

The 16th Annual International Sea Bean Symposium will be held at the Cocoa Beach Public Library, October 21st-22nd, 2011.

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## Fuel Oil and Coconuts Stranded at Southend, September 20, 2010

by Dr. R. A. Hewitt, 12 Fairfield Road, Eastwood, Leigh-on-Sea, Essex SS9 5SB, U.K.

As noted by Dickens (reprinted from June 28, 1856 *Household Words*, on p.81 in 1910 edition) "it is a remarkable quality in a watering-place out of season, that everything in it, will and must be looked at." This provides some excuse for March walks along the Southend-on-Sea high tide marks measuring the stranded position and orientations of coconuts, Cocos *nucifera* (L.), presumably sent down the River Thames from London, where they can be seen in canals after Hindu festivals. Since 2002, a

larger gathering of Hindus has developed nearer to the North Sea at Shoebury East Beach, during the season in early September. It gave an insight into what largely untransported Hindu coconuts and associated Ganesha festival strandlines look like in this macrotidal, martial environment reviewed by Hill (1999) and Hewitt (2009a, 2009b).

The 2010 Ganapati Visarjan ceremony was between 12:30 and 5:30 pm British Summer Time (BST) on September 19. It followed the release of heavy fuel oil from a ship entering the Thames at around 7 am, which polluted a beach 12km WSW of the festival site as the tide followed the ship towards Tilbury



Docks. Oil-bearing *Fucus* pollution was reported in the Monday 20<sup>th</sup> to Wednesday 22<sup>nd</sup> editions of the *Southend Echo*, partly by Thomas (2010) and McDermott (2010). The oil showed where coconuts, which exit the mouth of the Thames during ordinary S.W. wind conditions will go and how long it takes.

# **Distribution along Strandlines**

In order to describe strandings along the high water mark of neap tides I have measured distances along these strandlines from a point 0.60 km SW from the northern boundary of Shoebury East Beach, occupied by a tidal pool where flotations might be done at dead low-tide. Most coconuts strand over a 0.5 km interval of sand, on uninterrupted strandlines trending 40° to 60° E of Magnetic North (1° or 2° W of True N.), to the North-East. My walk in the other direction is bisected by piers and numerous groins. In 2010, the Stoney beach facing NE beside the aesthetically unsatisfactory concrete feature known as "the Battery" (0.9 km) was more carefully examined. It showed no festival-derived litter or the fuel oil on the sparsely stranded *Fucus*. My continuous walks along the latest strandlines and over groins started at 2.0 km and continued westwards from there to Bell Wharf in Leigh (11.0 km). The bend in the coast was around a pier where Britain's first hydrogen bomb was exported to the Pacific Ocean at 1.55 km. Southend Pier forms another artificial headland at 6.45 km. A 0.4 km length of low sloping seawall on Two Tree Island, opposite Canvey Island, was also studied (13 km W measured more directly). It was 2 km N of the worst oil pollution on the River Thames side of Canvey Island, developed by 8 am BST on September 19, but was still clear on the 22<sup>nd</sup>.

This walk followed the strandlines of 2.4 m Ordnance Datum (OD) predicted elevation made at 11:38 am BST on September 20, starting just after the tide turned at East Beach. Other walks over the whole course yielded stranded coconuts after the Ganesha festival on September 18, 2007 and September 1, 2009. These single coconut occurrences were at 3.0 km and 2.9 km respectively. My walk on March 12, 2009, showed three coconuts just stranded around 3.2 km, and others at 4.9, 5.9

(endosperm of same one? at 6.1) and 9.1 km (coconut Z of Hewitt 2009a). On March 1, 2010, the predicted tidal elevation was 3.3 m OD and the wind was blowing gently from 232° E of Magnetic North. There was only one intact coconut. It was on a gravel berm trending 102° at 5.5 km, with the cone of husk fibers pointing downwind towards 82°. A broken and non-buoyant coconut was stranding with the cone pointing towards 310° up the sandy beach at 6.75 km.

