Carolinas Beach Vitex Task Force Archived Announcements

J U L Y - D E C E M B E R  2 0 0 6

July 8 Charleston, SC Channel 2 WCBD aired a report on beach vitex at Isle of Palms and its potential negative impact to sea turtle nesting habitat. Task Force and Isle of Palms Turtle Team volunteer, Bev Ballow, was interviewed.

July 20 Carolinas Beach Vitex Task Force volunteers were asked by the mayor to survey 4 mile long Pawleys Island for the invasive plant. Pawleys Island adopted a beach vitex ordinance last winter stating that property owners must not allow the plant to spread to adjacent properties or east of the OCRM critical line (or the front face of the dunes). Volunteers found 53 sites that were in violation of the ordinance.

July 22 A loggerhead sea turtle nested under a stand of beach vitex on a newly renourished dune at DeBordieu Beach in Georgetown County, SC. The nest was not initially located by volunteers until 2 days after it was laid because of the difficulty in finding the eggs in the beach vitex runners. In several weeks, after the nest has stabilized, it will be moved to a location free of vegetation. Beach vitex runners had already grown over the nest in just a week.

July 24 The Carolinas Beach Vitex Task Force received official notification from the National Fish and Wildlife Foundation that a grant in the amount of $133,005 has been awarded for eradication of beach vitex and restoration with native dune plants on 50 sites north of Charleston harbor. It will be administered by Clemson University’s Baruch Institute of Coastal Ecology and Forest Science. This funding is an important step in furthering the goals of the Task Force.

August 3 A press conference was held at a test site at Pawleys Island, where beach vitex had been eradicated, to announce receipt of the National Fish and Wildlife grant for $133,005. Several local and area newspapers and television stations came to cover the event.

A sea turtle nest grown over by beach vitex will be moved after it has stabilized.

Pawleys Island press conference
August 7 A press conference was held at the South Carolina Aquarium in Charleston to announce the 10 recipients of the National Fish and Wildlife Foundation’s Savannah-Santee-Pee Dee Resource Protection Fund grant. This grant was designed for the conservation, management and protection of fish, wildlife, and the plants and habitats upon which they depend in these watersheds. South Carolina received $2 million of the total $10 million. These dollars are earmarked for coastal restoration/preservation. Betsy Brabson, SC coordinator for the Task Force, was present to receive the $133,005 grant on behalf of Clemson University. The funds will be used to eradicate beach vitex from 50 beachfront sites north of Charleston Harbor and restore the dunes with native vegetation.

August 8 The Charleston Post & Courier featured an article on the NFWF grant.

August 10 Coastal Observer (Pawleys Island, SC) reporter Jackie Broach attended the Task Force press conference on Aug. 3 and wrote an article entitled Herbicide found to battle beach vitex.

August 16 A loggerhead sea turtle nest laid in beach vitex at DeBordieu Beach on July 22 was successfully moved to a location free of the invasive plant. Volunteers could not initially find the nest and missed the window of time in which the eggs can safely be moved. The SC Dept. of Natural Resources advised waiting 2-3 weeks to allow the nest to stabilize. The nest, containing 116 chalky white expanded eggs, was relocated to the slant of a dune free of vegetation. In 26 days beach vitex had completely covered the nest, demonstrating how detrimental this plant can be sea turtle nesting habitat.

August 22 Isle of Palms (SC) City Council passed a resolution approving and supporting the findings of the Isle of Palms Beach Advisory Committee regarding beach vitex.

August 23 The Beaufort (SC) Gazette featured a front page story, Invasive plant could threaten turtles – group aims to eradicate beach vitex along SC coast, written by Sandra Walsh. This article was picked up the following day by The State (Columbia, SC) newspaper.

September 11 BASF Corp., a Carolinas Beach Vitex Task Force partner, hosted a Microsoft Office Live Meeting entitled How to Implement an Early Detection & Rapid Response Program. It was sponsored by the Coalition for Eastern Invasive Plant Species Control (CEIPSC). The session involved participants from all over the country who were interested in developing an EDRR program. Participants called in by phone and were able to watch Power Point presentations on their computers be narrated by speakers. Betsy Brabson was one of three featured speakers and spoke about the Carolinas Beach Vitex Task Force.

September 12 Betsy Brabson, Task Force coordinator, spoke about sea turtles and beach vitex to the Tradition Garden Club, Litchfield Beach, SC.
**September 21** The Myrtle Beach Sun News featured an article about beach vitex entitled *Beach towns battle onslaught of plant*. The community of Topsail Island in NC is gearing up to fight the invasion of “Kudzu of the Coast”.

**September 29** Seventeen volunteers met at Hobcaw Beach in Georgetown County, SC, for the 3rd Annual Beach Vitex Eradication Day. This 2 mile stretch of pristine beach, adjacent to DeBordieu Beach, is repopulated each summer with hundreds of seedlings. Volunteers dug up 189 seedlings to prevent spread. A number of larger plants were also flagged for Clemson technicians to go back and use the effective ‘hack and squirt’ method of eradication. The group of volunteers celebrated a successful morning’s work afterwards with lunch from ‘Kudzu Bakery’.

![Volunteers dig up 189 seedlings to prevent spread of beach vitex during the 3rd Annual Beach Vitex Eradication Day.](image)

**September 2006** As a result of the July news conference announcing the National Fish and Wildlife Foundation grant, letters sent to beachfront property owners on Pawleys Island and Litchfield Beach, SC, and an article in the DeBordieu Colony Newsletter, the Baruch Institute received about 100 calls from owners asking to have their property considered for inclusion in the grant. Field surveys of Litchfield By the Sea, Prince George and DeBordieu located additional sites. From this list a field evaluation was accomplished on about 130 properties on Sullivans Island, Isle of Palms, DeBordieu, Prince George, Pawleys Island, Inlet Point, Litchfield, North Litchfield, Garden City and a portion of Horry County. From the field evaluations, 21 sites (groups of individual lots) were selected that include about 63 properties. Permission letters were sent to most of the owners and herbicide injection began on September 18. A crew of a full time technician and 10 part-time students are in the field generally with the technician and four students each day. Recent discussions with BASF herbicide representatives indicated that this field injection could continue past leaf fall. Clemson plans to continue herbicide application up to the Christmas holidays.

So far, everybody selected has either called in and asked to be on the list or readily agreed to be included when asked. North Myrtle Beach was recently surveyed and no beach vitex was found. The only weak link in the system is finding locations of oceanfront beach vitex in Horry County. Fortunately, the Myrtle Beach City Administrator has offered support in scouting the remaining beaches.
Muse, a magazine about science, art and history geared to children 10 and up, featured a six page article on beach vitex in their July/August edition entitled *Invasion of the Vines – A Fine Solution Creates a Vine Problem*. The article was written by Kathleen Angione, NC Sea Grant and illustrated by Robert Byrd. Muse is published by Carus Publishing Co., Chicago, which also publishes Smithsonian Magazine.

**October 1** The Georgetown (SC) Times featured a front page story by reporter Clayton Stairs, *Volunteers help with beach vitex eradication day on Hobcaw Beach*.

**October 4** The Moultrie News of Isle of Palms, SC, ran an article about the invasion of kudzu near Breach Inlet on the island. Kudzu is prevalent in upstate South Carolina but rarely seen near the beach. Beach vitex has been compared to kudzu because of its’ ability to spread quickly and take over areas, choking out all other vegetation in its’ way. Both plants are originally from Asia and were brought to the US to control erosion. The Isle of Palms Beachfront Advisory Committee is looking into methods of control/eradication.

**October 5** The Pawleys Island Coastal Observer also covered the eradication of beach vitex seedlings on Hobcaw Beach with Jackie Broach’s article *Vitex persists, but so do volunteers*.

**October 9** Undergraduate students from the University of North Carolina-Asheville, studying oceanography and meteorology, visited The Belle W. Baruch Institute at Hobcaw Barony in Georgetown, SC. Their focus was on beachfront dynamics and the issues that homeowners have to deal with when living on the beachfront. The students visited nearby DeBordieu Colony to see a newly renourished beach where sand had been pumped from a site 3 miles out in the ocean. Task Force coordinator Betsy Brabson spoke about beach vitex because of its’ impact on native dune vegetation and sea turtle nesting habitat.

