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DERN talks climate communications, changing nature of hurricanes at Fall Gathering

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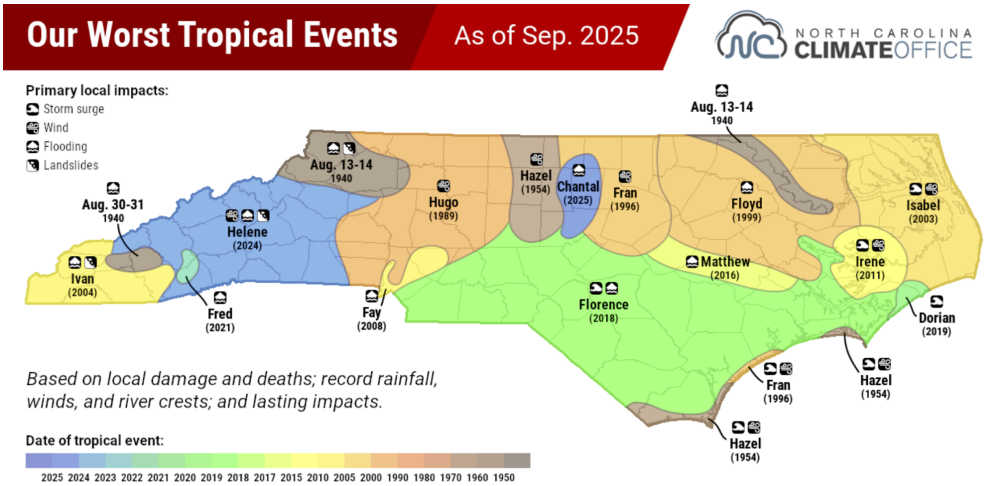

The worst tropical events in each area of North Carolina, based on local damage and casualties recorded; record rainfall, wind and river crests; and lasting impacts. Image, data and description courtesy of North Carolina State Climate Office and Assistant State Climatologist Corey Davis

HARKERS ISLAND — The Down East Resilience Network, or DERN, held its two-day Fall Gathering last week at the Core Sound Waterfowl Museum and Heritage Center to address environmental risks and vulnerabilities in the Down East region.

Karen Willis Amspacher, executive director of the Core Sound Museum, organized the network after Hurricane Florence severely impacted the eastern end of Carteret County in 2018.

DERN's gathering drew a wide range of attendees, including researchers, journalists, state government employees, and members of community organizations from across the state. Attendees included one person from as far away as Charleston, South Carolina, and another who attended virtually from New Orleans, Louisiana. The event offered updates on research and resilience efforts and continued discussions amid current federal restructuring.

The gathering began with screenings of four brief documentaries by University of North Carolina Wilmington students. The films captured local perspectives on how climate change, rising sea levels, and development impact the cultural identity and unique environment of Down East.

UNCW Associate Professor Jenn Biddle, who led the film assignment, explained that her students' main takeaway was "the beauty and fragility of Down East," which also gave them "a lot more sympathy for what people are going through."

Focusing on Climate Threats

Corey Davis, assistant state climatologist at the NC State Climate Office, then presented on the evolving nature of hurricanes and the subsequent threats they pose to North Carolina in a changing climate.

Davis highlighted how rising ocean temperatures extend the annual season with favorable conditions for tropical activity, fuel the rapid intensification of storms, and lead to generally wetter storms. He also cited research on hurricane behavior showing that "especially since the 1970s, these storms are slowing down and even stalling out as they reach land, and one of the primary areas affected is the coastal Carolinas."

"One consequence of these changes is that more people are in harm's way from these storms," Davis said.

Davis also addressed the damage exacerbated by development in North Carolina floodplains. He cited research by University of North Carolina Associate Professor Miyuki Hino, who was also at the gathering. Hino's findings showed that "for every property in North Carolina that was removed due to floodplain buyouts, another 10 had been built in those floodplain areas."

"I love North Carolina and I don't want to discourage anybody from living here, but darn, that's really frustrating to see. We're putting more people in these areas where we know storms can hit," Davis said.

Davis also shared findings from UNC researcher Helena Garcia, which showed that even residents outside of designated floodplains are experiencing greater flooding. Garcia's research indicated that "over a 25-year period through 2020, 43% of the flooded buildings were out of the FEMA-designated flood plains."

To illustrate that no area in the state is fully safe from hurricane-related damage, Davis showed maps of North Carolina broken down by the worst hurricane in each region.

The Fall Gathering also included a panel discussion on the benefits of cross-regional collaboration between Down East and southern Louisiana, a Davis Community meeting, roundtable discussions on resilience planning and water/wastewater issues, and a boat ride for attendees to see the local environment firsthand.

Amspacher said the next DERN gathering is tentatively scheduled for early next year.