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THE DRIFTING SEED

A triannual *Newsletter* covering seeds and
fruits dispersed by tropical currents
and the people who collect and study them.

Distributed to more than 20 countries.

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FROM BOB

We have entered the golden age of drift seeds. In addition to the valuable symposium series (October of each year) that Cathie Katz and Pete Zies put on for us, two books about drift seeds are in press. Jeremy Smith's book about Australian stranded seeds and fruits will be reviewed in the next issue of our Newsletter. We expect that Charles Nelson's book on drifters reaching Europe also will be available for review for this issue.

Starting with the May 1999 issue, will be the first of a three-part series providing an English translation of the famous Gunnerus paper on tropical drift disseminules reaching Norway.

Betty and I certainly enjoyed being with the Drifters in October.



FROM CATHIE

The beautiful sea-bean wreath on our holiday cover page was created by Pete Zies. Thanks, Pete!

In addition to Pete and great artists like David Williams and Pamela Paradine contributing to *The Drifting Seed*, we now have fine art created by Ed Perry you'll see his drawings in a new column by Ed which starts with this issue on page 10.

1998 International Sea-Bean Symposium: The Woodstock of Beachcombing

Our official symposium photographer, Jim Angy, provided the photos for this issue. He was also on hand throughout the symposium to describe and identify Florida's wildlife to our visitors. (Florida is, after all, more than just *sea-beans*.)

On the eve of the symposium, as I was fretting and whining over the absolute lack of beans this season, the winds picked up, as if directed, and flung tons of drifters to our beach! Beaners everywhere were yelling, "The beans are back! The beans are back!" Cathy Yow from Texas and I scoured the beach with flashlights that night way past midnight and discovered more than bean-kinship between us. Meeting, after only knowing each other through e-mails and a few phone calls, we were like reunited kindred spirits, yakking about beans, books, and bryozoans. We also spend a post-symposium day at the beach with Cecelia Abbott, Ed Perry, and Jim Angy picking up more beans. Our abundant universe continues to expand.

Speaking of abundant universes and Cecelia Abbott, we received so much from this expert beachcomber. Widow of Dr. Tucker Abbott (author of dozens of international shell guides), Cecelia continues to provide fascinating shore life history. She talked about mollusks, fossilized worm casings, land snails, and ocean activity while she shared some of her world shell collections with us. Thanks, Cecelia!

At the start of the symposium, we played an audio tape from Dr. Charles Nelson in the U. K., who wished us well and expressed his desire to be with us in the future. He also gave us some provoking and inspiring comments. He stressed the need to have various sea-beans, particularly nickars, germinated for identification. Thank you, Charles. We enjoyed listening to the tape, and we hope to see you and Sue in person for a future symposium.



Cathie Katz and Cathy Yow



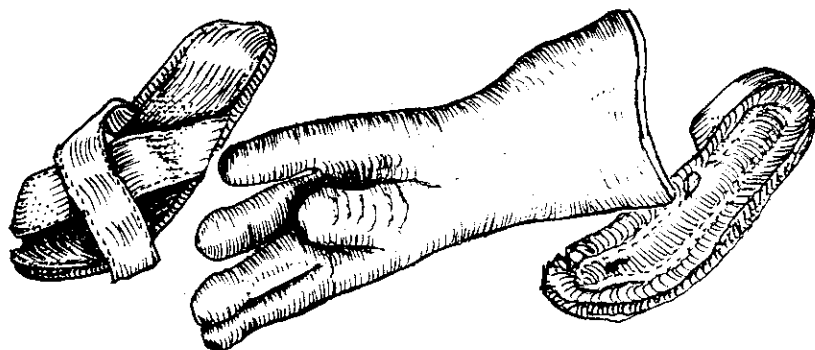
Jim Angy, Cecelia Abbott, Cathy Yow, Ed Perry, and Cathie Katz

Dr. Stephen Leatherman, our keynote speaker and author of *America's Best Beaches*, gave a wonderfully descriptive and humorous talk about beaches, including why the texture of sand varies from beach to beach, hurricane activity on beaches, and factors that influence his ratings of best and worst beaches. Melbourne Beach received a 3.5 rating (almost good), but more significantly, Steve and his family have become savvy sea-beaners. Thanks, Steve.

Prompted by Steve's beach presentation, we are considering expanding next year's symposium name to "International Sea-Bean and Beach Symposium." (Or are we purists?) What do our readers think? Write and let us know.

During the discussion on Friday night, the panelists were asked, "What is your criteria for judging a beach?" Answers ranged from David Cox's, "When there are a lot of mermaid's purses," to Curtis Ebbesmeyer's, "Any beach where I am." Later, when the panel discussed tar on our beaches, Cathy Yow explained that tar has been on beaches for centuries and native Americans used to smear it on their bodies as a way to repel mosquitoes. (Cathy will contribute a short article about this in a future issue of our newsletter.)

At the symposium, Curtis Ebbesmeyer once again added a new dimension to beachcombing by explaining that since our bean-a-thoners were finding a large number of *left-handed* sandals, flip-flops, sneakers, and rubber gloves, Melbourne Beach must be a *left-handed beach*. During and after the symposium, about a dozen more, yellow, rubber gloves were picked up from the beach. Most were left-handed. Are these from another ship spill?



We welcome our latest newsletter contributor, Dr. Bernard Zonfrillo from Glasgow University in Scotland. His wonderful sea-bean article on page 13 concludes with the teasing comment that at least one coco-de-mer tree grows in Jamaica! In a recent e.mail, Dr. Zonfrillo said he'll be returning to Jamaica in January and will try to find out how many and where the coco- de mers are located. He'll try to join us in Florida for a future sea-bean symposium.

Our new columnist, Ed Perry, is an Environmental Park Ranger at Sebastian Inlet, Florida. His long-time beach expertise and beach news will be shared in his regular column, "Ed's Beach Bytes." Ed and his wife Beth are the only other beaners I know, beside Cathy Yow and me, who walk the beach at night, using flashlights to find newly washed up sea-beans.

During our many recent beachwalks, I noticed some interesting and very different styles of beachcombing among our sea-beaners: I saw pickers, plodders, pokers and pushers. What's your style? What's the best? Write and let us know.

