PUBLISH DATE: MAY 20, 2022

EASTERN NORTH CAROLINA MONTHLY CLIMATE REPORT

WEATHER FORECAST OFFICE NEWPORT/MOREHEAD CITY, NC

National Weather Service NEWPORT/MOREHEAD CITY, NC

MONTHLY SUMMARY

pril 2022 was yet another continuation of warmer and drier than normal conditions across eastern North Carolina, although not nearly as severe as in March. Temperatures were generally within a couple of degrees of average, with the coastal plain slightly cooler than its coastal counterpart. Precipitation was highly variable, with a late-month coastal storm bringing as much as 4-5 more inches of rainfall than some sites across the inner coastal plain. Scattered thunderstorm activity further exaggerated these differences. Drought conditions improved slightly along and east of Highway 17, with little to no improvement west.

CPC seasonal outlooks slightly favor above-average temperatures in the June-July-August time frame (around 40-50%), and above average precipitation for the same time period (around 33-40%, slightly higher closer to the mid-Atlantic). Drought conditions are still expected to improve as we shift into our wetter climatological period, although seasonal drought outlooks now suggest some level of drought will still be present at summer's end, particularly for the coastal plain.

TEMPERATURES

Analysis conducted by the North Carolina State Climate Office showed that temperatures were right in line with climatological norms for the month of April. The average temperature statewide was 58.8°F or a mere 0.2°F below the 1991-2020 average. This was the 44th warmest April statewide since records began in 1895, with 138 years of data.



April 2022 Temperature Summary from the North Carolina State Climate Office

Eastern North Carolina was slightly warmer than the statewide average. The three primary climate sites in the Morehead City CWA were around a degree above average for the month. Additional observations can be found in Appendix A.

| Site | Avg. High (°F) | Avg. Low (°F) | Avg. Temp (°F) | Normal (°F) | Departure (°F) |
|--------------------|----------------|---------------|----------------|-------------|----------------|
| Beaufort (KMRH) | 70.9 | 54.6 | 62.8 | 62.1 | 0.7 |
| Hatteras (KHSE) | 70.3 | 55.9 | 63.1 | 61.8 | 1.3 |

MHX Select Site Temperature Statistics: April 2022

| Site | Avg. High (°F) | Avg. Low (°F) | Avg. Temp (°F) | Normal (°F) | Departure (°F) |
|--------------------|----------------|---------------|----------------|-------------|----------------|
| New Bern (KEWN) | 74.5 | 50.1 | 62.3 | 61.8 | 0.5 |

Normals are based on a period from 1990-2020.

County-averaged statistics are presented in the following table. Note that mean temperature and anomaly calculations are based on a period of 1901-2000, rather than 1990-2020. Data courtesy of the National Centers for Environmental Information (NCEI).

| County | Avg. Temperature (°F) | Mean (°F) | Departure (°F) | Rank |
|--------------|--------------------------|-----------|----------------|------|
| Beaufort | 61.4 | 59.8 | 1.6 | 37 W |
| Carteret | 62.0 | 60.5 | 1.5 | 32 W |
| Craven | 61.5 | 60.1 | 1.4 | 37 W |
| Dare | 60.7 | 58.7 | 2 | 26 W |
| Duplin | 61.4 | 60.3 | 1.1 | 44 W |
| Greene | 60.5 | 59.8 | 0.7 | 52 W |
| Hyde | 61.6 | 59.9 | 1.7 | 29 W |
| Jones | 61.2 | 60.0 | 1.2 | 38 W |
| Lenoir | 60.6 | 60.0 | 0.6 | 56 W |
| Martin | 60.5 | 58.9 | 1.6 | 37 W |
| Onslow | 61.9 | 60.6 | 1.3 | 36 W |
| Pamlico | 62.0 | 60.5 | 1.5 | 35 W |
| Pitt | 60.5 | 59.7 | 0.8 | 54 W |
| Tyrrell | 61.0 | 59.0 | 2.0 | 28 W |
| Washington | 61.0 | 58.9 | 2.1 | 28 W |
| Area Average | 61.2 | 59.8 | 1.4 | |

Means are based on a period from 1901-2000. For rankings, "C" designates coldest and "W" designates warmest.