Forestry students from Horry-Georgetown Technical College, working on the beach vitex eradication project, received herbicide safety training at the Georgetown campus from Clemson Extension agent, Carlin Munnerlyn. Those heading up the project and the students left the session with a clearer understanding of how to protect themselves and an appreciation of how serious the issue is of safety in the field.

**October 18** *Vitex task team takes on Sullivans*, was the headline of an article that appeared in the Moultrie News (Mt. Pleasant, SC). The article, written by Jenny Peterson, documented the eradication efforts of Clemson University in ridding Sullivan’s Island of beach vitex. Funding for the project came from the special grant from the National Fish and Wildlife Foundation.
**October update from NC Vitex Task Force:** Work continues with coastal communities to address beach vitex. At the October meeting of the Brunswick Beaches Consortium, Dr. Gene Douglas asked NC Task Force coordinator David Nash to give a report on the Bald Head Island beach vitex eradication project. The hand removal of the invasive plant on the island has gone extremely well. This was followed up with herbicide applications (glyphosate with surfactant) to control regrowth from seeds and plant parts. The glyphosate has been effective in killing the regrowth and it appears that Bald Head Island has won the war on beach vitex. All locations where the plant was found on the island will continue to be monitored for seedling regrowth and treated with herbicides as needed. Nash be working with the town of Topsail Island in November to provide instruction for beach vitex removal. They will be using inmate labor to hand remove the beach vitex and will follow up next spring with herbicide applications to control any regrowth. Because of the success on Bald Head Island, Nash plans to use it as a model when working with other beach towns in NC to control beach vitex.

The Island Gazette (Carolina Beach, NC) featured a story Beach Vitex Threatening Coastal Sand Dunes & Native Plants in its' October 26 edition.

**November 2006** The Pawleys Island Town Council voted to add $15,000 to the 2007 budget for additional beach vitex eradication. Dr. Chuck Gresham, Clemson’s Baruch Institute of Coastal Ecology and Forest Science, requested the money which will be matched with a larger grant. This funding will enable Gresham/Clemson to completely eradicate the invasive plant from Pawleys Island. Currently, Clemson is working under a special grant from the National Fish and Wildlife Foundation eradicating beach vitex from 42 properties on the island.

**November 2** The Coastal Observer ran an article on beach vitex Island assault on invasive dune plant in full swing documenting Clemson University’s eradication efforts.

**November 2-3** The 33rd Annual Conference on Ecosystems Restoration and Creation was on the Hillsborough Community College campus in Plant City, Florida. Natural resource managers and scientists from the southeast gathered to present papers about their restoration projects in marine, estuarine and terrestrial ecosystems. Dr. Chuck Gresham of Clemson presented a paper on the biology beach vitex and their current restoration project. Fortunately, few people attending knew of the problem, but all understood the necessity of eradicating invasive species given the large number of invasive species in Florida.

**November 9** The Georgetown (SC) Times featured an article entitled Beach vitex eradication project to be done by spring written by reporter, Clayton Stairs.

The progress of the beach vitex eradication project was highlighted on the 6/11 news on Channel 15 WPDE, Myrtle Beach, SC.

The Georgetown (SC) Times ran an article about Pawleys Island Town Council’s addition of $15,000 to their 2007 budget for further eradication of beach vitex.

**November 22** The Carolinas Beach Vitex Task Force submitted a preproposal to the National Fish and Wildlife Foundation for its’ fourth Pulling Together Initiative grant. Notification was received inviting the Task Force to submit a full proposal. The deadline is December 15, 2006.
**November 30** Dr. Chuck Gresham, Clemson’s Baruch Institute, was asked to submit a progress report to the Fish and Wildlife Service regarding the National Fish and Wildlife Foundation’s SSPD grant. The beach vitex eradication/restoration project is one of 10 recipients under this grant asked to update accomplishments.

**December 2006** Clemson University featured an article on beach vitex in the fall issue of IMPACTS, showcasing the University’s public service activities. The article focused on Clemson’s receipt of the National Fish and Wildlife Foundation’s SSPD grant which enables the eradication of 50 sites of beach vitex north of Charleston Harbor. In spring 2007, dunes will be replanted with native vegetation. Dr. Chuck Gresham, Clemson’s Baruch Institute of Coastal Ecology and Forest Science, is overseeing the project.

**SSPD Grant update** During December staff of Clemson’s Baruch Institute finished injecting beach vitex found on lots on the ‘A’ list. Beginning September 26th, a supervisor and from one to seven student laborers were on the beaches four days a week injecting. During that time, 75 properties were treated on Sullivans Island, Debordieu Beach, Pawleys Island, Litchfield, Litchfield by the Sea, North Litchfield, and Garden City. A total of 533 man hours of labor (not including the supervisor’s time) were needed to treat a total 4.8 acres of beach vitex covered property. The crew injected about 27.5 gallons of the herbicide mixture by daubing a foam paint brush with the herbicide mixture in a shallow wound in the plant’s stem. The injection phase cost roughly $287 per average lot or $4,446 per acre of beach vitex. Although it is too early to assess how completely the beach vitex was killed, we have seen positive signs already on several of the treated lots.

Also during the fall, Clemson staff accumulated a list of properties that have beach vitex but do not pose an immediate threat to the frontal dunes. To date, this list includes about 67 lots with a total beach vitex area of approximately 3.7 acres. These properties extend from Myrtle Beach south to Sullivans Island. Clemson staff is currently putting cost estimates together to extend the current eradication and dune restoration work to include these additional sites. Clemson staff intends to search for beach vitex on developed and undeveloped beachfront areas that have not been examined. This search would also include beaches south of Charleston that are not monitored by the sea turtle volunteers. The plan is to approach local conservation foundations to give them the opportunity to fund beach vitex eradication in South Carolina. The Town of Pawleys Island has already given initial approval to providing $15,000 in seed money to help secure funds for the eradication. Ideally, the money will be in place by the summer so the field crew can start injecting the new sites as soon as they finish planting the currently treated sites.
FOR IMMEDIATE RELEASE
Contact:  Betsy Brabson (843)546-9531
          Chuck Gresham (843)546-6314

CAROLINAS BEACH VITEX TASK FORCE ANNOUNCES ERADICATION GRANT

The Carolinas Beach Vitex Task Force announced Thursday, August 03, 2006, that they have received a grant from the National Fish and Wildlife Foundation to eradicate the invasive shrub beach vitex from at least 50 beachfront locations in Charleston, Georgetown and Horry Counties. This grant will greatly advance the goals of the Task Force by providing the resources to remove the plant from the frontbeach and to re-establish native dune vegetation.

Beach vitex is an exotic invasive shrub that has been planted on the front dunes of South Carolina's beaches beginning in 1990 when the dunes were rebuilt after being destroyed by Hurricane Hugo. Since then, the plant has spread to locations where it was not planted. Recent research by Clemson University has shown that vitex covered dunes do not support native dune species. Also, volunteers monitoring sea turtle nesting are concerned that vitex stems covering the dunes and growing on the front beach may deter female sea turtles from digging a nest and laying eggs, and may trap hatchling turtles when they emerge from the nests.

The National Fish and Wildlife Foundation and the U.S. Fish and Wildlife Service manage funds for the conservation, management, and protection of fish, wildlife and plants and the habitats upon which they depend in the Savannah-Santee-Pee Dee Ecosystem. These funds, as administered by the Foundation, are comprised of restitution monies or court-ordered settlements resulting from violations of Federal environmental laws. Payments into the fund are the result of settlements from both civil and criminal cases and are paid in addition to any fines levied on the defendants payable to the U.S. Government, states, and courts.

