

April 13, 2018

North Carolina

KING TIDES PROJECT



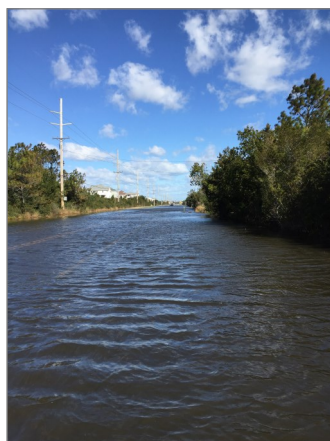
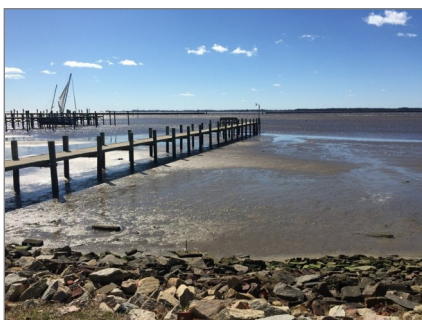
Spring Newsletter

**Upcoming
Predicted High
Water Events:**
May 14 - 18, 2018:
Amplified Tide
June 12 - 15, 2018:
Amplified Tide

An (un)timely nor'easter

The nor'easter that battered the east coast March 2nd - 3rd, also known as Winter Storm Riley, occurred at the tale-end of a predicted amplified tide event as a result of a full moon on March 1st and lunar perigee on February 27th. The co-occurrence of these forces caused coastal flooding from North Carolina all the way up through New England. On March 2nd, NOAA's water-level stations at Oregon Inlet and the US Coast Guard

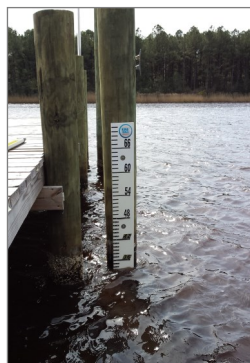
Station in Hatteras saw water levels of 2.6 and 3 feet above predicted values, respectively. Predicted values include astronomical influences (tides), but not meteorological influences (nor'easter). Below are two photos submitted on March 2nd to the What's your water level? web app:



The photos featured above (Belhaven) and to the right (Salvo) are examples of how strong and steady north-east winds can drastically impact water levels in eastern NC depending on your location and orientation.

New Citizen Science Water-Level Stations in New Hanover and Hyde Counties

As of March 15th, the NCKT team has installed not one, not two, but five new water-level gauges! All are staff gauges and are located at Wrightsville Beach Elementary School, Carolina Beach Town Marina, Carolina Beach State Park and on the intra-coastal waterway in Hyde County. We also installed a small staff at the intersection of Canal Drive and Sandpiper Lane at Carolina Beach to measure street flooding. See pictures of each gauge below! You can visit our website to learn more about our citizen science water-level monitoring effort and how you can get involved.



NCKT at SciREN Coast 2018

The NCKT team participated in the SciREN (Scientific Research and Education Network) Coast event at the Pine Knoll Shores Aquarium on February 15th. SciREN is a non-profit organization that aims to make current research available and accessible to K-12 educators by having researchers develop lesson plans based on their current work that also adhere to state and national educational standards. For this year's event, the NCKT team wrote a lesson plan called Charting the Tides for 4th and 6th grades and entered it in to SciREN's lesson plan competition. We are honored and excited to announce that we won the competition, which means our lesson plan materials were made in to a kits that will be distributed to educators all over NC! The Charting the Tides lesson plan is available for download on our website and if you're interested in a free kit, email us at nckingtides@gmail.com.

Be on the lookout for NCKT at the following events...

- Atlantic Estuarine Research Society 70th Anniversary Conference: April 5th - 7th
- North Carolina Association of Floodplain Managers Annual Conference: April 15th - 18th
- Morehead City Primary School STEAM Night: April 18th
- Earth Day Celebration at Sturgeon City: April 20th
- Community Involvement in Monitoring King Tide Events Webinar: May 10th

