

# CONARD ENVIRONMENTAL RESEARCH AREA (CERA)

 Grinnell College



The Conard Environmental Research Area (CERA), named in honor of Grinnell College faculty member and botanist Henry S. Conard, is a 365-acre field station used for teaching, research, and quiet enjoyment by the Grinnell College community and the public.

## MISSION

CERA preserves and, through ecological restoration, recreates a part of Iowa's vanishing natural heritage, providing a resource for the entire College, local schools, environmental groups, and the general public.

## REGULATIONS

- CERA is open to the public for quiet enjoyment during daylight hours.
- The Environmental Education Center (EEC) is open 9 a.m.–5 p.m. on weekdays.
- Motorized vehicles/ATVs are allowed only on gravel roads, not trails. Please park in designated areas.
- Bicycles may be on roads and mowed firebreaks but not on the woodland trails. Horses are prohibited.
- Dogs on leash may accompany hikers.
- We encourage you to hike the marked trails or mowed firebreaks. You may leave the trails, but please do not enter the experimental plots. Do not disturb any research equipment, flags, stakes, or markers.
- Fishing, hunting, shed collecting, and foraging are prohibited.

## CONTACT

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## FACILITIES, STRUCTURES, AND ART

**Graham Lab** provides easy access to field and lab equipment for aquatic studies and serves as a guest house for College faculty and visiting scholars.

**Environmental Education Center** was established in 2005 and constructed using environmentally friendly systems and materials, including geothermal heating/cooling, gray water recycling, and renewable local building materials. It comprises two classrooms, restoration lab, office, kitchen, potting room, and greenhouse.

**Solar Array** (193 KWh/year) was built in 2023 and meets all of the electricity needs of the EEC, making it a net-zero building.

**Prairie Cairn**, a sculpture by Andy Goldsworthy, was created in 2001 as part of a larger cairn series, with additional installations on the East and West coasts.

## PRAIRIES

**Prairie** is found on variable topography and supports a wide range of species. Little bluestem, side-oats grama, and leadplant thrive in the infertile clay soil along the west edge, while tall grasses, sunflowers, and blazing star are abundant along moist seeps.\*

**(A) Fall Burn Prairie** is burned each fall to demonstrate the effect of bare soil over the winter and rapid warming of the soil and growth of plants in the spring.

**(B) Deane Prairie** is the most diverse prairie reconstruction at CERA, with over 80 species of plants. It is burned every 2–3 years.

**(C) Perley Prairie** has variable topography that typically supports mesic tallgrass prairie plants; thimbleweed, compass plant, pale purple coneflower, black-eyed susans, and false boneset are abundant.

**(D) No-Burn Prairie** has not been burned since 1992. All organic material accumulates and decays naturally. The grasses are much less vigorous here, making forbs more visible throughout the summer.

\* See A, B, C, and D on map (opposite side)

**Experimental prairie plots** are burned each spring, summer, or fall, or left unburned. Some are mowed as well, allowing students to study the effects of both fire and grazing on prairie organisms.

**Experimental forest plots** are burned or unburned, allowing students to study the effects of fire on forest organisms.

## WOODLANDS

**Oak Savannas** once formed the boundary between prairie and forest and are now one of Iowa's rarest plant communities. Ongoing savanna restoration at CERA supports populations of prairie violet, bead grass, purple oxalis, New Jersey tea, cream gentian, and other plants that thrive in partial sunlight.

**Oak Woodlands** develop more diverse groundcover when fire-intolerant trees are removed, fire is prescribed, and sunlight penetrates the canopy. Bottle-brush grass, Virginia wild rye, bent grass, Pennsylvania and other sedges, and numerous forbs carpet the ground.

**Oak-Hickory Forest** was probably forested for 1,000 years until a railroad company logged it in the 1860s. Over the last 140 years, an upland forest canopy of white oak, shagbark hickory, red oak, basswood, and ironwood naturally reestablished itself. This area now harbors a rich understory of spring ephemerals as well as an abundance of migratory songbirds.

**Riparian Forests** on alluvial soil along the North Skunk River comprise walnut, silver maple, cottonwood, box elder, and standing dead green ash. Ephemeral ponds where the Skunk River once meandered provide springtime breeding grounds for amphibians.

**Walnut Plantation** comprises black walnuts and white pines, planted in 1970. Plants typical of riparian forests are found beneath and adjacent to the tree canopy provided by the plantation, along with reed canary grass and a number of wet prairie plant species, including meadowsweet and blue flag iris.

## WATER BODIES

**Perry Pond** was constructed in 1972 to provide a site for study of aquatic habitat. The 14-acre pond, which averages a depth of only six feet, supports largemouth bass, bluegill, golden shiner, amphibians, and invertebrates. It is fed by three intermittent streams, including Willow Creek.

**North Skunk River** — a channelized portion of the North Skunk River runs through the northeast portion of the property.

## TRAIL ACCESSIBILITY

We maintain all trails for foot traffic and as fire breaks.

**Difficult:** Trails are moderately to extremely inclined with frequent difficult terrain.

**Moderate:** Trails are moderately inclined with occasional difficult terrain.

**Easy:** Trails are mostly level with mild inclines and even terrain.