In April of 2005, the National Fish and Wildlife Foundation received $2 million into the Savannah-Santee-Pee Dee Resource Protection Fund, the largest deposit of restitution monies to date. The National Fish and Wildlife Foundation and the U.S. Fish and Wildlife Service issued a call for proposals earlier this year for environmental projects that incorporate an on-the-ground resource benefit, with emphasis on habitat improvement or restoration, species conservation or protection, or environmental education. The Task Force submitted a proposal through Clemson University to the Foundation with four goals directed toward dune restoration and was notified by the Foundation of their grant award on Monday, July 24th, 2006. The total grant, to be administered by Clemson University at the Baruch Institute of Coastal Ecology and Forest Science in Georgetown, is for $133,005 and will cover a 12-month period of work.

The Task Force will initially identify 55 beachfront locations of vitex in Charleston, Georgetown, and Horry counties using a list of 11 criteria for site selection. Site
selection is slated to begin in September. After obtaining the property owner's written permission for restoration work on their beachfront properties, researchers involved with the Task Force will treat the vitex plants by injecting herbicide directly into the vitex stems growing on the beachfront site. After a period of 6 months, the plants will die and the herbicide will become inactive. The Task Force will then remove the dead vitex stems and plant sea oats and bitter panicum (both native dune species) in the treated areas. Following the restoration of the dune vegetation, the lot owner will receive written reports and recommendations for follow-up actions. The grant funding will pay for all of the treatments including the replanting.

The Town of Pawleys Island has supported this project since its inception and is the project is the natural follow-up to the Town's Beach Vitex ordinance, requiring property owners that have vitex to keep the plant trimmed at the property boundaries and off the front face of the frontal dune. Since Pawley's Island has the most know locations of vitex, most of the eradication work will be done here on Pawley's Island. Beachfront property owners interested in having their property considered for restoration should call the Baruch Institute at 843 546-6314. This dune restoration project will have the double benefit of ridding Pawley's Island of this aggressive plant and also increasing the prevalence of the signature sea oat covered dunes that vacationers come to see every summer.

**Carolinas Beach Vitex Task Force Partners:**

BASF Corporation  
Clemson University  
Natural Resources Conservation Service  
The Nature Conservancy  
North Inlet-Winyah Bay National Estuarine Research Reserve  
North Carolina Cooperative Extension Service  
North Carolina and South Carolina Sea Turtle Networks  
SC Department of Health and Environmental Control—Office of Ocean and Coastal Resource Management  
SC Department of Natural Resources  
SC Department of Parks, Recreation and Tourism  
SC Native Plant Society  
University of South Carolina  
US Army Corps of Engineers  
US Fish and Wildlife Service  
US Geological Survey
Beaches and birds and bass, oh yes
Fines levied for pollution be container ship fund conservation projects
Tuesday, August 8, 2006

The Post and Courier
Crab Bank will have a warden. The Ashley River will get striped bass, at least for a while. Fifty beaches will get stripped of a kudzu-like weed.

Think of it as payback.

Those projects and seven other conservation efforts will be funded by fines paid by the Evergreen International container ship company for concealing the deliberate discharge of waste oil by a ship sailing into Charleston Harbor. Nearly $2 million has been distributed here by the National Fish and Wildlife Foundation.

The money is part of $10 million given out for restoration projects at five harbors nationwide as part of a $25 million fine paid by the company last year. The fine is the largest ever paid for intentional pollution by vessels. The restoration money is "by far the largest deposit of money ever made to this foundation," said Tim Hall, U.S. Fish and Wildlife Service field office supervisor.

"It's a fitting conclusion to an important case. In these sorts of crimes, it's very hard to identify the perpetrator and take steps toward remediation. We identified the perpetrator on a national scale, and these grants go to remediating (the damage)," said Chief Assistant U.S. Attorney Kevin McDonald.

The ship Ever Refine was found to have doctored records of oil discharges during four visits to Charleston from October 2000 to May 2001. A pump was found aboard that bypassed required pollution control equipment, discharging pollutants directly into the water. The Ever Refine was among at least seven company ships found to bypass the equipment.

The company said discharges occurred only in international waters and violated its policy.

Evergreen is still being investigated for a 2002 spill of 12,500 gallons of fuel into the Cooper River that polluted more than a dozen miles of shoreline from the Navy base to Folly Beach and fouled wildlife, boats, creeks, marshes and piers. Oil had to be cleaned from the feathers of 25 pelicans on the Crab Bank rookery in Charleston Harbor.

So there was a touch of putting-it-right that National Audubon Society was given a $154,402 grant from the fine to pay for a warden who will patrol Crab Bank, Bird Key in the Stono River and Deveaux Bank off Seabrook Island, publicly owned breeding grounds for brown pelican and other disappearing shorebirds. The islands are off-limits to boaters during the summer nesting season, but enforcement has been difficult.
A $287,725 grant to the S.C. Department of Natural Resources will pay to reintroduce striped bass, the popular game fish, to its historic habitat in the Ashley River, where no more than one or two of the fish have been found in counts in recent years.

"Even if the striped bass don't make it in the Ashley, the techniques we learn will be used to reintroduce them in other areas," said DNR biologist Wallace Jenkins.

And a $133,005 grant to Clemson University will pay for the Beach Vitex Task Force to begin pulling out the invasive weed and restoring natural growth on 50 stretches of beach where vitex spreads a rootless mat so thick that sea turtles can't get through to lay their eggs, native plants such as sea oats are killed and the dunes erode.

"We're thrilled. This is the first significant money other than operating funds that we have gotten. It's going to enable us to make good on our promise to the public to get rid of beach vitex," said Betsy Brabson, task force South Carolina coordinator.

**Evergreen International pollution fines**

Ten conservation projects in South Carolina have been funded with $1.9 million from penalties assessed against Evergreen International for concealing illegal oil waste discharges by a container ship that ported in Charleston from October 2000 to May 2001. The projects are:


--$287,725. Striped bass population restoration. S.C. Department of Natural Resources. To reintroduce striped bass to the Ashley River and study genetic diversity of the fish.


--$248,425. South Carolina sea turtle rescue program. South Carolina Aquarium. To add a staff member, improve capacity and educational outreach of the sea turtle rehabilitation hospital.

--$184,162. Savannah River wetland restoration. City of North Augusta. To restore river wetlands at a reclaimed borrow pit where the city is building a traditional neighborhood.

--$154,402. South Carolina shorebird conservation project. National Audubon Society. To hire a warden for Crab Bank, Bird Key and Deveaux Bank and conduct year-round census of piping plover and other shorebirds in 15 critical habitats.

--$133,005. Large-scale dune plant community restoration. Clemson University. Eradicate invasive beach vitex from 50 beach sites north of Charleston Harbor, expected to include sites on Sullivan's Island and Isle of Palms.
--$107,888. Foraging ecology of oystercatchers. Clemson University. To study oystercatcher foraging in Cape Romain and other sites to help re-establish populations.

--$104,719. Oyster habitat restoration. DNR. For ongoing restoration of oyster beds and to study wading birds’ use of oyster reefs.

--$76,911. Oyster reef restoration re-evaluation. Coastal Carolina University. To improve site selection and crops of DNR's oyster reef restoration.

Reach Bo Petersen at 745-5852 or bpetersen@postandcourier.com.
The dunes at 564 Myrtle Avenue are barren—just a few brown and brittle twigs poking up from the sand. It’s huge contrast from the dunes, covered in lush silvery green leaves and purple flowers, that front the homes on either side of the Pawleys Island residence and for members of the Carolinas Beach Vitex Task Force, that nakedness represents a phenomenal success.

The task force, with help from Clemson University and the National Fish and Wildlife Foundation, has been working to eradicate beach vitex on the Carolina coast and the dunes at 564 Myrtle Avenue may be proof that a successful method has been found.

The vitex that existed on that property was injected last fall with a herbicide specially created for control of invasive vegetation in an aquatic habitat.

It was applied directly to the beach vitex plants, by injection into the stems, so the herbicide didn’t affect any of the plants growing near to those that were treated.

The herbicide’s low toxicity rate means that it won’t harm marine life, such as sea turtles that nest in the dunes, fish, shrimp, crabs or other animals.

