



Phenophase Photo Guide

Quercus ilicifolia (Bear oak)

Why Observe?

Bear oaks are a shrubby tree, usually less than 8 meters (30 feet) tall, and are known to form dense thickets. The Latin name *Quercus ilicifolia* translates to “holly leaf,” referencing the deciduous leaves that vaguely resemble those of holly. Bear oak is one of the first species to colonize an area after disturbance, which makes it important for stabilizing and shading bare soils. They are often replaced by taller trees as a patch recovers. Bear oak acorns are a particularly important food source for turkey and grouse.



Tips for Identification

Bear oaks have gnarled branches and contorted trunks generally 5-15 cm (2-6 in) in diameter. Individuals have dark grey bark that becomes thin and scaly when mature. Leaves are alternate and have 3-7 lobes with bristle tips. The tops of leaves are dark green and glossy, and the undersides are a lighter green and hairy. Male flowers are catkins and female flowers are small and petal-less. Bear oak produces fruit in the form of egg-shaped acorns that measure 1-2 cm (.4-.8 in) in length.

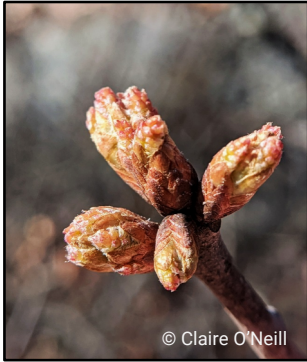
Habitat: Shrublands, thickets, openings in woodland, disturbed areas, rocky ridges, rocky hillsides.

Special Consideration:

Individuals will not produce acorns until they are about three years old. Acorn production can also be impacted by weather, site condition, and herbivory.



Information presented in this guide was compiled from the [USA-NPN](#), [Native Plant Trust's GoBotany](#), the [FEIS Database](#), [University of Texas' Wildflower Center](#) and [EWA records](#).



Breaking leaf buds

One or more breaking leaf buds are visible on the plant. A leaf bud is considered "breaking" once a green leaf tip is visible at the end of the bud, but before the first leaf from the bud has unfolded to expose the leaf stalk (petiole) or leaf base.



Leaves

One or more live, unfolded leaves are visible on the plant. A leaf is considered "unfolded" once its entire length has emerged from a breaking bud, stem node, or growing stem tip so that the leaf stalk (petiole) or leaf base is visible at its point of attachment to the stem. Do not include fully dried or dead leaves.



Flowers or flower buds

One or more fresh open or unopened flowers or flower buds are visible on the plant. Include flower buds or inflorescences that are swelling or expanding, but do not include those that are tightly closed and not actively growing (dormant). Also do not include wilted or dried flowers.

For *Quercus ilicifolia*, the male inflorescence is a catkin that is initially compact and stiff but eventually unfolds to become longer and hang loosely from the branch. Female flowers are very small and petal-less, emerging from the growing stem at the point where a new leaf is attached.



Open flowers

One or more open, fresh flowers are visible on the plant. Do not include wilted or dried flowers. For *Quercus ilicifolia*, the male flowers will open once the initially compact catkin has unfolded and is hanging loosely. Female flowers are open when the pistils are visible, but will be very difficult to see where they are out of reach.



Fruits

One or more fruits are visible on the plant. For *Quercus ilicifolia*, the fruit is a nut (acorn), partially covered with a "cap", that changes from green to dark brown.



Colored leaves

One or more leaves show some of their typical late-season color, or yellow or brown due to drought or other stresses. Do not include small spots of color due to minor leaf damage, or dieback on branches that have broken. Do not include fully dried or dead leaves that remain on the plant.



Ripe fruits

One or more ripe fruits are visible on the plant. For *Quercus ilicifolia*, a fruit is considered ripe when it has turned dark brown.

Phenophases not pictured: Increasing leaf size, Pollen release, Falling leaves, Recent fruit drop **If you are uncertain whether or not a phenophase is occurring, report a "?" until it becomes clear what you are observing after subsequent visits.*