



Analysis of Drought Phenomenon in the Northeast Climate Region

Leulaye Maskal
NOAA EPP/MSI Scholar

Mentors/Advisors:
Nir Krakauer & Tarendra Lakhankar

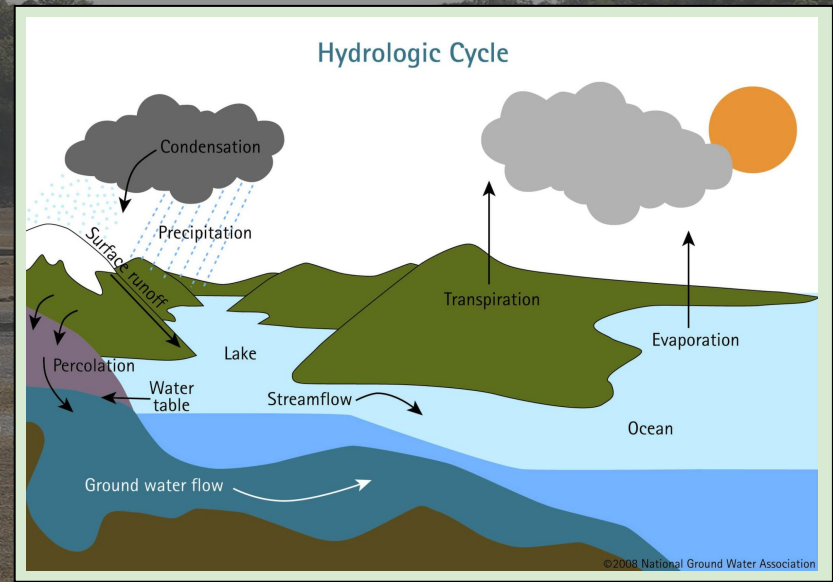


Mission

A temporal analysis of the frequency and sensitivity of drought reporting in the Northeast climate region. Analysis of pertinent data should highlight drought trends and variance in drought monitoring methodology.

Hydrological Drought

- a shortage of water compared to some 'normal' level
 - in streams or storages such as reservoirs, lakes, groundwater, and snowpacks
- slowly developing phenomenon that impacts many sectors of the society, the economy and the biosphere.



Drought on East Coast Raises Worries of Water Rationing



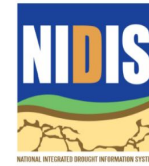
By Iver Peterson With Barbara Stewart

Feb. 20, 2002

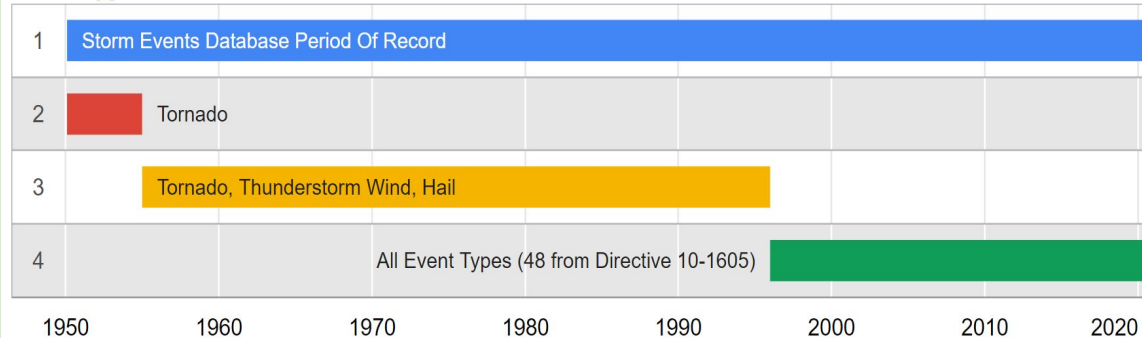
Drought Reporting

- Temporal Data Source: United States Drought Monitor and NOAA Storm Events Database

USDM:



Event Types Available:



