



The Drifting Seed

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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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**The 11th Annual International Sea Bean Symposium will be held at the
Cocoa Beach Public Library, October 13th-14th, 2006.
Details are inside this issue on pages 16-17!**

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How Far North Can Drift Seeds be Found in Eastern North America?

by E. Charles Nelson, tippitiwitchet@zetnet.co.uk

Serendipity is one of the nicest words in the English language. It has remarkable origins being composed from Serendip, a former name of the island of Ceylon (Sri Lanka), and -ity. Horace Walpole formed it after reading a tale about the three princes of Serendip, who “were always making discoveries by accident and sagacity, of things they were not in quest of” – note that the *Oxford English dictionary* misquoted Walpole.¹ Sea-beans and nickar nuts are often found in this way, by accident and sagacity, by serendipity. Columbus’s discovery of America was serendipity too: he wasn’t looking for it!

I well remember visiting the late Mary Alice and John Dennis at their homes both in Princess Anne (Maryland) and on Nantucket Island (Massachusetts), and going beachcombing thereabouts with John without finding anything.² I also recall John saying to me, more than once, I’m sure, that *tropical* drift seeds were very rarely found on beaches north of Cape Hatteras (35° 15' N). This is apparently borne out by information contained in *World guide to tropical drift seeds and fruits*³ where (p. 31) Bob Gunn and John Dennis made the following comments:

While the Florida Keys and the southeastern Florida beaches regularly receive sea-beans, beaches from South Carolina to Massachusetts receive them on an irregular basis. ... Sea hearts [*Entada gigas*] and true sea-beans [*Mucuna sloanei*] have been stranded on beaches at Nantucket and on Cape Cod including Wings Neck [41° 46' N]. ... These and other records ... are the most northerly for the United States and North America.

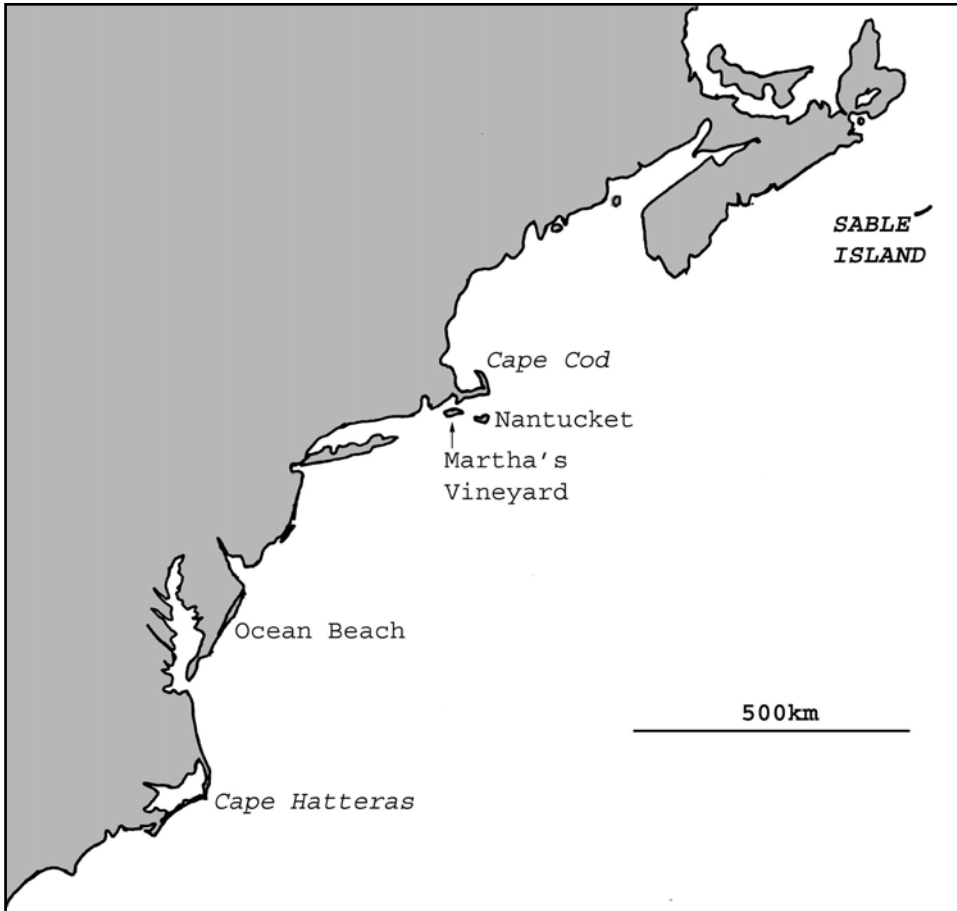
The record of horse-eye bean (*Mucuna sloanei*) from Cape Cod is apparently the northernmost record published for the USA, while John Dennis’ recollection⁴ that he became interested in drift seeds after finding a sea heart (*Entada gigas*) on Nantucket in about 1955 is perhaps the earliest record. In addition, Gunn and Dennis³ (G&D, in the table below) noted that a pod of the West India locust (*Hymenaea courbaril*) had been found on Martha’s Vineyard, which lies a little north and west of Nantucket.

Not wishing to trust to memory alone, I have searched other sources including Ed Perry and John Dennis’ *Sea-beans from the tropics*⁵ (P&D) and every issue of *The drifting seed*. The results seem to confirm my memory, for the table below contains the only records I can trace. One additional record⁶ came from the late Cathie Katz. In the first issue of *The drifting seed* she recalled finding her first sea heart (*Entada gigas*) in New Jersey; in her rather rare little book *What’s a sea-bean?* she noted “finding sea-beans on beaches from Zandvoort, the Netherlands—to Ocean City, New Jersey ...” .

| DRIFT SEED | LOCALITY | LATITUDE |
|-------------------------------------------------|------------------------------------------------------------|--------------|
| <i>Mucuna sloanei</i> horse-eye bean | Cape Cod (G&D: 31; P&D: 178). | 41° 40' N |
| <i>Hymenaea courbaril</i> West Indian locust | Martha’s Vineyard (G&D: 31, P&D: 187). | 41° 27' N |
| <i>Caesalpinia bonduc</i> nickar nut | Nantucket (P&D: 134) | 41° 17' N |
| <i>Dioclea reflexa</i> sea purse | Nantucket “in a woodpecker hole in a dead tree” (P&D: 166) | ** 41° 17' N |
| <i>Entada gigas</i> sea heart | Nantucket (G&D: 31; P&D: 163). | 41° 17' N |
| ? <i>Entada gigas</i> ? sea heart | Ocean City, New Jersey | 39° 16' N |

There are some other records of disseminules of debatable origin, such as castor-oil (*Ricinus communis*), ivory-nut palm (*Phytelephas macrocarpa*)⁷, southwards, between Nantucket and Cape Hatteras, but I noted nothing about coconuts (*Cocos nucifera*). A total of six species from four localities north of latitude 35° 15', and none north of 41° 40'.

