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State's coastal habitat could be altered

Storm comes at a bad time for species who are migrating or spawning, such as shorebirds and horseshoe crabs

By *MOLLY MURRAY*
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Those massive, pounding waves and extreme high tides that contributed to flooding and beach erosion Monday also may have significantly altered the state's coastal and marshland habitat.

And for some species -- such as shorebirds and horseshoe crabs -- the timing couldn't be much worse.

"This storm is not good for birds at this time," said Kevin Kalasz, a state wildlife biologist who monitors shorebirds during the spring migration.

Over the past few days, state biologists were beginning to see the start of the annual shorebird migration. On Sunday, 2,000 ruddy turnstones were at Port Mahon. Elsewhere along the Delaware Bay, there were 200 red knots and thousands of dunlins and semi-palmated sandpipers, Kalasz said.

It appeared to be shaping up to be a good couple of weeks for horseshoe crab spawning, too.

Now, state environmental officials aren't sure what they'll find when the tides recede and the waves stop pounding the beaches.

"We haven't even been able to get out to the beaches," he said. "We're going to be interested to see where the birds that were here have gone," Kalasz said.

In addition, they will want to see how long it will take for spawning horseshoe crabs to return to the beach and resume laying eggs.

Most likely, the eggs that were already laid were churned up in the heavy waves and surf and were lost, Kalasz said.

"It does not bode well," said Nicholas DiPasquale, conservation chair for Delaware Audubon. "Now is when we would expect to start seeing them come in."

Of special concern to conservationists and biologists in Delaware and New Jersey is the plight of the red knot -- a robin-sized bird that feeds heavily on horseshoe crab eggs as it stops over along the Delaware Bay. The species' population has declined dramatically and some scientists believe the decline may be linked to past overfishing of horseshoe crabs and less egg availability on the beach.

The birds typically arrive just as the crabs are at the peak of their spawning. They add fat reserves before flying north to Arctic breeding grounds.

But the fate of the crabs and the birds may not be the only environmental fallout from the storm. Delaware's tidal wetlands are full of decaying vegetation and as the tide rises, the marsh detritus floats to the surface and forms massive wrack lines. Sometimes, they end up on roads after floodwaters recede. Other times, they float in the marsh.

Meanwhile, the flooding displaces all sorts of animals, including tiny mice and even larger raccoons, said David B. Carter, environmental program manager with the Delaware Coastal Management Program.

Carter said that if you head out to a marsh after a storm or high tide, you will see all kinds of animals clinging to the debris in the wrack line.

"All that stuff starts to rack up," he said. "If you're a mouse, it's a long way back" to dry land.

For a short period, storms like this can really change the wildlife composition of a marsh, he said.

And for marsh-nesting birds, such as willets, nests get inundated and lost, he said.

There is one good thing that comes from a storm like this: The winds, waves and floodwaters bring lots of sediments into the marsh and that helps them build up and keep pace with rising sea levels, Carter said.

"Northeast wind is probably not too bad for Delaware's marshes," he said.
