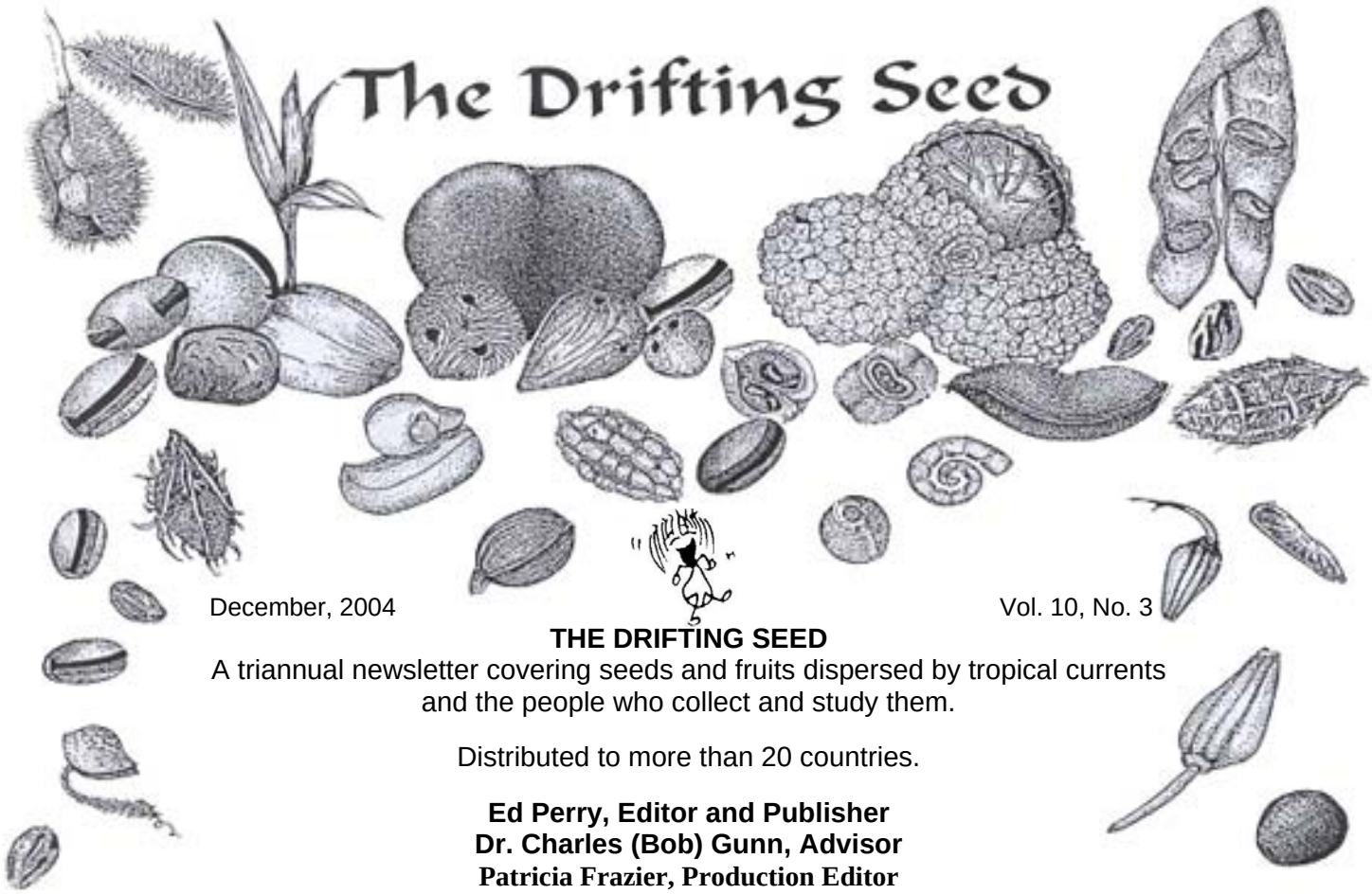

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THE DRIFTING SEED

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.

The 10th Annual International Sea Bean Symposium will be held at the Cocoa Beach Public Library, October 14th-15th, 2005.

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Some Floating Islands Seen at Sea

by Chet Van Duzer
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A floating island—can such a thing exist? Surely chunks of the solid earth on which we stand cannot drift easily about the surface of a body of water? But floating islands do indeed exist on six of the seven continents and sometimes in the oceans between them; they may have trees growing upon them, be hundreds of meters across, and support the weight of humans living upon them and even of cattle grazing upon them. Floating islands are kept buoyant by the light spongy tissues of certain aquatic plants, by gases released into their soil by decomposing vegetation, or by both of these forces.

Floating islands are most often found in lakes and wetlands, but they also form during floods of the great tropical rivers of the world when large masses of aquatic vegetation or chunks of their banks are torn away and carried downriver. The Congo in Africa is one such river, and floating islands that came down the Congo were reported 240 km out to sea from the river's mouth. Floating islands are also common in the Sepik River in Papua New Guinea following the monsoon rains. The islands are called "lik lik aislans" in Pidgin English, and can be up to 100 meters across with still-living trees on them. The Río Paraná and Río de la Plata in South America also generate floating islands—when they flood they are filled with floating islands called *camalotes*, which are matted masses of water hyacinth. A famous episode at Convento de San Francisco in Santa Fe, Argentina, which is located on the Río Paraná, involved the killing of two friars at the Convento by a jaguar that arrived on a *camalote* during a flood of the Paraná on April 18, 1825.

In the flood of 1905, the Río de la Plata at Buenos Aires was covered with *camalotes* as far as the eye could see, some half a mile long and 100 feet wide, others just a few feet in diameter. As they came down the river these islands hit moored ships and tore the ships from their moorings. And the islands brought passengers with them: many species of tropical snakes, deer, a puma, parrots, and monkeys. An Indian baby was found on a floating island that came ashore near Rosario, and although he was weak from hunger and exposure (the flood occurred in July, which is winter in the southern hemisphere), he was brought back to health. This flood and the floating islands are described in contemporary newspaper articles and also in Guillermo García Moyano's *Pueblo de los Pocitos*.