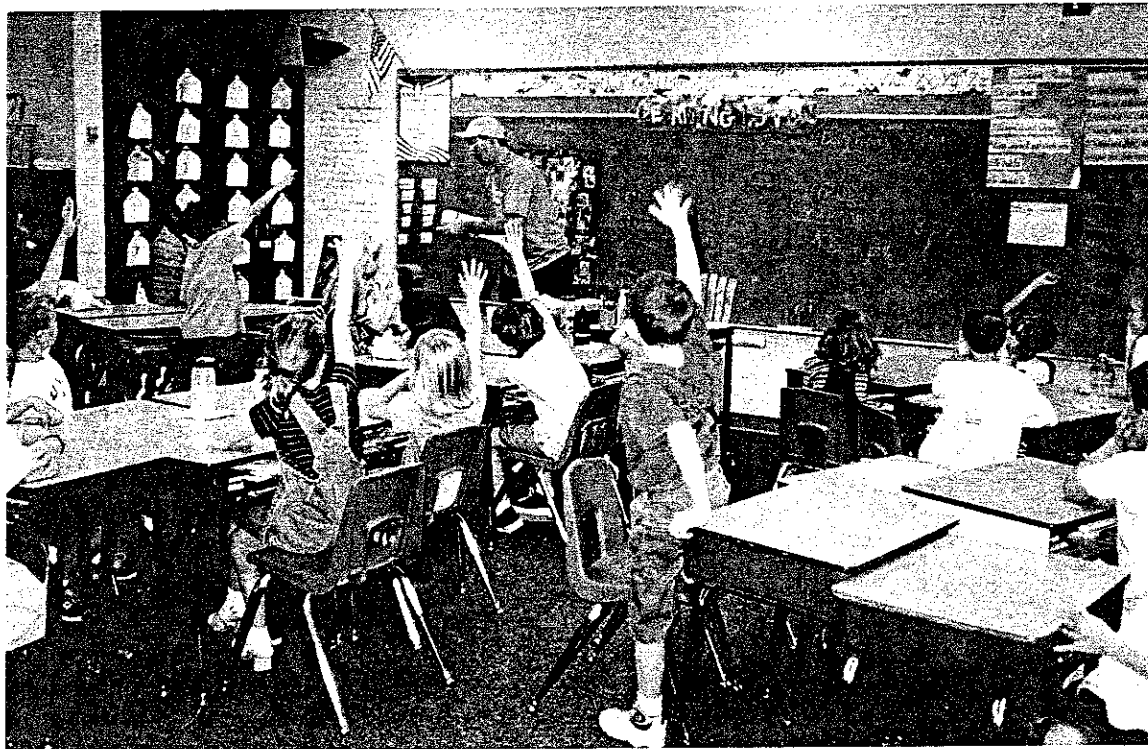
As most of you know, I use Pamela Paradine's art mixed with mine in many of our publications. I've been a long-time admirer of her botanical insights and artistic clarity. She is the illustrator of the sea-beaners' bible, *World Guide to Tropical Drift Seeds and Fruits* by Gunn and Dennis. In late August, I received a warm and much welcomed letter from Pamela J. Paradine in Somerset, England. Ms. Paradine retired as an Analyst-in-Chief of a Seed Testing Station. For her work in seed taxonomy, she was elected to membership as a Fellow of the Linnaean Society. In her letter, she wrote,

"...I am far removed from areas likely to produce drift disseminules. I live in a very tiny village in the beautiful Somerset countryside, surrounded by fields, trees and wildlife. I am a very keen gardener and took on a fairly large neglected and overgrown garden with the cottage, so I've spent the last couple of years restoring and renovating ... coping with rabbits and badgers who love digging it all up again, fighting off local bird populations from devouring fruits and vegetables (despite the fact that I feed them daily, and battling with our "quaint" English weather! I greatly enjoy local charity work at local children's shops. I also run a horticultural group in the village and have taken up growing fuchsias again, always adding to the collection and avidly reading any fuchsias catalogues I can lay my hands on. Although no longer an active participant in archaeological sites, I still maintain a keen interest in the subject. I keep up to date on botanical works by attending fellows meetings of the Linnaean Society. In my spare time, I am a patchwork quilter, which, if you live in the country of quilters, will realize is a "disease" which takes over one's life if allowed to! ...I wish you all the very best of wishes and would love to attend your meeting in October. Maybe one day. Yours Very Sincerely, Pamela Paradine

"In a handful of wild seeds taken from any one natural community, there is hidden the distillation of millions of years of coevolution of plants and animals." - Gary Nabhan in "Enduring Seeds"

By Pete Zies

Cathie Katz couldn't have known how accurate a prediction she was making when she drew her cartoon on page 6 of the September issue, but sea-bean season opened exactly on schedule - just like she said it would! A few of our most anxious members came into town on Wednesday night, and on Thursday morning (the 15th) we were greeted with steady onshore winds and a wrack line of fresh seaweed where none had been the day before! Cathie and I both breathed a heavy sigh of relief, since we each feared that our sea-bean drought would enter its second year without respite.



Thursday was spent beachcombing and getting set up at the Community Center. It was like meeting an old friend after years apart, or putting on a favorite sweater. It felt like home! While others checked the beach and set up displays, **Curtis Ebbesmeyer** spoke to three 5th-grade classes at **Sherwood Elementary School** about floating human-made debris, and I spoke to four classes of tykes at **Gemini Elementary School** (see photo above) about sea-beans, rain forests, and environmental protection. The kids loved the presentations, and we plan on expanding this program next year.

Friday morning greeted us with stronger winds and waves, but the hoped-for armada of beans was absent. I openly wondered whether my own prediction from the December '97 newsletter ("the destruction presently taking place in the Amazon could soon rob us of our own seeds.") was coming true. Some disseminules floated in, but all were heavily covered in marine growths suggesting long-term drift rather than fresh immersion. The morning was spent in displaying such items as **Cathy Yow's** seed jewelry, **Dave Williams'** new full-color seed identification chart, and Ed Perry's sea-bean material, as well as the return of popular exhibits from last year. The number of visitors seemed a bit low, but everyone kept busy answering interesting questions until the lunch break.

Lectures started at 1:00 and **Ed Perry** gave a lively lecture and slide show on beginning beachcombing. **Cathie Katz** followed with a discussion and display of bean polishing techniques helped by **Jack Hoskins**, the renowned lapidist. Ruth Smith brought back her crowd-pleasing international collection of seed jewelry. **Dr. Curt Ebbesmeyer** rounded out the day's lecture series with information about his recent discovery of tropical drift seeds found on the Western U.S. Pacific Coast. He displayed a marvelous necklace, specially hand-made by **Ruth Smith**, as his centerpiece which contained each of the trans-pacific seeds.

After the dinner break, and once the room had been packed by interested people, we carried on our tradition of surprising a member with an award by calling Cathie Katz up to the podium. There she received the "**Sea Heart and Soul Award**" for her unflagging efforts to keep us together by creating each issue of our newsletter, and for being the playful spirit that has kept our newsletter informative but fun as well. A polished sea heart graced the plaque, with Cathie's trademark caricature etched onto it in reverse scrimshaw by **Dave Williams**. She was appropriately surprised and flabbergasted.

(symposium review continued next page)

We then moved on to the sea-bean identification lecture, which was visually enhanced this year by the 70 wonderful slides of photographs taken by **Jim Angy**. After the lecture, a panel discussion was presented in which **Dr. Bob Gunn**, **me**, **Cathy Yow**, **Ed Perry**, **Dr. Curt Ebbesmeyer**, **Dr. Steve Leatherman**, **John Dennis**, **Ruth Smith**, and **Dr. David Cox** (shown below respectively) fielded audience questions. The discussion ranged from favorite beaches to the effects of El Niño on the production of our seeds and its effects on their stranding on our beaches. Many stayed late into the night to discuss seeds on a one-on-one basis.