Serendipity has changed that! Recently while looking for information about heathers (*Calluna* and *Erica*) naturalized in eastern North America, I came across a report that extends the range of tropical drift seeds northwards by more than two degrees latitude to the shore of Sable Island, Nova Scotia, Canada.⁸ In terms of distance, as the seagull flies, the island lies about 750km east-north-east of Cape Cod.



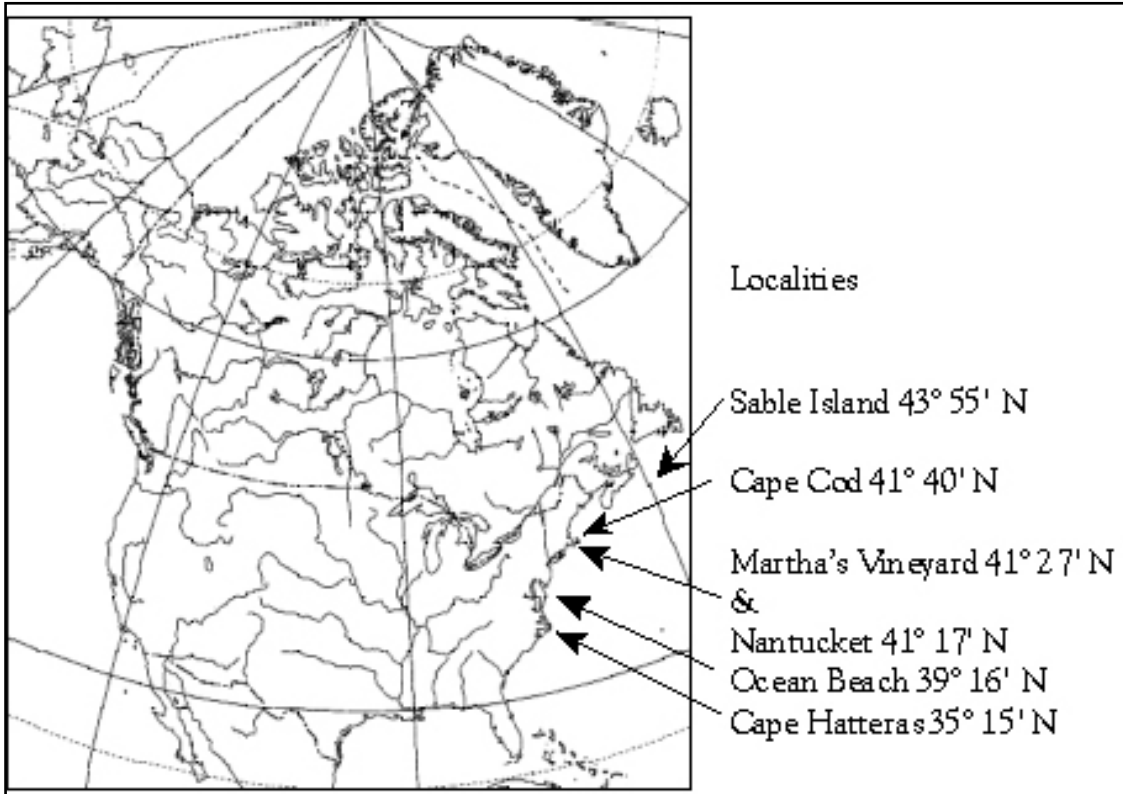
Sable Island, 43° 55' N, is evidently a fascinating place, a 42-kilometre-long, crescent-shaped island—a huge sand-bar less than 1.5km across at its widest—situated in the North Atlantic 160km southeast of Nova Scotia. The Gulf Stream flows northeastwards well to the south of the island, so the most influential currents are cold ones of northern origin. The Nova Scotia Current flows southwestwards (in the opposite direction to the Gulf Stream) between Sable Island and Nova Scotia.⁹ However, warm water from the south does occasionally reach Sable Island in warm-core eddies.¹⁰ Such eddies, peeling off the Gulf Stream, could bring tropical seeds close inshore for winds and waves to strand them on the island. As noted by

John Dennis, similar warm-core eddies carried to Nantucket and Martha's Vineyard “unprecedented numbers of temperate seeds and fruits, along with other debris” in late May 1976.¹¹

The stranding of tropical drift-seeds on Sable Island is reported on the “Alone in the Atlantic Getting to Sable Island”⁸ page of the Canada's Digital Collections website: “Tropical beans from the Caribbean drift northward in the Gulf Stream and wash ashore on Sable. The climate is too cold for the beans to germinate. Countless other plants and animals wash ashore like this, but cannot survive.”⁸ In pursuit of clarification of that report and more information, I contacted Professor Eric Mills (Department of Oceanography, Dalhousie University, Halifax) and through him Zoe Lucas who has for 15 years carried out beach monitoring work on Sable Island.¹² On 5 May 2005, Zoe found a sea heart (*Entada gigas*) on “drift-line of the most recent tide, on the south side of the island, halfway between the east and west tips” of Sable Island¹³, and prompted by my subsequent questions also reported that coconuts (*Cocos nucifera*)¹⁴ “have always been common here. Presently I have about a dozen in a pile During the last two years I started picking them up so that I could make a photo of

a collection of them for an upcoming revision of the “Beach” page¹⁵ ...” of the Sable Island Green Horse Society website (this excellent site has reports of other biological drift of tropical origin on Sable Island, including the Portuguese man-of-war (*Physalia physalia*)). I am not aware of, and cannot trace, any published reports of coconuts from beaches north of Cape Hatteras¹⁶, but anecdotes indicate their occasional stranding on Martha’s Vineyard.¹⁷

Thus the range of at least two species of tropical disseminules—*Entada gigas* and *Coccoloba nucifera*—is extended into Canada, and this suggests that strandings on the Atlantic coasts of the northeastern USA and eastern Canada have gone unreported.



A mystery remains, however: the origin of the Sable Island website’s statement that “tropical beans ... wash ashore on Sable”.⁸ There appear to be *no* records in scientific literature—or, at least, none known to those actively working on the botany of Nova Scotia or the natural history of Sable Island—and “unless some ... are found in a review of the older literature, the sea bean I [Zoe Lucas] found last

year is the only confirmed specimen from Sable Island.”¹⁸

I hope that serendipity becomes more common north of Cape Cod!

Notes

¹ On serendipity, see <http://livingheritage.org/serendipity.htm>, for a discussion by Richard Boyle.

² E. C. Nelson, 2004. Memoirs of a short-sighted Irish sea-beaner. *The drifting seed* 10 (2): 2–3.

³ C. R. Gunn, J. V. Dennis & P. Paradine, 1976. *World guide to tropical drift seeds and fruits*. New York: Quadrangle.