Of course floating islands that come down rivers end up at sea; many are quickly destroyed by the waves, but others survive for quite some time, and accounts of floating islands seen at sea are rare. An article in the November 8, 1908 edition of the *Washington Post* reports that a United States cruiser in the Caribbean north of Honduras encountered an island which they soon discovered was floating (this is certainly one of the largest floating islands ever seen at sea):

> "It proved to be a little island about three quarters of a mile around and a quarter wide. In shape it was long and narrow, with a thick growth of vines and bushes reaching down to the water's very edge. Three tall cocoanut palms grew in the middle of it. No life of any kind was on the island, nor was there any water, though instead of being sandy or rocky as such islands usually are, the soil was rich, dark and very moist. After gathering the cocoanuts the sailors returned to the cruiser, which, oddly enough, seemed much further off, and considerably more to the southwest than when they left her. Then it just dawned on them that they had been visiting one of the floating islands so often heard about but seldom seen in the South Atlantic. Further observation confirmed the suspicion, as the cruiser remained near it long enough to see the island change its position."

A story published in several newspapers in June and July of 1902, gives a remarkable account of two floating islands spotted at sea in the Caribbean. The Norwegian ship *Donald*, steaming from Banes, Cuba, on its way to Philadelphia, encountered a floating island about 30 miles from the island of San Salvador:

> "On passing Watlins Island, which lay off about 30 miles," said Skipper Warnecke, "we steamed close to a floating island. Upon it were what appeared to be a large number of stately palm trees. I had never encountered anything like this in all my seafaring life. The floating island was moving,

and that, too, at a slow rate. Curious for a thorough investigation, I steamed still closer to the object, and was amazed to find what I took to be palm trees were full-grown cocoanut trees, and laden with fruit of the largest kind. Then I ordered a boat lowered and, together with the first mate, made a landing on the still moving island.

"Then another surprise awaited us. High up in the trees was a small colony of mischievous monkeys, and as we got nearer they shied a number of cocoanuts at us. After a lot of trouble we secured two of the attacking simians and at least a dozen cocoanuts. Then we took to our boats, boarded the steamer, ordered full steam ahead, and soon the strange floating island was lost in the haze astern.

"But another surprise was in store for us on the following day, when we passed within glass sight of another singular floating object just off the port bow. The lookout sung out 'Land ahead.' This amazed me, for I knew according to the chart land was not miles near. Still, curious from the previous day's experience, I determined to solve this further mystery of the sea, so I gave orders for the ship to steam close to what I now made out to be another floating island. Again I had a boat lowered, and with the same crew we landed on the island.

"We found it to be an exact duplicate of the day before, with this exception—instead of monkeys we found a big covey of parrots of most brilliant plumage. Among them was one who was evidently the patriarch of the tribe, and I do not exaggerate when I say that the aged fellow could cuss in two languages. He was evidently a lost pet. We took him and a couple of his fellows aboard the steamer, and soon left the floating island in the distance."

In 1924 similar floating islands were reported in the Palawan Passage north of Borneo/Kalimantan. In an article titled "A Floating Island Followed His Ship" in the *New York Times*, Captain Jonas Pendelbury of the steamship *President Adams* described an encounter with a total of about ten floating islands, the largest about seven acres with tall palm trees, monkeys, birds, and snakes:

"Captain Pendelbury encountered the biggest of the floating islands first. He said its palm trees were higher than the wireless masts of his ship and in their tips were chattering monkeys and singing birds. Through marine glasses the skipper said he saw great masses of flowering vegetation and a large number of cobras, deadly reptiles."

These accounts are of particular interest to evolutionary biologists, as they lend support to the theory that floating islands have been important in the dispersal of plant and animal species across the oceans, and thus important in the process of evolution.

Detail of a Woodcut Illustration of Floating Islands in the Congo River by A. Goering, 1883 (author's collection).

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"Historia de una tragedia," on the back cover of *Templo de Nuestro Padre San Francisco: Guía para visitar sin guía* ([Santa Fe, Argentina]: Imprenta Macagno S.R.L., December, 1999) (an account of the killing of two friars by a jaguar that arrived at the Convento on a *camalote* or floating island during a flood of the Río Paraná on April 18, 1825)

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Chet Van Duzer, a writer living in California, has just published the book *Floating Islands: A Global Bibliography* with Cantor Press, http://www.cantorpress.com

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Pictures from Symposium 2004

Can they float? A Nutmeg *Myristica fragrans* from the Dutch Coast

by Gerhard C. Cadée & Wim Kruiswijk
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Introduction

The first nutmeg from a Dutch beach was collected by Wim Kruiswijk on the North Sea beach near his home in Zandvoort on the 24th of September, 2004. It was never reported before from the Netherlands (Brochard & Cadée, 2005). There are only a few earlier nutmegs found on European coasts: Nelson (2000) reports on some found in the Outer Hebrides (UK) by William MacGillivray. Although Nelson (2000) wrote that the labels were missing, Perry & Dennis (2003) give more information on the same nutmegs collected by MacGillivray: two were found in 1900 and one sometime after 1908.

What is a nutmeg?

Nutmegs are the kernel (seed) of a fruit of the tropical nutmeg tree. The fruit resembles a peach in size and shape. However, different from a peach it splits open in two halves when ripe to release the seed. The seed is surrounded by a scarlet net-like 'aril' also used as a spice (mace). The flesh of the fruit is in Indonesia also used for jam or eaten as preserved (very tasty!) sweets.

Nutmeg is a well-known spice that in former days was quite expensive. It was cultivated only in the Moluccas, particularly in the Banda archipelago. Before the Portuguese discovered and captured these islands in 1511, nutmegs were traded by Arabs, and imported in Europe via Venice. The Dutch took possession of the Banda Islands in 1599 and tried to monopolize the trade of nutmegs (and gloves), for which purpose they fought against Portuguese, English and French traders and destroyed all nutmeg trees in Indonesia except those on the Banda Islands to protect their monopoly. However, after almost 200 years the Dutch monopoly ended, nutmeg trees were 'stolen' from the Banda Islands by the French (1770) and cultivated successfully at Mauritius (Isle de France). Later (1811) also the English got hold of seedlings and brought these amongst others to the West Indies, where the small island Grenada still is a major producer of nutmegs. Much of this interesting but cruel history is well described in Ly-Tio-Fane (1958, 1970) and Milton (1999).

Do they float?

Nutmegs bought as a spice sink like stones when tested in water (Nelson, 2000). Our own test gave the same result. Nevertheless, they are also reported as drift seeds. Perry & Dennis (2003) report flotation under test conditions of up to 6 months, and its buoyancy was due "to its light weight and internal air pocket." Apparently such an air pocket is absent in nutmegs bought as spices. However, our slightly eroded specimen from the Dutch coast shows the inside has air-filled spaces (see Fig. 1).

