

### **COAL OIL POINT RESERVE, UCSB**

As guests of the UCSB reserve, we are invited to travel the trails and visit the beach area where the snowy plover nests forages on the beach. Since this is a “species of special concern,” students can observe but not enter the primary nesting area that is strictly protected. The plover conservation success story is an important point at this site. Snowy plovers are so well camouflaged you can be nearly on top of them before seeing them!

The reserve consists of the main estuary and a pond where migratory birds come and go throughout the year. Habitats vary from the unique flora of the coastal strip to the estuaries and dunes. Further inland, the habitat changes rapidly with coastal adapted trees and shrubs and the animals and birds that frequent them.



The reserve is connected along the inland border with the new North Campus Open Space rewilding project that extends the main estuary further inland and provides a planned buffer for sea-level rise and storm surge while increasing the habitat for traditional wetlands and vernal pools. From the reserve, we will see the Santa Ynez Range of east-west coursing mountains just a few miles away that are the northern boundary of the catchment for the watershed that feeds into this reserve.

While the reserve is close to densely human-populated areas, it represents an important wildlife resource. We will see shorebirds, waterfowl, and evidence of mammals thriving among the native plants. This site is an actively managed research reserve where students will see the efforts to maintain ecological diversity and provide protection to this important area. An opportunity to consider the role of ecological research at the nature reserve opens new insights into understanding nature. (If the nature center there is open to us: The interpretive displays and artifacts at the Nature Center are a unique opportunity for students to relate focused educational material to the natural setting they are visiting on site.)

Coal Oil is the name for this reserve, and the rich history of the geological reason can be explored with the frequent deposits on the beach. The people along this coastline have used this petroleum resource for thousands of years for things from boat building to asphalt for early roads in Goleta.

## Appropriate for Grades 7 - 12

### Available Field Trip Emphases: *Ecology (including Coastal Strip, Rewilding, and Watershed habitats)*

Led by experienced and enthusiastic Nature Track docents, field trips at Coal Oil Reserve Point are designed to be used as a companion to state science standards and provide a real-life experience for students in ecology. Docents can lead students in trips that focus on the appropriate grade level and subject and engage students in exploration of science and nature through hikes, guided discussion, and educational nature games. Nature-based art and other creative projects are also available.

### Field Trips at Coal Oil Point Reserve can be used in conjunction with the following California State Standards and Next Generation Science Standards:

#### Geology Field Trip

Grade	CA Standards	Next Generation
7-8	Earth Sciences: 1b, 1d, 1e, 1f, 2a, 2b, 2d; Investigation & Experimentation: 7f, 7g Life Sciences: 4a,4b,4c,4d,4f	<b>Standards for 6-8:</b> Earth's Place in the Universe: MS-ESS1.C; Earth's Systems: MS-ESS1.C, MS-ESS2.A, MS-ESS2.B, MS-ESS2.C; Earth and Human Activity: MS-ESS3.A, MS-ESS3.C, MS-ESS3.D

## Ecology Field Trip

Grade	CA Standards	Next Generation
7 - 8	Earth Sciences: 5a, 5b, 5c, 5d, 5e Live Sciences: 2a, 3a, 3e, 5a, 5f	<b>Standards for 6-8:</b> From Molecules to Organisms: MS-LS1.B, MS-LS1.C; Ecosystems: MS-LS2.A, MS-LS2.B, MS-LS2.C, MS-LS4.D; Heredity: MS-LS1.B; Evolution: MS-LS4.C