⁴ J. V. Dennis, 1995. By way of introduction ... *The drifting seed* 1 (1): 4.

⁵ E. Perry IV & J. V. Dennis, 2003. *Sea-beans from the tropics. A collector’s guide to sea-beans and other tropical drift on Atlantic shores*. Malabar, Florida: Krieger Publishing Co.

⁶ C. Katz, 1995. From Cathie. *The drifting seed* 1 (1): 3. C. Katz & R. Lovec-Theobald, [c. 2000]. *What’s a sea-bean?* Ed Perry (to ECN, e-mail 27 May 2006) kindly drew Cathie’s record to my attention, recalling that Cathie had said to him that “... her first *Mucuna* [sic] she found as a child was on the shore of Ocean City, NJ (she lived there at the time). She said hundreds of people walked over and around it, but it caught her wonder.” Given the contradictions in her two accounts, doubt must pertain to this record – we cannot now determine whether the seed was *Entada* or *Mucuna*.

⁷ J. V. Dennis, 1998. Records of ivory-nut palm seeds from southeastern Virginia, USA, beaches. *The drifting seed* 4 (3): 8–9; — 1999a. The lucky bean [castor-oil]. *The drifting seed* 5 (1): 8–9.

⁸ See http://collections.ic.gc.ca/sableisland/english_en/nature_na/alone_al/getting_al.htm [accessed 9 June 2006]. This website is an on-line version of a travelling exhibition prepared more than a decade ago.

An image (apparently showing five seeds, two being *Entada gigas*) accompanies the text. Unfortunately this image is misleading because there is no evidence that any of the five seeds shown was collected on Sable Island. There are no specimens of tropical seeds specifically collected on Sable Island in the Nova Scotia Museum's botanical collection (Marian Munro to ECN, e-mail 19 April 2006; Zoe Lucas to ECN, e-mail 17 May 2006). The website is to be amended.

I am grateful to a number of people including Marian C. Munro (Curator of Botany, Nova Scotia Museum, Halifax), and most especially Zoe Lucas for clarification of the accuracy of the website image.

⁹ For excellent information about Sable Island, its origins, history and natural history see <http://www.greenhorsesociety.com/>.

¹⁰ For this information I am grateful to Professor Eric Mills, Department of Oceanography, Dalhousie University, Halifax, Nova Scotia.

¹¹ J. V. Dennis, 1999b. The lucky bean ... [May 1976 strandings]. *The drifting seed* 5 (2): 8–9.

¹² For example, see Z. Lucas, 1992. Monitoring persistent litter in the marine environment on Sable Island, Nova Scotia. *Marine pollution bulletin* 24: 192–199.

¹³ Zoe Lucas to Christopher Majka, e-mail 10 April 2006 (per Professor Eric Mills); Zoe Lucas to ECN, e-mail 29 May 2006.

¹⁴ Zoe Lucas to ECN, e-mail 12 April 2006. Dr Ian A. McLaren (Biology Department, Dalhousie University, Halifax, Nova Scotia) also reported coconuts stranded on Sable Island in “late 60s to early 70s, and a few times since ... frequent enough!” (per Dr D. Pincock to ECN, e-mail 18 May 2006).

¹⁵ <http://www.greenhorsesociety.com/The%20Beach/The%20Beach.htm>

¹⁶ Indeed there seem to be no reports from north of Florida; it is not listed for Cape Hatteras in J. V. Dennis, 1997. Stranded tropical disseminules from Cape Hatteras and nearby beaches in North Carolina, USA. *The drifting seed* 3 (1): 47.

¹⁷ Dr Steve Sponberg to ECN, e-mail 15 May 2006: “Two friends have both said, “of course, coconuts”, but neither can say which one(s).”

¹⁸ Zoe Lucas to ECN, e-mail 17 May 2006.

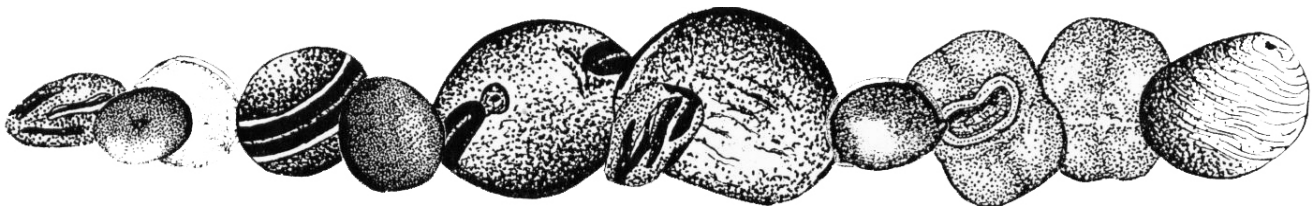
Footnote.

** Is the splendid record of sea purse (*Dioclea reflexa*) from a woodpecker's hole (that's not beachcombing!) in Nantucket another extension of range? The height above ground is not, alas, reported, but could it be an altitude record? Other non-beach/non-coastal reports (all European) of drift seeds include: nickar nut (*Caesalpinia bonduc*) in the nest of a fulmar petrel on St Kilda (1883) (altitude not recorded); Mary's bean (*Merremia discoidesperma*) in a Cornish garden (brought there with seaweed for manure) in 1985 (distance not reported); and, in 2000, sea heart (*Entada gigas*) near The Globe (a well-frequented hostelry) in Upwell, Cambridgeshire (25km inland!).

editor's note: The Sable Island Green Horse Society website mentioned on page 4 can be accessed at <http://www.greenhorsesociety.com/>

Those who dwell, as scientists or laymen, among the beauties and mysteries of the earth are never alone or weary of life.

Rachel Carson, *A Sense of Wonder*



The Drifting Seed, September 2006

The Snake that Charmed the Beaner

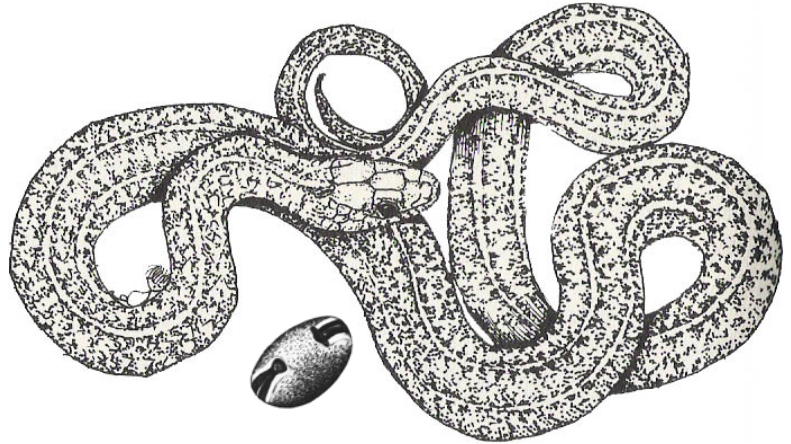
by Stephanie "Queen Sea Bean" Bernstein, QueenSeaBean@aol.com

I miss Florida ever since I moved to Arizona. I only see sea beans in my dreams while living in the desert. After Hurricane Katrina I had to return to my condominium in Florida to check & see if there was any damage. Luckily there was not.

