Supporters Of St. Vincent NWR Newletter

SUMMER 2014 EDITION AUGUST, 2014

INSIDE

Summer Season on the Island

In Memory Jan Pietrzyk

Research Corner

2014 Hunt Schedule

Go Wild!

Turtle Nesting Update 2014

Storm impact to barrier islands

Meet the 2014 Summer Intern

Shorebird Survey

Board Members:
Trish Petrie, President
Audrey Schmidt, Treasurer
Landy Luther, Secretary
Virginia Satterfield
John Inzetta
Gloria Austin
Carol Brown, New
Nancy Widener, New
Nancy Stuart, New
Mike Turrisi, New

Contact Us:
stvincentislandfriends@gmail.com
www.stvincentfriends.com

https://twitter.com/StVincentNWR

In partnership with the US Fish and Wildlife Service

Summer is by far the busiest season on St. Vincent NWR. Along with all the work continuing from the red wolf recovery program, impoundment management, exotic plant treatment, and prescribed burning, summer adds endangered sea turtle nesting work, shore bird nesting surveys and a whole host of supporting activities such as equipment repair and maintenance. We also have four research projects in progress and lots and lots of visitors. We were fortunate again this year to host a student learning day (young men and women from Port St. Joe High School) and extended our Island tours into the month of May.

As sometimes happens we had a lighting strike caused fire erupt on the east end of the island at the beginning of July and are fortunate enough to have the help of a skilled firefighting team from St. Mark's NWR control the blaze, We welcomed an intern early in the Summer and are looking forward to another intern starting before the end of the season. We celebrated our terrific staff and volunteers recently with a pizza party at a board members home. We just couldn't do it without everyone's hard work and dedication!

In Memory: Jan Pietrzyk

On April 26, 2014 we lost a friend and ardent supporter of St. Vincent NWR. Jan Pietrzyk was a long time board member and volunteer for our organization and will be dearly missed. He was born March 11, 1947 in Cairo, Georgia and spent most of his life in Tallahassee Florida. He loved all things outdoors and in nature, including bird watching and his award winning wildlife photography.

The board has set up a special fund in his honor. Should you wish to contribute please send c/o :
Audrey Schmidt, Treasurer
219 Avenue E,
Apalachicola FL 32320

Research Corner: Project Summaries

St. Vincent NWR is uniquely suited for wildlife and botanical research as a biodiverse and unpopulated area. This summer we have served as an outdoor lab for four distinct projects.

1) A doctoral student at Florida State University is studying several venomous reptiles on the island to determine if their specific dietary limitations (prey) drive evolutionary response and changes to their venom composition

Agkistrodon contortrix . -Copperhead

By comparing specific island populations to mainland venomous snakes the study will help provide more information about the limits of genetic change given the geographic isolation on an island and increase understanding of local adaptation.

Story continued on page 4

St Vincent Island Map

Soft Shelled Turtle

George Weifing Diary July 4th, 1880:

"The day sets in with strong SW breeze. In the evening two schooners came down and let go anchor in front of the house. One of them was a three masted schooner. Her name was the Jennie Middleton. The other was a two masted. Her name was the Walter Denny. The day ends pleasant with strong SW wind."

Picnic on the Island

2014 Hunt Schedule

Sambar Deer Hunt	Dec 4-6,	(Thurs-Sat)
Archery Hunt	Nov 20-22	(Thurs-Sat)
Primitive Weapons Hunt	Jan 22-24, 2015	(Thurs-Sat)

Permits available for sale on http://myfwc.com/license/limited-entry-hunts/

W.I.L.D. WEEK

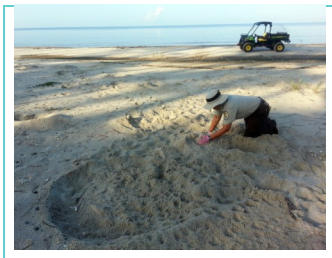
Wonder.Inspire.Learn.Do

"

SAVE THE DATES!!

Join us for National Wildlife Refuge Week as we celebrate St. Vincent NWR.
October 14-18, 2014

Daily tours will focus on everything from birding to history, photography and much more as we Wonder, Inspire, Learn and Do together on the island. More information about how to sign up for tours will be released on our web-site closer to the event. If you would like to volunteer, please contact us at stvincentislandfriends@gmail.com



TURTLE NESTING

2014 Update

As of this publication date our staff and turtle patrol volunteers have identified 50 sea turtle nests, all of which have been loggerhead sea turtles (the most common in the region). Nests are already hatching!

Want to adopt a nest this season?
Contact us at: (850)-229-6735

Makes a great and meaningful gift!