Area-wide, temperatures were roughly a degree and a half above average. Areas along and east of U.S. 17 saw April 2022 place in the top third warmest of historical records, with the coastal plain coming in closer to near normal. We got one last gasp of winter in late April as temperatures dropped into the 30s around April 19-20.



Daily Maximum and Minimum Temperatures

RECORDS OF NOTE

Cape Hatteras set a record low of 40°F on April 29th. This tied the previous record of 40° set in 1967.

PRECIPITATION

Analysis conducted by the North Carolina State Climate Office indicated average statewide precipitation of 2.84" for March or about 1.01" inches below average, although the distribution was far from uniform. This was the 36th driest month for the state since records began in 1895.



April 2022 Precipitation Summary from the North Carolina State Climate Office

Eastern North Carolina's precipitation spread was very large for April, owing to a couple of coastal systems that greatly benefited portions of the coastal plain but left more inland areas behind. Both the driest and wettest sites across all of North Carolina were observed in the MHX forecast area.

| Site | Total Precipitation (in.) | Normal (in.) | Departure (in.) |
|-----------------|---------------------------|--------------|-----------------|
| Beaufort (KMRH) | 2.76 | 3.39 | -0.63 |
| Hatteras (KHSE) | 2.93 | 3.92 | -0.99 |
| New Bern (KEWN) | 2.45 | 3.18 | -0.73 |

| MHX Select Site Precipitation | n Statistics: April 2022 |
|--------------------------------------|--------------------------|
|--------------------------------------|--------------------------|

County-averaged statistics are presented in the following table. Like temperatures, mean and anomaly precipitation calculations are based on a period 1901-2000. Data courtesy of the National Centers for Environmental Information (NCEI).

| County | Avg. Accum. (in.) | Mean (in.) | Departure (in.) | Rank |
|--------------|-------------------|------------|-----------------|------|
| Beaufort | 2.48 | 3.34 | -0.86 | 35 D |
| Carteret | 2.54 | 3.19 | -0.65 | 43 D |
| Craven | 2.48 | 3.21 | -0.73 | 37 D |
| Dare | 2.69 | 3.26 | -0.57 | 47 D |
| Duplin | 2.75 | 3.08 | -0.33 | 55 D |
| Greene | 2.44 | 3.38 | -0.94 | 31 D |
| Hyde | 2.43 | 3.37 | -0.94 | 35 D |
| Jones | 2.25 | 3.16 | -0.91 | 33 D |
| Lenoir | 2.38 | 3.31 | -0.93 | 32 D |
| Martin | 1.87 | 3.40 | -1.53 | 19 D |
| Onslow | 1.95 | 3.01 | -1.06 | 30 D |
| Pamlico | 3.04 | 3.28 | -0.24 | 56 D |
| Pitt | 2.04 | 3.38 | -1.34 | 23 D |
| Tyrrell | 2.49 | 3.34 | -0.85 | 35 D |
| Washington | 2.25 | 3.38 | -1.13 | 28 D |
| Area Average | 2.41 | 3.27 | -0.87 | |

Means are based on a period from 1901-2000. For rankings, "W" designates wettest and "D" designates driest.

The primary precipitation events were widespread rainfall events owing to deepening low pressure across the mid-Atlantic on April 5th and a late-season Hatteras Low spinning up along the NC coastline on April 18th. A few convective episodes resulted in increased variability of precipitation amounts, but based on county averages eastern NC was just under an inch below average for the month.



Monthly Accumulated Precipitation

The precipitation surplus across near-shore locales provided drought relief in April, with the early May U.S. **Drought Monitor indicating** conditions improving along and east of U.S. 17. The inner coastal plain remained in D2 (Severe) drought as of the early May report. Drought is expected to persist through the summer according to CPC seasonal outlooks, even with some anticipated improvement.