Now I could turn my sights onto finding sea beans at the beach! My head filled with greedy thoughts of the hurricanes bounty awaiting my arrival. I love to search on Palm Beach. I used to live there before I moved to Lake Worth. I know a few private beaches where the natural wrack is untouched by beachcombers & hotel maintenance vehicles, a rare treat indeed.

With my trusty probing stick in hand I arrived at the beach. I was overwhelmed at the amount of garbage on the sand: old wooden & plastic crates, car oil bottles, medical syringes, flip flops, Styrofoam buoys, lobster tags from 1997, huge bamboo sticks and more. For hours I looked and found nothing. I ran into a few residents who marveled at how & why I turned my back to the beautiful blue ocean to comb through the "icky brown stuff" as one Palm Beacher put it. I explained to them that I was combing the wrack for sea beans. I always carry a few beans on me in the form of a necklace or bracelet. People young & old grow so curious to learn more when they see a hamburger bean. It seems to make them laugh & smile.

After a few more piles of never ending trash & sea grass I came upon a few small hamburgers. I was thrilled. As always I kissed each special bean and placed them in *my* sea purse, an old leather & raffia purse perfect for the collection of sea treasure. Suddenly I came upon a large pine tree. It must have washed up from the storm. Beneath it was a large pile of promising looking wrack, dried by the sun & untouched since its journey from the sea. I knelt down & poked around. The debris was stiff & unyielding. I decided to use my stick & flip the wrack to see if I could shake out any beans.



Just then a flash of fiery orange caught my eye. It was so sunny that day I had to get closer to see what it was. As I approached two pumpkin colored eyes with dark black pupils starred back at me! It was a snake, a red rat snake. How unexpected! I have to admit my heart raced, never in all my years of beaning did I come across more than a fire ant or a ghost crab in my way.

Near the snake lay a hamburger bean; a nice plump bean, much larger than any in all of my collection but I dared not to take it. Somehow it seemed to be the rat snake's charm that left this constant sea beaner to make the choice to abandon the bean & cover her back up in the comfort of the loamy wrack. I have never left a bean on the beach. I replant bay beans to shore up the dunes, use corky beans like country almonds to make wreaths and have vessels full of all the best keeper beans like sea hearts, hamburgers & sea purses.

I love my beans so much I dare not drill them. In fact I have bought all my beans to make jewelry with. I love all beans. I covet them & it was so hard to leave this bean behind. Yet I decided to leave this fine hamburger bean to this majestic snake. As she lay still almost guarding the treasure I sought, I thought it was hers first. She may in fact have picked this peaceful resting spot under the warm wrack next to the bean on purpose. What right did I have to take it away? It's the bean that got away, the only one I like to think and it still makes me smile.

Stranded Fruits, Seeds And Other Drift On Kauai Beaches

by Carol J. Sullivan, Tim Flynn and Gerald Sullivan
carolsully@yahoo.com, tflynn@ntbg.org, geraldully@yahoo.com

Gunn and Dennis indicated, "The Hawaiian Islands are too distant from other islands and the main current systems to receive many disseminules other than those that are from plants within the island chain. Nevertheless, the beaches are well worth exploring for disseminules of local origin." How right they were. Aloha!

Our principal objective was to conduct a non-scientific survey of driftseeds and other drift, stranded on accessible Kauai beaches, for a three-month period during October, November and December 2004. Our wildest hope was to find one or more stranded seeds not of local origin.

During our brief visit to Kauai, we were able to gain access to 31 beaches. Some we checked but once since they showed little or no promise, most were explored 5 or 6 times, while one was surveyed 15 times. A total of 93 beach visitations were made during our 92-day vacation.

We were extremely fortunate in that, early on, an acquaintance was struck with Tim Flynn^(a) who is very well versed in island plant taxonomy. Tim identified all plant drift.

The following list the stranded fruits, seeds and other drift collected on Kauai beaches:

| | |
|----------------------------------------------------|--------------------------------------------|
| Asian swamp-lily, <i>Crinum asiaticum</i> | Mauna-loa, <i>Canavalia cathartica</i> |
| Australian pine, <i>Casuarina equisetifolia</i> | Mesquite, <i>Prosopis pallida</i> |
| Avocado, <i>Persea americana</i> | Methley plum, <i>Prunus cerasifera</i> |
| Beach pea, <i>Vigna marina</i> | Milo, <i>Thespesia populnea</i> |
| Breadfruit, <i>Artocarpus communis</i> | Monkey pod, <i>Samanea saman</i> |
| Boxfruit, <i>Barringtonia asiatica</i> | Moonflower, <i>Ipoemea pes-caprae</i> |
| Cactus, <i>Opuntia sp.</i> | Orange, <i>Citris sp.</i> |
| Candlenut/kukui, <i>Aleurites moluccana</i> | Papaya, <i>Carica papaya</i> |
| Chinaberry, <i>Melia azedarach</i> | Passionflower, <i>Passiflora sp.</i> |
| Chinese lantern, <i>Hernandia nymphaeifolia</i> | Peach, <i>Prunus persica</i> |
| Christmas berry, <i>Schinus terebinthifolius</i> | Rose apple, <i>Syzygium jambas</i> |
| Coconut, <i>Cocos nucifera</i> | Royal poinciana, <i>Delonix regia</i> |
| Coco-plum, <i>Chrysobalanus icaco</i> | Sandbox tree, <i>Hura crepitans</i> |
| Coral bean/wiliwili, <i>Erythrina sandwicensis</i> | Screwpine, <i>Pandanus tectorius</i> |
| Date palm, <i>Phoenix sp.</i> | Sea grape, <i>Coccoloba unifera</i> |
| Fig, <i>Ficus sp</i> | Seapencil, <i>Rhizophora mangle</i> |
| Garlic vine, <i>Pseudocalymma alliacerum</i> | Sea purse, <i>Dioclea sp.</i> |
| Ginger, <i>Zingiber officinalis</i> | Sea trumpet, <i>Corda subcordata</i> |
| Golden shower, <i>Cassia fistula</i> | Silky oak, <i>Gravilia robusta</i> |
| Guava, <i>Psidium guajara</i> | Soapberry, <i>Sapindus oahuensis</i> |
| Hibiscus, <i>Hibiscus tiliaceus</i> | Suicide tree, <i>Cerebera odallum</i> |
| Hog-plum, <i>Spondias mombin</i> | Tahitian chestnut, <i>Inocarpus edulis</i> |
| Horseradish tree, <i>Moringa oleitera</i> | Tamarind, <i>Tamarindus indica</i> |
| Indian mulberry, <i>Morinda citrafolia</i> | Tiger claw, <i>Erythrina variegata</i> |
| Java olive, <i>Sterculia foetida</i> | Tropical almond, <i>Terminalia catappa</i> |
| Java plum, <i>Syzygium cuminii</i> | True seabean, <i>Mucuna sloanei</i> |
| Job's tears, <i>Coix lacryma-jobi</i> | Umbrella tree, <i>Brassia actinophylla</i> |
| Kapok, <i>Ceiba pentandra</i> | Velvet bean, <i>Mucuna gigantea</i> |
| Laurelwood, <i>Calophyllum inophyllum</i> | White inkberry, <i>Scavola sericea</i> |
| Macadamia, <i>Macadamia integrifolia</i> | Wild tamarind, <i>Leucaena glauca</i> |
| Madagascar olive, <i>Noronhia emarginata</i> | Woodrose, <i>Merremia tuberosa</i> |