Saturday started with the **Bean-A-Thon**. This year's rules changed to encourage variety over quantity, and it paid off with a large number of interesting finds. Box fruit, giant hamburger bean, porcupine seed, *Oxyrhynchus trinervius*, *Poupartia amazonica*, yellow flamboyant, screw pine and *Pongamia pinnata* were among the rarest items, but **Dave Williams** took the **Prize for Rarest Bean** by finding a specimen of *Thevetia nevillei*. This disseminule is so rare that only two others have been documented since 1894! Several competitors braved the torrential rains that fell all morning to gather a wide selection of seeds, but **Rondall Owens** led the pack with 38 different species, earning the **Most Seeds Award** in the process.

The 21 competitors almost filled a large plastic drum with beach debris, and **Dr. Ebbesmeyer** had a field day sorting through the human-made debris. Light sticks, gloves, shoes, balloons, toys, and even a hurricane tracking device were recovered, and from these the **Non-Bean Award** went to **Brian and Jeff Larsen** for a plastic hamburger toy (someone please explain this to Charles Nelson). Two competitors each collected the elements of a **Grand Slam**, and fortuitously it was the husband and wife team of **Ed Perry and Beth Sinclair**, who accepted it jointly. Ed also took home the **Largest Sea Heart Award** for a specimen he's had since he was 10 years old. The **Smallest Hamburger Bean Award** went to **Carolyn Grosso**, who was as tiny herself as the bean she found. A **Youth Award** went to **Patten Bashem** for his space-age blue-man toy (probably from the 1950s) and his energetic collecting efforts. The **Special Bean Award** went to **Sue Bradley** for her expert management of our "gift shop" and other unloved tasks, even in her injured condition. A special thank you also goes to **Marge Bell** for her service as "Sargeant Mom," and keeping our out-of-town guests fed. Ed Perry put together an enjoyable **Sea Bean Trivia Quiz** and awarded the **First Prize** (a nickernut lamp) to **Mary Basham**, **Second Prize** (beach bottle made by Ed's wife Beth) to me (the bottle was given to **Betty Gunn**), **Third Place** went to **Paula Boys**.

(symposium review continued next page)

"Learning to shrug is the beginning of wisdom." - Sarah Ban Breathnach in *Simple Abundance*

Before all of these awards were passed out in the evening, the day was filled with activities. A steady flow of people visited the new "Bean-O-Matic" display, which allowed hands-on identification of seeds in a "wheel-of-fortune" format (shown to the right) with Curt Ebbesmeyer and Bob Gunn.

Our lecture series began with Cathy Yow's own brand of jewelry display, which took the artisan's view point, rather than collector's. Dr. David Cox opened our eyes to the world of skates and their egg cases, so that the little Mermaid's Purse now can tell us stories too. Dave Williams made a short presentation on "Drawing from Nature," and discussed his travels in the tropics and his artistic technique, but he really didn't need to say much. "A picture is worth a thousand words" they say, and his beautiful watercolors each spoke directly to us of some beauty he'd observed in nature.



Dr. Stephen Leatherman (shown below) was our **Keynote Speaker**, and he conducted a remarkable slide show that inventoried the most beautiful beaches we could ever hope to visit. He explained how he grades a beach, and we were pleased to find that Brevard County's beaches come out in the top 25 percent. Door prizes and raffle prizes were also distributed in the evening, and we became so involved in the day's activities that no time was left for the second panel discussion.



(symposium review continued next page)

"The road to hell is paved by perfectionists working with grains of sand. Uh oh! ... missed a spot..."
- Sarah Ban Breathnach in *Simple Abundance*

A business meeting was held and a number of important issues were discussed. **Marge Bell** agreed to be media liaison to ensure that appropriate coverage exists for next year's meeting. This year's displays had been limited to bean materials only because of limited space, but it was agreed that next year other beach groups would be invited and given space. In an effort to broaden the appeal of our conference, it was agreed that it would be called "Sea-Bean Symposium and Beachcomber's Fair," or a related title, to create an umbrella for related groups. Numbers for attendance were down this year, and so funds raised were less than anticipated. Dues of some sort will become necessary if the newsletter is to stay financially viable. All agreed that the original *World Guide* needs to be reprinted as soon as possible. A target date of six months was set. Next year's conference was scheduled to coincide with the tides of the full moon from **October 22nd through the 24th 1999**. Five volunteers signed up to help keep our "Adopt-a-Shore" beach clean, and additional volunteers will be sought to make the task easier and quicker.

Sunday was left open for beachwalking and travel home. Although we spent a whole year planning for this event, it seemed to go by in a flash. Plans are already in the works for next year's meeting. For those who couldn't come this year, you can't imagine what you missed ... but there's always next year! **Cathy Yow**, visiting for the first time, enjoyed herself so much that she wants to set up a mini-symposium in Texas! With **Wayne McAlister** and **Tally Powel** out there too, it just may happen. You just have to believe in the magic!

Photo below left: back row from left: Curt Ebbesmeyer, Steve Leatherman; next row: Sue Bradley, David Williams, Cathy Yow, Beth Sinclair and Ed Perry holding Beanie Baby Gayle; front row: Rondall Owens, Ruth Smith, Cathie Katz, David Cox and Pete Zies.

Photo below right: Pete Zies with his extremely popular and educational "BEAN-O-MATIC."



"And just when we think that the way it is now is the way it will be forever, another season begins."
- Melody Beattie in *Journey to the Heart*

Records of Ivory-nut Palm Seeds from Southeastern Virginia, USA, Beaches

The ivory-nut palm (*Phytelephas macrocarpa* Ruiz & Pav.) is a South American species whose seeds are a source of vegetable ivory. Like true ivory from the elephant, vegetable ivory has many of the same uses.

Seeds of the ivory-nut palm began appearing in beach drift in Virginia on the eastern side of the Chesapeake Bay in September 1971. Seven have been found through May, 1997, and all were on beaches on Fisherman Island within the Eastern Shore of Virginia National Wildlife Refuge or its environs. Gary and Phyllis Williamson found three. Dennis found two, and one each were found by others.