U.S. Drought Monitor

North Carolina



<u>Author:</u> David Simeral Western Regional Climate Cente



ADDITIONAL CLIMATE RESOURCES

For a look at climate on the national scale, as well as statistics from a CONUS-wide to county and city level, please visit the **National Centers for Environmental Information** at <u>https://www.ncei.noaa.gov/</u>.

For climate statistics and real time observations across the state of North Carolina, please visit the **North Carolina State Climate Office** at <u>https://climate.ncsu.edu/</u>.

For climate forecasts and outlooks, visit the **Climate Prediction Center** at <u>https://www.cpc.ncep.noaa.gov/</u>.

For community-based precipitation observations from across the United States, visit **CoCoRaHS** at <u>https://www.cocorahs.org/</u>.

For climate statistics relevant to various regions of North Carolina, please visit the following climate pages:

Eastern (WFO Morehead City): <u>https://www.weather.gov/wrh/climate?wfo=mhx</u>

Southeastern (WFO Wilmington): https://www.weather.gov/wrh/climate?wfo=ilm

Northeastern (WFO Wakefield, VA): https://www.weather.gov/wrh/climate?wfo=akq

Central (WFO Raleigh): https://www.weather.gov/wrh/climate?wfo=rah

Northwestern (WFO Blacksburg, VA): https://www.weather.gov/wrh/climate?wfo=rnk

Southwestern (WFO Greer, SC): <u>https://www.weather.gov/wrh/climate?wfo=gsp</u>

Cherokee and Clay Co. (WFO Knoxville, TN): <u>https://www.weather.gov/wrh/climate?</u> wfo=mrx

APPENDIX A: ADDITIONAL TEMPERATURE DATA

| Site | Avg. High (°F) | Avg. Low (°F) | Avg. Temp (°F) | Normal (°F) | Departure (°F) |
|-------------|----------------|---------------|----------------|-------------|----------------|
| Greenville | 72.9 | 48.2 | 60.6 | 61.8 | -1.3 |
| Kinston | 75.0 | 49.4 | 62.2 | 63.4 | -1.2 |
| Williamston | 73.9 | 49.3 | 61.6 | 60.8 | 0.8 |
| Plymouth | 75.0 | 49.0 | 62.0 | 61.6 | 0.4 |
| Bayboro | 72.9 | 49.6 | 61.3 | 60.2 | 1.1 |
| Manteo | 67.5 | 51.2 | 59.4 | 59.6 | -0.3 |

Cooperative Observation Site Temperature Statistics: April 2022

Normals are based on a period from 1990-2020.

Maximum and Minimum Monthly Temperatures: April 2022

| Site | Max High (°F) | Date Observed | Min Low (°F) | Date Observed |
|-----------------|---------------|----------------|--------------|----------------|
| Beaufort (KMRH) | 78 | Apr 14 | 42 | Apr 20 |
| Hatteras (KHSE) | 79 | Apr 24 | 40 | Apr 29 |
| New Bern (KEWN) | 88 | Apr 26 | 38 | Apr 20 |
| Greenville | 87 | Apr 26 | 30 | Apr 10 |
| Kinston | 87 | Apr 27 | 35 | Apr 20 |
| Williamston | 88 | Apr 27 | 34 | Apr 20 |
| Plymouth | 86 | Apr 25-27 | 34 | Apr 20 |
| Bayboro | 84 | Apr 26-27 | 38 | Apr 20-21 |
| Manteo | 83 | Apr 25, Apr 27 | 41 | Apr 21, Apr 29 |

APPENDIX B: ADDITIONAL PRECIPITATION DATA

| Site | Total Precipitation (in.) | Normal (in.) | Departure (in.) |
|-------------|---------------------------|--------------|-----------------|
| Bayboro | 4.37 | 3.76 | 0.61 |
| Greenville | 1.54 | 3.81 | -2.27 |
| Kinston | 2.25 | 3.53 | -1.28 |
| Manteo | 4.18 | 2.93 | 1.25 |
| Plymouth | 2.45 | 3.74 | -1.29 |
| Williamston | 1.98 | 3.72 | -1.74 |

Cooperative Observation Site Precipitation Statistics: April 2022

Sites in red have missing data in their record.

