

## Things to remember

- Wear a light jacket or sweater. The cave temperature is 39 to 42 degrees Fahrenheit.
- Bring a flash light. Although the cave is lighted, extra lighting allows you to peer into corners and adds to your enjoyment.
- Bring a camera with a flash.
- Do not touch cave formations. Touching them leaves oil behind, causes the formations to stop growing and turns them from white to gray. Smoking in the cave also causes discoloration. Smoking is prohibited.
- Do not take pets into the cave.



The **Discover Pass** is required for day visits to state parks and access to other state-managed recreation lands. The pass provides access to millions of acres of parks, wildlife areas, trails, natural areas and water-access sites. The annual pass is transferable between two vehicles.

- Annual pass: \$30
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The Discover Pass can be purchased online, by phone or in person. For details, visit [www.discoverpass.wa.gov](http://www.discoverpass.wa.gov) or call (866) 320-9933.

**Thank you for supporting Washington state recreation lands.**



## Crawford State Park Heritage Site

General Delivery

**State Parks information:**  
(360) 902-8844

**Reservations:** Online at [www.parks.state.wa.us](http://www.parks.state.wa.us) or call (888) CAMPOUT or (888) 226-7688

**Other state parks located in the general area:** Curlew Lake and Mount Spokane



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If you would like to support Washington State Parks even more, please consider making a donation when renewing your license plate tabs. You also may place a check in a donation box when you visit state parks.

Donations are a significant part of the State Parks budget and are needed to keep your parks open and operating. For more information, visit [www.parks.state.wa.us/donations](http://www.parks.state.wa.us/donations)

## Washington State Parks and Recreation Commission

P.O. Box 42650  
Olympia, WA 98504-2650  
(360) 902-8500  
[www.parks.wa.gov](http://www.parks.wa.gov)



### Commission members:

Ken Bounds      Mark O. Brown  
Patricia T. Lantz      Steve S. Milner  
Douglas Peters      Rodger Schmitt  
Lucinda S. Whaley  
Agency director: Don Hoch

*All Washington state parks are developed and maintained for the enjoyment of all people.*

To request this brochure in an alternative format, please call (360) 902-8844 or the Washington Telecommunications Relay Service at (800) 833-6388. P&R 45-75001-1 (05/17)



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Washington State Parks

# Gardner Cave

Crawford State Park Heritage Site





## Welcome to Crawford State Park Heritage Site

This 49-acre forested day-use park features Gardner Cave, one of the longest limestone caverns in Washington. This tourable cave is filled with stalactites, stalagmites, rimstone pools and flowstone.

The park is located 11 miles north of the town of Metaline in the extreme northeast corner of Washington state. From the parking lot, a paved trail leads up a small hill about 200 yards to the cave entrance. Cave lights, stairways and walkways provide safety for visitors and protection for the natural resource.

Park staff conducts tours of Gardner Cave for groups of 25 people or less. To pre-arrange a tour, contact the park at (509) 446-4065 or Mount Spokane State Park at (509) 238-4258.

Crawford State Park Heritage Site has one kitchen shelter without electricity, plus two sheltered and 11 unsheltered picnic tables, available on a first-come, first-served basis.



### Park hours

The cave is open May - September.

**Summer:** 9 a.m. to 6 p.m.

(closed Tuesdays and Wednesdays)

### Cave tours

10 a.m. and Noon, 2 and 4 p.m.

**Winter:** Closed October through May 15.

### Geological development of Gardner Cave

Gardner Cave has a length of 2,072 feet and a depth of at least 295 feet. The history of the formation of Gardner Cave began approximately 500 million years ago.

As sea creatures died, their shells settled to the bottom and formed a limestone "ooze."

This ooze eventually turned into a rock called Metaline limestone, which folded and faulted as mountains formed about 70 million years ago.



## The process of creating a cave passage and formations

Limestone dissolves in acid, such as the acid formed when rainwater absorbs carbon dioxide from soil. The weak acid seeps into the ground and, over hundreds of thousands of years, small cracks enlarge as the limestone is dissolved and carried away. Eventually, this process forms a cave passage.

Over the centuries, drops of water find their way through the surrounding limestone to the cave passage. When exposed to air in the cave, the carbon dioxide in the water is released. A deposit of calcite (chemically similar to the original limestone) remains.

### History

Pend Oreille County-settler Edward E. Gardner lends his name to Gardner Cave as its apparent discoverer circa 1900, although there are other discovery claims. Gardner Cave was reportedly found during a hunting foray by the homesteader, farmer, placer miner, future Metaline saloon keeper and alleged bootlegger during Prohibition. Edward Gardner homesteaded adjacent land on the Pend Oreille River, but never owned the cave.

Metaline businessman William H. Crawford operated a general store and acquired ownership of about 160 acres that included Gardner's Cave in 1920. This was likely an investment opportunity given the local potential for timber, placer and hardrock metals within the Metaline Mining District. Crawford's investment was short lived as he deeded 40 acres containing the cave to Washington State Parks in 1921 for public purposes, after logging the land.

A 1911 federal land survey assigned a length of 1,100 feet to what they called Little Mammoth Cave - "a natural wonder of considerable interest."

Gardner Cave is significant as an uncommon limestone cavern in Washington that is accessible to the public.

## Definitions

- Stalactites form as water drips slowly from the ceiling of the cave, leaving calcite deposits.
- Stalagmites form as water drips to the floor, leaving calcite deposits.
- Helictites form as water rich in calcite seeps into tiny holes in a cave's rock. Hydrostatic pressure forces a small amount of solution out, carbon dioxide is lost and calcite is deposited.
- Columns form when stalactites and stalagmites unite. Gardner Cave's 7.8-ton column is the largest in the Pacific Northwest.
- Rimstone pools, or gours, form when constant drips from the ceiling drill holes into the cave floor. The holes enlarge and merge together to form small basins filled with calcite-saturated water. Ceiling water falls into these basins and causes a disturbance. The water splashes and flows over the outer edges of the basin to deposit calcite and create a rim.
- Flowstone forms as water deposits calcite over walls and other surfaces.
- Breakdown is an area where pieces of rock and debris have fallen down or broken off from the cave walls or ceiling.

