD UNIVERSITY

# Environmental Venture Projects Forum

Carol Boggs

October 7, 2009

# BAY CHECKERSPOT BUTTERFLY: A FEASIBILITY STUDY FOR RE- INTRODUCTION TO STANFORD LANDS

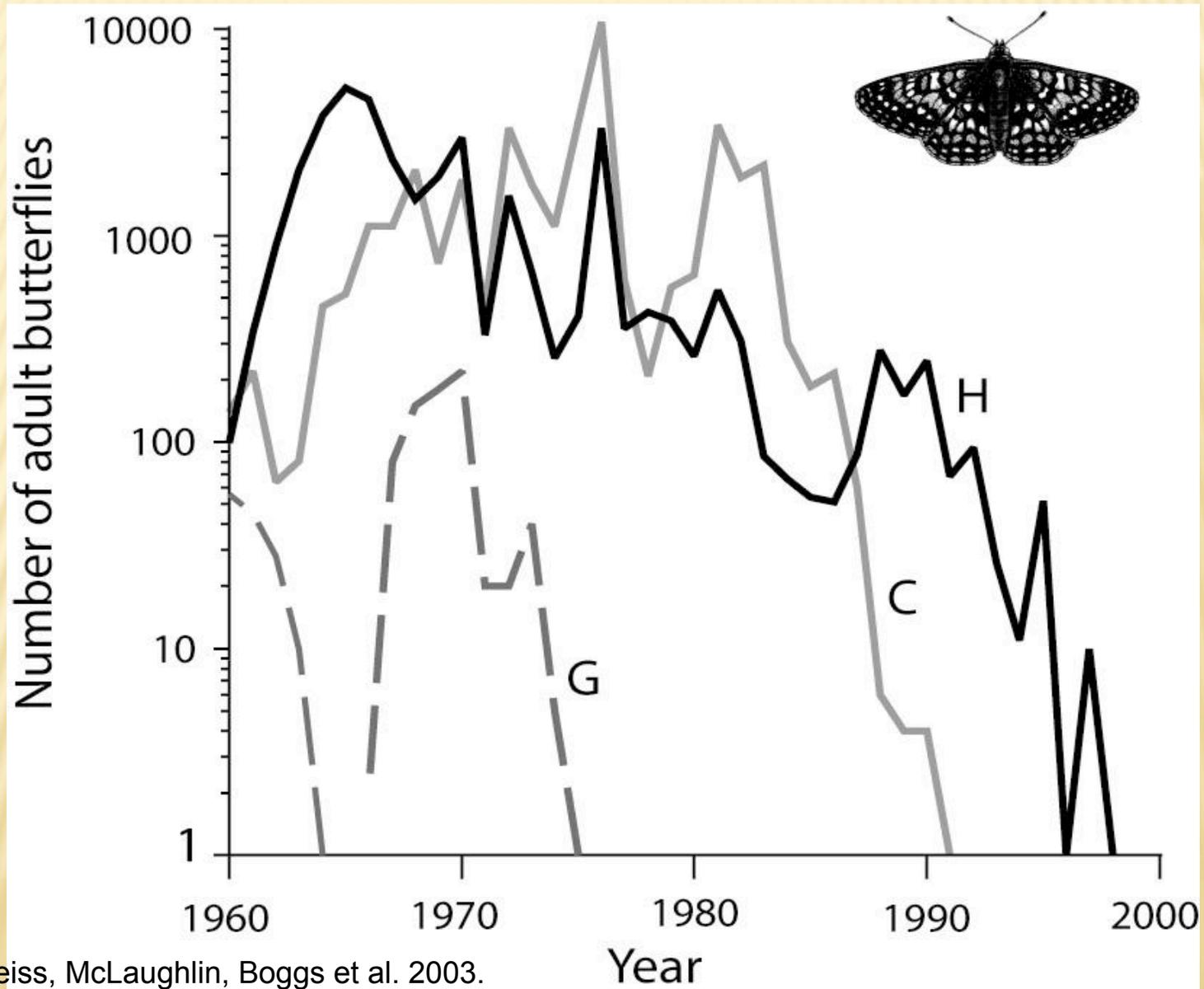


1. What was the genesis of both the project and the team?



# Jasper Ridge Biological Preserve

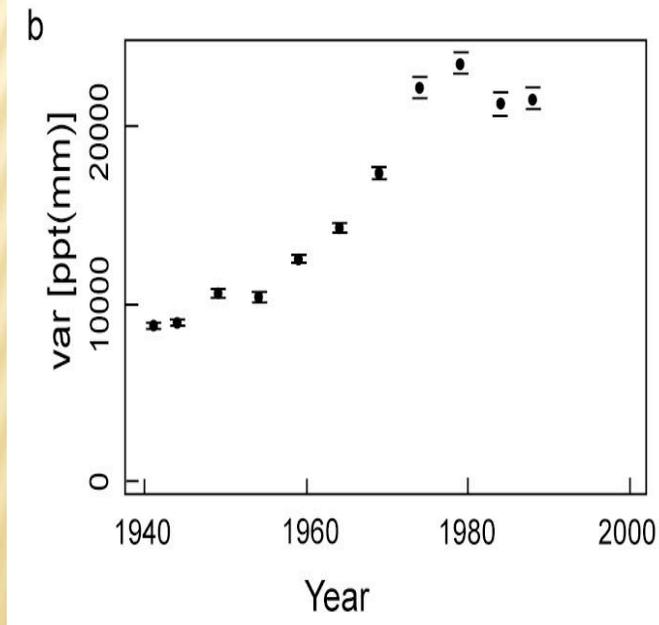
# Long-term study at Jasper Ridge



Hellmann, Weiss, McLaughlin, Boggs et al. 2003.  
Ecological Entomology 28:74-84

# SUMMARY OF EXTINCTION CAUSES

- ✘ Climate change (anthropogenic????)
  - + Inability to buffer *in situ*
- ✘ Habitat loss
  - + Loss of buffering through dispersal from other populations



What's next for this threatened species ?

---

# What's next for this threatened species ?

---

- ✘ Re-introduction to JRBP?

# What's next for this threatened species ?

---

- ✘ Re-introduction to JRBP?
  - + How to “guarantee” success?

# What's next for this threatened species ?

---

- × Re-introduction to JRBP?

- + How to “guarantee” success?

- + **Need to know:**

- × Broader historical factors underlying extinction area-wide:

- History*

- × Legal issues with re-introductions for science purposes: *Law*

- × Habitat manipulation strategies: *Soil & plant sciences*

- × Genetic structure of extinct and extant populations: *Biology*

# What's next for this threatened species ?

---

- × Re-introduction to JRBP?

- + How to “guarantee” success?

- + **Need to know:**

- × Broader historical factors underlying extinction area-wide: *History*

- × Legal issues with re-introductions for science purposes: *Law*

- × Habitat manipulation strategies: *Soil & plant sciences*

- × Genetic structure of extinct and extant populations: *Biology*

- + **Assemble team with expertise!**

2. How did you keep your team members working together in an integrated fashion?

## 2. How did you keep your team members working together in an integrated fashion?

- Regular meetings, with presentation of plans/ results
- Guest presentations
- Sub-groups
- Membership on doctoral thesis committees
- Small group of “point-people”

3. How did the project change the way you work and think?

### 3. How did the project change the way you work and think?

- New network connections across depts
