

On World Turtle Day, how are the reptiles faring?

By Jason Thomson, Staff May 25, 2016

This week sees the annual celebration of turtles. The challenges these creatures face are daunting, but there is much being done to boost their chances of survival.

Turtles were given their chance to shine Monday, when the world celebrated World Turtle Day.

Now in its 16th year, this annual event provides a moment to ponder these oft-forgotten creatures, to raise awareness of the myriad threats to their continued survival, and to champion their conservation.

While the challenges are many and varied, with almost all species of sea turtle classified as endangered, there is also a multitude of organizations across the globe seeking to address the dangers, partnering with state, federal, and international agencies, and promoting public education.

"We felt that warm fuzzy animals always got a lot of love



Gabe Hernandez/Corpus Christi Caller-Times/AP/File In this Tuesday, May 17, 2016 photo, a transmitter is attached to a Kemp's ridley sea turtle as it walks toward the Gulf of Mexico at Padre Island National Seashore in Corpus Christi, Texas. People on turtle patrol have counted dozens of Kemp's ridley sea turtle nests on Padre Island National Seashore in South Texas.

while turtles (and tortoises) are at the bottom of the totem pole for both attention and donations," explains Susan Tellem, founder of World Turtle Day, in an email to The Christian Science Monitor.

"After all, they outlived the dinosaurs and are in danger of disappearing from habitat destruction, the cruel pet trade, and live food markets worldwide," adds Ms. Tellem.

Habitat destruction is "one of the biggest threats to wildlife generally in the United States," as Collette Adkins, senior attorney at the Center for Biological Diversity, tells the Monitor in a phone interview. With regard to turtles and terrapins, one of the most invasive aspects of this is habitat fragmentation, not least by the road system that carves up the country, resulting in significant levels of road-kill as the reptiles struggle to waddle across the asphalt.

Water pollution is also a problem, with toxins seeping into waterways from agriculture and industry.

Another threat is predation by animals thriving thanks to humans, "human-subsidized species," as described by Rebecca Shoer of Mass Audubon's Sea Turtle Rescue Team, in a phone interview with the Monitor. These are often species that are natural turtle-egg hunters, such as foxes and raccoons, but as people encroach ever further into wild habitat, the predator populations explode, and the turtles suffer.

There are some challenges that beset the marine environment specifically. For example, many sea turtles meet their demise as fishery bycatch. They also struggle to lay their eggs as nesting beaches suffer degradation, either through sea-level rise or trash left by sunbathers – or, indeed, by coastal constructions such as seawalls.

And then there is marine debris, especially plastic, blown off land and into the oceans.

"Leatherbacks, for example, have an especially hard time with plastic bags, mistaking them for jelly-fish,"

Becca Gelwicks of the Sea Turtle Conservancy tells the Monitor in a phone interview. "They can get caught up in the stomach, and the turtle will die."

Even plastic straws are hazardous. If such an item happens to be drifting amid a group of jelly-fish, as the leatherback is "sucking up its prey like a vacuum cleaner," there really is no way for the turtle to differentiate, and the straw will be hoovered up along with everything else.

As Tellem, founder of World Turtle Day, highlighted, there is one other major contributor to the turtles' travails: overexploitation by humans, either for the pet trade or for meat.

This is one of the areas that the Center for Biological Diversity is most actively addressing. They are working to have the most vulnerable species in the United States listed under the federal Endangered Species Act.

"Many are heading toward that status," Ms. Adkins tells the Monitor, "and once that happens, then lots of protections kick in."

Any violation of the Act can result in a fine of up to \$50,000 or prison time of up to a year – or both. Adkins says these consequences are effective deterrents, and the listing of turtles under these provisions effectively "shuts down turtle traders."

For turtles heavily targeted by the international trade, the Center works to have them listed under the Convention on International Trade in Endangered Species (CITES). At the other end of the scale, the Center petitions state governments and legislatures to regulate turtle harvests.

Within the last three years, they have seen success in Florida, Alabama, and Georgia, and although there are 11 states that "still allow unlimited commercial trapping of at least one species of turtle," even the act of petitioning can often spur action that will eventually obviate the need for a species to be listed as endangered.

For example, \$5.5 million was released only last week through the US Fish and Wildlife Service's State Wildlife Grants program, aimed at protecting "imperiled species."

Climate change is one further challenge, not least for the marine species. By way of illustration, Ms. Shoer of Mass Audubon speaks of sea turtles migrating up into the Gulf of Maine, just off the northeast coast of the United States. As they try to return south at the end of the season, they find themselves trapped by the "hook" of Cape Cod.

"As the water cools, they go into a kind of a coma," explains Shoer. "We have 300 rescue volunteers who go out onto the beaches, at a time of year when nobody wants to be on the beach."

This behavior is unusual. The turtles rarely came this far north, Shoer giving a figure of 10 to 15 annually in the 1980s, now risen to 600.

Their habits have changed due to warmer oceans, "sea surface temperatures in the Gulf of Maine [having] increased faster than 99% of the global ocean" over the past decade.

Warmer temperatures have another effect on turtles, shown to change the ratio of female to male hatchlings – "hot chicks, cool dudes," as Shoer puts it.

But Mass Audubon is taking action, alongside its intrepid rescue parties braving the shores in the depth of winter. They also implement beach patrols during nesting season to protect the eggs from poachers, sometimes installing protective cages. Other organizations even go so far as to remove eggs from the beach, incubating them in a lab.

There are also steps that every one of us can take, if we would help the turtles. We can buy shrimp and fish that are TED-approved (sourced from fisheries that use Turtle Excluder Devices), take reusable bags to the grocery store, even write to our local statesmen to highlight the turtles' plight.

"These actions really can make a difference," says Ms. Gelwicks of the Sea Turtle Conservancy, "even if you're living in landlocked parts of the United States or Europe."

And for those still unsure as to whether these animals deserve protection, turtle advocates suggest checking out this video from the back of a sea turtle, shot from a GoPro attached by the World Wildlife Fund and partners.