In a flotation test in seawater with our Dutch specimen, first dried some weeks at room temperature, it sank to the bottom after only nine days. Another specimen got from Ed Perry collected on the beach of Florida is still floating after 5 weeks. The short time our Dutch nutmeg floated indicates it can never have been a real tropical drift seed travelling all by itself over the Atlantic Ocean. It must have been transported to Europe by man and stems probably from shipping. Nelson (2000) suggests that MacGillivray's specimens could have been cargo from a wrecked ship. Shipwrecks have also been suggested as the source of other non-floating seeds from the Dutch coast such as ivory nuts (*Hyphaene thebaica, Phytelephas* sp.) (Cadée, 1986) and *Attalea* palm seeds (Cadée, 1988), the latter in drift seed literature also mentioned as *Orbignya*. Shipwrecks excavated in the Netherlands have indeed delivered seeds. Kuijper & Manders (2003) report on some palm seeds (*Orbignya* sp.) from shipwrecks. Occasionally shiploads of grain, coffee- and cocoa beans have been found, but only one nutmeg was discovered (from a ship wrecked around 1658, A.Vos, pers. comm.). Such seeds from shipwrecks might be transported along the sea bottom towards the coast by waves and currents. In the same way most shells, which also cannot float, are transported along the sea bottom towards our beaches.

Hemsley (1885), based on observation by Moseley during the Challenger-Expedition, and Guppy (1907: 403) have already dealt with the dispersal of seeds of several *Myristica* species. Fruit-pigeons appear the main disseminators; they eat the fruit and defecate the still viable seeds. The entire fruit may also float for a few days, according to experiments by Guppy (1907), but the seeds sink. Water dispersal is probably of no importance for propagation of the species.

Acknowledgements
We are very grateful for information on the possibility of nutmegs stemming from shipwrecks, obtained from Gerrit Gerrits and Maarten Roeper (Maritiem en Juttersmuseum, Texel) and Arent Vos (Rijksdienst Oudheidkundig Bodemonderzoek, Lelystad).

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Fig. 1 two aspects of the slightly eroded Dutch nutmeg

Symposium Review

by Margie Mitchell
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Every cloud has a silver lining? This fall, the storm clouds of Hurricanes Frances and Jeanne were lined with something better than silver—stone! As in "stoned crabs," that is. The 9th Annual International Sea-Bean Symposium's keynote speech on fossilized ghost crabs could not have been more timely. In the weeks preceding the symposium, thousands of these fascinating creatures from the distant past appeared on Brevard County beaches, uncovered by the devastating beach erosion resulting from September's double hurricane whammy.

Beachcombers turned up at the Cocoa Beach library throughout the weekend of October 15th and 16th with perfect specimens to show. They then packed the room Saturday night to hear Dr. Richard Turner of Florida Tech unravel the mysteries of how these ancient ancestors of today's familiar ghost crab came to rest on local beaches. He explained how they died and became fossilized in their burrows on the high beach by the same process that created the "coquina rock" that is now also common in eastern Florida. Some of the oldest fossils are the smooth-surfaced specimens that were covered by the advancing ocean as much as 120,000 years ago, and rolled in the surf as the water receded in the intervening millennia. Younger specimens mirror the age of the current barrier islands -- approximately 8,000 years. These remained high and dry in the sand, only to be revealed when severe dune erosion uncovers them. They are distinguishable from their older cousins by their rougher and more friable surface. Dr. Turner's entertaining and enlightening presentation sent us all back out to the beach with a new perspective on the ubiquitous modern-day ghost crab.

Other highlights of the symposium were perennial favorite speakers Ed Perry, with his pictorial talk on basic beachwalking; Dr. Curtis Ebbesmeyer with his always-fascinating update on "What's Floating in our Oceans Now;" and Paul Mikkelsen, once again treating us to his beautiful multi-media presentation of Cathie Katz talking about the magic of the ocean.

Exhibit tables overflowed, as always, with a great variety of beach treasures, sea-bean jewelry, books, plants, sea-bean identification displays, and artistic creations. Pat Frazier's display of fossilized ghost crabs on mauve satin, alongside her beautifully framed "Drift Seed" cinquaine, perfectly captured the themes of this year's gathering. Bill Blazek amazed us with his "Bean Tree," an incredible display of 7150 hamburger beans he has found since 1998 combing 65 miles of beach between Boca Raton and Hutchinson Island, Florida. Nan Rhodes from Miami joined us for the first time this year with an extensive collection of Australian drift seeds and beautiful jewelry.

Other crowd-pleasing exhibits included Cathie Katz's ever-popular sand box; Dr. Curt Ebbesmeyer's drifting toys and trash; Jim Angy's nature photography, including his *Still Nature* flip-book CD series; Michele Kelley's extensive sea-bean collection; Paul Mikkelsen and Mary Canada's plants, pods, jewelry, and sea-beans, including a very nice coco-de-mer specimen; Deborah Trachtman's beautiful sea-bean jewelry; and the now-ancient, but still popular, Bean-o-Matic.

Bean-a-thoners found just enough wrack left from the previous weekend's influx of ocean drift to create some good competition on Saturday morning. David Williams took the Most Species prize with thirty-four. His expert beachcombing also garnered the Non-Bean Award for a plastic Star Trek gun disc that appeared to have been traveling the currents for quite some time. The Cool Bean Award was a tie between two beachcombers, each of whom turned up two very cool beans: Stephanie Bernstein found an extremely rare Black Sea Biscuit bean and a Giant Hamburger; Joanne Powell brought in an aptly-named Deer Hoof and a piece of a sandbox tree.

The Young Beaner award went to 6-year-old Gayle Perry for finding seventeen different species of beans (with absolutely no help from Dad!). No one was able to find a Grand Slam this year, but Sam Burnett was awarded an honorary Super Slam as the only beachcomber to find a Mary's bean during the symposium weekend.

Odd Bean Contest awards went to Mary Bowman for the Smallest Hamburger, Ben Sunter for the Brownest Nickar, and Nan Rhodes for the Lightest Heart.

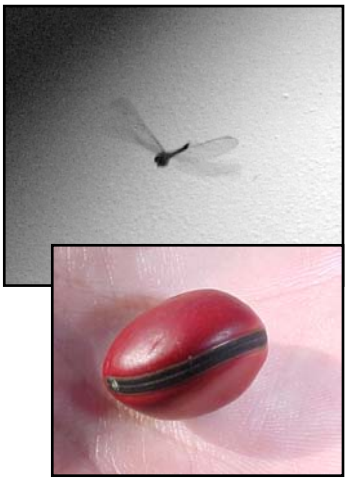
Contest winners received more than just recognition for their beachcombing skills. Prizes included books donated by Krieger Publishing, a set of Jim Angy's *Still Nature* CD's, and gift certificates from Dixie Crossroads, the Mango Tree, Bernard's Surf, and the Cocoa Beach Pier.