Mahogany, *Swietenia mahogoni*
Mango, *Mangifera indica*
Manila tamarind, *Pithecellebiu dulce*

Yam, *Dioscorea pentophylla*
Yellow oleander, *Thevetia peruviana*

Seabeaners' Delight! The following sites were found to be most productive for the highly sought collectible drift seeds.

Pakala Beach is also known as "Infinities." Apparently, the waves are so perfectly formed that surfers can ride to infinity. On our first visit, we encountered an aged, white, hippie resident surfer who indicated he and three others recently had collected in excess of 300 wiliwilis (coral beans) for an artist friend. We garnered 9 wiliwilis (see photo), 10 silky oak seeds (see photo) and a 4 inch golden shower pod with seeds, plus miscellaneous others. Seven wiliwilis, a soapberry fruit containing the seed and a lot of date palms were collected on our second visit. Our third and last visit followed a raging rainstorm. We met a native surfer on his way back from the beach, who promptly slipped on the wet path and landed flat on his back. He quickly recovered, but said he would not surf today because of the "shark waters." Not planning to venture into the water, we proceeded and collected 34 wiliwilis. This was the only beach that yielded what most consider the most valuable seed on the island.

Kalipaki Beach is situated along Kalipaki Bay and fed by the Huleia River and the Nauwiliwili Stream. The only problem with this beach is that a seabeaner must compete diligently with the Hotel Marriott's beach cleanup crew, who combed the sand with a huge mechanical harrow each morning. So it was the case of the "early bird gets the seabean." This could probably be the best-of-the-best if it were not for the preening of the shore. Seven visits yielded 140 velvet beans, 3 true seabean, 3 woodrose, several yellow oleander (see photo) and many others.

Wailua Beach is located across Highway 51 from the defunct Coconut Palms Hotel and adjacent to the Wailua River. We tromped this beach no less than 15 times. Not only was it the most productive, but it was also conveniently on the way to the Safeway grocery store. Collections included 172 velvet beans, 21 true seabean, 104 sea purses, 9 woodrose and a ton of others.

Donkey Beach is but a few miles north of Safeway^(b) which is located in the town of Kapaa. Six visits to Donkey yielded 32 velvet beans, 1 true seabean, 2 woodrose, 31 sea purses and a host of others.

A number of beaches were nearly totally black from the fractured shell of the kukui/candlenut. Curiously, several times it was impossible to find a whole nut on these beaches. Jeremy Smith in his book *Australian Driftseeds* states: "candlenuts on strandlines frequently shatter, presumably through being heated and dried by the sun." Sounds very reasonable.

Overall, the most abundant seabean were candlenut/kukui^(c), tropical almond^(c), Australian pine cones^(c), mauna-loa^(c), velvet bean (427), sea purse (218), coral/wiliwili (50), true seabean (29), woodrose (25), tiger claw (21) and coconut (21).

On the secluded Lawai Kai beach a newly arrived, brilliantly shiny, green box fruit was discovered, but supposedly, no *Barringtonia* trees exist on this isle.

In spite of the rather large colony of woodrose vines on the banks of the upper Waimea River, none was found on nearby beaches with the exception of a single giant woodrose capsule containing four enormous seeds. The size was certainly an anomaly. See picture for comparison.

Astonishingly, nearly 50% of the stranded fruits and seeds on Kauai beaches matched those washed ashore on Mustang Island, Texas. Twenty-five (37%) of these were identical and seven (10%) were very closely related, i.e. Asian swamp-lily vs. southern swamp-lily.

Two sea purse seeds (see picture), were almost totally covered on one side with a colony of bryozoans. This growth was so extensive that it suggested a long duration in the ocean, possibly originating from a distant isle.

Throughout our travels on the beaches of Kauai, we never encountered, with the exception of the hippie at “Infinities,” another seabeaner. The Allerton Gardens botanical group was also unaware of the art of seabeaning. Beachcombers were non-existent since there was virtually nothing else washing ashore. The island’s beaches were ours! Mahalo!



- (a) What's a good-ol-country-boy like this doing in the middle of the Pacific Ocean? Tim Flynn is a native of Lubbock, Texas, and a graduate of Texas Tech University, where he received a degree in Horticulture. Since 1986, he has been associated with the Allerton Gardens.
- (b) One of the many customs in Kauai is to give directions by employing a landmark.
- (c) Too numerous to count or collect.

The Quarter-Pounder Bean

by John Beerensson, beerensson@bellsouth.net
Merritt Island, Florida

Ed Perry coined the name *Thick-Banded Mucuna*; an internationally accepted and most descriptive name for what is possibly *Mucuna fawcettii*, or a closely related species. Many of us in Florida tend to use the name *Giant Hamburger Bean* for this generator of “high-fives” and other wild behavioral displays on the beach when we find one of these beauties.

Christopher Boykin, in his review of Bill Blazek’s wonderful collection of hardcoats, or “keepers” if you will, calculates the giant burger as a 1 out of 707 find on Florida shores. A rare find, indeed! There may be more than one species of this thick-banded gem. Some are quite small; certainly not worthy of being called a giant. Some are red in color and not the usual brown we normally associate with this bean. Some are really whoppers, exceeding 40 mm in diameter. These mega-monsters of mucunas are the *Quarter-Pounder Beans*!

Some beaners with green thumbs are growing giant hamburgers in hopes of identification. Because my thumbs are the wrong color (I can’t even grow a nickernut), I’m relying on Ed Perry, Christopher Boykin, Gina Reed, and others to do the gardening. If there is a new species, let’s name it something special . . . like *Mucuna beerenssoni*. OK, don’t. I’m not sensitive. Sigh. But I digress.

Back to the giants exceeding 40 mm in diameter. In ten years of collecting, I have found only two *quarter-pounders*; both measuring in at 41 mm.

