

Biology 306 - Study Guide #2 - Summer 2004

Be familiar with the California plant communities we have visited. Know the names of those communities and their indicator plants. Understand the descriptive terminology for plant structure as it is applied to the use of a dichotomous key to plant identification. Be able to use the plant keys employed in the course to identify unknown fern allies, ferns, conifers, and flowering plants.

- June 17: Know the plant communities represented at Elk Head. Be able to recognize, and identify, representative plants of this site, and place them in their respective communities. Know the food web of the Elk Head area, and the representative consumers of the ecosystems found there.
- June 18: Understand the successional relationship of the trees and understory plants of the North Coastal Forest at Big Lagoon. Be able to defend a position on the ecological relationship of Sphagnum bogs, forests, and climate. Be able to recognize representative plants of the forest, marsh, and bog at Big Lagoon, and know which communities they represent. Know the animals of the coastal habitats near Patrick's Point State Park.
- June 22: Know the marine organisms sighted on the *Coral Sea* cruise. Understand their roles in the Humboldt Bay ecosystem.
- June 23: Understand the descriptive terminology for flowering plant structure as it is applied to the use of a dichotomous key to plant identification. Be able to use the plant keys employed in the course to identify unknown flowering plants.
- June 24: Study the worksheet for Prairie Creek Redwoods State Park. Understand the dynamics of ecological succession in the old growth redwood forest, and the factors that control the maintenance, or evolution, of that ecosystem. Be able to identify representative plants and animals of the Park, and be able to place them in perspective within the food web and energy pyramid of their habitats.
- June 25: Know the plants and plant communities represented at Stoney Creek, with particular emphasis on the plants that are restricted to the "bogs" of the area. Understand the cause and effect relationships between the geology, soils, and functional modifications of plant structures at this site.
- June 29: Be able to sight recognize, and identify, plants of the second growth redwood forest as represented along the Jolly Giant Creek and in the Arcata Community Forest. Also, be able to identify examples of unknown plants from these locales by the efficient use of the keys that have been provided in the class.
- June 30: Know the identities of the pressed plants in the mounted collection from Stoney Creek.
- July 1: Know the plant communities, and the variations of these communities, located along the route from HSU to the summit of Horse Mountain. Understand the processes of

ecological succession occurring in forest lands managed for timber production. Be able to sight recognize representative plants of these communities. Be able to relate animals, geology, meteorology, and soils to these communities, and know the limiting factors that cause the changes in vegetation along the route.