“This is just the start,” said Betsy Brabson, South Carolina coordinator for the task force.

A $133,005 grant awarded to Clemson University’s Baruch Institute of Coastal Ecology and Forest Science at Hobcaw Barony will be used to continue efforts to eradicate beach vitex using the aquatic herbicide and eventually restore native dune plants, such as sea oats and panic grass. The grant will fund eradication and restoration on at least 50 beachfront sites in Charleston, Georgetown and Horry Counties in the next year.

The grant is part of nearly $2 million distributed in the state by the National Fish and Wildlife Foundation. The money comes from fines paid by the Evergreen International container ship company for concealing the deliberate discharge of waste oil by a ship sailing into Charleston Harbor.

“It is great that something negative can be turned into something very positive for South Carolina’s coastline,” Brabson said.

Clemson and the task force will put their portion of the money to work in September, when sites are selected for the project.

THE TASK FORCE will initially identify 55 beachfront locations where vitex is present by using 11 criteria for site selection. After obtaining the property owner’s written permission for restoration work on their beachfront properties, task force researchers will treat the vitex plants by injecting herbicide into the stems.

After six months, the plants will die and the herbicide will become inactive. The dead vitex will be removed and native plants will be planted.

After restoration is complete, the property owner will receive written reports on the process and follow-up instructions to care for the new plants. There will be no cost to the property owner.

“We’re excited about this grant and we believe it will have a big impact on our efforts to get rid of this plant on the coast,” Brabson said.

Pawleys Island Mayor Bill Otis said he hopes property owners will take full advantage of the grant by applying to have their property considered for the project.

He said he hopes this project will be a major step in completely ridding Pawleys Island of beach vitex.

Property owners who would like their beachfront properties considered for restoration are asked to call the Baruch Institute, 546-6314.

Since its introduction to the South Carolina coast about 15 years ago, beach vitex has taken over. The plant, officially known as vitex rotundifolia, is an exotic invasive shrub that was planted on the front dunes of South Carolina’s beaches in 1990 when the dunes were rebuilt after being destroyed by Hurricane Hugo in 1989.

Beach vitex has crowded out native species and has spread across the coast.

In addition to its effects on native plant species, volunteers monitoring sea turtle nesting are concerned that vitex stems covering the dunes and growing on the beach front may deter sea turtles from digging a nest and laying eggs, and may trap hatchling turtles as they emerge from nests, said Brabson, who is also a volunteer with South Carolina United Turtle Enthusiasts.

In addition, Clemson officials said research does not support beach vitex as a solution to erosion. While it has had some effects, those effects are not consistent, said Chuck Gresham.

Even in the instances in which beach vitex has had a positive impact on erosion control, “the negatives far outweigh the positives,” Brabson said. “It’s still a very bad thing for our coastline.”
Brabson said the replanting of native plant species would be used to help control erosion and build the dunes, which serve as a first defense against hurricanes and storms for coastal residents.
RESOLUTION

BY THE CITY COUNCIL OF THE CITY OF ISLE OF PALMS, SOUTH CAROLINA, APPROVING AND SUPPORTING THE FINDINGS OF THE ISLE OF PALMS BEACH ADVISORY COMMITTEE

IT IS RESOLVED BY THE CITY COUNCIL FOR THE CITY OF ISLE OF PALMS, SOUTH CAROLINA, THAT:

WHEREAS, the beach on the Isle of Palms is one of South Carolina’s most valuable natural resources, providing areas for recreation, an attraction for tourists and other visitors and providing a significant boost to the City, Charleston County and regional economy; and

WHEREAS, the plant known as beach vitex (Vitex rotundifolia), a species not native to North America, has been found growing in sand dunes on the island; and

WHEREAS, the City’s Beach Advisory Committee has made an extensive study of beach vitex, finding that this plant is a rapidly growing species that destroys native vegetation and inhibits the natural growth of sand dunes, and further, that ongoing research conducted by the 2005 Carolina Beach Vitex Task Force has presented preliminary data indicating that beach vitex is less efficient at inhibiting dune erosion than natural vegetation; and

WHEREAS, the Isle of Palms beaches are important nesting areas for the federally threatened loggerhead sea turtle (Caretta caretta) and beach vitex may interfere with nesting success; and

WHEREAS, the spreading and persistence of beach vitex will cause harm to important uses of the City’s beaches; and

WHEREAS, based upon research and the 2005 Carolina Beach Vitex Task Force’s preliminary findings, ten (10) communities in North and South Carolina have enacting restricting ordinances against beach vitex;

NOW, THEREFORE, BE IT RESOLVED that City Council, in meeting duly assembled, accepts and supports the following findings:

The plant known as beach vitex (Vitex rotundifolia) is hereby found and declared to be a public nuisance, due to the significant negative impacts this plant has placed upon the public beaches and dunes of both the City of Isle of Palms and South Carolina.

Beach vitex shall not be planted on any property located in the City of Isle of Palms. Any existing or future beach vitex should be eradicated by repeated use of over-the-counter weed killing spray, until the entire plant and root system has been destroyed.
PASSED AND APPROVED BY THE CITY COUNCIL FOR THE CITY OF ISLE OF PALMS, SOUTH CAROLINA, ON THE 22nd DAY OF AUGUST 2006.

________________________________________
F. Michael Sottile, Mayor
(SEAL)
ATTEST:

________________________________________
Lisa Darrow, City Clerk
Invasive plant could threaten turtles
Group aims to eradicate beach vitex along S.C. coast
Published Wed, Aug 23, 2006
By SANDRA WALSH
The Beaufort Gazette

A nonprofit formed to eradicate an exotic species of plant is taking aim at the vine that has wreaked havoc on South Carolina's coast for more than a decade and threatens nesting sea turtles and hatchlings.

Carolinas Beach Vitex Task Force is hunting the invasive exotic plant from the Pacific Rim introduced to the Southeast in the mid-1980s when it was used to stabilize eroding beaches.

But beach vitex has been shown to choke out plants native to the Southeast and also has proven to be an enemy of sea turtles.

"It was first planted with the best intentions, there was no malice intended," said Clemson University Associate Professor Chuck Gresham, in charge of the beach vitex eradication project. "What people don't seem to grasp is that you can't do a 20-year evaluation of (an exotic plant) in a year; they brought it in and it seemed to do good -- that's not the right thing to do."

According to the S.C. Department of Natural Resources Web site, beach vitex is altering the South Carolina shore "and may be costing the lives of newly emerged sea turtle hatchlings."

Hatchlings have become trapped in the thick vines on the Isle of Palms, according to the site, which could cause a newborn turtle to become exhausted and die before it reaches the water.

Sea turtles nest on South Carolina's beaches between May and August. Nests could hatch through October.

Although the plant hasn't been identified in Beaufort County, the task force has asked local sea turtle patrols to scour the area for the plant identified by its bluish-purple flowers.

"We patrol the entire beach. We keep an eye on it, and we haven't seen any yet," said Carlos Chacon, manager of the Sea Turtle Protection Project at Coastal Discovery Museum on Hilton Head Island.

Jeff Atkins, Hunting Island State Park manager, said there have been no reports of the plant at the park.
South Carolina's Beach Vitex Task Force Coordinator, Betsy Brabson said so far, the plant has been reported as far south as Edisto Island.

In September, the task force is teaming up with Clemson University's Belle W. Baruch Institute of Coastal Ecology and Forest Science in Georgetown to begin killing beach vitex at 55 beachfront locations in Charleston, Georgetown and Horry counties.

Money for the project comes from a more than $133,000 grant from the National Fish and Wildlife Foundation.

The yearlong project will focus primarily on Pawleys Island, the site where in 1990 beach vitex was first planted in South Carolina after devastation from Hurricane Hugo left the beach community searching for ways to stabilize its sand dunes.

"We're catching it early enough that we might be able to stop it," Gresham said. "If we take a good, hard lick at it with this project we can really knock it back."