The Impact of Storms on Barrier Islands

Contributing author: Carol Brown

Eighty-five per cent of the eastern seaboard and Gulf coast of North America contains barrier islands. They are the predominant land form between the ocean and the mainland. Barrier islands are subject to a high level of disturbance from strong winds scouring the sand down to the water table and from sea water *overwash* and sediment carry from storms. According to USGS scientist Asbury Sallenger, Jr. who developed a coastal impact scale, the impact of a storm on a barrier island is dependent not only on the storm's characteristics, such as storm surge and waves, but also on the elevation of the barrier island at landfall. By considering the elevation of hurricane-induced sea level relative to coastal elevation, areas of potential inundation can be identified

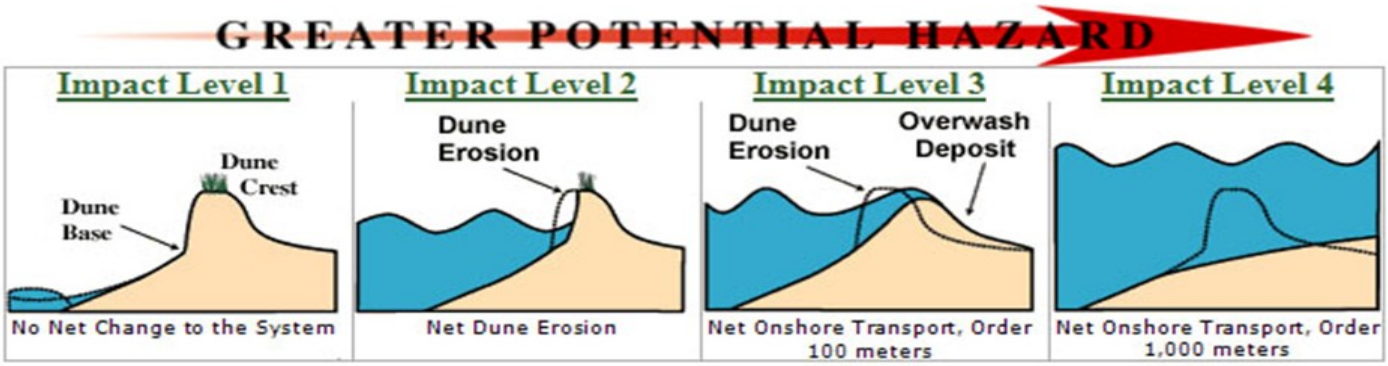
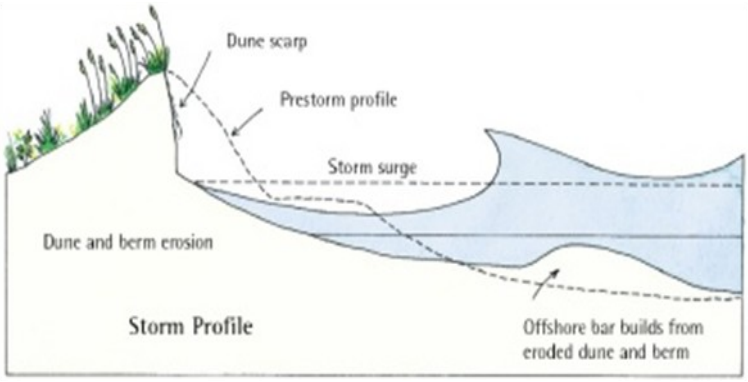


Figure from: http://www.usgs.gov/newsroom/leads_pf.asp?ID=732.

V. Claudino-Sales, P. Wang and M.H. Horowitz researched changes to Santa Rosa Island, a microtidal island, from storms in 2004 and 2005. They describe three types of impacts from category three and higher hurricanes on barrier island dune fields: *inundation, overwash and scarping*. The most dramatic destruction comes from *inundation*, where the entire island is completely submerged. Some barrier islands off the coast of Alabama experienced inundation after Hurricane Katrina in 2005. Another major hurricane impact is storm-induced *overwash*, where storm surge overtops the dunes, destroying or damaging them. Because Florida microtidal barrier islands tend to have low elevations (four meters or less), they are particularly vulnerable to this type of damage. A third type of damage occurs when dunes sustain *scarping*, or undercutting of the dune face.



Damage from scarping http://www.islandbeachnj.org

The drumstick shaped mesotidal barrier islands, such as St. Vincent Island, tend to have higher elevations than microtidal islands and often contain old growth forests. These islands can sustain hurricane damage from additional causes. In 1989, Hurricane Hugo struck Bulls Island, a mesotidal island off the coast of South Carolina. The most prevalent type of damage to those old growth forest communities tended to be from *wind and exposure to salt spray*.

Story Continued on page 5

Research Corner continued...

