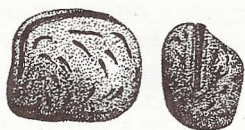
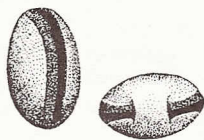


Sea Beans — World Travelers

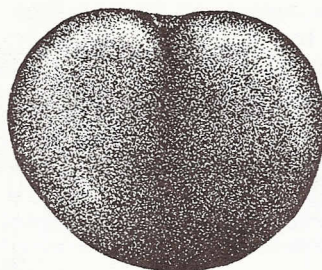
by Cathie Katz



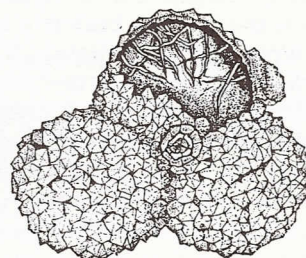
Sea purse (*Dioclea reflexa*)



Hamburger bean (*Mucuna* spp.)



Sea heart (*Entada gigas*)



Sea coconut (*Manicaria saccifera*)

Thirty years ago when I was a young and clumsy beachcomber, I found one of my first sea beans stuck between my toes after I stumbled into the sea wrack. What was it? Where did it come from? Looking like a miniature hamburger, this brown and black lump seemed to have drifted from another planet. Other sea beans I later found looked like gray marbles and some looked like smooth globs of tar. All were as hard as Brazil nuts. I knew they weren't shells or stones as other beachcombers suggested, but I always found them mixed in the sea wrack with the other beach treasures. Did that mean they came from the sea?

Years later when I finally came across an out-of-print copy of *World Guide to Tropical Drift Seeds and Fruits* by Charles R. Gunn and John v. Dennis, 1976, (now being updated), I learned that these pretty seeds came from vines and trees in rain forests and tropical countries. When the seeds fall from their parent plants into waterways such as the Amazon, they drift into ocean currents where they float, sometimes for years, until they wash onto shores thousands of miles away. Some drift into the giant whirling eddy of the Sargasso Sea and float with the Sargassum weed for years before drifting to another continent. All sea beans are buoyant, which allows them to drift in seawater for long distances.

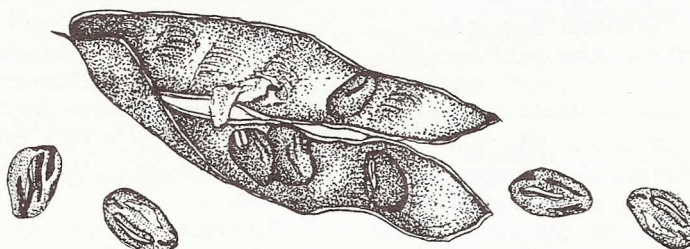
The Gulf Stream carries more than 100 species of drift seeds to Florida's

coast. Some of the most common are (above from left) sea purse (*Dioclea reflexa*), hamburger bean (*Mucuna* spp.), sea heart (*Entada gigas*), and sea coconut (*Manicaria saccifera*). Sea coconuts can grow in pods of two or three as shown here.

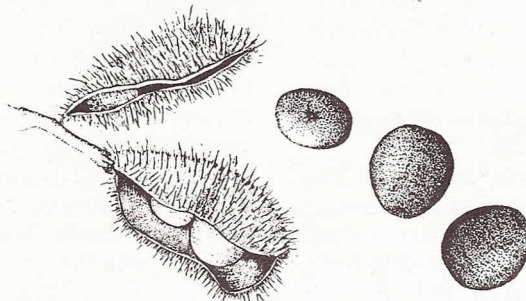
Two of the species that commonly grow on Florida's coast are the bay bean (*Canavalia rosea*) and the sea pearl or

nickernut (*Caesalpinia bonduc*), shown below with their pods.

I've seen these two species of sea beans growing in sandy soil around Cape Canaveral, and I've watched as the hard seeds fall from their pods into the Port Canaveral inlet ... and float out to sea, perhaps to drift to another continent. Gray nickernuts have been reported on northern European beaches



Bay bean (*Canavalia rosea*), with smooth pods.



Gray nickernuts (*Caesalpinia bonduc*), two in a pod.

since 1605 (by French botanist Clusius). I've also found a few yellow nickerbeans (*Caesalpinia major*) and a few chocolate-brown nickerbeans (*C. pulcherrima*), but still not much is known about these two colorful drifters.