So I need to toss out this question to all devoted beaners: **just how big do these things get??**

Barb, Ed, Nan, Christopher, Michele, Bill, both Alices, Margie, Deb, Mike, Paul,



Cecelia, both Marys, and the rest of you Florida beaners; Cathy, Jerry, both Burnetts, and the rest of you Texas beaners; Curt and Wayne on the West Coast; Charles, Wim, and Gerhard across the pond; Jeremy, Foster, and Izumi across the bigger pond; and the rest of you devoted beaners wherever you live . . . **just how big do these things get??**

You all would like to know wouldn’t you? Yes, you would. A quarter-pounder with smothered onions at a local burger joint to the one with the biggest. *Biggest* is defined as the diameter at its widest. And Charles Nelson, if you are the winner, then I’ll buy you a fish ‘n chips dinner when you come to the Symposium. Size does matter here. Not to brag, but . . . I think I have the biggest!!



editor’s note: We may just get to see the biggest at this year’s Symposium event. One of the categories in the Odd-Bean Contest is again the “Largest Hamburger Bean.” Contestants, enter your largest of any species of *Mucuna* from your existing collection of seeds!

Drifting Kowhai (*Sophora microphylla*) Seeds and Stranded Virgin Plastic Resin Granules: New Zealand Relationships

by Murray Gregory, m.gregory@auckland.ac.nz

I have been regularly walking (beachcombing?!) strand lines of New Zealand shores since the early 1970's. My primary objectives have been to census the quantities of small virgin plastic resin granules or pellets that have concentrated along strand lines as well as often being strewn across the back beach, and also to assemble information on the sources and quantities of other and larger anthropogenic marine debris (mostly plastic) that has accumulated there. With the same objectives, but with much less frequency and intensity I have also visited the shores of Nova Scotia, Canada, and Bermuda and several remote islands of the Southwest Pacific and the New Zealand sector of the Southern Ocean. Numerous studies over the past five decades have revealed persistent increments in the quantities of plastic and other man-made waste accumulating on coastlines and also the seafloor. The sources of these materials are both land-based and/or related to maritime activities, and it is now appreciated that the environmental problems created are of global proportions (e.g. Coe and Rodgers, 1977). For example, Barnes (2005) has suggested that the 1982 estimate of 8 million marine debris items entering the oceans each day now needs to be updated by being multiplied several fold. Furthermore, marine debris has the potential to be a vector in the transport of hitchhiking and invasive alien organisms and effecting their long-distance dispersal (Gregory, 2004).

The plastic ovoidal to cylindrical pellets are typically white or translucent and often difficult to distinguish from similar sized, broken shell detritus. Early in the research program I became aware that a good guide to the possible presence of the former were conspicuous similar-sized, yellow seeds. These were identified as coming from a local tree—kowhai (*Sophora microphylla*). With its striking and colorful yellow flowers this is often considered New Zealand's national tree and has appeared on three local postage stamps, as well as a two-cent coin. The latter was withdrawn from circulation several years ago.

Early in my search for plastic granules and other marine debris in the wrack of New Zealand beaches, an exercise which now has extended over the last four decades, I also became aware of exotic (tropical) drift disseminules reaching northern New Zealand shores. During the austral winter of 1956 and into the following summer both the west coast and east coast of northernmost New Zealand (Ninety Mile Beach and Mangonui) were subject to an invasion of unusual and seldom recorded tropical fruits and seeds—these included, fruits of *Ipomoea pes-caprae* (beach morning glory), and a cycad, as well as seeds of *Barringtonia asiatica* (fish poison tree), *Entada spp.* indent (nicker beans), *Guilandina crista* (Molluca bean or grey nicker), *Mucuna gigantea* and two other species of *Mucuna*, and *Castanospermum australe* (Moreton Bay chestnut) together with nuts of *Aleurites fordii* (candlenut) (Mason, 1961; Cooper, 1967, and Gunn and Dennis, 1999). Vincent (1957) figured the trunk of a coconut palm complete with fronds and nuts at Scotts Point towards the northern end of the beach. Like much marine (plastic) debris, many of these (and particularly *Barringtonia*) were heavily encrusted with bryozoans and other epibionts, indicating that they had been drifting on the high seas for some time. More recently, Waller (1995) has recorded *Aleurites moluccana* and *Entada phaseoloides* seeds from Rangatira Beach, north-west of Auckland, some 200km to the south of Ninety mile Beach and a large, sea-worn fruit of *B. asiatica* has been recorded from the east coast of Great Barrier Island (Wilcox, in Cameron et al., 2002). Of these arrivals only *Ipomoea* is known to have been a successful colonizer with a small flowering population at Twilight Beach (Benham and Hambly, 1998) and possibly Hukatere Couper, 1967). It also flowers on sub-tropical Raoul, and Curtis

Islands in the Kermadec Group c1000km northeast of New Zealand (Sykes, 1970). The source of these intermittent shoreline arrivals is considered to lie far to the north-west in the northern Coral Sea and south-eastern New South Wales (Smith, 1994). From time to time coconuts (*Cocos nucifera*) also arrive on these northern New Zealand shores. Often these are heavily encrusted with barnacles and bryozoans and have clearly been afloat on the high seas for some considerable time. Martin (2003) has documented an event in the late 1990's when six coconuts with husk still attached were found washed-up on a sandy beach at Takou Bay on Northland's east coast. These strandings are of very fresh material suggesting they may have been jettisoned from passing vessels—those that I have seen are restricted to east coast beaches close to shipping routes from Oceania (pers obs).

At least eight species of kowhai (*Sophora*) are endemic to New Zealand, a further eight closely related taxa are widely dispersed across the islands of Oceania, together with two species from Chile and one from the Indian Ocean (de Lange and Heenen, 2006). Kowhai is a tree of lake and river edges, creeks and estuary margins. Fallen seedpods disintegrate, releasing hard and resistant globular seeds. These are buoyant and can remain viable after floating in seawater for periods 3 years or more. Seeds of endemic New Zealand Kowhai disperse widely around the New Zealand coast and also reach shores of Chile and Gough Island in the South Atlantic (Guppy, 1903; Sykes and Godley, 1968). Until recently, similarities between the floras of widely separated land masses (particularly isolated oceanic islands) were considered evidence for once existing "land bridges" that over geological time had sunken to oceanic depths and were now out of sight. This hypothesis is now being seriously challenged in recent studies of trans-oceanic, long-distance, dispersal and spread of *Sophora* (ie. Kowhai) from New Zealand sources (e.g. Pole, 1994; Macphail, 1997; Hurr et al., 1999) largely driven by the west wind drift of the Southern ocean and broadly gyral circulation of the eastern, western and central Pacific, Coral and Tasman Seas.