2) Gulf Coast Box Turtle Study: A post doctoral fellow from the Massachusetts Fish & Wildlife Cooperative research unit is conducting a long term study of the Gulf coast box turtle (one of six extant subspecies of the North American box turtle) to establish a baseline for population numbers as well as to better understand the effect of habitat changes and land cover disturbances (such as prescribed burns) on the population.

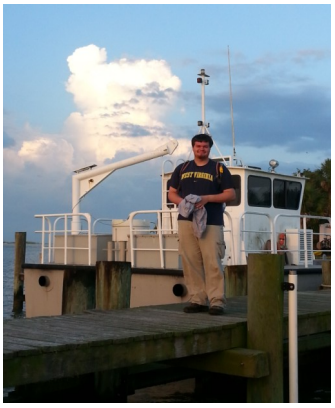
.

3) Gulf Coast Lupine: Researchers from Bok Tower Gardens in Lake Wales FL are collecting seeds from the Lupinus westianus (Gulf coast lupine) to increase species knowledge and to secure this species into the National Collection for preservation, as it is currently under represented. This collection serves as a buffer against extinction and local population loss.

4) Florida Breeding Bird Atlas.: John Murphy from the Florida Ornithological Society is conducting visual and audio surveys to catalog the breeding species present on the refuge. The five year project will be completed and published in 2017 as part of the second edition of the Breeding Bird Atlas for the state of Florida

Meet Lucas Price one of our 2014 Summer Interns!

Lucas Price hails from West Virginia where he will be returning this August as a Senior at West Virginia University. From an early age Lucas knew he was interested in biology and his extensive field work served only to increase his passion for everything outdoors. Lucas' previous work and volunteer experiences include everything from owl banding, and bear habitat assessments to tick surveys in New York and trail assessment and condition monitoring in the Green Mountain National Forest in Vermont. He chose St. Vincent NWR to gain additional coastal experience and learn more about red wolves and sea turtles. His off island activities included work with the US Fish and Wildlife Service project on Gulf sturgeon, monitoring fish in Apalachicola Bay with the Florida Fish and Wildlife Commission, and tagging sea turtles off Cape San Blas. His favorite part of the work on St. Vincent NWR was getting to know the island. He enjoyed seeing the alligators and turtles everyday, along with the different ecosystems present. He was definitely able to experience many facets of wildlife work, and made valuable connections with the staff and volunteers that call St. Vincent home. We wish him the best and hope he'll come back and visit soon!



Would you like to contribute an article or pictures to our newsletter? Have suggestions regarding articles or information you would like to see?

Please contact us at: stvincentislandfriends@gmail.com

RE: Newsletter

Join us on Facebook and Twitter for more up to date happenings in and around the Island! @stvincentnwr

The Impact of Storms on Barrier Islands, cont'd

Contributing author: Carol Brown

Story Continued from Page 3

Storm impact on barrier island plant communities in microtidal islands, such as St. George Island and Santa Rosa Island, depends primarily on the plant location within the dune fields, the classification of plant that has colonized the dune and which type of damage they sustained. In general, plants on the backdunes of microtidal barrier islands tend to be on a higher elevation and more distant from damaging storm surges which affect the foredunes. Plants on the foredunes, such as sea oats, are rapid regenerators, usually re-colonizing within a year after being eliminated. Plants in the interdunes such as railroad vine are burial tolerant and can respond positively to sediment deposited during *overwash* events. Plants that can not tolerate exposure of their root systems are most impacted when parts of the dune are washed away during *scarping.*

Island size, shape, elevation and types of plant communities all interact to shape the way storms affect the barrier island. Most research has been done on the effect of Category 3 storms and above, primarily to microtidal barrier islands. Of course lesser storms, alterations to barrier islands, such as human habitation, efforts to contain erosion such as groin placement and rising sea levels for example, can also alter the outcomes of storms to barrier islands. Taken together, all these factors affect how storms affect barrier islands.

Shorebird Nesting Habitat Protection & Survey

St. Vincent NWR is home to many imperiled nesting shorebirds and seabirds. Snowy Plovers and Least Terns are among a few we survey each year. Protected habitats are critical to the survival of these birds and if you visit the island you will see there are many areas of the shoreline that are designated NO ENTRY . These areas are roped off and marked in order to keep out foot traffic. As you can see from the picture the nests and chicks rely on camouflage for protection and the slightest disturbance—even accidental can be devastating to these already imperiled species. In partnership with US Fish and Wildlife Service, Deep Water Horizon and the Natural Resource Damage Assessment (NRDA) Office in Fairhope Al are fortunate enough to have a part time technician working on this project for the next several years,

Least Tern with eggs. Credit: Tulsa Audubon

Snowy Plover and 2 chicks