

California Naturalist –Homework – Chapter 5 -- Forests

We employ a somewhat different approach to homework. The intention of this approach is to foster greater engagement with the course material and cultivate wonder and curiosity. You are also encouraged to review the standard homework/study questions prepared by the UCANR California Naturalist Program and request instructor clarification of anything you're not sure about. You may opt to answer and submit these standard questions for each chapter instead of Sierra Stream's assignment. See below for a link to the PDF with those questions for all the chapters. NOTE: the PDF has not downloaded properly for some people. If this happens to you, please email cnssi@sierrastreamsinstitute.org and we'll send it to you via email.

HOW TO SUBMIT HOMEWORK ASSIGNMENTS

- Create a new email with subject line: CNat-Class x-FirstName LastName

For example: CNat-Class 1-Jane Goodall

- Then either attach your completed homework or paste it into the body of the email.

Submissions WILL ONLY BE OPENED IF they meet these criteria.

- Email your homework to the following email address:

cnssi@sierrastreamsinstitute.org

BEFORE CLASS

- Read chapter 5 in the textbook - you may do the homework as you go if you wish.
 - Class content will build on the readings and PDFs throughout the course.

Optional before class:

- EXPLORE our class website: <https://cnssi.wordpress.com>. This will be ever-evolving. Please note that the info is located in the drop down options.
- View this PDF (originally a PowerPoint):
https://cnssi.files.wordpress.com/2018/03/chaptersix_v1.pdf

HOMEWORK ASSIGNMENT #4

You will get the most out of the in-class experience if you have done your homework each week before class begins.

The homework for every chapter in the book will be to engage as described below. If you prefer a more traditional homework approach you may INSTEAD submit answers to the standard homework/study questions prepared by the UC California Naturalist Program. See below.

Your Name _____

Homework for Class # _____ ~ Chapter # _____ ~ Topic

ENGAGE with material from reading and PDF by briefly noting:

• ***Two things that caught your attention. What interested you? Why?***

1.

2.

• ***Two questions that come to mind about the material. What are you curious about?***

1.

2.

• ***One or two things you'd love to share with someone. Share it if you can!***

1.

2.

• Was there anything that was confusing, or about which you'd like more info or clarification?

Chapter 5 – Forest, Woodland, and Range Resources & Management - UC California Naturalist Program Standard Homework/Study Questions

Below are the standard homework/study questions prepared by the UC California Naturalist Program for Chapter 5. You are encouraged to review these and request instructor clarification of anything you're not sure about.

You may opt to answer and submit these standard questions for each chapter instead of the homework described above.

*This PDF contains study questions for all the chapters in the textbook:
https://cnssi.files.wordpress.com/2015/02/cal-nat-handbook_all-chapters_questions-and-study-guide.pdf*

Chapter 5 – Forest, Woodland, and Range Resources & Management

1. History of California forests and their management:

- a. What are some characteristics of coniferous forests, and where are they found?
- b. What are some characteristics of broadleaf forests, and where are you likely to find broadleaf forests in CA?
- c. How much of each forest type is privately vs. publicly owned?
- d. What are some of the biggest threats to oak woodlands in CA?
- e. Who was Gifford Pinchot? What was his role in changing forest management in the United States?
- f. How did John Muir's philosophy influence forest practices on federal lands?
- g. What were some of the drivers for western forest conversion post World War II?
- h. How have recent practices incorporated a more "ecological" approach to forest management?

2. Forest dynamics:

- a. What are some forest disturbances that impact species composition, and the structure of a forest stand?
- b. What is succession? What species would you expect to see in an area recently exposed to a large disturbance?

c. Where did Sudden Oak Death come from, and what are its impacts on oak forests in CA?

d. How can we help prevent the spread of SOD and the Gold-Spotted Oak Borer?

3. California forests and wildfire:

a. What human and ecosystem benefits arise from managing forests with wildfire?

b. How has fire suppression changed our forest structures?

c. What are some of the challenges for reintroduction of fire as a forest management tool?

4. Fragmentation and forests:

a. What are some of the key drivers for forest fragmentation in California?

b. What are some of the problems created by habitat fragmentation?

c. How does fragmentation create management challenges, and what are some tools that help mitigate habitat fragmentation?

5. Carbon sequestration:

a. How do forests sequester carbon? If it helps, draw a diagram of the paths of C through a forest.

b. Do you think that carbon credits for forestland owners through the California Air Resource Board will be an effective forest conservation strategy?

c. What other recent changes in local economies are impacting forest harvest practices in California?

6. Rangelands and livestock grazing management:

a. How are native bunchgrasses different ecologically than annuals?

b. How do grazing animals influence the species makeup of grasslands?

c. How can ranchers ensure long-term sustainability in their grazing practices?

7. Conservation biology:

a. Of the 6 principles described on page 139 for ecological understanding, are there any that surprise you? If so, which ones?

b. What is one of the recently recognized key tools for creating conservation plans?

c. How do habitat continuity and size effect conservation efforts?

Recommended reading: The Big Burn by Timothy Egan