Contact Sandra Walsh at 986-5538 or swalsh@beaufortgazette.com. To comment: beaufortgazette.com.
Beach towns battle onslaught of plant

By Chrissy Vick
McClatchy Newspapers

SURF CITY, N.C. - The beach towns of Topsail Island are gearing up to fight the invasion of the "Kudzu of the Coast."

Beach vitex sunk its treelike roots into the dunes of Topsail Island in the 1980s as a method of trying to stop dune erosion. But now, the plant could take over - much like the kudzu plant, which was brought from Japan to stop river erosion.

"We will never eradicate kudzu now," said David Nash, N.C. coordinator for the Carolinas Beach Vitex Task Force. "But with beach vitex, we still have a chance to stop it. If we don't, in 50 years we'll see vitex instead of sea oats on our dunes."

Beach vitex, or vitex rotundifolia, which hails from Korea and other countries in the western Pacific, threatens native dune plants and also sea turtle nesting areas. It has been reported on dunes across the Topsail Island and Bogue Banks.

"It's creeping into my yard from my neighbor's," said Surf City resident Donald Bossharts. "I spent all day cutting and chopping it out of my yard."

Town officials aren't yet sure how much beach vitex they have, but plan to identify it in coming months and work toward removing it. North Topsail Beach, Surf City and Topsail Beach have already passed a resolution to do so, according to Surf City Councilman Michael Curley.

Nash, a coastal expert with the N.C. Cooperative Extension Service, says towns should form a volunteer group to locate the plants, obtain grant money for the project and enforce an ordinance to remove it from town and private property.

The task force has already eradicated the plant from Bald Head Island and will monitor it for the next five years to ensure it remains wiped out. The project ended up setting the island back $100,000 when they realized how much beach vitex they really had, Nash said.

Bogue Banks is also currently looking into ridding its beaches of the menace.

Until such a project happens, Nash asks that beach residents who find beach vitex record its location and notify the task force or the town. He also educated Topsail Island residents on how to rid their property of the pest - but only after properly identifying it.

Many have confused it with other plants that have similar leaves, root systems or flowers. Homeowners have then pulled up established dune plants unnecessarily, which causes dunes to lose stability.

The woody shrub has round, silvery-green leaves with a light green underside and spicy smell. It produces purple flowers in the summer and a large amount of seeds, which can blow or wash down the beach and form a new plant. It is recommended that the plant be burned in a safe area after being removed, as even vitex mulch can re-grow.
The shrub can grow up to 10 feet or more a year and reaches up to 12 feet in diameter, producing runners 60 feet long.

"Every now and then I get a person who swears it's the best stuff," Nash said.

"But we know it's a problem."

**Online extra**

For information, visit the task force Web site at [www.beachvitex.org](http://www.beachvitex.org)
Volunteers help with beach vitex eradication day on Hobcaw Beach
By Clayton Stairs, cstairs@gtowntimes.com

Seventeen people came out Friday for the Beach Vitex Eradication Day on Hobcaw Beach on the southern end of DeBordieu Island. This part of the island is owned by the Belle W. Baruch Foundation at Hobcaw Barony. People from the Carolina Beach Vitex Task Force, South Carolina United Turtle Enthusiasts (SCUTE), the Baruch Foundation, the S.C. Dept. of Natural Resources (DNR) and the U.S. Fish and Wildlife Service met at 9 a.m. to sweep the dunes clean of seedlings from this non-native federal noxious weed. They ended up with a final count of 189 seedlings.

“Having this many hands and eyes to not only dig up what we found, but to help survey the larger plants is just amazing,” Carolinas Beach Vitex Task Force Chair Betsy Brabson said. “It is just nice to know we are getting ahead of the game down here.”

Beach Vitex, which is an attractive Asian plant with small purple flowers in the springtime, was planted on the east coast after Hurricane Hugo devastated the area in 1989. Since that time, the plant has spread to areas where it was not planted and scientists have found that it wipes out native species of marsh grasses and other plants which grow on our coast. It was designated a “noxious weed” by the federal government earlier this year and many beaches in South Carolina are trying to rid themselves of it entirely.

In this effort at Hobcaw Beach, seedlings were carefully dug out of the sand, with great care to remove all roots. Those plants that were too large to remove were tagged to be eradicated by a method called hack and squirt, using a powerful herbicide. Volunteers who explored Hobcaw Beach and dug up beach vitex seedlings with large root systems already in place, found out that this plant is more difficult to eradicate than they ever imagined. “The root systems, which can be extensive even in the seedling stages, just show you how this plant competes,” Brabson said. “It wants it all, and it spreads everywhere. Other dune plants just send out shallow roots and they don’t overpower other plants.”

Eileen Delorme has lived in DeBordieu Colony for five years and has been a volunteer with SCUTE for four years. She was also one of the 17 volunteers who worked to eradicate the plant Friday at Hobcaw Beach and says she learned a lot about beach vitex. “I never realized how dangerous and invasive this plant could be or just how enormous the problem is,” Delorme said. “It spreads into an open area and, like any weed, where it grows healthy plants can’t grow. If you care about the beach, you have to care about getting rid of this plant.”

Patty Perra has lived in DeBordieu for a year, and became involved with SCUTE this summer. She agrees that this eradication day was a learning experience. “I have spotted beach vitex before, but I didn’t know that it is so invasive and chokes out other good grasses,” Perra said. “I never realized how deep the roots went and how it spreads.”

Debbie Jones, who has lived in DeBordieu for four years, is also in her first year with SCUTE and became interested in making a difference concerning beach vitex after hearing about it from Brabson. “When turtles make a nest, they can get entangled in the roots of these plants and it is hard for the hatchlings to get out,” Jones said. “The roots are mighty long and we found that there was a lot more digging involved than we originally thought to get it out of the ground.”

Charlotte Hope, a biologist with DNR, came to the event to learn more about this plant. As part of her job, she oversees all the volunteers on beaches up and down the South Carolina coast, which includes Hobcaw Beach. “I needed to get an image of the plant in my head so when I go to other beaches I can pick it out,” Hope said. “I definitely learned a lot about how to identify them — by sight, smell and texture. I also learned a lot about its root system and how it spreads.”

George Chastain, executive director of the Belle W. Baruch Foundation, was also taking part in the eradication day. He says this effort is very important to this beach. “Our goal for the beach on our portion of DeBordieu Island is to manage it as a natural area and that means that we are managing for native plants,” Chastain said. “Beach vitex, being a non-native aggressive plant, it out-competes our native plants.” He adds that there is still some question about whether beach vitex holds dunes together as well as native grasses and until those questions are answered, that is a major concern. Another major concern is the safety of sea turtles and their hatchlings.

Chastain says that this effort would not have been possible without the many volunteers who gave up their time on a Friday morning. “We would never have the manpower to come out and do
what these volunteers are doing today,” Chastain said. “It is critical. It is always interesting to me when a community really takes on an issue like this and everybody is focused on the same issue.” He hopes that beach vitex will not follow suit after several other invasive species of plants that have gotten out of control, including phragmites and kudzu.

Brabson says she is excited to see how eradication events like this one will affect the future of beach vitex on our beaches. “Now these 17 people know what beach vitex looks like and they know how to identify it, so they can educate other people,” Brabson said. “They’ll be as invasive to get rid of it as the plant is to taking over the beach.”

For more information about beach vitex or the Carolinas Beach Vitex Task Force, visit their website at www.northinlet.sc.edu/resource/task_force.htm.
Known as “the kudzu of the coast” for its ability to spread rapidly, beach vitex is making a valiant attempt to take over South Carolina’s shoreline, but area volunteers are fighting back.

About 20 volunteers with the Carolinas Beach Vitex Task Force met on Hobcaw Beach on Friday for the group’s annual Beach Vitex Eradication Day.

As a requirement for one of the grants the group receives, volunteers come out every year to help clear the undeveloped beach of seedlings and attempt to stop the plant’s southern spread.

This year the volunteers spread out over two miles of beach and dug up 189 seedlings, an increase from 100 last year.

The group also flagged a number of larger plants, which will be sprayed with a herbicide.