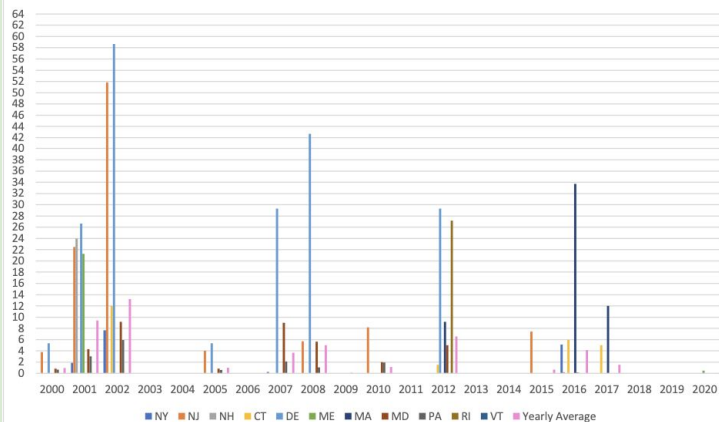
Drought event type added

NOAA SED:

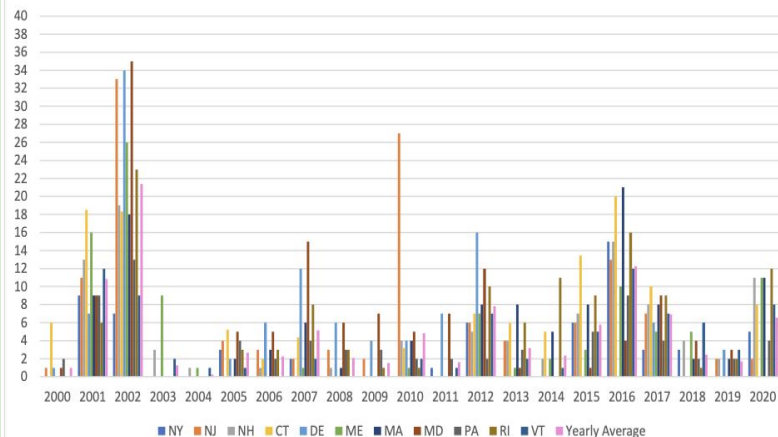
Current Research

- Indexed and illustrated drought reporting data for Northeastern Climate Region on a yearly and monthly basis
- Compare reporting rates to media and news drought response
- Form hypothesis of drought reporting sensitivity and methodology

SED

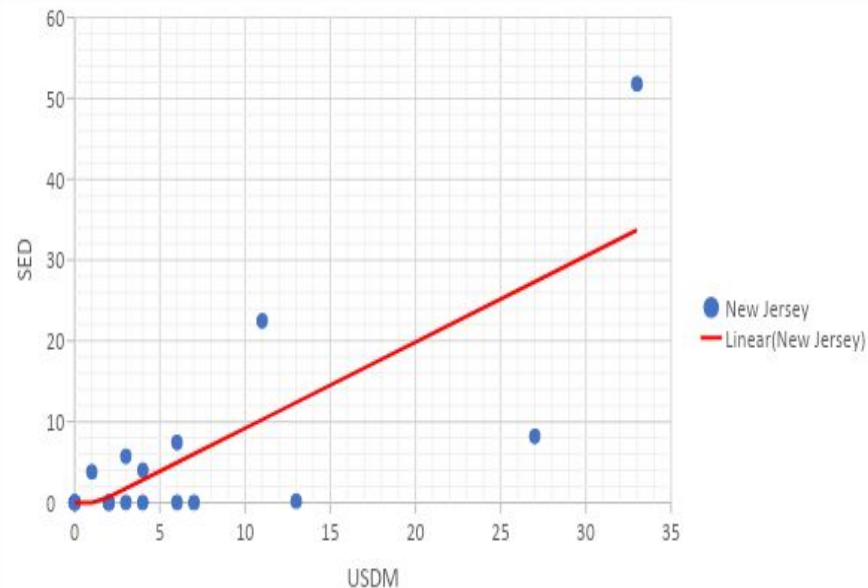
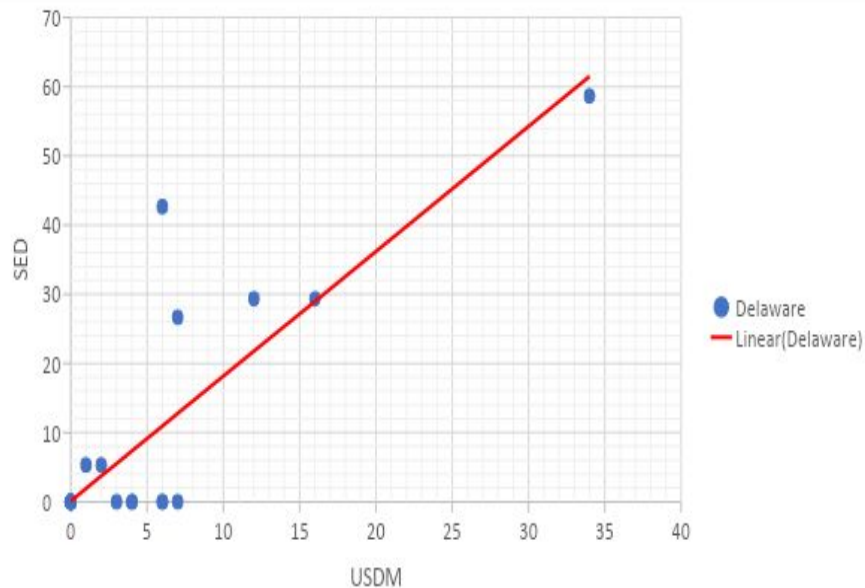