This "Three Shells Beach" and an adjacent boat shed over the seawall was where one empty broken endocarp (cone towards 160° in clean *Fucus*) and two undecayed endosperm balls stranded on September 20, 2010. That strandline also showed fuel oil on the *Fucus* between central Thorpe Bay (3.7 km) and around 5.0 km, also at Chalkwell where coconut Z stranded (9.1 km). Around noon on September 21<sup>st</sup> Steve O'Connell took aerial photographs for *Southend Echo* of oil-bearing *Fucus* being stranded on "Three Shells Beach." I myself found examples of the oil as far east as the 2.2 km site then. None ever arrived in western Chalkwell. The next significantly higher tides of October 7-8 coincided with E.N.E. winds bringing blocks of yellow plastic to strand at the south end of the festival beach sands (0 km) with a coconut discussed below. The only other one seen during a repeat of the walk to Leigh was a bare endocarp fragment at 5.1 km, still new enough to show husk fibers and a spot of red Hindu paint on the side.

#### Ganesha Festival Beach 2010

This year the meeting of over 5000 Hindus took place as the tide retreated from a relatively low predicted high tide, backed by SW winds of Beaufort Numbers 5 to 7, three days before the full moon. As predicted by this relationship the high tide in the evening after the meeting swept up material left lower on the beach over the previous three days. Due to the weather, it was able to persist as a *Fucus* strandline seen deposited around noon on the 20<sup>th</sup>. The latter had a small gravel berm about 0.5 m below it, trapping coconuts between it and the *Fucus*. At noon on the 21<sup>st</sup> another coconut was stranded below a third line of *Fucus* lying about 2 feet (0.6 m) seaward of the middle one. Beach cleaning had probably gone on during the morning of both days, and coconuts seen on the 20<sup>th</sup> had gone on the 21<sup>st</sup>. My measurements of all the observed coconut husk cones were made on the 20<sup>th</sup>, apart from one measured the year before and one late arrival on the 21<sup>st</sup>. On this beach, with the wind blowing roughly along the strandlines, the coconut conical ends, containing hidden basal pores, pointed into the wind when not at right angles to it. This is the opposite result to that seen previously on steeper, south-facing, March beaches. The freshly deposited strandline of noon on the 20<sup>th</sup> included various items of Indian fabrics, paper, flowers and empty plastic bottles ('*Himalaya Spring*" water). There were two buoyant and un-decayed brown, not yet identified Indian fruit.

All the coconuts were of the Grocery or G-type. Several were mature enough to have developed roots in their husk cones and green embryonic tissue inside the basal pores. Some had spots of red paint still on them. One preserved this as a swastika aligned parallel to the axis of symmetry of the nut and covering the whole upper endocarp surface beyond the husk-cone. Despite being on top this surface had developed a hair-line transverse crack. If the coconut had come in with the protective husk-cone (pointed to 338°) behind, this crack might have enlarged to produce the half coconuts included on Table 1. Swastikas are a Sanskrit word meaning well-being and also representing the sun. The October 8, 2010 strandline (3.3 m OD) yielded a non-buoyant, concave-up bare hemisphere of endocarp, still containing most of the endosperm. One of the basal pores at the base had previously been enlarged into a 18 by 10 mm wide hole. This was surrounded by radial mm grooves externally and a missing ring of endosperm internally. This was evidently the work of *Rattus norvegicus*, since the festival, but before the still buoyant coconut was removed from them by the recent higher tides and soon split open.

Table 1. Directions E. of Magnetic North to which coconut husk-cones pointed upon stranding on Shoebury East Beach.

Strandline	Intact Endocarps	Basal Halves
Sept. 1, 2009	None	135°
Sept. 19, 2010	314°, 265°, 169°	288°, 258°, 115°
Sept. 20 am	338°, 319°, 259°	199°
Sept. 21 noon	299°	None

#### References

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McDermott, J. (2010) Beach oil spill clean-up begins. Southend Echo Wednesday September 22, 2010, p.1, 8-9.

Thomas, E. (2010) ship's oil spill closes beaches. Southend Echo Tuesday September 21, 2010, p.1, 8-9.



# Fifteenth Annual International Sea-bean Symposium Review October 22<sup>nd</sup> & 23<sup>rd</sup>, 2010, Cocoa Beach, Florida

by Margie Mitchell, margiemitchell@cfl.rr.com

I admit it. I'm a weather nerd. My favorite tv show is "Weather on the 1's." My internet favorites bar is full of weather and hurricane sites. So when I heard that the keynote speech for this year's symposium would be "A Weather Map for Finding Seaside Treasures," I was thrilled! What more could a beachcombing weather nerd want?

Our weather expert was John Pendergrast, Senior Meteorologist with the National Weather Service in Melbourne, Florida. Fortunately, he is also a Drifter and an avid sea-beaner, so he knew exactly what we would all want to hear about.