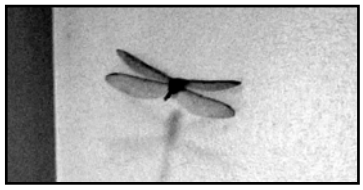
Special Bean Awards were the order of the day this year. Ed Perry was surprised with a presentation from the Drifters of a coco-de-mer, in recognition of all the work he does to keep the Drifters afloat, nearly single-handedly. Ray Dickinson was recognized with a certificate and a gift, for all he does every year to support the symposium at the Cocoa Beach library. Paul Mikkelsen received an award for his dedication in keeping the web site up to date and high quality. And I somehow walked away with two of the most prized sea-bean creations ever—a bean bowl and a bean cube, thanks to the Drifters' two Alices (Lowe and Surrency).

Many thanks to all the local businesses and Drifters who contributed prizes for the symposium raffle, which contributes much of the support for the publication of this newsletter each year. Special thanks goes to John Beerensson for dipping into his collection of fossilized ghost crabs so that nearly everyone who bought a ticket for that prize could be a winner. Other popular items included a sea-bean bowl made by Alice Lowe;

a gorgeous necklace and earrings from The Sea Drift Collection; a rare and beautiful green tree snail shell compliments of Nautical Collections; a Jim Shore pelican statuette; and a set of clay flower pots decorated with shells and sea-beans, made by young Drifter Torrey Cranston.

As it does every year, the symposium provided a great opportunity for beachcombers from far and near to meet with kindred spirits and socialize, both on the beach and off. And, as always, Cathie Katz was with us in spirit. When we arrived on Thursday afternoon at the library to begin setting up, there was a dragonfly waiting on the wall in the hallway outside the meeting room door. As soon as the door was unlocked, the dragonfly moved inside the room and remained there on the wall all afternoon watching us move tables and chairs and set up exhibits. Throughout the weekend a dragonfly circled the room periodically, keeping an eye on how things were going. Cathie was there. Hurricanes notwithstanding, all went well and it was another great symposium.





Thanks to everyone who pitched in and helped make the symposium run smoothly. For photos, check the web site.

And finally, make your plans for next year. The 10th Annual International Seabean Symposium will be at the Cocoa Beach Public Library on October 14th and 15th. See you then!

Typhoons Make 2004 a Bumper Year for Sea-Beans in Japan

by Emma Longhorn
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This year, Florida's hurricanes weren't the only storms to hit the headlines! 2004 was also an exceptional year for typhoons in Japan; the resulting damage was the worst for 25 years. Japan's beachcombers, however, found some consolation, in the form of a record 'harvest' of sea-beans.

Throughout Japan, in fall 2004, drift-seeds were reported in unusual quantities. Even here in Kamakura, I turned up some keepers of my own. Typhoon 21 brought one species of *Dioclea* and two of *Mucuna*, plus *Pangium edule*, *Heritiera littoralis*, kukui nuts, and other southern delights. (Japanese beachcombers, having seen me go seedless for so long, were very happy for me!) But it was Typhoon 23 that really made my dream come true, by bringing me *Entada gigas*, the true "sea-heart"!

As you can see, the sea-heart I found is well and truly battered. It certainly didn't have an easy trip up the Kuroshio! The way I found it was actually rather humorous: The morning after the typhoon (October 21st), I went to look for drift-seeds before I started work. But the sand-covered flotsam was hard to search, which put me in an irritated mood. Eventually, I heeded a call of nature... I was surprised to see that, between the toilet building and the coast road, exceptional waves had left a pile of flotsam. Unfortunately, it didn't look very exciting, being mostly nurdles and bamboo. I scanned it automatically, muttering to myself: "Oh, yeah, like there's really gonna be a sea-heart behind the TOILET!" (Do I really need to go on? Let me just say that one minute later, people all along the beach must have heard me shout!)

Looking out at the turbulent Pacific, I thought of Izumi Hanno, studying drift-seeds, somewhere far to the south. Had my sea-heart come from a place she'd visited? Then I thought of all the other Drifters, and wished I could have been there at Sea-Bean 04... That weekend, I was at another beachcombers' convention, right here in Japan! I got to see some of the drift-seeds that Japanese people had found during this bumper year. I brought back happy memories (and sea-beans I'd been given). Everyone knew I hoped to find a sea-heart; finding one so soon afterwards felt uncanny, to say the least!

There is a nameless fascination about collecting…there is always something ahead to look to and strive for…
Charles Torrey Simpson, *Florida Wild Life*, 1932

The University of Texas at Austin Marine Science Institute (UTMSI) Sea-Bean Collection—Update

by Dr. Gerald Sullivan
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The collection located at the Port Aransas, Texas, facility now contains a total of 94 species. Prominently displayed are the "World's Largest and World's Smallest Seahearts." These two sea-beans have generated considerable attention with appreciative oohs and aahs.

The Mustang Island collection, first reported in *The Drifting Seed*, Sept. 2003, continues to expand with the addition of the following:

Aleurites fordii, tung tree
Andira inermis, cabbagebark
Annona glabra, pond apple
Annona squamosa, sugar apple seed
Caesalpinia sp.*,* yellow nickernut
Calatola costaricensis, calatola
Carapa quianensis, crabwood
Cassia grandis, pink shower pod
Crinum americanum, southern swamp lily
Dalbergia ecastophyllum, coin-vine seed
Drapanocarpus lunatus
Dalbergia monetaria, giant coin-vine seed
Grias cauliflora, anchovy pear
Hevea brasiliensis ,rubber tree seed
Hibiscus tiliaceus, mahoe, hibiscus
Ipomoea alba, white moonflower
Ipomoea pes-caprae, railroad vine
Ipomoea spp., two different species
Juglans regia, English walnut – ridges worn smooth
Litchi chenensis, lychee seed
Liquidambar styraciflua, American sweetgum
Mora sp.*,* three-lobed mora
Noronhia emarginata, Madagascar olive
Omphalea triandra
Oxyrhynchus trinervius, little marble
Pithecellosium ebano, Texas ebony
Podocarpus sp.*,* yew family
Prosopis juliflora, mesquite
Prunus spp*.*
Psidium quajave, quava
Pterocarpus officinalis, bloodwood
Quercus macrocarpa, giant acorn
Quisqualis indica, quisqualis
Sophora secundiflora, mescal bean
Strongylodon lucidus
Ximenia americana, tallownut seed

