

NOAA Science Update to the Science Advisory Board

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Climate Adaptation and Mitigation Update



2016 State of the Climate Report

U.S. Selected Significant Climate Anomalies and Events for 2016



AK had its 2nd warmest winter, warmest spring, 2nd warmest summer and a warmer-than-average fall, culminating in its warmest year on record.



The CONUS had its 2nd warmest year on record. Every state was warmer than average. Precipitation was above average for the year.



Based on data that go back to 2000, the 65,575 fires in 2016 were the sixth fewest on record and burned more than 5.4 million acres, seventh fewest.



Persistent storm tracks led to the wettest year on record for the Upper Midwest. It was the 2nd wettest year on record for MN and WI.



Drought was persistent in the Northeast during the summer and fall. At its peak in November, it covered 56% of the region.



In January, a powerful winter storm set new snowfall records in several cities in the Mid-Atlantic and was the 4th most intense storm based on the NESIS scale.



Above-normal annual precipitation in the West contributed to the regional drought footprint being reduced from 45% at the beginning of the year to 22% at the end.



During the fall, several locations had no precipitation for 50 or more days, leading to extreme and exceptional drought which covered 36% of the Southeast at its peak.



Darby became the 2nd tropical cyclone in 3 years to make landfall in HI—only the fifth landfalling cyclone since records began in 1949.



Separate heavy rain events in the spring and summer caused catastrophic and historic flooding in LA, TX and WV.



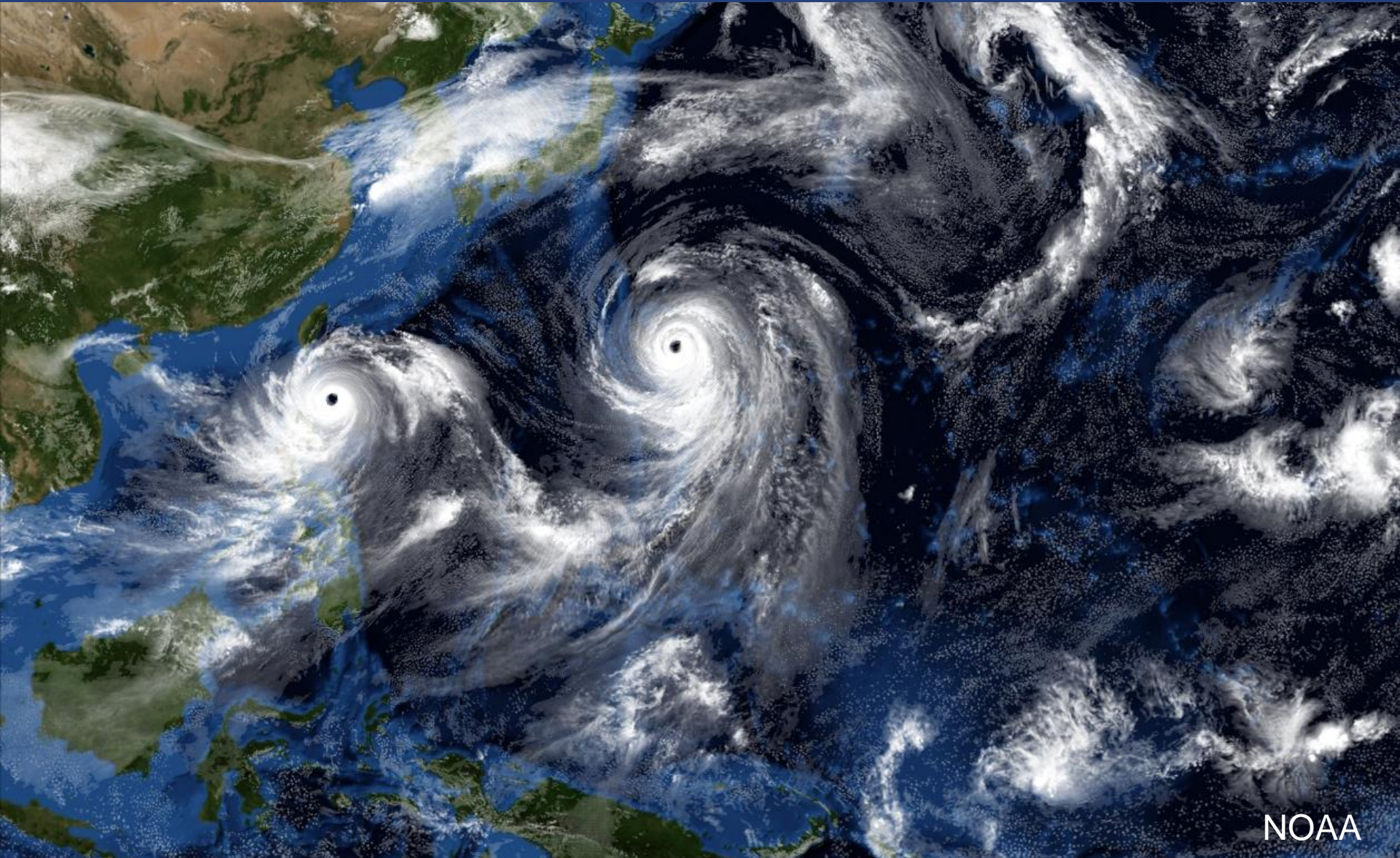
Hurricane Matthew was the first Atlantic Category 5 hurricane since Felix in 2007. It made landfall in October as a Category 1 hurricane near Myrtle Beach, SC and caused widespread coastal and inland flooding in the Carolinas.



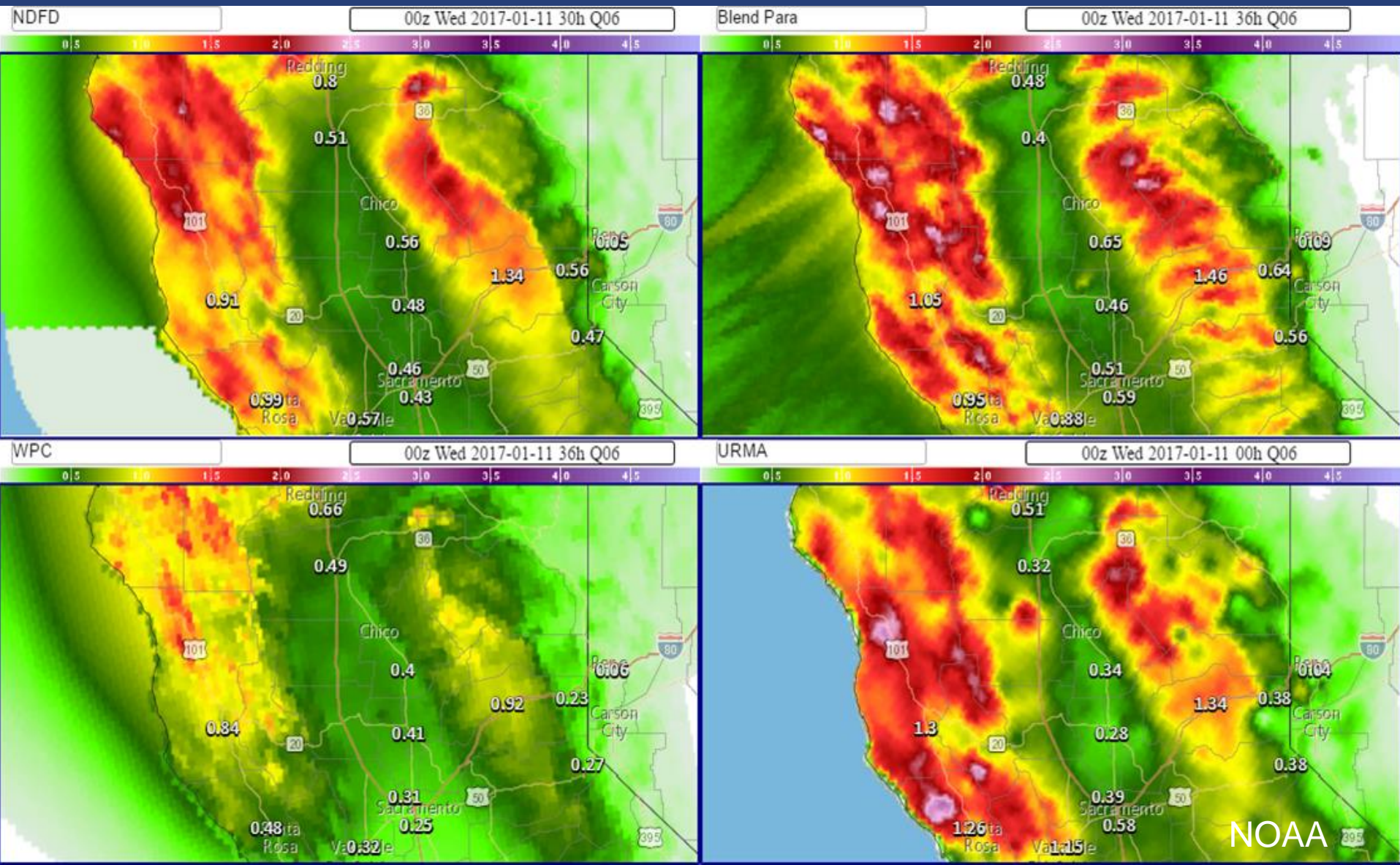
Weather Ready Nation Update



FV3 Update



National Blend of Models



Warn on Forecast in Hazardous Weather Test Bed



WRN Ambassadors – 5,000th Partner



Healthy Oceans Update



Aquaculture