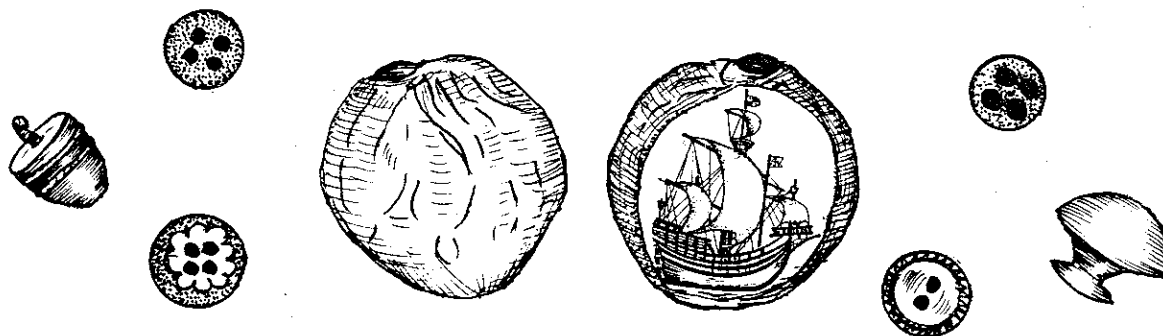
I have had no reports of these seeds from Gulf Coast beaches and only a few reports from Florida east coast beaches. In late September, 1971, I picked up one at Palm Beach after the passage of Hurricane Ginger, and Peter Zies supplied me with several other records. The rarity of this palm seed on shores of eastern United States is supported by Guppy (1917). He called the ivory-nut palm one of the principal features of the floating and stranded drift of coasts and estuaries in Ecuador and noted that sound seeds did not float. He also noted that although this palm abounds on the banks of the Magdalena River in Colombia, it does not contribute to West African drift.

The Fisherman Island, Virginia, area where the seven seeds were found has been thoroughly searched for the presence of any other tropical drift disseminules. None have been found and also no other tropical drift debris has been found. These findings, together with the rarity of ivory-nut palm seeds in drift from the West Indies, would eliminate any possibility that the seven seeds arrived by way of ocean currents.

It is likely that the seeds came from shipping and were lost in transit. It is known that tropical seeds used for medicinal and other purposes have often reached the shores of western Europe over the last 300 years through lost cargoes and shipwreck. G. C. Cadée of the Netherlands Institute for Sea Research, both in the "Porcupine Newsletter" (1988) and this newsletter (1997), has documented the appearance of such seeds on the Dutch coast in recent years.

Among the seeds lost from shipping were those of the ivory-nut palm. Cadée stated that the seeds of this palm cannot float and noted the following in The Drifting Seed newsletter about *Phytelephas* and *Hyphaene* (both palms):

"These palm endocarps have a white endosperm that is very hard and used as vegetable-ivory for the manufacture of buttons or small ersatz-ivory carvings and were shipped to Europe ... All of these may have come from ships going to Hamburg, once a center for processing, but wrecked along the Dutch coast."



To find out if ivory-nut palm seeds are imported to the United States for commercial purposes, at the suggestion of Peter Zies, I contacted Dennis McCray of Conservation International's Tagua Initiative in Washington, D.C. Tagua is the commercial name for the ivory-nut palm. McCray stated that Ecuador is the main exporter of tagua and that its ivory is chiefly used for making buttons. There had been a switch to plastic buttons, but now the demand is for vegetable ivory buttons. Tagua also is harvested to some extent in Colombia and is found in parts of Panama, Peru, and Brazil.

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"For billions of years, simple creatures like plankton, bacteria and algae ruled the earth. Then, suddenly, life got very complicated."
-J. Madeleine Nash, Time Magazine

Another use, and one clearly demonstrated by David Williams at the Second Annual Sea-Bean Symposium (1997), is using the vegetable ivory in making scrimshaw. David, from Midlothian, Virginia, stated that he is able to buy vegetable ivory locally.

A detailed account of vegetable ivory, a synonym for the ivory-nut endosperm, and its uses is in an article by Wayne P. Armstrong in Zoonooz (1991). He strongly advocates the use of vegetable ivory not only for saving elephants but saving the South American rain forests. The ivory nut palms that grow in these forests, he states, can generate five times the income from banana plantations and cattle ranches. Besides being used for buttons, he points out that the ivory is used as chess pieces, dice, umbrella handles, billiard balls, and for carvings in the art of scrimshaw.

Armstrong describes the palm as having large pinnate leaves up to 20 feet long, rising from a woody trunk that leans or grows from a longer, horizontal trunk. The female palm bears clusters of large, spiny fruits the size of a grapefruit. Inside the fruit are four or more large seeds. He agrees with Guppy in saying the seeds sink in water. But some float because of internal cavities from endosperm decay.

There are no figures available on maximum flotation in seawater of seeds with internal cavities. But one of the solid ones from Fisherman Island has been floating in a seawater container for nine months and is still floating. This suggests that seeds of this palm could easily reach Atlantic East Coast beaches by way of ocean currents. Why they appear in such limited numbers is not known.

As pointed out by Gunn and Dennis (1976), the seeds of the ivory-nut palm can be confused with those of crabwood (*Carapa guinensis*, Aublet). Although the two are about the same size (3 to 7 cm long, 3 to 6 cm wide) and color (brownish), the hilum of the ivory-nut is bold, round, and plate-like, while the hilum of the crabwood is faint, often distorted and fibrous.

I am indebted to Peter Zies for help and encouragement.

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Cracked Bean Glossary by Cathie

hilumbilical



The papery skin still attached to the hilum of a fresh bean.

Mucuna falsetti

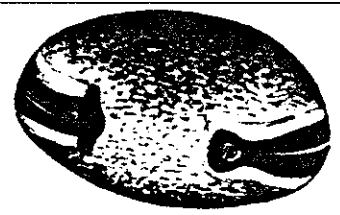


A small piece of driftwood or bark posing as a true sea-bean.

The sea does not reward those who are too anxious, too greedy or too impatient. To dig for treasures shows not only impatience and greed, but lack of faith. Patience, patience, patience, is what the sea teaches. Patience and faith. One should lie empty, open, choiceless as a beach -- waiting for a gift from the sea." - Anne Morrow Lindbergh



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This column is a hodgepodge of facts, happenings, ideas and questions about sea-beans and beach life. Please contact me if you have information you'd like to share.

"A Beanie Baby" of a different kind!

This first column is dedicated to my beautiful wife, Beth Sinclair and our new daughter, Gayle Lane Perry -- I can't wait to see Gayle find her first hamburger bean!

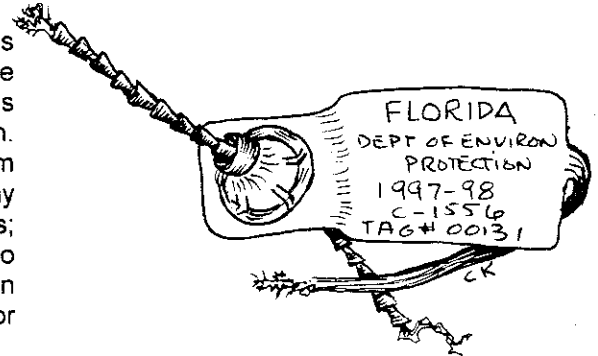
Beach Update

Beaning along Florida's east central coast in October was good, but December is turning out to be even better! Three 1-hour walks from Dec. 1st to the 3rd produced 25 hamburger beans, 14 sea hearts, 2 Cassia pods, 1 box fruit, 1 candlenut, and 1 starnut. Employees at the Gumbo Limbo Nature Center in Boca Raton (south Florida), found so many hamburger beans on the beach, they said, "We're tired of picking them up!" On Dec. 4th, Phil Rand, also a park ranger at the Sebastian Inlet State Recreation Area, combed 7 sea hearts, 7 nickers, 22 hamburgers, and 2 Mary's beans, in just a couple of hours as the tides carried them at his feet!