“It’s like an Easter egg hunt,” said Betsy Brabson, South Carolina coordinator for the task force, as the group set out in search for the seedlings, scattered along the dunes.

The beach is part of Hobcaw Barony, a 17,500-acre preserve owned and managed by the Belle W. Baruch Foundation. It is also one of the most popular nesting spots for the loggerhead sea turtle, a threatened species.

“That makes it extremely important that we work to keep this plant off Hobcaw Beach,” said Brabson, who is also a member of South Carolina United Turtle Enthusiasts (SCUTE).

Beach vitex is an exotic, invasive shrub that was introduced to South Carolina about 15 years ago to help prevent dune erosion. It has spread along the coast, creating a problem for nesting turtles and hatchlings trying to make their way to the sea.

The plants have extensive root systems and grow in a thick sprawling mass that crowds out native plant species and renders it nearly impossible for turtles to dig nests in the dunes.

SCUTE volunteers fear this could deter turtles from nesting and lead some turtles instead to dump their eggs in the ocean.

The thick net of plants can also trap hatchlings trying to reach the ocean and can prevent volunteers from taking measures to protect newly laid nests.

Sea turtles lay their eggs in the early morning. Federal law requires volunteers to relocate nests by 9 a.m. the same day or leave the nest alone.

In a recent nesting season, Brabson said volunteers were unable to get to a nest in time because of vitex.

George Chastain, Hobcaw’s executive director, assisted the volunteers last week, and said he and others at Hobcaw are very grateful for the assistance.

He said the goal for Hobcaw is to have a natural habitat for animals, complete with native plants. That means there’s no room for vitex.

“It’s a tremendous help for us having these volunteers out here like this, because there’s no way we could have removed all these plants without them,” Chastain said. “We would never have enough people or staff to come and do it by hand, so their efforts are more appreciated than we can possibly even say.”

Research is still being done on whether beach vitex accomplishes what it was introduced to the Carolinas to do – prevent erosion of sand dunes.

But even if it is doing the job, Chastain said the negative impact on animals and native plants wouldn’t be worth the benefits, at least not at Hobcaw.

While the plants may look small and fragile as seedlings, Brabson said their root systems make them very difficult to get rid of. A plant that stands 4 inches tall, may have a root that is 6 inches deep.

As the plants mature, they also begin to spread, making it even more difficult to pull up the entire root. If a portion of the root is left behind, the plant can sprout again.

“If someone weren’t out there trying to get rid of those plants, I think the environmental impact would be huge. It would spread until all the native plants deserted the dunes and that would make a tremendous difference,” said Susan Huray, a DeBordieu resident who volunteered with her husband, Paul, to help with the eradication.

Beach vitex can be identified in several ways, Brabson said. The plant has silvery green leaves and, when in bloom, purple flowers.

Brabson said the leaves feel “like fine Italian leather” and smell like eucalyptus.

But the task force doesn’t encourage anyone who isn’t familiar with vitex to pull it up.

Some native plants have a similar appearance.
Vitex task team takes on Sullivan’s
By Jenny Peterson
Moultrie News

It was a sad day for Beach Vitex on Oct. 16.

A Beach Vitex task force of Chuck Gresham, Eric DeLuca, Johnathan Smith and Hal Drotor spent the morning on Sullivan’s Island cutting the invasive species’ roots and strategically poisoning the stems to stop the plant from growing.

The men came together on a sunny Monday morning to rid the island of the species as part of a grant by the National Fish and Wildlife Foundation.

The task force was given $133,000 through Clemson University to eradicate 50 lots north of the Charleston Harbor.

The chemical group BASF donated the herbicide for the project. It’s purple, so the group knows which plant has been exposed to the poison.

The task force was informed of the Vitex’s presence by island turtle team members and Gresham, the project investigator, evaluated the site.

He informed the beach-front property owners about the situation; that the Beach Vitex which was encouraged to be planted ten years ago is now found to be invasive, taking over native plants, destroying sand dunes and hurting the sea turtle population.

The plant has been dubbed “beach kudzu.”

The group went to work early Monday morning, hacking the thick bark-like roots and painting purple aquatic herbicide on it to keep it from growing back.

The group did not spray the poison, as to keep it controlled and specific to the Vitex.

When the spring comes, the poisoned Vitex will not re-leaf, Gresham says.

The group will come back to the island to collect the dead stems and turn it into a wood chip compost, he explains.

The group will then plant native sea oats and bitter panicums in the Vitex’s place. They will also leave the nearby property owners a list of how to continue to control the Beach Vitex, in case they miss a plant or two.

The Sullivan’s Island Beach Vitex site was a rather large area, about 30-feet long of the lush, flowering plant that is known to grow as much as 12 feet or more in diameter, and can produce rooting runners up to 60 feet long.

Gresham says other more crucial sites for Vitex removal include Pawleys Island, Litchfield Beach and Oree County, among others.

“There are 73 sites on the A-list,” Gresham says.

He explains that Vitex tests show the plant “smothers native species with shade” blocking 95 percent of the sun to plants beneath it.

“It’s an excellent invasive species,” Gresham says.

Turtle Team member Beverly Ballow, who was present for the Beach Vitex eradication, says baby sea turtles were found dead in 2002, caught by the Vitex.

She explains that the turtle team volunteers, on their daily checks for sea turtle nests, are instructed to look out for the Beach Vitex and make note of where the plant may be.

Donations to the Vitex removal cause are always welcome. Call 546-6314 for more information or visit www.beachvitex.org.
KURE BEACH - Beach Vitex - (Vitex rotundifolia) - is overtaking native dune plant species along the North and South Carolina coastlines. The plant was introduced into the Southeastern United States in the mid 1980’s for use in home gardens and to stabilize oceanfront dunes for storm protection. The Korea native plant began spreading from its original plantings in the 1990’s and crowded out native dune plants that could not compete. During an informational meeting at the Kure Beach Community Center on October 23, David Nash of the New Hanover County Cooperative Extension program for NC State University and coordinator for the NC Vitex Task Force explained that in addition to harming habitat for native plants, Vitex is believed to alter nesting areas for federally endangered sea turtles.

Nash explained the task force estimates that approximately 50 acres have been covered by Vitex along the North Carolina Coast and has the potential to spread like kudzu which was introduced into the United States in the 1880's - most commonly seen along highways. Nash explained, “Vitex is an aggressive plant with excellent salt tolerance” meaning it can thrive in beachfront environments. The plants can grow 10 to 12 feet annually and “runners” just under the sand can reach 60’ in length.

The leaves are round, gray-green and 1-2 inches long and have a spicy fragrance with broken. Its flowers are purplish-blue, 1 inch in width and produce small clusters at the end of branches. Fruits are round, 1/4 inch in diameter, and are purplish-black when ripe.

They are drought and salt water tolerant, fast growing and a prolific seed producer. Production can be as high as 10,000 to 20,000 seeds per square meter this time of the year and can be dispersed by animals, wind or water and can spread to others areas besides beaches such as salt marshes.

It’s a woody plant. In the winter, the green plants drop their leaves and leave only a tight network of wood stems until the following season.

Nash explained that unlike sea oats and other native plants which help to collect sand blown by the wind in order to build up a dune system, Vitex covers dunes so tightly that sand no longer collects in an affected area and it lacks the fibrous root system like the native plants and thus the ability to trap sand adequately. As the plants die back in the winter, their roots are exposed showing where the beach has eroded from underneath, jeopardizing the integrity of the dunes. Nash showed a photo of an area at Holden Beach that collapsed during a storm because Vitex weakened the dune. Vitex also competes with the federally endangered Sea Beach Amaranth species for suitable habitat and spreads rapidly often interfering with open sandy areas frequented by shore birds as nesting areas.

Nash explained that areas populated by Vitex include Pleasure Island, Wrightsville Beach, Holden Beach and undeveloped Masonboro Island as well as other areas along the North and South Carolina coastlines. From Ocracoke Island, NC to Folly Beach, SC as well as in Florida and Alabama. Both states have task forces devoted to battling Vitex but the publics’ help is required to identify areas and help eradicate the plant.