Social Vulnerability Indicators could help U.S. Fishing Communities



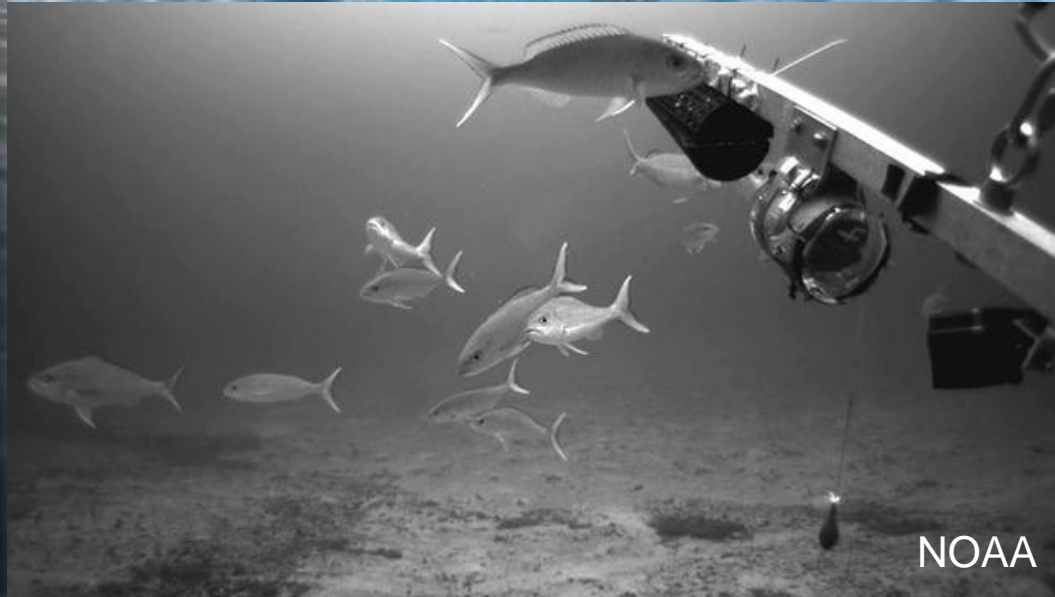
First Deep Bottomfish Fishery-Independent Survey Goes Operational



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The Economist Films: The Deep

