Nature Notes

…from Sharon

Gray Nicker Bean *(Caesalpinia bonduc)*

The Gray Nicker Bean is a member of the *Fabaceae* family, commonly known as the legume or pea family. A native to South Florida, the Gray Nicker Bean is established in nearly every tropical shore world-wide. It has apparently arrived at these locations by natural means, although unrecorded accidental or intentional introductions cannot be ruled out. It thrives in full sun but will endure partial shade. It tolerates salt spray, salty soils, and occasional flooding with seawater. It grows most frequently on the beach strand, on coastal dunes, and at the better-drained edge of mangroves. Walk along the boardwalk between parking areas #1 and #2 at Barefoot Beach Preserve and you will see this plant along the back side of the dunes in the full sun or stroll along the east Saylor trail to see some in partially sunny areas. There are three types of Nicker Beans in Florida: Gray, Yellow, and Brown.

The stem of this prickly, aggressive, climbing bush can grow to 2 inches or more in diameter and 18 to 20 feet in length. Although it can only grow about 3 feet high along the ground, it is an opportunistic bush, often growing to great heights by clamoring over other plants. Plants usually have a single stem arising from the ground but often branch low on the stem. Seedlings form taproots and may retain them later; lateral roots are extensive, providing soil stabilization for dunes. The stems, twigs, and leaf axis are covered with straight or curved prickles. The leaves are bipinnately compound with four to nine pairs of pinnae, each with four to eight pairs of oblong to elliptic leaflets.

The yellow flower stalks are lateral or terminal. In Florida, the Gray Nicker Bean flowers and fruits year-round. After flowering, it produces legumes. The prickly, inflated legumes are flattened oval shaped, 2 to 4 inches long and bright green, turning reddish-brown when dry. Within each pod are one to three (usually two) smooth, hard, up to one inch in diameter seeds that are olive drab in the pods and remain so until exposure to the sun bleaches them to a light gray color. The pods open partially upon drying and eventually release the seeds.

Gray Nicker Bean seeds are apparently carried to sea by floods and storm surges where they float until deposited on shore. This is a common sea-bean on our beaches. The seeds are found on beaches as far away as northern Scotland and are known to be able to float in sea water for as long as 30 years. The scarifying action of sand, weathering, insects, or rodents eventually allows water to enter the seeds and they germinate.

The seeds have been used for centuries and are still used as jewelry, prayer beads, good luck charms, and worry stones. They were anciently used as standards of weight in India. In traditional remedy it has been used to treat malaria, diabetes, dysentery, hemorrhoids, venereal disease and hypertension. One of the principal constituents, bonducin, is a bitter white powder, sometimes called “poor man’s quinine” for its ability to reduce malarial fever. It is being researched as a treatment for leukemia. This plant is a food source for larvae of the rare Miami Blue butterfly that is now only found on Big Pine Key, Florida.

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