At the time of this writing, record numbers of hamburgers, sea hearts, and many uncommon species, including Mary's Beans are washing onto our beaches. I know of 9 Mary's beans found with this last influx of weed. In the words of Cathie Katz, "Yippeeee"!

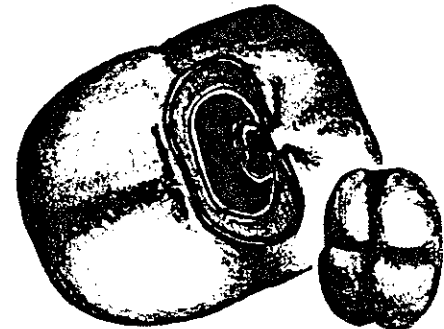
The best beaning on Florida's east coast beaches is accompanied by the Portuguese man-o-war jellyfish, and, boy, are the beaches covered with them right now -- ranging in size from less than 1 cm to over 12 cm!

"Crustacean tags" are also washing up on Florida's beaches Curtis Ebbesmeyer of Seattle, Washington is interested in tracking these floating bits of information. Beachcombers should save all these tags and record the date and place found. These tags can really be fun. I have already found a multitude of differently colored tags from Florida, Canada, and even Venezuela. Curt has discovered that many of these tags come from lobster pots and other seafood traps; therefore his nickname for them: "crustacean tags." Some appear to have circled around the North Atlantic at least once and maybe even twice! Pretty neat! Look in the next issue of "Beachcombers Alert" for a detailed article on these fascinating tags.



A few days after the 1998 Symposium, I was lucky enough to find a black mucuna (*Mucuna holtonii*) on our beach. Thanks to Bob Gunn and Pete Zies for helping to identify this mystery drifter. Supposedly rarer than Mary's beans, Pete thinks these seeds come from a limited growing range in Central America. Drifters should report any unknown or rare seeds to Pete for cataloging.

Speaking of rare seeds, my wife Beth was lucky enough to find not one, but two Mary's beans during a short walk on the beach in November. Both beans were found only a foot apart and make the first finding of this species for Beth. She thought that this might signify a gift from God, one for each of the children she planned to have (we are already half way there!). When I mentioned this to Sue Bradley, the devoted office manager at Sea-Bean Headquarters, she said "Oh no, Ed, the one YOU found earlier was for Gayle! These two new ones mean that Beth will have twins!" We will just have to wait and see if Sue's prediction is true!



Growing Seeds

Sprouting your precious sea-beans can be as much fun as finding them. Drill a small hole through the seed coat and place it on a wet paper towel in a bowl for several days. Generally if you see white tissue inside (cotyledon tissue) when you drill and the bean begins to swell and crack after about a week, the seed is alive and ready to be potted in damp potting soil. Some of these plants will be killed by freezes, but if you get one to survive to about 3 years old, you may be able to harvest your own beans! I have a 1½- year old *Mucuna* growing 100 feet up an oak tree and doing well. Right now it's covered with pendulous green flowers! Natural germination does occur here in Florida as well.

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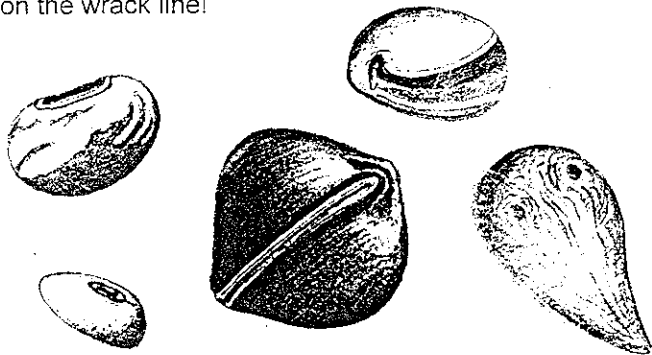
A tropical almond has sprouted and grown to about 2 feet, under natural conditions at the Sebastian Inlet. Pete Zies reported seeing a tropical almond growing in beach rocks in the Cocoa Beach area, and Rodney Smith of Satellite Beach had one germinate just outside his front door, where he stashes all his seabeans finds on a rock for display. The sprouted tropical almond that Casey Jones gave Cathie Katz at the 1997 Symposium has grown to almost 3 feet in her backyard.

A few days ago, I stumbled across a sprouted *Mucuna* that had been buried by wind-blown sands at the inlet. Unfortunately a tractor had run over it, but I have recovered the hearty little seedling and am trying to nurture another sprout out of it! Insects and killing freezes usually are the demise to these otherwise hearty vines when they sprout under the "wrong" conditions.

Nickernut Chat

I am starting a group discussion on yellow and brown nickernuts. Anything and everything you may know about them, reported beach finds, or sightings and locations of established plants are just some of the questions we will address. I already know of Cathy Yow's brown plant which was nurtured until she went on vacation! Some of us had the pleasure of meeting John Broimann of Fort Pierce at the 1998 Symposium. He collected many yellow nickernuts almost 25 years ago! The yellow nickernut, or *Caesalpinia major*, is on the endangered species plant list for our state. This gentleman was kind enough to give me a couple out of his collection, and if only these seeds were a little fresher, I would try to germinate one of them!

Until next time, keep your feet in the sand and your eyes on the wrack line!