USDM



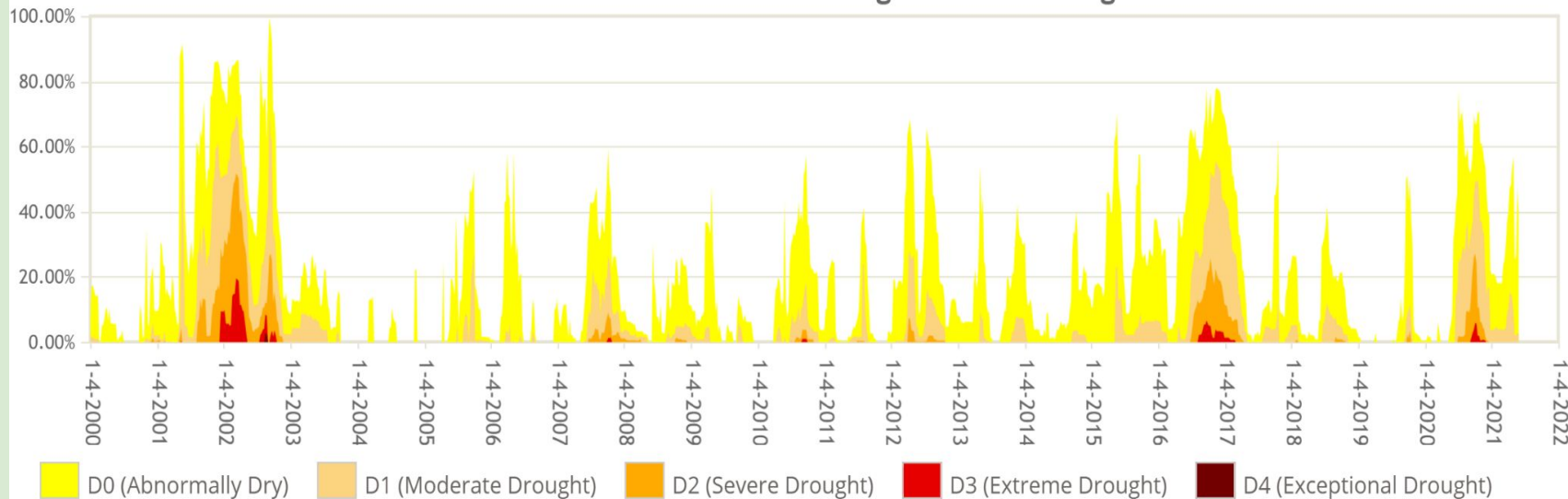
Linear Regression: SED vs. USDM

New Jersey & Delaware



Drought in Northeast USA

Northeast Percent Area in U.S. Drought Monitor Categories



Research Objectives

- Monthly Analysis: 2000 to 2020
 - Examine effect of seasonality on drought reporting
 - Illustrate/model indexed data
- Drought Impact Assessment
 - Economic indicators & health/social impact
- Build and fine tune Research oriented skills
 - Presentation/public speaking
 - Software/Coding implementation
 - Teamwork and collaboration



Conclusion

The knowledge and understanding we build will provide support for considering economic and social drought impacts. A combination of data analysis and anecdotal evidence from news and agency reports; provides a holistic approach.

A landscape photograph of a tidal flat or beach at low tide. The foreground is a mix of wet sand and shallow water. In the middle ground, there are several small pools of water and some rocks. The background is a dense line of green trees under a clear sky. A large, light green oval is centered in the image, containing the text "THANK YOU" in a bold, dark grey, sans-serif font.

THANK YOU