Recent Highlights: Each of the following has been found for the first time on a Gulf Coast beach—

Anchovy Pear. Cathy Yow, a most notable Texas seabeaner, also recently found her first anchovy pear on the Gulf Coast.
Rubber tree seed. Seven stranded
Strongylodon lucidus. Extremely rare find by Jan Cooper.
Tallownut seed. Extremely rare find anywhere.
Three-lobed Mora. Fifteen stranded.
Yellow nickernut. Totally bleached white. (John Williams, Associate of UTMSI, recently found a second bleached yellow nicker on the same beach at about the same time.)
Donovan's Brain. 79 stranded on Mustang Island Beach.
Intact fruit of *Sacoglottis amazonica,* blister pod. Seldom found.
Little marbles (*Oxyrhynchus trinervius*). Nine stranded in 2 days.
Mescal seed recognized as new seabean.
Mesquite recognized as new seabean.
Three-chambered black walnut.
Three-chambered water hickory.
Triad of black pearl.
World's Largest Seaheart.
World's Smallest Seaheart.

New Look-a-likes and Non-sea-beans:

Pursea americana, California Hass avocado
Almonds
Mermaid's purse
Spirula
Acacia thorn – Bull's Horn
Sandbox Tree pod segment (partition), *Hura crepitans*

editor's note: The "three-lobed mora" mentioned in the above article and pictured on page 130 of *Sea-Beans from the Tropics* are seeds of a *Pachira* sp., in the Bombaceae family.

A New Sea Beaner's Story

by Patty Foreman
Clearwater, Florida

About 3 years ago in the Bahama Islands aboard our 35 ft. catamaran *Ibis* I got the seabeaner's passion! Having been a big sheller I needed something new to look for while beachcombing. There were a few boaters around that were sea beaning and we would get together to compare what we found and where we found them. Hamburger beans (*Mucuna* spp.) and sea hearts (*Entada gigas*) were the big finds. There were also a few nicker nuts (*Caesalpinia* spp.) to be found once you knew what to look for. I discovered *The Little Book of Sea-Beans* at Exuma Land and Sea Park in the Exuma Islands. After that, I was lost to seabeaning!

This past January we made plans to cruise to Mexico, Belize, and Guatemala. I was so excited to be going on new beaches that were not seabeaned-out. I now had *Sea-Beans from the Tropics* by Ed Perry and John Dennis and a membership to *The Drifting Seed*. I was gathering all the info I could about sea beans. You would not believe how many people have never heard of a sea bean.

Starting on our cruise in April down at the Dry Tortugas I discovered that the park personnel did find some sea hearts and hamburger beans on their trips to the little islands out from the fort. We who live on the west coast of Florida do not find sea beans. The Dry Tortugas get more Gulf Stream current so it was not surprising that sea beans could be found there.

On Sunday, April 29th we set sail for Mexico. The weather was good and for three days and three nights of non-stop sailing we arrived at Isla Mujeres, Mexico. One blister pod, two sea-coconuts, and three tallownuts; boy, was I excited, but the best was yet to come on a half-mile stretch of beach at Tulum. There I found my very first sea purse (*Dioclea* sp.). Four hamburger beans, three brown and one red, and one gray nickernut were the big finds of the day!!! Owen Island proved to be great for sea bean pickings. I found a whole sea coconut (*Manicaria saccifera*) with outside casings intact. That day I could have picked up a bucket full of sea coconuts. Twelve sea hearts, 5 sea purses, and 14 brown and 8 red hamburger beans plus other drift seeds was all the excitement I could handle for two days of walking this small beach.

By June 2nd we had made our way down to Belize and we anchored off Cay Calker. This beach is raked by the beach boys everyday so it is clean for tourists staying in the small cottages and resorts. I found out that they pick up sea hearts and hamburger beans and put them in their pockets to sell to local women to make jewelry

out of, which they sell to tourists on the beach. Getting out on the beach early for me proved to be good seabeaning. Now my collection was really growing.

About this time we made our way down the east coast of Belize to Placencia. Here we made friends with Christene and John Sheffield aboard *Time and Tide*. Christene is from England and became very interested in seabeaning. I turned another person on to this fun hobby! Along the beach here is where I found my first Mary's beans! Yes, beans; 6 in all! We stayed anchored here 10 days because of bad weather so I really did some serious beachcombing. Little marble (*Oxyrhynchus*) was my rarest find. Arriving in Livingston, Guatemala I saw some neat sea bean jewelry made by locals that was sold on the street corners. It looked like the prospectus of this area was going to prove fruitful! Our journey took us up the Rio Dulci to a small marina called "Hacienda Tajax." It was so beautiful there with lots of birds and butterflies, but no place to look for sea beans. I collected my beans and books to take to a gathering of boaters in the area.

There were lots of small marinas up and down the river with boats from all over the world. My display received lots of interest and a local young Mayan Indian who only spoke Spanish wanted to tell me something. We found a translator and he said at his village there were beans to be picked up. We made arrangements for him to meet me the next week and bring some beans.

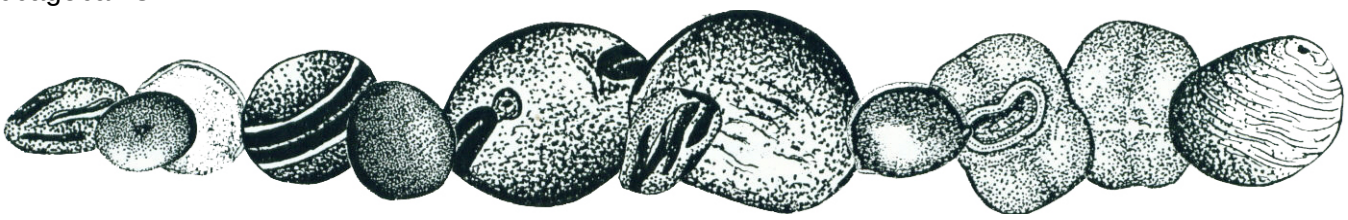
The next week, to my delight, he had a bag of beans—80 sea purses! Talk about excitement! I was so thrilled to be the receiver of this bounty. After washing off the clay from the sea purses (also called saddle beans), you would not believe the lustrous sheen they had. I could not believe my luck.

We decided that we would leave *Ibis* here for the rest of the 2004 year and fly back to our condo in Clearwater, Florida. Cruising in this beautiful area has been good and we want to have another season to enjoy it.