Significant numbers of virgin plastic pellets have been recovered in surface-towed neuston nets from sub-tropical waters to the north of New Zealand southwards to and beyond the polar front. On several occasions, hauls far from land have also included living insects (lady birds, gorse weevils) and the odd golden Kowhai seed (Gregory, 198? and unpub.). Seabirds of the Southern and other oceans are attracted to, and consume plastic artifacts—often in significant quantities and with serious biological and environmental implications! This behavior suggests plastic is being identified as a food item. Regurgitated accumulations of this material are not uncommon around nesting sites of albatrosses and some other sea birds, and it is also fed to their young. From the remote Bounty Islands I have personal experience of a nesting Salvins mollymawk spewing its contents on my boots—including 10 cm fishing floats, bottle tops, blue plastic packing strip, broken and sharp edged chunks of plastic from containers, etc. There are also numerous reports of plastic pellets in the crops of dead and beach cast seabirds (e.g. Harper and Fowler, 1987). Recently, two kowhai seeds were sighted on an isolated rocky islet north of Chatham Island. These lay between the nests of the northern royal albatross. The conclusion was reached that these had been picked up at sea by a bird on a foraging expedition and later regurgitated—possibly whilst feeding a chick (H. Campbell and S. Trewick, pers. com.).

Exotic sea beans and other drift disseminules illustrate the potential for trans-oceanic dispersal of some plants through wind, wave and current processes. While smaller and relatively inconspicuous seeds (such as those of *Sophora*.) may be easily missed by beachcombers, like plastic pellets, their dispersal may also be evidence of sea-surface feeding by oceanic seabirds.

editor's note: a common accepted beachcombers' nickname for the tiny plastic pieces Murray writes of is "nurdles."

Just a Yellow Nickar in Texas

by Gerald Seabeader Sullivan
geraldsully@yahoo.com

We should feel fortunate to have a soothsayer among us. In October, 2003, a red plastic tag was sent to Editor Ed for identification. He not only informed me about everything you ever wanted to know about a Florida lobster pot tag, but also predicted the following: "So, it should be possible that you may someday see a yellow nickernut or two on your beaches." This prognostication was based on the arrival of the Florida tag on Mustang Island. Personally, I had my doubts.

In August, 2004, a rather large handsome, bleached yellow nickar washed ashore, was promptly sent to Ed and he responded via email: "Attached is a picture of yellow nickar seeds Christopher Scott Boykin was able to collect in the Florida Keys. Notice the tendency to bleach white. All eight he sent me float in saltwater. The largest of them is from Jerry Sullivan of Port Aransas, Texas, found on a beach there." See picture that follows. Two weeks later John Williams found a second bleached nickar about fifty-feet from my original find. Some might accept this as a fulfillment of prophecy, but where is the promised yellow-colored nickar?

On July 10, 2006, a third bleached yellow nickar was discovered in a clump of drying sargassum. Although this specimen was but one-third the size of the previous two, it was a superfragalistic find since our beaches had been seemingly devoid of driftseeds for an eternity. Four days later, what was at first sight thought to be an orangish-tan seabead actually turned out to be much, much more. It may well be the first non-bleached yellow nickar found on a Texas or gulf coast shore. Prophecy fulfilled.



editor's note: Notice the large, dark brown hilum area of all these yellow nickernuts (both photos). Though some bleach-out to completely white with no yellow coloring evident, the brown "nipple" area around the hilum remains. Gray nickernuts and chocolate-brown nickernuts do not share this characteristic, so recheck your collection of driftseeds, especially your gray nickernuts. You may have a bleached-white yellow nickernut hiding among them. The seeds in the photo to the left, except for the largest seed pictured, all came from the Florida Keys. The seeds in the right photo were all collected on beaches near Mustang Island, Texas.

The Drifting Seed, September 2006

News and Notes

In an email from Nan Rhodes on the sea-bean Listserve:

I just received 2 Mary's Beans in the mail from Mazatlán Mexico where a friend is captaining a private yacht. He obtained these beans and their instructions for use in a market somewhere in the region.

Can anybody translate the instructions?

I've included a picture of the beans and an enlarged version of the instructions. Unfortunately, the paper looks like it went through a washing machine and this was the best scan I could get.

THANKS,

nan (nrhodes@cfl.rr.com)

Our friend Joe Kirkbride (and his wife) did some translation for us:

La naturaleza crea sus maravillas en miles de formas
Nature creates her wonders in thousands of forms

Plantas medicinales son una creación para la salud curate con ellas
Medicinal plants are a creation for restoring your health

Tomates Marinhos (Castanha de la India)
Marine Tomatoes (Indian Chestnut)

La botánica Mexicana cuenta entre sus ejemplares raros a los que deben de atribuirse las virtudes aun no conocidas pero de efectos sorprendentes a los que llamamos Tomates Marinos.

Mexican botany has among its rarities one to which you can attribute properties not yet known but of startling affects that we call Marine Tomatoes.

Unas semillas de color obscuro que venden los hierboteros y con el simple hecho de traerlos en el bolsillo por parejas de macho y hembra, nos vienen curando de molestas hemorroides y varias enfermedades tocante a la circulacion de la sange como son Dark colored seeds that herbalists sell and by simply carrying male and female pairs of them in your pocket, we can be cured of hemorrhoids and various diseases affecting the circulation of the blood, such as

varices, enfermedades del Corazon, calambres, ulcera de estomago
varicose veins, heart disease, cramps, stomach ulcers

Siempre deben traerlos en su bolsillo y en la noche pongalos en un vaso con agua y tomela en ayunas.

Always carry them in your pocket, and at night put them in a glass of water and drink it before breakfast.

[The 'it' in the preceding sentence refers to the water, naturally.]

This has tenor of patent medicine claims. From the 'proscribed' treatment, the seeds are more good luck charms, than medicine.

Joe K

JOSEPH H. KIRKBRIDE, JR., Research Botanist
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Rm. 304, Bldg. 011A, BARC-West
The Drifting Seed, September 2006



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News and Notes (cont.)



Can anyone help with the **identification** of this (drift)seed? It was found on a Dutch beach (Domburg; collected by Herman Nijhuis) and is being reported by Gerhard Cadée. He can be contacted at cadee@nioz.nl. It is described as hard and glossy with a diameter of about 2 cm.

In an e-mail from Drifter David Williams: I ran across a guy out of Atlanta selling sea heart pods for \$10 or two for \$15. He gets them out of Thailand and calls them "Monkey pods." He sells them mainly to decorators in Atlanta, but I thought the beaners should be able to get a pod or two if they are interested. I got one for me and one for Rondall.

His name is Dan Storey and his cell phone is 404.550.7630. I told him people from the Seabeans group may be contacting him. I also directed him to the website when he gets back to Atlanta.



In an e-mail to www.seabean.com: For your records we found this seabean (**editor's note:** a seaheart, *Entada gigas*) on Balnakeil Beach at Durness on the north coast of Scotland. As a matter of interest John Lennon of the 'Beatles' used to spend his school holidays there and the place is depicted on one of his songs.