John began by explaining why it is that Florida's East Coast is such a rich environment for sea-bean enthusiasts. The Florida Current, one of the strongest ocean currents on Earth, flows right up our shoreline. In it are all the little floaters that we love, which have been deposited into the ocean to the south of us in the hotbed bean producing regions of Central America and the Caribbean.

Most of the time, though, everything keeps floating right on by in the current and we can't get our hands on it. It takes just the right conditions to push it ashore and send us all out to the beaches to hunt. Optimal conditions include onshore winds that:

- are persistent (more than 36 hours in East Central Florida, somewhat less in South Florida where the Florida Current passes closer to the coast);
  - are strong (at least 10 mph, but 15 is even better);
  - have a long fetch (the better to scoop up more sea-beans on the way).

An active tropical season is a bonus because storms to the south of Florida will put a lot of sea-beans into the water to start with.

John also passed on a few weather-related considerations for a trip to the beach to look for flotsam; for example, tide activity (for the best wrack-searching strategy), wind direction (for ease of walking), and glare conditions (because debris is easier to search when it is back-lit). Now that he's told us all his secrets, we're going to get all the best beans before John can get out to the beach!

Our other presentations this year included a whole lot of new speakers and new topics. These included:

"Dr. Beachcomb," Deacon Ritterbush, joined us for the first time this year. On Friday she spoke about the archaeology of beachcombing, which gave us a completely new perspective on walking the beach. Knowing the history of an area, both natural and human, can definitely help a curious beachcomber understand what lies buried in the sand. On Saturday Dr. Beachcomb returned to speak to a packed house on the subject "Everything You've Always Wanted to Know About Sea Glass."

Dr. Blair Witherington reprised his popular talk, "A Sea-Bean's Journey," which documented a sea-bean's many adventures on its travels all the way from Colombia to our shores in Florida.

Dr. Curtis Ebbesmeyer gave us "The Origins and Fate of Florida Flotsam," including some thoughts on the BP oil disaster and where all that oil has gone.

David McCree provided a real change of pace with, "I Think it's a Jellyfish!" This talk grew out of his unplanned expertise in jelly fish identification, after people emailed over 600 jellyfish photos to his two web sites (www.BlogTheBeach.com and www.Beachhunter.net) for him to identify. He finished with some very practical advice about how to treat stings. See David's web sites for details.

What a variety of interesting and thought-provoking topics!

The Bean-a-Thon and Odd Bean contests this year were as much fun as ever. The Bean-a-Thon this year was a ladies' sweep!

- Most species Torrey Cranston (27 species)
- Cool Bean Lisa Kitchens (Guava fruit)
- Non-Bean Terri Kirby Hathaway (flip flops with heart imprints on the soles; when this little girl left only her footprints, they were hearts.)
- Young Beaner Emily Hamilton

And, oh yes, the Odd Bean contest was also a ladies' sweep:

- Reddest Seaheart Sam Burnett
- Thinnest Hamburger Elaine Norton
- Flattest Nickarnut Nan Rhodes



Here's a challenge to the guys for next year: Can you win even a single category?

#### Exhibitors included:

- Krieger Publications' nature and beach books;
- Cathie's sandbox and identification boards;
- Dr. Beachcomb's collection of books, sea glass, and other interesting beach artifacts;
- Jim Angy's latest nature photographs (including a *very* true-to-life shot of a sea turtle hatchling about to devour a sea-bean!);
  - Curt Ebbesmeyer's trash;
  - Alice Lowe's live sea-bean polishing demonstration and giveaways;
  - Nan Rhodes' amazing jewelry and living sea-bean plants;
- Elaine Norton and Carol Agnew's beautiful color-sorted sea glass, with information sheets explaining the origin of each color;
- Blair and Dawn Witherington's book, cards, sea-bean identification boxes, and exotic beach finds;
- Bill Blazek's latest novel display idea for his vast sea-bean collection: a Ferris wheel! And not only that, but Bill himself "became" a sea heart for the day on Saturday.



As always, thanks to everyone who helped plan, organize, set up, clean up, and make it all run smoothly. Nan Rhodes' t-shirt design was as clever and popular as always. The raffle prizes so generously donated by so many of the Drifters were as overwhelmingly cool as they are every year. Thank you all so much!

It almost goes without saying that a good time was had by all. If you weren't there, we missed you. Come next year and we'll do it all again. We'll see you on October 21<sup>st</sup> and 22<sup>nd</sup>, 2011, at the Cocoa Beach Public Library.