Nash explained that on Bald Head Island, the Village adopted an ordinance prohibiting planting of Vitex and removed nearly three to five acres of Vitex covering dune areas at a cost of around $100,000.00. The plants were pulled by hand, chipped and burned. Simply putting them through a wood chipper could still leave seeds to sprout again. Nash explained that while the Task Force has worked with the landscaping and nursery industry to keep the
plants off the market, there remains an effort to have the plant listed as a federal noxious weed. The objectives of the Task Force are to detect and map beach Vitex populations, remove seedlings from public areas to prevent spreading, conduct ecological assessments to determine its impact on native plants and animals and research environmentally sounds methods for removal.

Additionally, the Task Force wants to restore affected areas with native plants and most importantly educate homeowners, landscapers, and the general public about Vitex.

Nash explained the first thing the public can do to help is not plant Vitex. It’s a pretty flowering plant, but can quickly grow out of the pot, over the railing and onto the sand dunes or other surrounding areas. The public is also encouraged to attend native plant training sessions sponsored by the Task Force to learn how to identify the plant, as it closely resembles several native species. Don’t remove the plant unless you have prior experience. Instead, make note of a nearby street name or landmark and contact David Nash at 910-452-6393 or by visiting their website at www.beachvitex.org. Volunteers are encouraged to join the fight.

During the meeting, one resident explained that an area of Vitex was recently removed from the sand dunes in front of the Ocean Dunes condo complex in Kure Beach.
By the time spring rolls around, the beachfront on Pawleys Island should be sporting a drastically different look.

Clemson University has selected 42 homes at 10 sites on the island to participate in a Beach Vitex Eradication and Dune Restoration project being undertaken by the university and the Carolinas Beach Vitex Task Force.

The project was announced this summer, after Clemson’s Baruch Institute of Coastal Ecology and Forest Science received a $133,055 grant from the National Fish and Wildlife Foundation to help with eradication.

Work on the selected sites began Sept. 26 and will continue until late December.

After plans for the project were publicized, phone calls from homeowners interested in having beach vitex removed from their properties started pouring into the Baruch Institute, said Clemson’s Chuck Gresham, a principal investigator for the project.

“We’ve received tremendous support from the public on this project, especially from the Pawleys Island area,” he said. “People started talking and our phones started ringing mightily.”

Hundreds of calls were received, Gresham said, some even coming from homeowners who don’t have beach vitex on their properties, but wanted to have their yards checked, just in case.

“People don’t want this stuff anywhere near their property,” Gresham said.

The irony is that many of the homeowners who have called to volunteer their properties for the project actually planted the beach vitex.

It was used in the early 1990s to help prevent beach erosion after Hurricane Hugo in 1989, and homeowners thought they were doing a good thing at the time.

“A lot of the people who call in will hesitantly admit that they planted beach vitex on purpose and they’re very embarrassed about it,” said Betsy Brabson, coordinator of the Carolinas Beach Vitex Task Force.

“We don’t want people to feel embarrassed or guilty about it, because it was done with the best intentions.”

Of the 22 sites selected for the project, nearly half are on Pawleys Island. Other sites are located primarily in Charleston County.

Gresham said sites were chosen based on a presence of beach vitex on dunes, where it could interfere with sea turtle nesting; density of plants; and presence of beach vitex on neighboring properties.

Workers apply herbicide to beach vitex plants and monitor them to ensure the plants die. The plants are wounded and an herbicide specially created for control of invasive vegetation in an aquatic habitat is painted directly onto the wound to ensure other plants and animal life aren’t affected.

Within weeks, the plant’s leaves start to drop off and as the herbicide works it’s way to the root system, the plant dies.

A three-month waiting period is necessary to ensure the plant doesn’t come back and that any herbicide released into the soil becomes inactive, so the dead plants will be left standing until spring, Gresham said. At that time, the stems will be cut at ground level and sea oats and bitter panicum seedlings, both native to the area, will be planted in their place.

Since its introduction to the South Carolina coast about 16 years ago, beach vitex has taken over.

The plant, officially known as vitex rotundifolia, is an exotic invasive shrub brought from Asia and planted on the front dunes of South Carolina’s beaches in 1990 when the dunes were rebuilt after Hurricane Hugo.

It has crowded out native species and has spread across the coast.

In addition to its effects on native plant species, volunteers monitoring sea turtle nesting are concerned that vitex stems may deter sea turtles from digging a nest and laying eggs, and may trap hatchlings as they emerge from nests, said Brabson, who is also a volunteer with S.C. United Turtle Enthusiasts.

In addition, Clemson officials said research does not support beach vitex as a solution to erosion.

Brabson said the replanting of native plant species would be used to help control erosion and build the dunes, which serve as a first defense against hurricanes and storms for coastal residents.
Pawleys Island is at the forefront of a Beach Vitex Eradication and Dune Restoration project through Clemson University, which is on track and slated for completion before spring. There are 42 houses at 10 different sites on Pawleys Island which have been selected by a team of scientists led by Dr. Chuck Gresham, an ecologist with Clemson’s Baruch Institute of Coastal and Forest Science who is in charge of the project.

“All of the sites are north of Charleston Harbor, but many of the sites are in Georgetown County.”

After receiving a $133,055 grant from the National Fish and Wildlife Foundation this summer to help with eradication, Gresham says he has received hundreds of calls from homeowners who either have vitex on their ocean-front property or would like to have their dunes checked for the invasive plant. The chosen sites were the ones which had vitex on the primary dunes where it could interfere with Loggerhead Sea Turtle nesting.

Beach vitex (or vitex rotundifolia) is a non-native invasive plant that was imported from Asia after Hurricane Hugo wiped out the dunes on the coast of South Carolina. Believing that the plant would help to build up the dunes, it was bought and planted in many areas, including Pawleys Island.

Several years ago, volunteers with the South Carolina United Turtle Enthusiasts (SCUTE) began noticing that the plant deterred Loggerhead Turtles from nesting on beaches in the areas where it grew. Soon afterwards, scientists found that beach vitex was killing off native species wherever it grew and they even became doubtful whether the plant strengthened dunes.

Out of this knowledge, the Carolinas Beach Vitex Task Force, made up of scientists and volunteers, was born. In the past three years, they have educated the public and the scientific community about the dangers of this invasive plant. This knowledge eventually led to the plant being listed as a Federal Noxious Weed,

which in turn made this project possible.

Gresham says he and others involved in the project have begun the process of eradicating these plants from the coast, and will work through December to kill all of the plants in the designated project sites. If the project is a success, they will know in the spring or early summer, when the plants usually flower.

“The first thing I did was to write each of the property owners and get their permission to kill the vitex and then replace it with native plant species,” Gresham said. “So far, everyone has been delighted to cooperate and we haven’t received any resistance.”

Sending two copies of these letters to property owners, Gresham asked that one of the copies be signed and returned so that each property owner could acknowledge that they know what is happening on their property.
The next step was to start the eradication process. Gresham says that the trained scientists working on the project are using the “hack and squirt” method of eradication. This is the method, which uses a powerful herbicide labeled for “aquatic use” by the Environmental Protection Agency, that has been proven to be most successful in killing the plant.

“We wound the plant and then inject the herbicide into the wound,” Gresham said. “Previous research has shown that this technique is very effective. We won’t know for sure until spring or early summer.”

When it is determined that the plants are dead, Gresham and his team will replant the dunes with native plants and grasses that naturally occur on the dunes. He says they will use 70 percent sea oats from a local seed source and 30 percent bitter panicum, which “does best on South Carolina beaches.”

“After we replant the dunes, we will give each property owner a report of what we’ve done,” Gresham said. “We will also provide tips on maintenance and perhaps supplemental planting.”

Gresham says he is very pleased with the enthusiasm he has found in the affected communities for this project.

“One land owner was so excited about what we are doing that he contributed to our cause with a monetary donation,” Gresham said. “We have received 100 percent cooperation and people have been very supportive.”