Charles Darwin and Christopher Columbus used sea beans to study the world's currents. The sea heart supposedly inspired Columbus to find new land in the West. In the Azores, the sea heart is called *Fava de Colom* (Columbus' bean).

The seeds inside the hard outer shell can remain viable for many years. I've been able to sprout several species; they grow easily and quickly indoors, but outside they die when temperatures drop below about 50° F.

I grew one from seed and within a year it was taller than my house. Every time I walked by, it reached out to scratch me with its razor sharp tiny spikes. It was the meanest plant I ever had, but it kept burglars away. When it grows on the dunes, it keeps humans from trampling on the dune plants.

Although I don't grow them anymore since the vines can take over my house, I still collect the ones I find each Fall and polish them in a rock tumbler. Since they've brought me such good luck (as legend says they will), I now pass them on to friends to carry the message of their exciting journey and their good luck.

Cathie Katz moved to Melbourne Beach in 1983, and has designed and illustrated a 1995 calendar for the Environmental Advisory Board of Melbourne Beach and has written and illustrated The Nature of Florida's Beaches from Melbourne Beach to Canaveral National Seashore.

Nickerbean

According to Paul Scurlock in his book, *Native Trees and Shrubs of the Florida Keys*, gray nickerbean (*Caesalpinia bonduc*) and yellow nickerbean (*C. major*) are native Florida species, found in south Florida, the Keys, and the West Indies. Scurlock is unspecific about the range of *C. pauciflora*, which has smooth pods, but implies by its inclusion in the book that it is a species native to Florida.

He describes them as erect or sprawling, woody, with vinelike branches and bipinnate leaves. The yellow nickerbean has larger leaflets than gray nickerbean. They are covered with curved spines, climb over other vegetation, have yellow flowers, and frequently reach a length of 15 to 20 feet.

Scurlock says that the gray seeds are the most commonly found "sea beans". The West Indian natives carry them as "worry stones" and string them as necklaces. They are also used as a substitute for quinine.

Dick Wunderlin reports in *Guide to the Vascular Plants of Central Florida* that *Caesalpinia bonduc* is frequent on coastal strands in central Florida, *C. major* is rare on coastal strands as far north as Martin County, and that *C. pulcherrima* (Pride of Barbados, or dwarf poinciana, with red flowers) is a native of Asia and is found in disturbed thickets to Lee County.

In his new book, *Seashore Plants of South Florida and the Caribbean*, David Nellis includes several pages on nickerbeans. He says there are 200 species of this genus in tropics worldwide. The seed coats are extremely tough, and may take several years to germinate unless scarified. Apparently planting mature but still green seeds hastens germination. Nickerbean is very tolerant of salt and drought. It can grow into a barrier impenetrable by both people and livestock.

The crushed roasted seeds have been used as a coffee substitute, but unroasted seeds are poisonous. The oil from the seeds has been used in cosmetics and medicinal preparations. The wood, known as pernambuco wood, is strong, a rich red color, and used for small carvings and inlays. [It is also the wood used for making fine violin bows.]

Nellis says that *C. pulcherrima* is a native of the New World tropics (or Madagascar)". The showy flowers bloom almost continuously and may occur in red, yellow, and orange colors on the same plant, but on separate inflorescences.

According to Nellis, "the genus is named for Andreas Caesalpini, a 16th-century Italian botanist who published one of the first plant books of the Renaissance."

Other names used for this genus include *Poinciana* and *Guilandina*. *Caesalpinia bonduc* has also been called *C. crista*. *C. major* has been called *C. ciliata*. Other common names include fever nut, hold-back, and wait-a-bit vine.

Beach Pea

Beach pea, bay bean, or seaside bean, (*Canavalia rosea*, or *C. maritima*) is native to Florida, according to Richard Workman in *Growing Native*. Richard Wunderlin indicates that it grows on coastal strands as far north as central Florida. Worldwide, the genus has 51 species in the tropics and subtropics.

This plant, described by Workman, has rosy-pink flowers and large, trifoliate, roundish leaves. Its woody, 3-inch seed pods are smooth, rather than prickly as is nickerbean. The hard-coated beans, about the size of lima beans, are mottled brown. The ripe beans are eaten or used to adulterate coffee in some parts of tropical America (immature beans are poisonous).

Peggy Lantz