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Where Do the Wild Ones Go?

By EMMA BRYCE - November 7, 2012



After a damaging storm, an outpouring of support often flows to the people affected and even their pets. But the day after last week's superstorm hit New York City, I noticed sparrows pecking away as usual at the freshly turned earth. My thoughts turned to how the city's wildlife fared — the birds, raccoons, red foxes, mice and so on. Are they as resilient as they seem?

According to Paul Curtis, an urban wildlife expert at Cornell, there is in fact little consensus on how badly urban wildlife populations are immediately affected by severe weather. Population counts are expensive and complicated to conduct, he noted.

But Dr. Curtis said that the chances of surviving a flooding disaster like the one brought on by Hurricane Sandy depended on a creature's habitat. Animals that can nestle in tree holes or take refuge among branches have an advantage over those that build their shelters on the ground.

"Those that tend to nest in trees will just hunker down," Dr. Curtis said. Raccoons, opossums and squirrels, for instance, would have been safer than mice, who probably felt the full brunt of the storm in parts of the city that were flooded.



Bruce Museum Collection. A white-footed mouse can benefit from increased ground cover after a severe storm.

Birds also take refuge in trees, naturally, scoping out large ones with dense canopies when a threat approaches. The blanket of foliage helps them weather the storm.

A higher level of mobility enhances an animal's chances, too — for example, when a tree is uprooted or the wind become too strong. Birds have the greatest capability to flee to more protected perches: robins can usually "ride out the storm" this way, Dr. Curtis said.

And birds that are especially accustomed to urban living — house sparrows, starlings, and pigeons — know the ins and outs in ways that help them survive relatively unscathed. Think of the pigeons you've seen roosting on window ledges, or the nests you've spotted under awnings.

The broad assumption is that most urban animals are still sufficiently wild to retain an instinct for survival. “Most animals probably know what to do,” said Jason Munshi-South, an urban evolutionary biologist at Baruch College.

What intrigues him most are the possibilities for population increases that open up after a storm. “At some of our study sites, we’ve had hundreds of trees falling down,” which will alter habitats for some time to come, he explained.

The white-footed mouse is among the likely beneficiaries. Like the raccoon and opossum, it is attracted to what Dr. Munshi-South calls “disturbed edges,” segments of habitat that are particularly disrupted during events like storms.

For example, denser cover is created when leaves, branches, and toppled trees carpet the ground. In these localized ecosystems, animals can take shelter, nest and hide with greater ease than they could if the forest floor were bare, and this can result in a population surge.

What is more, gaps in tree canopy will allow more sunlight to filter in, attracting species that might not have been drawn to an area before.

Of course, an initial die-off is inevitable in urban wildlife populations affected by flooding, Dr. Munshi-South said. But survival is virtually a given.

“The species you have in the city can already deal with pretty extreme conditions,” including habitat removal and severe fragmentation, he said. Those hardships transform them into resourceful creatures. “Beyond the initial mortality, they’re probably not going to be much worse affected,” he said.

New York City’s indomitable rats are a typical example. While they are good swimmers and thus have a better chance of surviving than mice, their nests and burrows are still built on the ground. So it is likely that many rats died.

But with all the debris piled up after the catastrophic storm damage, innumerable opportunities have cropped up for shelter, raising the prospect of new colonies.

All the same, local rats should take note: nine days after Hurricane Sandy’s sweep through the region, a northeaster is on the way to New York City this afternoon.