## **Stalking the Golf Ball Seabean**

by Gerald Sullivan, geraldsully@yahoo.com

One day in June, we had a hefty amount of sargassum wash ashore on our beach in Port Aransas, Texas, laden with treasures. Holy Longhorn! What was that at the sargassum/water line? Perhaps a rare or never before reported large, round and white seabean! Nah, just a Wilson ProStaff #3. Wow, what a disappointment! But wait, there is another one fifteen feet away, and another, and another, until I had a total of five. I would have bagged seven if it weren't for an obvious non-beaner who pocketed two.

I momentarily gave some thought from whence they came. Possibly launched from a golf ball driving pad on a passing luxury cruise liner, but we have none in our region. Maybe they bumped along the Gulf's bottom from the Caribbean with an army of invading rocks, sand and shells, but probably simply lost overboard at sea.

In the sweltering heat of the following August, I briefly observed a middle-aged man swatting golf balls far out into the Gulf with a selection of irons and woods. Upon the completion of whacking the balls from the beach, he retired to his beach chair and retrieved his reading material; I continued on my seabean adventure without a second thought. Sorry to say, but no one has ever claimed that I was smart or quick of mind. Some six months later, I finally figured out how genius this might have been. Could it be the swinger would rely on the incoming tide to recover his golf balls, and then whack them all over again and again, ad infinitum? This trick may be old hat to y'all, but it was a first for me. I've never had the balls to test that theory, but in order to sort of satisfy my curiosity, the following was conducted; a Titleist 2 (HP 2 Performance), a beach-wrack souvenir, was tested in authentic Gulf of Mexico water in a blue-tinted plastic drinking vessel and was observed to exhibit a slight buoyancy or lift, perhaps a millimeter or less off the bottom. This made it bouncy and lively when the salty water was ever so slightly agitated. When its performance was tested in regular tap  $H_2O$ , it was simply "El Sinko" as many golfers would attest. Therefore, it was concluded that those golf balls hit into the Gulf would easily be washed ashore with the incoming tide aided by this miniscule buoyancy factor.

The following April I asked a gentleman on the beach with a seven iron in his hand if he had ever driven golf balls into the surf. His answer was, "No," but said a friend had just presented him with approximately two hundred golf balls he had collected from a beach. Since I had interrupted a conversation between this man and a lovely female person, I discretely departed without further

inquiry. Drat it! Where, when, how long did it take, new or worn, etc., just a few unasked questions? Dang it!

On May 11<sup>th</sup>, we had an isolated patch of very old, dark brown, slurryed sargassum wash ashore that covered an area 3/5 mile long, 30 feet wide and from 1-to 3-feet in depth. Along with this decayed sargassum were copious amounts of sand, starfish galore, rocks, three true seabeads and some of the finest sea shells ever, as shown in the picture. Then it was like an Easter egg hunt all over again, but in this case a golf ball hunt. Slogging into the mucky beached sargassum up to my knees, I successfully collected a total of nine. The following day an



additional two were added. All seemingly appeared identical in size and color.

Please note in the picture the size of a USGA certified golf ball when compared to a normal size golf ball seabean, aka sea coconut (*Manicaria saccifera*), collected from the shores of Mustang Island. Sorry, just funnin y'all. That's the largest ever found here. It's quite apparent the teed up seabean doesn't really resemble a golf ball, so listen up. Gunn & Dennis pointed out on pg. 190, *World Guide to Tropical Drift Seeds and Fruits:* "Gray (almost white) stranded endocarps have an appropriate common name, golf balls." What they are making reference to is depicted as item B in figure 84, pg.191. You may have seen these before and not known what they were. Even though the sea coconut is one of the most prevalent drift seeds stranded on Mustang shores, the appearance of the denuded endocarp is rare; I've found only two and was baffled since all that remains is a thin-shelled, white to off-white inner bony layer. The two I found were devoid of the coconut-like layer of the inner chamber.

One was highly sun bleached, the other a dirty tan.\* See picture. Perry & Dennis (*Sea-Beans from the Tropics*, pg.159) further states, "This name seems reasonably appropriate since many of the seeds are golf ball-sized and can be used by golfers to practice their swings. Once hit they shatter into hundreds of pieces." They were making reference to the totally intact sea coconut, not the endocarp. So if you spot a roundish, whitish, golf ball sized object in the wrack, it might be worth your while to check it out.

\* As this article was readied for press, a brilliantly bleached golf ball endocarp washed ashore on September 4, 2010, at marker 39 increasing the overall total to three.



