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Subject the mouse that saved the house

Birmingham News- SEP 23, 2004-The mouse that saved a beach house <?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />

## The mouse that saved a beach house

Thursday, September 23, 2004

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<?xml:namespace prefix = st1 ns = "urn:schemas-microsoft-com:office:smrttags" />GULF SHORES --  
The endangered Alabama beach mouse, long the bane of beachfront developers, may have turned out to be their best friend.

Major developments on the Fort Morgan peninsula were spared the waves that washed through other beachfront properties. Developers there were compelled to build farther back from the surf and to take steps to preserve mouse habitat in the primary and secondary dunes.

"Thank God for the beach mouse," said University of South Alabama civil engineering Professor Scott Douglass. "The developers hate that thing but it saved their developments."

Douglass, who studies the Alabama coast and wrote the book "Saving America's Beaches," said fellow academics and government officials are already at work studying Hurricane Ivan's toll on the beaches, and trying to draw lessons.

Several simple ones are already apparent. For instance, "The wider the beach was the day before Ivan the better off you were," Douglass said.

That's true at the Beach Club, a four-tower resort condominium complex, which was built 500 feet from the mean tide line, and at the Martinique, a combination of three-story condos and single-family homes, which is even farther back from the surf. The mean tide line is the point between the average high tide and low tide.

Perched on a third line of high dunes, both developments have long crosswalks that help preserve the primary habitat for the endangered mouse and coincidentally preserve the dunes that protect the development. The waves got nowhere near the condos.

A wider beach also helped protect some Gulf Shores developments.

Douglass, who has surveyed the damage, said structures along sections of beach that had been re-nourished with sand and plants in recent years fared much better than similar structures nearby where the beach had not been restored

Lines in the sand:

Acres of sand had been dredged and deposited on the beach. Ivan chewed up dunes and sucked some of that sand offshore. That coastline now resembles flat white prairie.

Some of that re-nourished beach will return on its own, according to Steve Jenkins, the Alabama Department of Environmental Management's chief of the field operations. "There is a tremendous amount of sand offshore that will be coming in shore over time."

ADEM also will be reassessing its coastal construction line, south of which new building is forbidden. Before Hurricane Frederic in 1979, buildings were to go a certain distance behind the primary line of dunes, dunes that regularly appear and disappear with storms. Many of the structures from that era are at or near the surf now.

After Frederic and the extensive studies that followed, a line farther from the surf was established. It roughly tracked the secondary line of dunes, and averages about 200 feet from the tide line.

That line was established in the mid-1980s and both the beach and thinking about coastal development have changed since then.

"It would be nice to set everybody back 500 feet," Douglass said.

But that's not feasible. To be effective, existing homes and condos would have to be taken down and the owners compensated.

Going forward, builders should recognize the benefit of building farther back. Some developers have, even without the pressure of preserving the beach mouse. Perdido Beach Resort and the Phoenix VI and Phoenix VII on Orange Beach escaped Ivan unscathed, Douglass said.

Cultivating dunes:

Coastal buildings need to be on pilings, sunk deep in the ground, Douglass said. The big spectacular collapses came in buildings where the surf undermined concrete foundations.

Also, construction of first-floor "sacrificial" condo units shouldn't be allowed, Douglass said. "All units should 20 feet above sea level."

And finally, there should be further protection and cultivation of dunes, Douglass said.

Dunes serve as sand reservoirs. They initially rebuff waves and when a strong storm dissolves them, their dissipated sand helps make the entire area shallower, causing the waves to break farther out. Dune crosswalks are now being required even for single-family homes on the Fort Morgan peninsula to preserve beach mouse habitat.

Unfortunately, stepped-up efforts to save the mouse, under the protection of the federal government since it was listed as endangered in 1985, may not be enough.

The Bon Secour National Wildlife Refuge, one of its primary habitats, sustained a major hit from Ivan. "We know we've had some major loss of our primary and secondary dunes," Jereme Phillips, wildlife biologist and acting refuge manager, said. Biologists are trying to assess the damage to the beach mouse population, he said.

The mice were already in trouble before Hurricane Ivan, Auburn biologist Michael Wooten said. Hurricanes kill off the mice in the primary dunes. Smaller populations in the scrub dunes, farther from the shore, were probably hit hard, too.

Despite efforts to take better care of their beachside habitat, the interior continues to develop. As those inland scrub dunes disappear, Wooten said, so do the reservoir populations of beach mice that would repopulate the dunes after hurricanes. [tspencer@bhamnews.com](mailto:tspencer@bhamnews.com)  
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