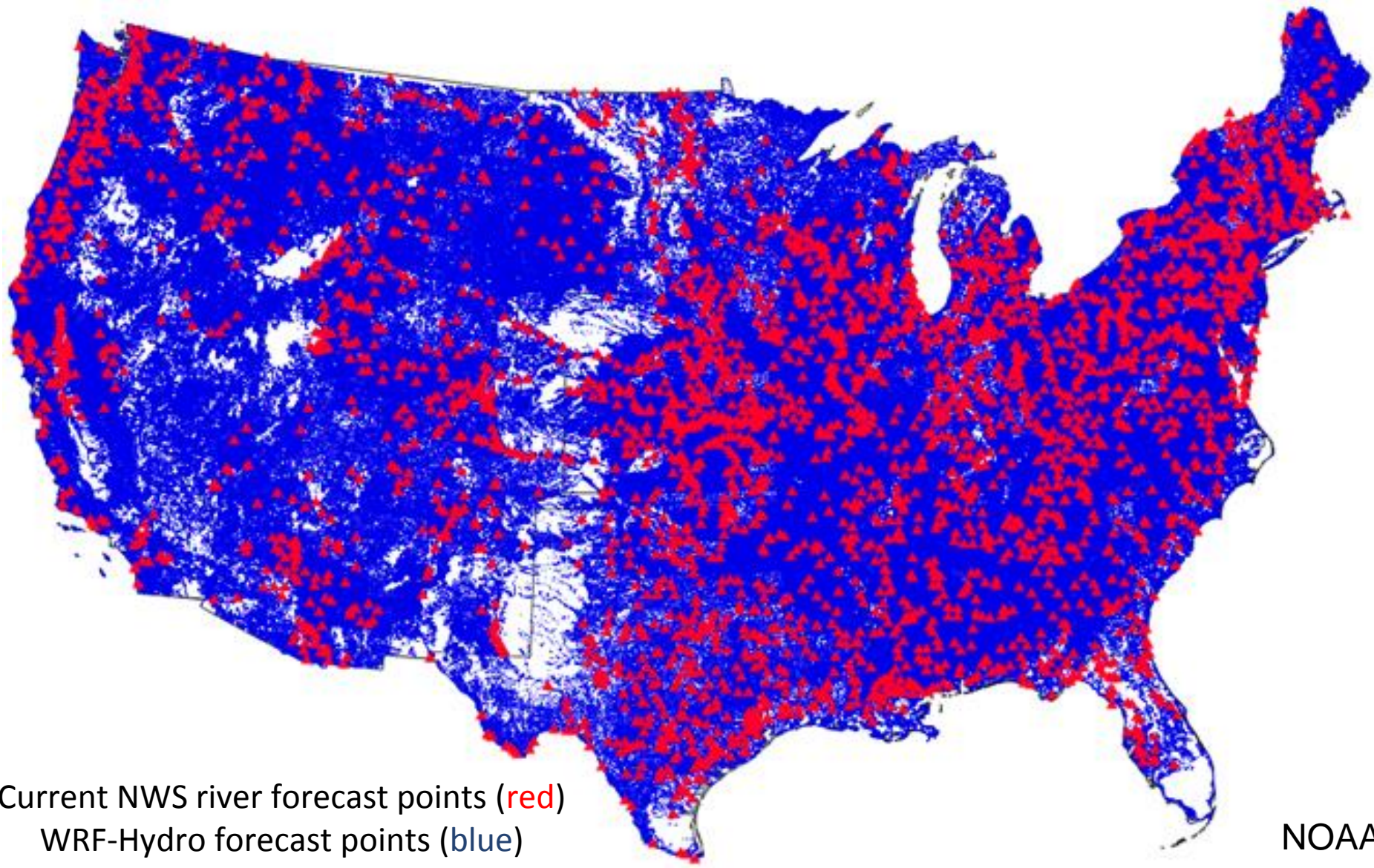
A dark, grainy underwater scene. A bright blue beam of light from a diver's flashlight cuts through the darkness, illuminating a fish swimming away from the light. The overall atmosphere is mysterious and somber.

THE DEEP

Resilient Coastal Communities and Economies Update



National Water Model Improvements



Current NWS river forecast points (red)
WRF-Hydro forecast points (blue)

GRAV-D Flights



Organizational Excellence

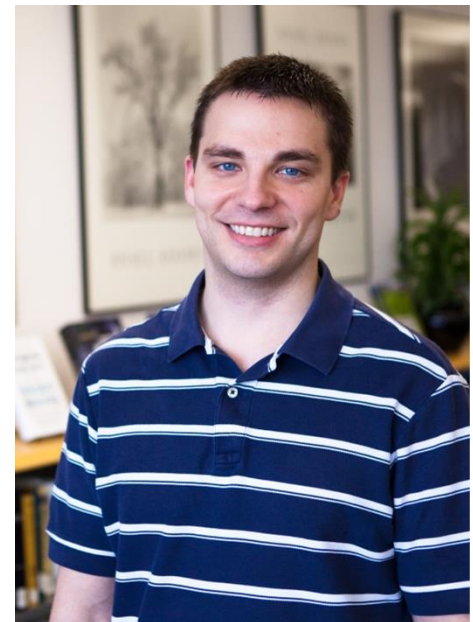
In the Spotlight: PECASE Winners



**Dr. Mandy
Karnauskas** (NMFS,
Southeast Fisheries
Science Center)



Dr. Anne Perring
(OAR, NOAA Cooperative
Institute for Research in
Environmental Sciences)



Dr. Corey Potvin
(OAR, National Severe
Storms Laboratory)

In the Spotlight



**Dr. Daniel T.
Lindsey (NESDIS)**



NOAA

FISHERIES SERVICE
Northeast Fisheries Science Center
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

**Northeast Fisheries Science Center
(NMFS)**

The Crowd & The Cloud

Questions?