Ted and I will return to "Hacienda Tajax" on January 1st, 2005! Maybe I will have another story to tell about the adventures of seabeaning the east coast of Guatemala, Belize, and Mexico.

Patty's Finds:

26 sea hearts
13 gray nickernuts
13 bloodwoods
28 sea coconuts
17 prickly palms
2 cohune palms
6 tallownuts
26 hamburger beans (16 brown/10 red)
2 calabashes
10 sea purses
6 Mary's beans
3 cabbagebarks
4 starnuts
12 lotuses
2 antidote vines
1 snuff box bean (*E. phaseoloides*)
1 little marble
17 blister pods
6 coin vines
11 laurelwoods
1 water hickory
2 mastics
4 Jamaican navel spurges



I was rich, if not in money, in sunny hours and summer days, and spent them lavishly.
Henry David Thoreau

A Coco-de-mer for Ed Perry

by Christopher Scott Boykin
christophereep@bellsouth.net

Every year for the past nine years I've been provided with the opportunity to attend one of the most interesting and unique symposiums and gatherings of great people on Earth—the annual Sea-Bean Symposium. Each year three of *The Drifting Seed* newsletters magically appear in my mail (even when I was unable to donate a dollar for years in a row). Myself, and many others, felt it was time to honor the man who keeps this group together. The man who selflessly honors the magic, commitment and boundless enthusiasm brought to this topic by our dear friend and Queen, Cathie Katz. Ed has worked very hard (WE LOVE YOUR BOOK) in the three years since our sweet Cathie transitioned out of this world—He (and many others) have kept her dream alive.

What could we possibly do to honor him so that he might fully understand our gratitude for all that he has done and continues to do? How about a Coco-de-mer?—the sexiest and largest sea-bean in the world. Yes, that's exactly what we did. Emails went out to everyone who's ever posted a listing on the SEABEAN list serve (thank you Paul Mikkelsen for keeping this and the beautiful website alive). After the folks on the list serve were hit up, we sent emails to everyone we could think of and asked them to ask their friends who knew Ed to throw some money our way. Once I reached the $500 mark, I realized more money could be had and that there were two other key people who work so hard to ensure that the symposium goes smoothly and the website stays online.

Paul Mikkelsen took over the www.seabean.com website years ago and he made a promise to Cathie that he would maintain it for as long as he was alive. Not only has he maintained it, but he is constantly updating it and adding new items of interest. Margie Mitchell coordinates all of the volunteers for the symposium each year and, as you saw, runs the raffle and many other behind-the-scenes aspects of each year's symposium. We had to do a little something for these two wonderful beaners, too.

So, when all was said and done we raised just over $800 dollars. This allowed us to buy the $535.00 Coco-de-mer from the Seychelles in the Indian Ocean to present to Ed. We purchased a ceramic sculpture from France of a hamburger bean (*Mucuna sloanei*) for Paul. Margie Mitchell was honored with a glass cube full of hamburger beans (*Mucuna sloanei*) (over 100 beans). Each of these three great folks were presented with Special Appreciation Awards along with their gifts. To top it all off, there was $156 left over for *The Drifting Seed* newsletter.

A special thanks goes out to all of the generous people who contributed to this so that we could properly honor these great people. Paul & Margie—I wish we had enough to get Coco-de-mer's for everyone. This year's symposium was terrific and I hope that you'll consider volunteering with Margie at the TENTH ANNUAL SEABEAN SYMPOSIUM in October of 2005. Happy beaning.

editor's note: Thank you Christopher and all that were involved. I am very grateful!

Stuff from Curt

by Dr. Curtis Ebbesmeyer
curtisebbesmeyer@msn.com

Sea Knitting. She continually knits balls from whatever's available. Here are a few.

June 2002, Plaice Cove, Hampton, New Hampshire. Thousands of green globs resembling Brillo pads washed ashore puzzling beachcombers, lobstermen and scientists. Examinations via microscope by plant biologist Arthur Mathieson and marine scientist Frederick Short, revealed that the globs consisted mostly of seaweed (*Chaetomorphia picquotianna*) with admixtures of sand, minute krill and shell fragments.

Unusual circumstances created them. Heavy rains washed nitrates and phosphates dissolved from sewage and fertilizer into the ocean causing the seaweed to grow explosively. Then, wave currents pulsating back and forth along the bottom rolled the rope-like kelp into balls gathering up detritus in the process. These balls add new meaning to the old camp song "Great green globs of . . ."

The beach balls resembling miniature tumble weeds found by John Anderson (Washington) and Vardon Tremain (Oregon) elicited fascinating responses. "In November 1999, I found a curious five-inch ball of pine needles, sticks and nylon line," writes Bob Cline of Ocean Park, Washington. "It shrunk after it dried out. I posted this on the Internet and somebody in Florida said they are common there. Someone thought it was a fur ball from a cat shark!" "We find them, too," chimed in Nick Darke of Cornwall.

William Violett stopped by the Alert's 2002 Ocean Shores Beachcombers Fun Fair booth saying he'd found flotsam balls afloat on the Columbia River. Eddies formed along current rip lines, wrapped pine needles, fishing line and weeds into spheres with the composition of birds' nests. Diameters range from an inch to more than a foot. Dried out, they shrink.

"Beach balls are prickly balls that look like balls of straw and are found on beaches," writes Vicki Osis in her Sea Grant publication Beach Ball or Whale Burp? (1999; Oregon; ORESU-G-99-007). It appears that water's swirling actions — eddies, waves, turbulence — roll them from dune and sea grasses, fishing line, pine needles, snail egg cases, woody twigs, bits of seaweed, almost anything small afloat. Beach balls have been reported all over the world including Cornwall, Egypt, Australia, and the United States — Oregon, Washington, even Little Borax Lake, California (ditch grass). Gift shops occasionally sell them as "whale burps, barf balls or fur balls." Contrary to public notions, whales do not produce beach balls.

(Information: green globs from *Popular Science*, September 2002, courtesy
Ruth Ludwin and Rosemary Petryk; Sea Grant publication courtesy Alan Rammer)

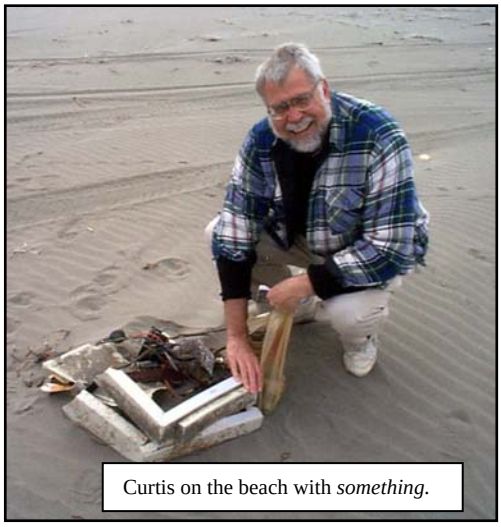
Treasure in Coastal Cleanups. Thousands of volunteers annually clean trash from earth's global shoreline.