- Integration of historical perspectives/ techniques into biology
- Piece of genesis of “spatial history project”

4. How did the interdisciplinary structure change how you work on a project?

## 4. How did the interdisciplinary structure change how you work on a project?

- It didn't really.....other than broader focus of the efforts

5. Why do you think your project was successful? (define success).

## 5. Why do you think your project was successful? (define success).

Success:

- a) answering the questions posed
- b) producing a broad & integrated set of answers to the questions.

## 5. Why do you think your project was successful? (define success).

Success:

- a) answering the questions posed
- b) producing a broad & integrated set of answers to the questions.

Successful?:

- Mostly
  - History & biology complemented & informed each other
  - Law somewhat less so
    - needed law student earlier

6. How did the interdisciplinary character of the project improve the research and its results?

## 6. How did the interdisciplinary character of the project improve the research and its results?

- Interaction of soil science/ biology:
  - critical to habitat creation experiments
- Interaction of history/ soil science/ biology:
  - critical to understanding extinction patterns, recommended management strategies
- Interaction of law/ history/ soil science/ biology:
  - critical to development of the case study

7. What have you learned from this experience that can help others planning to do interdisciplinary work?

7. What have you learned from this experience that can help others planning to do interdisciplinary work?

- 6 faculty PIs create scheduling problems
- 6 faculty PIs create perspective benefits
- doctoral students are critical

## 7. What have you learned from this experience that can help others planning to do interdisciplinary work?

- 6 faculty PIs create scheduling problems
- 6 faculty PIs create perspective benefits
- doctoral students are critical

- Be aware of language differences
- Be open to different ways of looking at a problem
- Look for “natural” affinities

7. What have you learned from this experience that can help others planning to do interdisciplinary work?

-It's fun, formative & informative!

