

**Holistic Biology 2012: Waters of Monterey Bay and Monterey Country  
(BIOHOPK 184H/284H)**

Complexity in natural systems is examined from complementary points of view, including scientific, historical, philosophical and literary. Lectures and discussions will focus on the writings of Ed Ricketts and John Steinbeck, poetry of Robinson Jeffers and on historical and contemporary works concerning marine and fresh-water systems, resource management and climate change. Locations of field work and weekend trips will include Monterey Bay, Elkhorn Slough and the Salinas and Carmel River systems. A group project with individual contributions will be carried out and presented at a symposium. This course will involve a significant amount of creative writing, and it satisfies the Writing in Major requirement for Biology. It is open to all majors and classes.

Class hours: Mon 9:00-12:00, Friday 9:00-12:00 and 2:00-5:00. Weekend field trips. 8-10 students.

**Weeks 1-2 (4/2-4-14): Monterey Bay** – Ecology of intertidal organisms and land-sea interactions.

Field trips to Monterey Bay rocky intertidal sites, Point Lobos, Cannery Row and Ricketts lab.  
Attend Monterey Bay National Marine Sanctuary Symposium: *Linking Land and Sea* on April 14.

**Week 3 (4/15-4/21): Elkhorn Slough** -- Agricultural runoff and nutrient loading.

Field trips to Elkhorn Slough marine and terrestrial habitats .

**Weeks 4-6 (4/22-5/6): Salinas River** -- Agriculture and development of Salinas River , including ground water depletion and pollution, seawater intrusion, dams and riparian corridor.

Field trips to Torr House (Carmel), Salinas Valley agricultural fields, Salinas River Diversion Facility, San Antonio Mission and Avenales Ranch (source of Salinas River in San Luis Obispo County).

**Weeks 6-7 (5/7-5/20) : Carmel River** –Regional water issues and Carmel River, including dams, aquifer depletion and impacts on steelhead trout. Guest speakers: Jason Burnett, candidate for Carmel mayor, and author Ray March, *River in Ruin*.

Field trips to Carmel River mouth, San Clemente, Los Padres Dam and upper Carmel River.

**Weeks 8-10 (5/25-6/6): Projects.**

We are trying to schedule a kayak trip down a portion of the Salinas River.