

Secondary dune near launch pads attracts new residents

By Linda Herridge
Spaceport News

Beach mice, gopher tortoises and even an indigo snake have found new homes in a newly created secondary dune habitat near NASA Kennedy Space Center's Launch Complex 39. That's a good thing, according to NASA biological scientist Don Dankert, from the center's Environmental Management Branch.

Dankert said recent field-sampling results revealed these animals and others have taken up residence in the dune system since it was created about nine months ago.

"What was once a barren pile of sand near the railroad tracks is now a thriving dune with vegetation and wildlife," Dankert said.

The secondary dune project, which began in 2010, is a cooperative effort between Kennedy, the U.S. Fish and Wildlife Service, the Merritt Island National Wildlife Refuge (MINWR) and Innovative Health Applications (IHA).

According to IHA wildlife ecologist Becky Bolt, a monitoring program conducted in November documented 17 beach mice, four spotted skunks, three gopher tortoises, two cotton rats and one indigo snake.

"Beach mice and indigo snakes are federally protected species, so the ability to create a habitat that they will occupy and use has



Vegetation for the newly created secondary dune habitat near Kennedy Space Center's Launch Complex 39 was donated by Wal-Mart and includes sea grape, sea oats, dune sunflower, saw palmetto, beach grass, beach elder, marsh hay cordgrass and blanket flower.

great species management potential," Bolt said.

The dune project was initiated to shield the beach from launch pad lights, which can disorient nesting and hatchling sea turtles, and to protect the shoreline from severe erosion.

Dankert said about 24,000 cubic yards of sand were used to build the secondary dune. Of that amount, about 8,000 cubic yards were donated by the U.S. Air Force's 45th Space Wing.

The new dune, set back from the primary

Photos courtesy of Becky Bolt,
Innovative Health Applications

dunes about 70 feet, is 725 feet long, 15 feet high and 75 feet wide.

The vegetation, donated by Wal-Mart through a grant procured by the MINWR from the National Fish and Wildlife Foundation, includes sea grape, sea oats, dune sunflower, saw palmetto, beach grass, beach elder, marsh hay cordgrass and blanket flower.

Aquatic Plants of Florida in Sarasota, a landscape

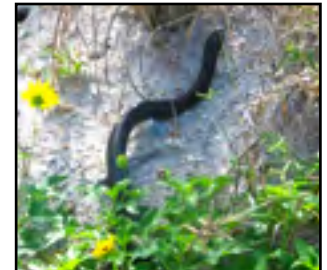
company that has extensive experience in coastal dune restoration, completed the planting in a week.

"We have a lot of satisfaction in helping to restore habitats in Brevard County," said Vice President Gil Sharell Jr. "We were pleased to work on the project and be part of the collaborative effort."

"The project has given Kennedy the opportunity to study and monitor the effects of creating a secondary dune habitat," Dankert said. "This effort provides valuable data for



This beach mouse is a new resident of the newly created secondary dune at Kennedy.



An indigo snake slithers across the newly created secondary dune at Kennedy.



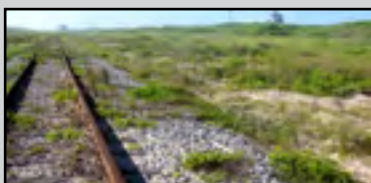
An IHA monitor holds a juvenile spadefoot toad at the newly created secondary dune.

future environmental permits, monitoring programs and design criteria."

Bolt said that IHA plans to monitor the dunes quarterly for a year to get a clear picture of how development of the dune habitat progresses over time.

"Our goal is to collect data that will help us understand what it takes to create a functioning, healthy dune ecosystem," Bolt said. "This knowledge will become very important as we contend with the realities of climate change and sea-level rise."

Creating a dune from scratch



Inland dune site



Sand deposition 1



Sand deposition 2



Aerial view