During the 2003 International Coastal Cleanup, for example, more than 450,000 people in 91 countries removed 3,750 tons. Before disposal, the litter pickers single out odd flotsam as they weigh and sort into general categories. Closer inspection may reveal scientific gold. Here are a couple of examples.

Saturday, October 2, 2004, Cape Hatteras National Seashore. According to the 2004 Big Sweep, 201 combers recovered 197 big bags of litter from Hatteras Island between Rodanthe through Hatteras Village. The litter concealed a Canadian lobster pot tag which had probably drifted from a Canadian maritime province 7,000 miles around the North Atlantic Subtropical Gyre. Each tag bears a code which is traceable to the lobsterman who set the trap. Years earlier, a similar tag washed from Labrador to eastern Florida. I once found a tag near Cocoa Beach, Florida, which had drifted from Quebec.

Saturday, September 18, 2004, Long Beach Peninsula, Washington. Sea gulls gorged on goose neck barnacles beached on waterlogged wood. It was early in the season for the appearance of such hoary flotsam. Alan Rammer, Washington Department of Fish and Wildlife (WDFW), was helping Region 3 of Operation Shore Patrol organized by Linda Jessen. Though Long Beach seemed pretty clean, that day 101 participants collected three tons of trash while logging 22,624 miles south of Ledbetter Point near the entrance to Willapa Bay.

Amongst the tons of trash, Alan spotted something resembling a cigarette lighter. Closer inspection revealed it to be a thermometer manufactured by the Onset Computer Corporation. Back at WDFW, a colleague noticed it flashing green. Was it, they worried, radioactive? Alan immediately emailed Onset personnel who reassured him that it was not dangerous.


Curtis on the beach with *something.*

Measuring 5 inches long by ¾ inches wide, the device known as an Optic StowAway measured and recorded water temperature. Since the data logger was coded red, Onset personnel could not divulge the information it contained. They did, however, trace the registration number to Richland, Washington. Tim Hanrahan, Senior Research Scientist, Pacific Northwest Laboratory (PNL), responded to Alan's query.

Turned out, the thermometer recorded water temperature at Mile Post 146 on the Columbia River just downstream from the Bonneville Dam. PNL under contract to WDFW—the same organization that employed Alan—had moored the thermometer four years earlier. Years later, it continued recording as indicated by the flashing green light.

Tim had deployed the digital thermometer during 2000-2004 to help study the fall chinook and chum salmon spawning areas below Bonneville Dam downstream of the mouth of Hamilton Creek between Ives Island and Pierce Wildlife Refuge. These instruments, Tim noted, are prone to vandalism by recreational users. After getting loose, it drifted 146 miles downstream to the Pacific Ocean, then north at the Columbia River mouth to the entrance of Willapa Bay where it beached near Ledbetter Point. I wonder what the temperature record will reveal as the thermometer drifted down-river and out to sea?

How much scientific gold lurks worldwide in beach trash? If the Onset thermometer is typical and three tons conceals one scientific item, the 3,750 tons of trash recovered during the 2003 International Coastal Cleanup shrouds 1,250 scientifically interesting objects.

Sea beaners, beachcombers and oceanographers would do well to accompany litter patrols and sift the debris before volunteers discard it.

Sources: 2003 International Coastal Cleanup according to The Ocean Conservancy as quoted in the *New York Times*, Tuesday, October 12, 2004, p. D3, courtesy Susie Ebbesmeyer; *The Coastal Times*, Tuesday, October 5, 2004, p. 6A, courtesy John Bieschke.

Mysterious Floating Grains. by Gerhard C. Cadée (from Curt)

Since 1982, when I started collecting seeds on The Netherlands' Texel Island, I've found mysterious stony grains. They average seven millimeters in diameter (4.5-9.5 millimeter range based on 175 specimens). Exterior surfaces of yellowish irregular shaped patches surrounded by dark-purple colored 'canals' conceal dark purple-to-black interiors. Air-filled pores make them buoyant on seawater. Where the surface is eroded, smaller or larger holes show this porous interior.

Locally, they are quite common. They beach sporadically, then *en masse*. Once stranded, they apparently persist for years. Exceptional tides lift them to high drift lines. Till now, I didn't look for them other than on Texel. But I suspect them to occur all along the Dutch coast.

They are smaller than the porous Argex-grains which are also found in the same high-tide drift lines. Argex grains are manufactured from an Oligocene clay in Belgium (Boom-clay after the village Boom) in a heating process to 1,100ºC. They are variable in size (~ 20 millimeter diameter) and more irregular in form than the grains described here, although they may be also spherical. They have a uniform reddish surface and a black porous interior.

For pictures and more information, see www.argex.be of the Societé Argex in Zwijndrecht, Belgium.

Argex grains are widely used in horticulture, for pot-plants and in building constructions. Argex claims a production capacity of some 500,000 cubic meters per year equivalent to 16 billion Argex grains annually (using the mean diameter of 20 millimeters). No wonder some escape and wash around the Atlantic!

I've been unable to trace the origin of the grains described here. Their regular shape indicates they might be man-made. A volcanic origin is not likely as a volcanic material such as pumice is rare on our coasts. The similarity to the Argex grains suggests that they are manufactured, but may be other than Boom clay. I suppose the grains on our coast are lost during transport or during transhipment, comparable to the plastic pellets (nurdles) nowadays washed up on beaches worldwide.

Ed Perry sent me grains from Sebastian Inlet, Florida, where some think they are of volcanic origin. This is hardly possible, for the Dutch ones of which we find are far too numerous to be of volcanic origin. They are probably Argex grains.

Can anyone provide Gerhard more information on their production, use, and occurrence elsewhere? (Gerhard C. Cadée, Netherlands Institute for Sea Research, P.O. Box 59, 1790 AB Den Burg, Texel, Netherlands. Cadee@nioz.nl)

A Letter to the Editor and All Drifters

by Martin Thiel
thiel@ucn.cl

First of all, I would like to thank you for continuing to send *The Drifting Seed* to my address. Receiving the newsletter is always a highlight among all the other bureaucratic mail that I usually get. It is one of the few newsletters that I read from start to end. It is always fascinating to read about all the things that come ashore and to learn about the trips that some of these things may have taken while afloat.

