The lowland savanna is one of the best places in Belize to see Oak trees, members of the genus *Quercus* in the family Fagaceae.

Most oak trees in lowland savanna are the white oak *Quercus oleoides* Killip, however in the Mountain Pine Ridge, San Pastor Savanna in the Chiquibul and on hilltops across the Maya Mountains as many as nine other species have been found.

Oaks are also a common sight in temperate forests across North America and Eurasia where they are one of the most important trees in the forest for supporting wildlife. Oak wood is also a source of good quality timber in temperate regions and has traditionally been used for buildings, ships and wine barrels in Europe. Oaks are frequent throughout European mythology and are mentioned in the Bible, they are also regularly claimed as national trees in countries such as the United Kingdom and the US states of Iowa, Connecticut, Illinois, Maryland, New Jersey and Georgia because they are considered to symbolize strength and endurance. In Belize Oak timber is sometimes used as firewood or to produce charcoal because it burns very slowly but with great heat. Oak wood is probably good for timber (and burning) because Oak trees grow very slowly and thus can live for a very long time; there are many individuals thought to be hundreds, even over a thousand years old across Europe & North America. This means that it will take a long time for an Oak tree to grow back if you chop it down for a barbecue!

Oaks have spirally arranged leaves that are lobed or toothed at the margin & a distinctive nut called an acorn: a single seed enclosed in a tough, leathery shell, and borne in a cup-shaped cupule. Acorns are an important source of food for many animals & birds, in particular the Acorn Woodpecker *Melanerpes formicivorus*. The Acorn Woodpecker drills holes in thick pine bark and dead branches for storing acorns, these “granaries” are used and defended by
extended families of Acorn Woodpeckers.

Oaks are quite difficult to identify to species because their leaves are very variable in shape and in the pubescence (types of hairs) found on their leaves even on the same branch. However the distinctive acorn means that they are always recognisable to genus when in fruit. The White Oak group (subgenus Quercus, section Quercus) which includes Quercus oleoides is renowned for high levels of interspecific hybridisation (when members of different species breed with each other successfully to produce fertile offspring) and introgression (when interspecific hybridisation and repeated back-crossing of the resulting hybrids back into one parent species allows genes to pass from one species to another). Interspecific hybridisation and introgression can make field identification of oaks very difficult as hybrid individuals may possess a mix of physical characters (phenotype) from both parents. Many scientists across North America and Europe are studying the population genetics of Oaks to understand the processes of hybridisation and gene flow.

References:


