

= Crater Lake =

Crater Lake ( Klamath : giiwas ) is a caldera lake in the western United States , located in south @-@ central Oregon . It is the main feature of Crater Lake National Park and is famous for its deep blue color and water clarity . The lake partly fills a nearly 2 @, @ 148 @-@ foot ( 655 m ) -deep caldera that was formed around 7 @, @ 700 (  $\pm$  150 ) years ago by the collapse of the volcano Mount Mazama . There are no rivers flowing into or out of the lake ; the evaporation is compensated for by rain and snowfall at a rate such that the total amount of water is replaced every 250 years . With a depth of 1 @, @ 949 feet ( 594 m ) , the lake is the deepest in the United States . In the world , it ranks tenth for maximum depth , and third for mean ( average ) depth .

Crater Lake is also known for the " Old Man of the Lake " , a full @-@ sized tree which is now a stump that has been bobbing vertically in the lake for over a century . The low temperature of the water has slowed the decomposition of the wood , hence the longevity of the bobbing tree .

Two islands are in Crater Lake : Wizard Island , formed from a cinder cone that erupted after Crater Lake began to fill with water , and the smaller Phantom Ship , which has seven trees living on it . There are also colonies of violet @-@ green swallows and several varieties of wildflowers and lichens living there .

While having no indigenous fish population , the lake was stocked from 1888 to 1941 with a variety of fish . Several species have formed self @-@ sustaining populations . Since 2002 , one of the state 's regular @-@ issue license plate designs has featured Crater Lake . The commemorative Oregon State Quarter , which was released by the United States Mint in 2005 , features an image of Crater Lake on its reverse .

= = Location = =

Crater Lake is located in Klamath County , approximately 60 miles ( 97 km ) northwest of the county seat of Klamath Falls , and about 80 miles ( 130 km ) northeast of the city of Medford .

In June 1853 , John Wesley Hillman became the first non @-@ Native American explorer to report sighting the lake he named the " Deep Blue Lake . " The lake was renamed at least three times , as Blue Lake , Lake Majesty , and finally Crater Lake .

= = Dimensions and depth = =

The lake is 5 by 6 miles ( 8 @. @ 0 by 9 @. @ 7 km ) across , with a caldera rim ranging in elevation from 7 @, @ 000 to 8 @, @ 000 feet ( 2 @, @ 100 to 2 @, @ 400 m ) and an average lake depth of 1 @, @ 148 feet ( 350 m ) . The lake 's maximum depth has been measured at 1 @, @ 949 feet ( 594 m ) , which fluctuates slightly as the weather changes . On the basis of maximum depth , Crater Lake is the deepest lake in the United States , the second deepest in North America ( after Great Slave Lake in Canada ) , and the tenth deepest lake in the world ( Lake Baikal is the deepest ) . Crater Lake is often cited as the seventh deepest lake in the world , but this ranking excludes Lake Vostok in Antarctica , which is situated under about 13 @, @ 000 feet ( 4 @, @ 000 m ) of ice , and the recent soundings of O 'Higgins / San Martín Lake , which is located on the border of Chile and Argentina .

When considering the mean , or average depth of lakes , Crater Lake becomes the deepest lake in the Western Hemisphere and the third deepest in the world . Crater Lake Institute Director and limnologist Owen Hoffman states " Crater Lake is the deepest , when compared on the basis of average depth among lakes whose basins are entirely above sea level . The average depths of Lakes Baikal and Tanganyika are deeper than Crater Lake ; however , both have basins that extend below sea level . "

= = Geology = =

Mount Mazama , part of the Cascade Range volcanic arc , was built up mostly of andesite , dacite ,

and rhyodacite over a period of at least 400 @, @ 000 years . The caldera was created in a massive volcanic eruption between 6 @, @ 000 and 8 @, @ 000 years ago that led to the subsidence of Mount Mazama . About 50 cubic kilometers ( 12 cu mi ) of rhyodacite was erupted in this event . Since that time , all eruptions on Mazama have been confined to the caldera .

Lava eruptions later created a central platform , Wizard Island , Merriam Cone , and other , smaller volcanic features , including a rhyodacite dome that was eventually created atop the central platform . Sediments and landslide debris also covered the caldera floor .

Eventually , the caldera cooled , allowing rain and snow to accumulate and form a lake . Landslides from the caldera rim thereafter formed debris fans and turbidite sediments on the lake bed . Fumaroles and hot springs remained common and active during this period . Also after some time , the slopes of the lake 's caldera rim more or less stabilized , streams restored a radial drainage pattern on the mountain , and dense forests began to revegetate the barren landscape . It is estimated that about 720 years was required to fill the lake to its present depth of 594 m ( 1 @, @ 949 ft ) . Much of this occurred during a period when the prevailing climate was less moist than at present .

Some hydrothermal activity remains along the lake floor , suggesting that at some time in the future Mazama may erupt once again .

= = Climate = =

Crater Lake is a subalpine climate , with the extremely rare Köppen classification Dsc owing to its high elevation and ? like all of Oregon ? the strong summer influence of the North Pacific High . In the summer , the weather is mild and dry , but in the winter is cold and the powerful influence of the Aleutian Low allows for enormous snowfalls averaging 488 inches ( 12 @. @ 40 m ) per year and maximum snow cover averaging 139 inches or 3 @. @ 53 meters . This snow does not usually melt until mid @-@ July , and allows for substantial glaciers on adjacent mountains . In the winter of 1949 / 1950 as much as 885 @. @ 1 inches ( 22 @. @ 48 m ) of snow fell , whilst the less complete snow cover records show cover as high as 192 inches or 4 @. @ 88 meters occurred during another particularly unsettled winter in 1981 / 1982 . The heaviest daily snowfall was 37 @. @ 0 inches ( 94 @. @ 0 cm ) , which occurred as recently as February 28 , 1971 ; 20 in ( 51 cm ) or more in one storm has occurred in both June and September . Hard frost is possible even into the summer , and the average window for freezing temperatures is August 19 through July 7 , while for measurable ( ? 0 @. @ 1 inches or 0 @. @ 25 centimeters ) snowfall , October 1 through June 15 .

= = Water quality = =

Due to several unique factors , mainly that the lake has no inlets or tributaries , the waters of Crater Lake are some of the purest in the world because of the absence of pollutants . Clarity readings from a Secchi disk have consistently been in the high @-@ 30 meter to mid @-@ 20 meter ( 80 to 115 @-@ foot ) range , which is very clear for any natural body of water . In 1997 , scientists recorded a record clarity of 53 @. @ 3 m ( 175 ft ) .

The lake has relatively high levels of dissolved salts , total alkalinity , and conductivity . The average pH has generally ranged between 7 and 8 .

= = Sacred significance = =

The Klamath tribe of Native Americans , whose ancestors may have witnessed the collapse of Mount Mazama and the formation of Crater Lake , have long regarded the lake as a sacred site . Their legends tell of a battle between the sky god Skell and the god of the underworld Llao . Mount Mazama was destroyed in the battle , creating Crater Lake , called giiwas in the Klamath language . The Klamath people used Crater Lake in vision quests , which often involved climbing the caldera walls and other dangerous tasks . Those who were successful in such quests were often regarded as having more spiritual powers . The tribe still holds Crater Lake in high regard as a spiritual site .