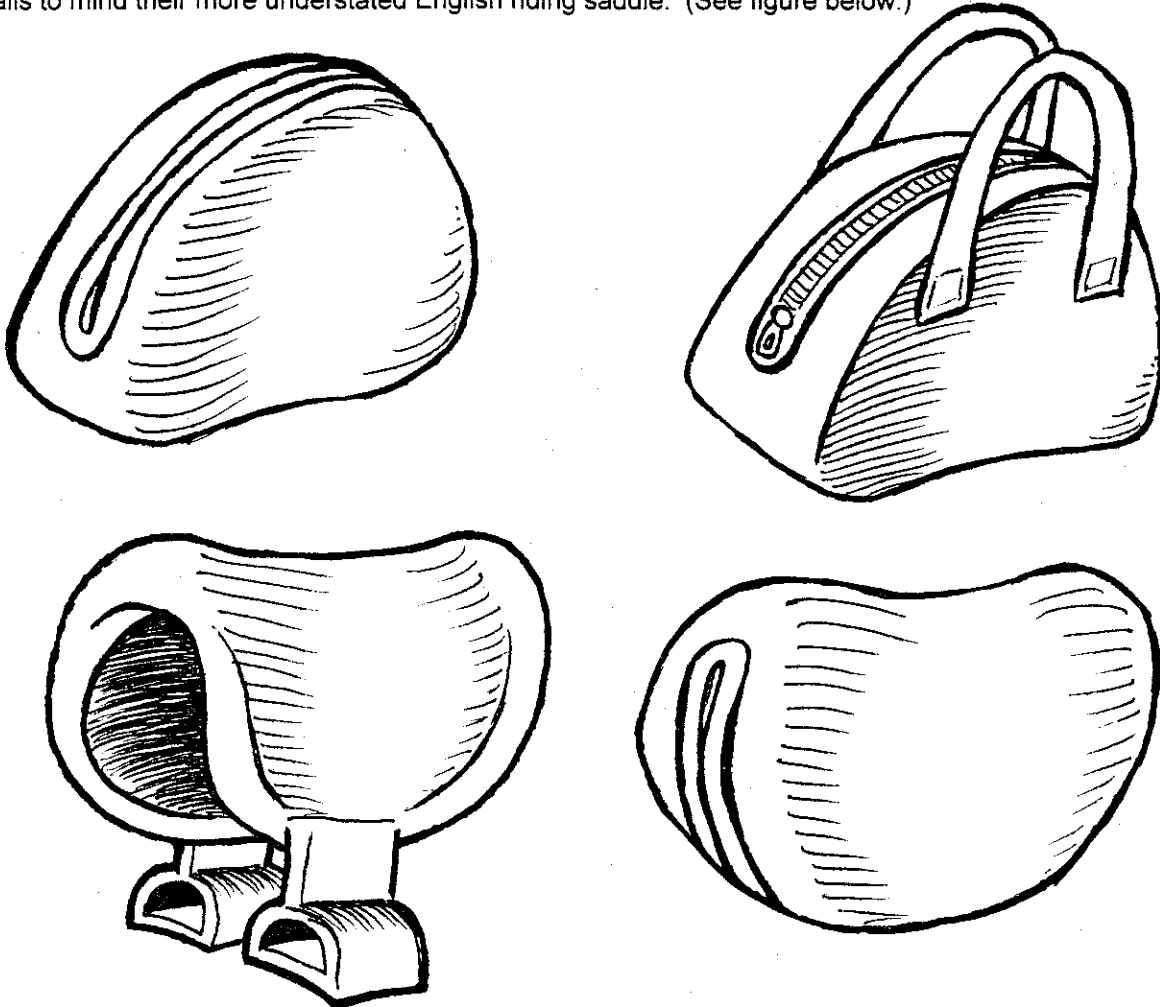
Ed Perry, Steve Leatherman and John Dennis



Ruth Smith with her seed jewelry collection and Ed Perry

By Pete Zies

Because the beautiful *Dioclea* seeds are rarely found, in comparison to our other sea-beans, they are also rarely discussed. They have more than their share of interesting stories to tell however. Take their common name, "sea purse:" – they can't be used to hold anything, but if held with the hilum (the thin line along one edge) pointing up, they look like a lady's handbag, with the hilum being the zipper. (See figure below.) Another common name is "saddle bean," and if the seed is held with the hilum pointed downward the seed usually looks like a saddle. Don't be disappointed if it doesn't look like the oversized and elaborate western cowboy saddle, because the British came up with this name, and so it calls to mind their more understated English riding saddle. (See figure below.)



The scientific genus name *Dioclea*, also tells a story. It honors Diocles of Carystos, who had such a great knowledge of plants that only the famous Hippocrates could be said to have known more among the ancients. Naming plants after scientists is a common form of honoring their work in botany.

A less well known name, of Latin American origin, is "vulture's eye." We Americans would think of our common vultures, (the turkey buzzard, *Cathartes aura* or the black vulture, *Coragyps atratus*) and would be stumped, since a *Dioclea* looks nothing like their eyes. Recalling the tropical origin of the name however, a little research reveals that a rain forest vulture, known as the king vulture, *Sarcohamphus papa*, is the seed's inspiration. This bird is very colorful, with a white fleece bib, black and white wings, a featherless head and neck with a black skull cap and bright orange on the neck. The beak is red, and wattles on the beak and cheeks are orange, as is a ring around the eye. Here then is where our name comes from, since most *Diocleas* have a bright orange ring alongside the hilum that encircles the seed, just like the vulture's eye! Interestingly enough, just as this seed is rare on our beach, there is one rare record of the king vulture being sighted on the St. John's River in Florida by the explorer-naturalists John and William Bartram back in 1765. So there's much more to this seed than originally meets the "eye"!

"There must be limits to change. After all, we've had these same old body plans for half a billion years."
-Rudolf Raff, biologist at Indiana University

by Dr Bernard Zonfrillo,
Graham Kerr (Zoology) Building,
University of Glasgow,
Scotland

Virtually all sea-beans cast up on the west coast of Scotland have got there through the power of the Gulf Stream. Records of such finds go back hundreds of years. While visiting the Inner Hebridean island of Canna in summer 1998, I was shown several *Entada* and *Mucuna* sea-beans collected from the island's silver-sand beaches by local resident Ian Wilkie and his wife. They had accumulated around 20 sea-beans over a period of 15 years or so, sometimes going a few years with finding nothing then a few turning up within a short period. Canna has a human population of 15 souls.

Can these sporadic finds be attributed to hurricanes in the Caribbean, which surely must help send sea-beans well on their way out to sea?

In December 1997 I was able to visit some uninhabited islets which form part of the Morant Cays, lying 35 miles south-east of Jamaica. The beaches were littered with seeds and flotsam of every description but the two species commonly found were similar to those turning up in Scotland. *Dioclea* was probably third commonest but I have yet to see a specimen of this bean from Scotland.

On mainland Jamaica, in the rain-forests of the Blue and John Crow Mountains, where many species of drift-seeds must originate, they are common. The high rainfall at times flushes much debris into the mountain river systems and thereafter out to sea. The horse-eye Bean (*Mucuna*) when cut and rubbed on the skin, is apparently used by Jamaican children to "irritate" their friends, much in the same way as children in Scotland mischievously drop the hairy seed of rose (*Rosaceae* sp.) hips (itchycoos) down the necks of their playmates.

Finally - from previous newsletters, - the recurring dream in which Cathie Katz finds a coco-de-mer "nut" on a Florida beach may not be too far fetched. There is at least one of these trees growing well in Jamaica. Quite how it got there I have yet to find out but it is in a formal garden. So keep searching Cathie, some day you might hit the jackpot, with a little help from a hurricane !



Alm, T. and E. C. Nelson. 1998. North Norwegian records of drift seeds. *Polarflokken* 22(2):155-160. [Written in Norwegian, mapped distributions of stranded seeds from the New World: *Dioclea relexa*, *Entada gigas*, *Mucuna sloanei*.]

Nelson, E. C. 1998. "Løsningsstein, vettentyrer & ormestein" and other sea-beans. *Polarflokken* 22(2):161-163. [Written in English, covering all tropical drift disseminules found stranded on Norwegian beaches.]