Kindest regards,

Neil Lloyd-Jenkins



The Drifting Seed, September 2006

Eleventh Annual International Sea-Bean Symposium
Cocoa Beach Public Library—550 North Brevard Avenue, Cocoa Beach, Florida 32931
Open Free To The Public, October 13th & 14th, 2006

Schedule of Events*

Through the weekend: Sea-bean collections and displays, experts, sea-bean polishing, the famous Bean-O-Matic, jewelry, T-shirts, slide-shows, speakers, books, authors, international guests, raffle and contests (including the ever popular “ODD-BEAN” contest, and the Saturday morning “BEAN-A-THON” beachcombing bonanza!)

We are pleased to announce Alan Rammer will be our keynote speaker Saturday evening (7:45pm). Alan will be presenting “Beachcombing the West Coast from A to Z.” Alan will also be available to talk to throughout the Symposium event.

Natural history writers and books will be available through the weekend. Krieger Publishing Company will be pleased to once again present *Sea-Beans from the Tropics: A Collector’s Guide to Sea-Beans and Other Tropical Drift on Atlantic Shores*, by Perry/Dennis (2003). Ed Perry will be on-hand to sign copies. Krieger will also have the reprint edition of the *World Guide to Tropical Drift Seeds and Fruits*. The ever-popular *The Little Book of Sea-Beans* will also be available, and co-author Paul Mikkelsen will be present to sign copies. Jim Angy, Marge Bell and Matt McQueen of Still Nature Productions will be offering their digital books including some new titles. This year we will again also make available for sale Cathie Katz’ beautifully written and illustrated *The Nature of Florida’s.....series*.

Thursday, October 12th (3-5pm)

Everyone is invited to the main conference room at the Cocoa Beach Public Library for an informal get-together and introduction, discussion of symposium plans, and to set up displays for the weekend. We need lots of help setting up tables, chairs, and displays, so please feel free to donate time and suggestions. At 6pm those interested can meet at Roberto’s Little Havana Restaurant (1/2 mile south of the library at 26 N. Orlando Ave.—this place has GREAT Cuban food, and has become a Symposium tradition).

Friday, October 13th (9am-5pm)

Displays and collections open to the public all day, free, from 9am to 5pm. Enter your seeds for the ODD-BEAN contest.

11 to 11:45am: *Beginners’ Beachwalking* (slide show) by Sebastian Inlet State Park Ranger Ed Perry.

Noon: Lunch break.

2 to 2:45pm: *What’s Floating Our Oceans Now?* (slide show) by Oceanographer and Drifter Dr. Curtis Ebbesmeyer.

3 to 3:45pm: *The Wrecking Season*: film produced by Drifter Nick Darke presented by Oceanographer Curtis Ebbesmeyer

5pm: The library closes; meet for dinner at Anacapri (This great restaurant is just east of the library in walking distance).

Saturday, October 14th (8am-9pm)

Displays and collections open to the public all day, free, from 9am to 9pm. Enter your seeds for the ODD-BEAN contest.

8 to 10 am: Bean-A-Thon 2006 —You are on your own; don’t come to the library first if you participate. Collect sea-beans and or toys/trash on any beach between Canaveral National Seashore and Sebastian Inlet. You MUST have your beans/toys at the library by 10:30am. Contest is judged/tallied per individual effort in the 2hr. time frame, please.

9am: Library opens.

10:30 to Noon: Judges will tally Bean-A-Thon entries outside in front of the library (awards at 7pm that night).

Noon: Lunch break.

4:00pm: *Polishing Your Sea-Beans* presentation by Drifter and expert polisher Bill Blazek.

5:30pm: ODD-BEAN contest judging (for entries submitted all through the weekend). In a baggie with your name, address/phone number place your largest hamburger bean, smallest starnut, and best-crossed Mary’s bean from an existing sea-bean collection. These entries DO NOT have to be found in the Saturday morning Bean-A-Thon. Please enter!!!!

Dinner Break: 5:30pm to 7pm. **GROUP PICTURE OUTSIDE THE LIBRARY at 5:30pm! Be in it!**

7pm: Prompt! Bean-A-Thon and contest awards and certificates presented. Raffle winners chosen.

7:45 to 8:45pm: **Keynote speaker** *Beachcombing the West Coast from A to Z* (slide show/lecture) by Marine Science expert and Drifter Alan Rammer. Alan will be traveling from Washington to be with us for the Symposium weekend.

Sunday, October 15th (9-11am)

Take down displays; small business meeting to discuss and schedule dates/help for next year’s symposium.

*October is still HURRICANE SEASON in Florida, so our schedule is at the mercy of the powers beyond our control. Hurricanes are wonderful for beaning, but can be dangerous for beachwalkers. Our beachcombing activities may be cancelled because of severe weather, in which case we’ll follow evacuation procedures to the mainland. Hurricane information will be available at your hotel and at the library.

The Drifting Seed, September 2006

Travel and Hotel Information for Symposium 2006 in Cocoa Beach

Cocoa Beach is about an hour drive from Orlando International Airport.

La Quinta: <http://laquinta.com/lq/properties/propertyProfile.do?ident=LQ622&propId=622>

Luna Sea: <http://www.lunaseacocoabeach.com/reservations.php>

Pelican Landing: <http://www.angelfire.com/on2/pelicanlandingresort/main.html>

South Beach Inn: <http://www.southbeachinn.com/accommodations.htm>

Anthony's On The Beach - 3499 S. Atlantic Ave., Cocoa Beach. 783-9892

Beach Island Resort - 1125 S. Atlantic Ave., Cocoa Beach. 784-5720

Beach Place - 1445 S. Atlantic Ave., Cocoa Beach. 783-4045

Crawford's Cocoa Cabanas - 1901 S. Atlantic Ave., Cocoa Beach. 799-0307

Sand Dollar - 1465 S. Atlantic Ave., Cocoa Beach. 783-8628

And finally, here's a link to a list of lots of local lodging. <http://cocoabeach.com/lodging.html>



Sea-Bean T-Shirt for 2006

100 % cotton shirt

all shirts are a \$20 donation each

T-shirts are available in two colors this year: forest green (white ink), and stonewash blue (dark blue ink).

► available at the **11th Annual Sea-Bean Symposium and Beachcombers' Festival**, Cocoa Beach, Florida ◀

(or to order through the mail write to Ed Perry, c/o *The Drifting Seed* newsletter,

P.O. Box 510366 Melbourne Beach, Florida 32951, USA—only while supplies last.

Add \$3.00 per item to cover mailing costs, \$6.00/overseas, state your size: S, M, L, XL, XXL)

Make checks payable to: The Drifting Seed

This year's t-shirt design is by another one of our artist Drifters—Nan Rhodes. Be a part of the "Bean Team" by wearing your shirt around town or to the beach. The design features our well-known Grand Slam with a twist, and they're riding the waves in to a beach near you.