Pawleys Island Mayor Bill Otis says he is also glad that people are rallying to get rid of this invasive plant on the island. Town Council voted to pass an ordinance this summer which limited the spread of beach vitex on primary dunes and into other people’s property, but property owners have taken it even further, he said.

“I am delighted that property owners on Pawleys Island have realized the serious negative impact of beach vitex on the island,” Otis said. “For the most part, it appears they are anxious to eradicate it, as is shown in their particular interest in this project.”

For more information about beach vitex, visit the Carolinas Beach Vitex Task Force website at www.northinlet.sc.edu/resource/task_force.htm
Pawleys Council adjusts town budget
By Clayton Stairs, Georgetown Times

Beach vitex

Council added $15,000 to next year's budget for beach vitex eradication. This is due to a request by Dr. Chuck Gresham, an ecologist with Clemson’s Baruch Institute of Coastal Ecology and Forest Science, who is in charge of a project to eradicate beach vitex from the primary dunes of 42 properties on Pawleys Island. He is planning to apply for another much larger grant, to help eradicate it completely, when the current project is finished.

"With Dr. Gresham’s help, the town has made dramatic strides against beach vitex this year," Otis said. "Hopefully, this next project will allow us to complete the process at no cost to individual property owners." Those property owners who have beach vitex in their yards as a result of it spreading won’t have to "pick up the bill" to eradicate this invasive plant from the island, he said.

Beach vitex is an invasive State Noxious Weed planted on dunes after Hurricane Hugo in 1989. Since that time, scientists have found that the plant kills off native plants wherever it grows and many feel that it interferes with Loggerhead turtle nesting.

Ward says he is impressed with the numbers of people on the island who want to eradicate beach vitex. "Most people were complaining about the additional cost to clean it up, but with grant money and the town’s help, there will be virtually no cost to them," Ward said. "We need to nip this in the bud (pun intended)."
For more information, call Town Hall at 237-1698.
Accomplishments of Large-Scale Dune Plant Community Restoration Project
Funded by a grant from the Savannah, Santee, Pee Dee Resource Protection Fund

The Carolinas Beach Vitex Task Force hit the ground running following the awarding of the grant funds.

On August 3 a news conference was held on the beach at Pawleys Island in front of a lot that had the vitex killed and removed in a pilot project. Dave Gordon of the Fish and Wildlife Service briefly described the SSPD grant program, Chuck Gresham of Clemson described the proposal that the Task Force had submitted, Betsy Brabson of the Carolinas Beach Vitex Task Force announced that the proposal had been funded, and Bill Otis, Mayor of the Town of Pawleys Island commented on the importance of the project to the Town. Representatives of several local newspapers and television stations attended and reported the event. Shortly following the news conference, the Town of Pawleys Island sent certified letters to beachfront property owners advising them that vitex was on their property and they were in violation of a Town Ordinance. The letter also suggested they contact the Baruch Institute about being included in the removal project. Similar letters were sent to beachfront property owners at Inlet Point on Litchfield Beach, and the newsletter for the DeWordieu Colony Community Association carried an article about vitex and the SSPD grant.

On September 6, a full-time field technician was hired to oversee the field work of the project. Mr. Hal Droter brought years of experience in the landscaping business and experience dealing with the public at large to the project. His first task was to visit about 130 properties from Myrtle Beach to Sullivans Island and fill out an evaluation form for each property noting size, location, and composition of the vitex population if present. From these forms, a spreadsheet was compiled and contact information added.

During September and October, approximately 75 letters were sent to owners of properties on the 'A' list of lots with a high ranking for vitex eradication. Two signed copies of a letter detailing the eradication and restoration procedure and timeline were sent and the owner was requested to sign and return one copy. Signed letters were quickly returned from all but two property owners, and these two repeatedly gave their verbal consent.

Ten Forest Management students and one Horticulture student at Horry-Georgetown Technical College were hired on a per-hour basis to inject the vitex. The students work in the afternoons when their class schedule allows and on any given day there will be from one to seven students injecting the vitex under the supervision of Mr. Droter. Soon after being hired, all involved with the project received pesticide application safety training at Horry-Georgetown Tech provided by Clemson Extension Agent Carlin Munnerlyn.

Based on a pilot project installed in the fall of 2005 and evaluated in the spring and summer of 2006, the vitex is being killed by a 'hack and squirt' technique commonly used to kill trees. Half of the crew uses a small machete to wound the vitex stems close to the ground at the root crown, and at subsequent locations where that stem may touch the ground and root. Immediately after wounding, a second crew member will daub the wound with a foam rubber paint brush with a long handle that is loaded with an herbicide.
solution. The herbicide is held in the slit wound and quickly take into the stem where it enters the phloem and xylem. The herbicide is translocated to the growing stem and root tips where it prevents growth. This technique was chosen because the herbicide is being carefully transferred from the bucket to the stem with very little if any hitting nontarget vegetation. On a few sites, there is sea of small vitex stems where this technique would be very time consuming to use. For these sites we have attached a cone-shaped wind shield to the tip of a spray wand then place the cone over the vitex and spray the vitex leaves inside the cone. This effectively prevents drift of the herbicide to non-target vegetation.

Once the crew has injected the vitex on a property, a post card is sent to the property owner advising them of what was done, when, and want the owner my expect to see in the next few weeks. The post cards serve to notify the owner of what was accomplished, and to assure the owner that they are 'in the loop' of this project.

In November both Mr. Drotor and Chuck Gresham passed the examinations to be a Non-commercial Certified Pesticide Applicator. This certification not only satisfies state and federal law, but more importantly, ensures the safety of the workers and non-target vegetation of the lots selected for vitex eradication.

During the course of accomplishing the vitex eradication, one property owner was so pleased with the work that he sent a $200 contribution to the Baruch Institute to purchase supplies. Also the BASF Corporation provided a gallon of the expensive herbicide used in the 'hack and squirt' and foliar applications and the Task Force paid the field crew while the paperwork was being completed to get them on the Clemson-administered grant payroll. During the past three months, a list of all known locations of vitex has been compiled, and most of these sites evaluated. The knowledge of vitex locations and the efficient accomplishments of the field crew has prompted work on a continuation grant to eradicate vitex throughout coastal South Carolina. The Town of Pawleys Island has favorably considered a request for $15,000 'seed money' to be leveraged when approaching conservation-oriented local foundations. Currently we are putting together a budget to locate and eradicate vitex in all coastal counties of South Carolina.

Finally there has been intense media interest in the project. The Moultrie News covered the eradication work on Sullivans Island and the Coastal Observer, Georgetown Times and WPDE Television has reported the eradication work in Georgetown County. The South Carolina Sea Grant agency will publish an article about the project and the BASF Corporation and Southern Living each sent a reporter and photographer this summer to do articles about vitex and its removal for their magazines.

On November 2nd and 3rd, Chuck Gresham attended the 33rd Annual Conference on Ecosystems Restoration and Creation hosted by the Hillsborough Community College in Plant City Florida and presented a paper on the ecology and management of vitex. Although most of the projects presented focused on aquatic and marine ecosystems, the audience was very interested in our work on vitex. At the conference, Chuck talked with representatives of the Brooksville Plant Materials Center, a part of the Natural Resources Conservation Service, about providing field trials of two accessions of sweetgrass. They agreed to grow sweetgrass plants for inclusion in our dune restoration if we would maintain records planting and success records.
Field work injecting the vitex will stop in mid-December because the plants will not effectively translocate the herbicide during cold weather. During the winter we will offer a workshop to all local landscaping companies and explain and demonstrate our techniques. If these companies are asked to eliminate vitex from a property, they can benefit from our research and do a thorough safe job the first time.

In the spring, the dead vitex will be removed from the treated lots, and chipped on site. The chips will be blown into the bed of a pickup and taken to the landfill for composting. Once cleared, the lots will be planted with a 70%/30% mixture of sea oats and bitter panicum and the owners given a report of what was done and what they can do for the next three years to ensure the success of the restoration.