Dr. Stephen Leatherman's latest book, *America's Best Beaches* is available through Coastal Publications by calling toll free 1-888-TOP-BEACHES or go to www.topbeaches.com.

Cathy Yow's latest book, *Jewelry from Nature*, published by Lark Books, will be available in the spring (1999). In this beautifully illustrated book, Cathy includes a section about sea-beans and using them as art. She describes in detail how to create jewelry from the treasures we collect, including fibers, shells, coconut husks, twigs, bones, seeds and bamboo.

Dr. David Cox, one of our speakers at the 1998 Symposium, provided us with wonderful information about dozens of species of skates and their egg cases. Many of the egg cases collected by David were displayed. He is requesting, from anyone in the world, skate egg cases and/or information. E.mail David through this newsletter or write to him at Florida Technical Institute, Biology Department, 150 W. University Blvd., Melbourne, Florida 32901, USA

And more from **Dr. E. Charles Nelson**: "I've been surfing the net to my great puzzlement ... You've probably come across this, but what are these sea-beans?... Two recipes from restaurants in the USA posted on the net read ...:

LIGHTLY CEVICED FLUKE

Cucumbers, **Sea Beans** and Pink Peppercorn-Lobster Vinaigrette
and

ORGANIC BEAN SOUP WITH **SEA BEANS** AND SORREL
(Courtesy of Ex. Chef Tom Colicchio, Gramercy Tavern, NYC"

[Eds note: Due to lack of space, the complete recipe is not included here, but it calls for fava beans, cranberry beans, and **blanched sea-beans** ... Can anyone help us find out which species we should use? Hamburgers?]

Botanists, gardeners, and naturalists, particularly Floridians check out this web site:

www.floridaplants.com

Botanist **Leigh Fulghum** combines "Florida Native with Florida Fancy" ... with wonderful information about plants, books, natural history, wildflowers, gardens, and lots of related subjects ... "because it's a jungle out there."

Seed Collection News

(Our drift seed collection, which was transferred to Florida in 1997, by Dr. Gunn, is being curated by Pete Zies)
Sincere thanks to the following people for their donations:

Alida Varela de Vega recently donated about 150 seeds from 30 species she collected on Chichiriviche beach located on the Caribbean Sea coast of northern Venezuela.

Bob Coombs sent in about 50 seeds from 20 species he collected on Waeihu beach on the north shore of Maui in the Hawaiian Islands..

Xander van der Burgt sent in some sea hearts he collected on a beach near Vilancoulos, in the Inhambane Province of Mozambique.

Thanks to **John Broimann** for contributing beautiful specimens of yellow nickernuts collected 25 years ago on the west coast of Florida.

Take a look at Pete Zies' new web site at www.c-beans.com

"Beware of any activity that requires the purchase of new clothes." - Henry David Thoreau

Thanks to all the folks who generously donated their time helping with the symposium activities including setting up, selling raffle tickets, and cleaning up, especially **Marge Bell, Michele Birdwell, Paula Boys, Sharan Chirchiglia, Eleanor Hillman, Jeannie McFadden, Sue Montgomery, Betty Offenhauser, Diane O'Brien, and Kevin Steiger.**

Bill and Nancy Eastlake from Springfield, Missouri attended the 1998 symposium and were wonderful participants in the Bean-A-Thon, despite Nancy's recent surgery. Nancy found an egg fruit which was a serious contender for the "rarest seed" award. After returning to Missouri, Bill wrote, "On our visit to the beaches this year we found 28 sea hearts, 27 hamburger beans, 1 Mary's bean, and no sea purses."

Thanks to author **Debra Frasier** and **Sally Outlaw of Blaze Entertainment** for attending this year's symposium. Sally is producing a series of 26 TV shows based on Debra's book, **Out of The Ocean**. Anyone who spends time at the beach (or would like to) will love her beautifully illustrated book. Debra is planning to attend the 1999 Symposium and will be available for book signing.

BIG thanks to **Big Jack Hoskins of JEMS, Inc. in Melbourne**, for coming to the symposium and providing the technical aspects of polishing sea-beans. Anyone who would like to ask Jack about tumblers, grit, or anything related to rock and bean polishing, stop by his shop at 2293 Aurora Road, Melbourne, FL 32935 or call 407-254-5600.

We were fortunate to have **Mike McKenna** from Pembroke Pines drive all the way up from south Florida to join us for part of the symposium. Mike has been collecting sea-beans since his early lifeguarding days in Florida and now has a sailboat named **SEABEAN**. Mike can be contacted at seabeen.bellsouth.net.

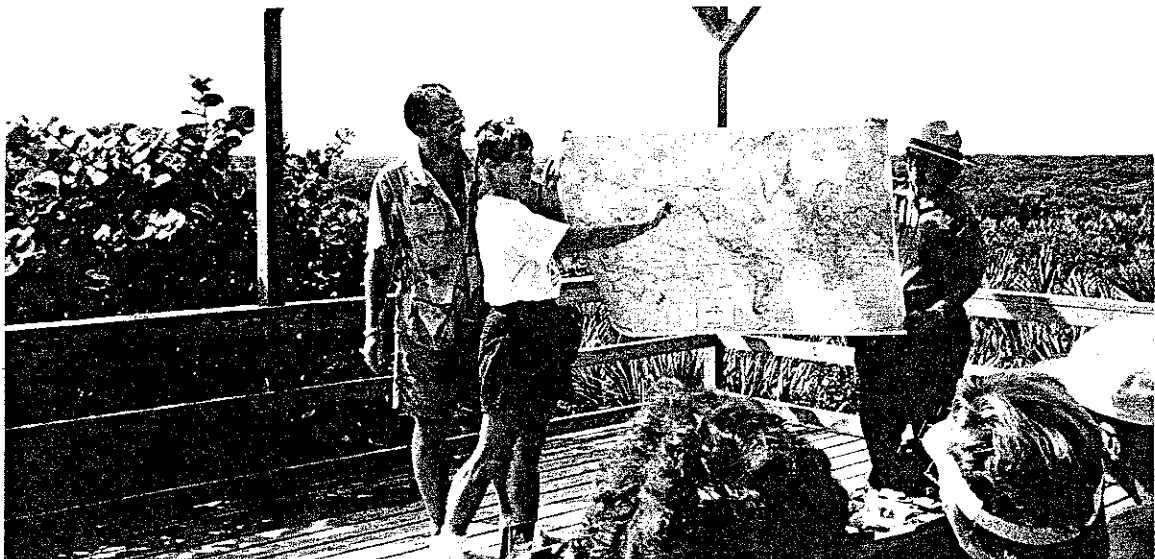
Ella Moore of Melbourne found and generously donated her fine box fruit to the Drifters. She was too late to enter it for a Bean-A-Thon award, but her spirit is always a winner with us.

