



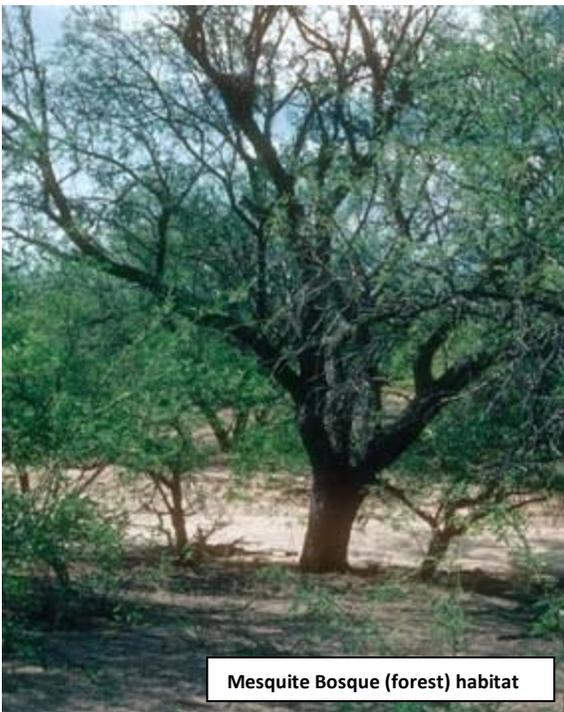
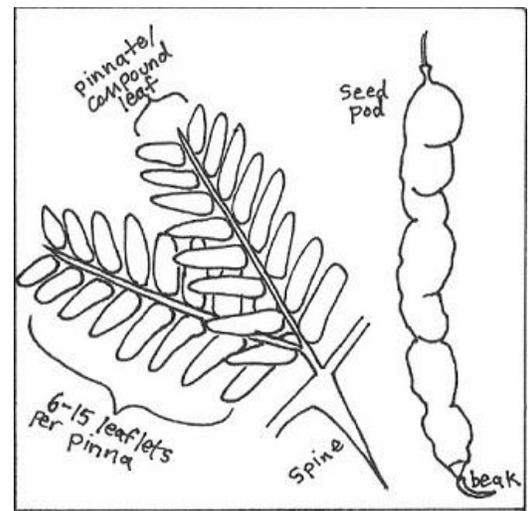
Honey Mesquite (*Prosopis juliflora*)

“I could ask for no better monument over my grave than a good mesquite tree, its roots down deep like those of people who belong to the soil...”

-J. Frank Dobie

Description: Long taproots of desert trees like Honey Mesquite penetrate the soil to reach the water table, allowing them to survive severe droughts. In 1963, a live mesquite root was observed in a copper mine near Tucson, Arizona at a depth of nearly 175 feet below ground! On the topside, Honey Mesquite rarely exceeds 10 meters in height, and its thorn-studded branches grow in the shape of a broad, arched crown. From a distance, the yellow-green foliage appears feathery and frothy due to the abundance of small leaflets (6-15) on each compound leaf. Look for drooping 3-inch flower spikes covered in tiny yellow inflorescence in spring. Pollinated by bees, these tiny blooms yield an earthy, aromatic honey favored by honey connoisseurs. Flattened seed pods are 7-20 cm long, constricted between bulging fruits, and with a distinctive “beak” at the end. Green pods deepen to a rich tan or mahogany color in late summer when ready for harvest.

Location: Three species of mesquite- honey, screw-bean and velvet - occupy flood plains in the Chihuahuan, Sonoran and Mojave Deserts. Honey Mesquite typically grows on plains, washes, and playas in grasslands and deserts below 5,500 feet in elevation. Look for it in riparian habitat in the Red Cliffs Desert Reserve. Hiking in the hot, dry washes below Red Mountain can almost guarantee a prickly encounter with honey mesquite and scratches from spines so sharp they were once used as tattoo needles by the Quechuan people of the lower Colorado River basin.



Mesquite Bosque (forest) habitat

History: Hard mesquite seeds require scarification, the scratching or weakening of the seed coat, in order to germinate. Naturally this occurs when seeds spend a few years weathering on the soil or pass through the guts of large animals. Thousands of years ago, the large animals eating and scarifying mesquite seeds were mastodons and giant ground sloths! The trees co-evolved with Pleistocene (Ice Age) megafauna who munched on the pods and later dispersed the seeds across the landscape. Gastric juices inside their mighty stomachs killed the beetle larvae that burrowed into mesquite pods when they fell to the ground, greatly enhancing the rate of germination.

Uses: Members of the legume, or *Fabaceae*, family enter symbiotic relationships with bacteria in the dirt. Mesquite roots host nitrogen-fixing bacteria that help enrich lean desert soils. Nitrogen is critical to protein formation, meaning that nitrogen-fixing plants like mesquite produce seeds rich in protein (35%). Legume seeds are also large and abundant, making them an important food source for wildlife like jackrabbits, quail, songbirds, kangaroo

rats, ground squirrels and domestic livestock. People love the sweet, nutty taste too! Recent medical studies tout mesquite as a desert super-food that can help regulate blood-sugar and treat diabetes. The gel-forming fibers in mesquite flour digest slowly, releasing sugars steadily into the bloodstream over hours rather than minutes. The Southern Paiute, Timbisha Shoshone, Cahuilla,

Panamint and other southwestern tribes have prepared and enjoyed mesquite flour for hundreds of years. Whole ripe pods were collected and ground with mano and metate or inside cylindrical holes carved into limestone. The mesocarp, or sweet pulp surrounding the seeds, contains 20-30% sugars and produced flour rich in calcium, magnesium, potassium, iron and zinc. After adding water, the flour was made into mush, shaped into cakes, and dried in the sun for a tasty no-bake bread!

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