During the past years, I have gained an increasing professional interest in floating items because many marine organisms may become dispersed on these. Here in Chile we look primarily at floating algae, which can harbour a whole array of organisms, including crabs, polychaetes, gastropods and occasionally even seastars or sea urchins. We also do beach surveys, but the few (small) seeds we find are not by far as eye-catching and shiny as the ones that I see reported on in *The Drifting Seed*. Looking intensively at the marine literature, we

have during the past years learned that many people all over the world have been working on floating items (mainly algae, but also other stuff), and especially many people have inferred (but not demonstrated) that marine invertebrates might have become dispersed via rafting on floating items. One thing that we noticed was that literature was very dispersed. This spurred us to prepare a synthesis, in which we attempted to elaborate and describe the main patterns (distribution, size, food value for rafting organisms, longevity at sea surface) and typical travel velocities for these floating items. When we started we did not imagine what a task this would become, and HOW much indeed had been reported in the past. We now know that we will have overlooked many reports, but we believe that we have managed to synthesize the main patterns and summarize the most important issues.

Being an avid reader of *The Drifting Seed*, I have learned over the years that many of you have wide interests that go beyond collecting seeds on the beach. Maybe, our article will have some things that are of interest for you and your fellow beachcombers. I hesitate to send the electronic version of the article as an attachment, because it is very large (5MB). However, you can download the PDF of the full article from our webpage (see web-address below). It is near the bottom of our publication-list in the section entitled "rafting": Thiel & Gutow2004.

At present we are finishing the second part of this review, which focuses on the organisms travelling on floating items. We produced a large database and there is information on >1000 different species that have been either observed to raft or for which there is very strong indication that they have been dispersed via rafting. Rafting organisms include microbes, crabs, and even reptiles...

Finally, I should mention that my first contact with drifting seeds was when I worked for a year in Florida (in Fort Pierce). I have to admit that I was fascinated by the beauty of these seeds, but at that time I did not really catch on about the message that these seeds are conveying about their voyages across the sea surface...

In case you or fellow beaners have comments about our article or about rafting organisms, we are always open for any suggestions.

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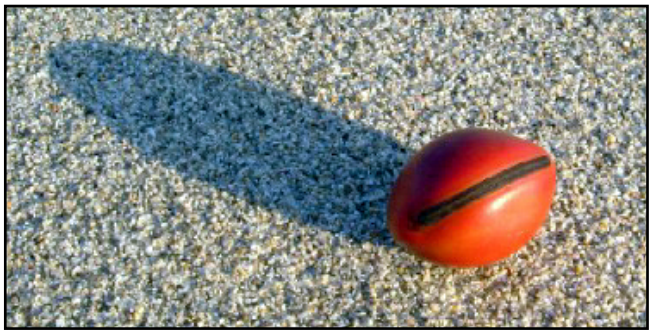
News and Notes

Since our last newsletter, more of you have been able to find your first **Cathie's bean** (*Canavalia nitida*). **Christopher Scott Boykin** of Miami found his first just before the holidays. **Margie Mitchell** reported that a casual beachcomber friend of hers just this week found the largest Cathie's bean she's ever seen; all this in an area where Margie was able to find a Mary's bean and a thick-banded mucuna a few days before!



For those of you looking for a really great **seabean tshirt** (other than this year's Symposium shirt) you need to check out the Wayne's Word prints at CafePress.com. The shirts

are a real bargain—Wayne only marked them up one dollar for **all us beaners**. Oh, and now there's also a Cathie's bean included in the array of seeds. http://www.cafepress.com/waynesword4.14355576.

Our thoughts and prayers go out to all those affected by the Indian Ocean tsunami. For those of you who were worried about our very own **Izumi Hanno**, due into Indonesia on Dec. 26th; she's OK. After a few desperate days of no word from her, we finally received a very relieving e-mail transmission. Thank you God. We'll have an in-depth illustrated report from Izumi in the next issue.

We were very pleased to finally meet **Alan Rammer** at this year's Symposium. Like our oceanographer friend Curtis Ebbesmeyer, Alan came all the way from Washington (Montesano to be exact!). Thanks for visiting Alan, and we're glad you found some nice specimens of fossil ghost crabs!

Beachcombers' Festival Dates for 2005: March 5-6-Beachcombers' Fun Fair, Ocean Shores, Washington, Ocean Shores Convention Center (see oceanshores.com); March 19-20-43rd Annual Driftwood Show, Grayland, Washington, Grayland Community Hall (see cranberrycoastcoc.com); July 21-24-Paths Across the Pacific IV and Beachcombers' Fair (Sunday), Sitka, Alaska, Centennial Hall (see www.sitka.org); October 14-15-Tenth Annual Sea-Bean Symposium and Beachcombers' Festival, Cocoa Beach Public Library, Cocoa, Florida (see www.seabean.com).

Ed Perry, Gina Reed, Christopher Boykin, Alice Lowe, and Alice Surrency just made it back from **Mexico** (Quintana Roo) with loads of sea-beans! The highlight of the trip was actually the place where they stayed, the Mayan Beach Garden Resort. Check it out at http://www.mayanbeachgarden.com. We promise a PowerPoint presentation of the trip at the next Symposium, so hang tight. ¡Hasta luego, amigos!

We've been hearing from **Rosemary Hood** in Porto Santo, Madeira, Portugal. Rosemary has, among other things, found her first starnut palm seed, or *Astrocaryum*. Correspondence from Dr. Charles Nelson tells me Rosemary is working on an article about the drift seeds of Porto Santo for an upcoming *The Drifting Seed*.

Gina Reed of Miami just recently found her first **yellow nickernut** on a Miami Beach. Yellow nickernut seeds collected from Elliot Key, and other areas of the Florida Keys are starting to shed some light on the nickernut confusion we have been experiencing. It is now clear that these sometimes bright yellow specimens we find on beaches have a tendency to bleach out white, either partially or completely! One characteristic that remains fairly constant with these seeds is a large brown circular area at the hilum of the seed.

This **South Florida yellow-seeded nickernut** is different from the Caribbean yellow-seeded *C. ciliata*. Plants grown from the two kinds of seeds appear very different from one another. So, we know we have at least two yellow-seeded nickernut species, and unfortunately the one from South Florida is being erroneously called *C. major* (*C. major* is the large, chocolate brown-seeded nickernut plant). Pictured below from left to right are the South Florida seeds, *Caesalpinia* _____?; Yellow-seeded *C. ciliata* from Antigua; brown-seeded *C. major*.