Thanks to **Ranger Maureen Picard of Canaveral National Seashore** for contributing beachcombing wisdom at the symposium. Maureen conducts guided beachwalks at CNS, among several other nature programs. Cathie Katz and Pete Zies were given the opportunity to be part of Maureen's nature program this past fall. (see photo below.)

And special thanks to **Laurilee Thompson of Dixie Crossroads Restaurant** for contributing gift certificates for our raffle prizes. I've already heard from several beaners from as far away as Missouri who loved dining at Dixie Crossroads.

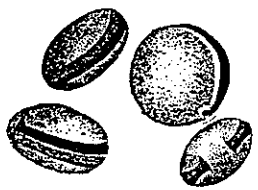
LEGO® TOY UPDATE: The Gulf Stream hasn't let go of any Lego's® as far as we know. Keep looking, beachcombers!

The 1999 Sea-Bean Symposium will be **October 22-24** at the new **Cocoa Beach Library**. Our first symposium was held in 1996 at the old Cocoa Beach Library. Since then, a new, larger facility has been built a few blocks north. **Library Director Ray Dickinson** has once again graciously agreed to let us use their conference room. "So, the Symposium comes home," Ray commented. Yes, just like real drift seeds, we're drifting back to our original beach and looking forward to seeing everyone there! Details will be in the September 1999 issue of this newsletter.

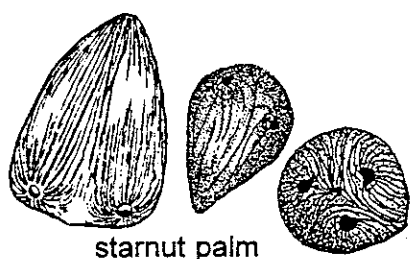


"To be looking elsewhere for miracles is to me a sure sign of ignorance that everything is miraculous." - Abraham Maslow

Simple Guide to Common Drift Seeds
 (Illustrations by Cathie Katz and Pamela J. Paradine)



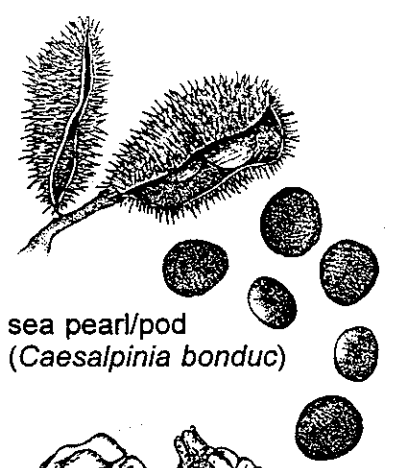
hamburger bean
 (*Mucuna* spp.)



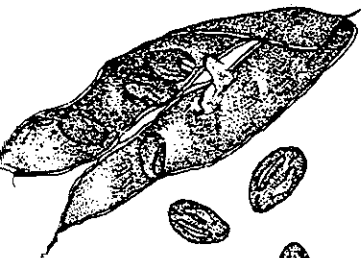
starnut palm
 (*Astrocaryum* spp.)



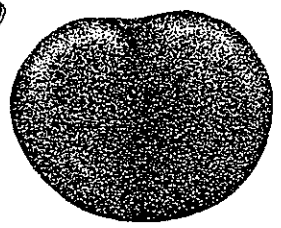
country almond
 (*Terminalia catappa*)



sea pearl/pod
 (*Caesalpinia bonduc*)



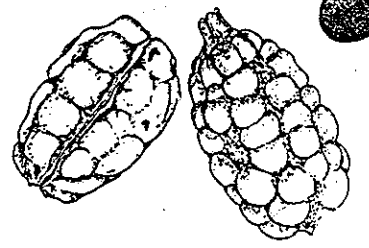
bay bean/pod
 (*Canavalia rosea*)



sea heart
 (*Entada gigas*)



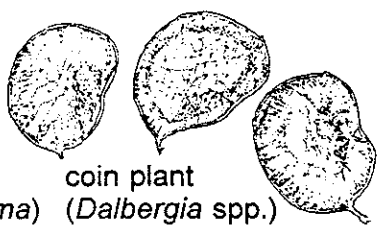
golfball/pod
 (*Manicaria saccifera*)



hand grenade
 (*Sacoglottis amazonica*)



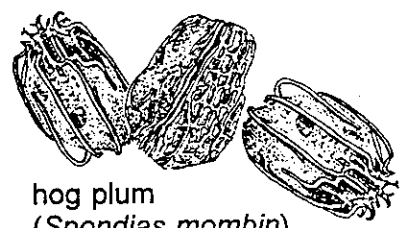
Mary's bean
 (*Merremia discoidesperma*)



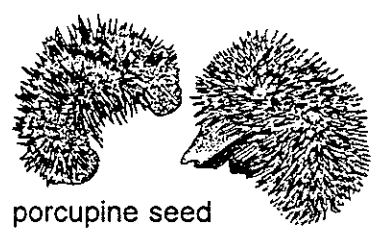
coin plant
 (*Dalbergia* spp.)



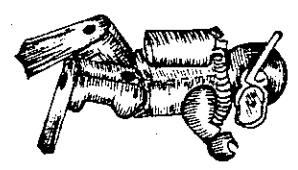
sea purse
 (*Dioclea reflexa*)



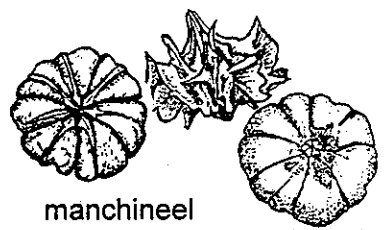
hog plum
 (*Spondias mombin*)



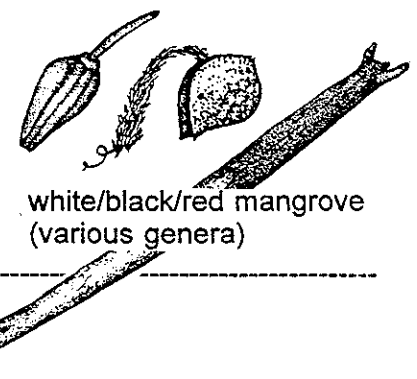
porcupine seed
 (*Caryocar microcarpum*)



Lego® diver
 (*Aquanautium legoii*)



manchineel
 (*Hippomane mancinella*)

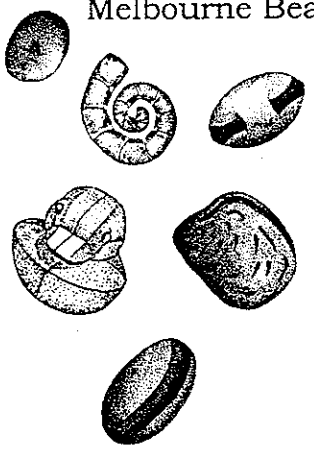


white/black/red mangrove
 (various genera)



The Drifting Seed

PO Box 510366
 Melbourne Beach, FL 32951



stamp
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