CoCoRaHS Monthly Accumulated Precipitation: April 2022

| Site | County | Amount (in.) |
|-----------------------|----------|--------------|
| Bath 0.7 N | Beaufort | 4.79 |
| Bath 6.6 ESE | Beaufort | 3.22 |
| Bath 1.6 SSE | Beaufort | 3.21 |
| Pantego 0.4 WSW | Beaufort | 3.10 |
| Newport 1.0 N | Carteret | 3.49 |
| Newport 0.2 SW | Carteret | 3.32 |
| Harkers Island 3.2 NE | Carteret | 3.14 |
| Beaufort 15.1 N | Carteret | 3.08 |
| Beaufort 3.8 N | Carteret | 3.02 |
| Beaufort 12.2 N | Carteret | 3.01 |

| Site | County | Amount (in.) |
|-----------------------|----------|--------------|
| Swansboro 3.7 NNE | Carteret | 2.85 |
| Beaufort 5.3 N | Carteret | 2.81 |
| Morehead City 6.0 WNW | Carteret | 2.79 |
| Newport 1.7 SSE | Carteret | 2.77 |
| Cape Carteret 1.5 NE | Carteret | 2.62 |
| Newport 10.3 SW | Carteret | 2.56 |
| Stella 2.5 SE | Carteret | 2.52 |
| Morehead City 5.7 W | Carteret | 2.51 |
| Morehead City 2.9 WNW | Carteret | 2.48 |
| Beaufort 0.5 W | Carteret | 2.46 |
| Cape Carteret 0.8 NE | Carteret | 2.40 |
| Morehead City 0.6 NW | Carteret | 2.39 |
| Cedar Point 0.4 WSW | Carteret | 2.30 |
| Swansboro 2.7 NE | Carteret | 2.28 |
| Cedar Island 0.3 SSE | Carteret | 2.23 |
| Atlantic Beach 0.6 W | Carteret | 2.17 |
| Emerald Isle 0.2 ENE | Carteret | 2.05 |
| Emerald Isle 2.3 WSW | Carteret | 2.03 |
| Cedar Point 0.9 WSW | Carteret | 2.02 |
| New Bern 4.9 SW | Craven | 5.75 |
| New Bern 5.3 SW | Craven | 5.61 |
| New Bern 1.3 NNE | Craven | 5.26 |
| New Bern 1.5 W | Craven | 4.60 |

| Site | County | Amount (in.) |
|-------------------------|--------|--------------|
| New Bern 7.3 ESE | Craven | 4.43 |
| Trent Woods 1.2 ENE | Craven | 4.40 |
| Trent Woods 1.3 SSE | Craven | 3.90 |
| New Bern 8.8 W | Craven | 3.72 |
| New Bern 4.2 S | Craven | 3.48 |
| Havelock 1.9 SSE | Craven | 3.17 |
| Manteo 2.8 NW | Dare | 3.56 |
| Buxton 0.3 ENE | Dare | 3.52 |
| Southern Shores 0.5 NNE | Dare | 3.12 |
| Rodanthe 1.0 SSE | Dare | 2.73 |
| Wallace 14.8 E | Duplin | 4.66 |
| Rose Hill 0.1 NNW | Duplin | 2.75 |
| Mount Olive 6.0 SE | Duplin | 2.46 |
| Snow Hill 3.1 NNE | Greene | 2.19 |
| Ayden 6.5 WNW | Greene | 1.69 |
| SQ Tower | Hyde | 4.48 |
| Ocracoke 0.2 ESE | Hyde | 3.43 |
| Kinston 7.0 SW | Lenoir | 2.84 |
| Kinston 3.7 WNW | Lenoir | 2.29 |
| Kinston 4.7 ESE | Lenoir | 2.28 |
| Kinston 4.4 WNW | Lenoir | 2.25 |
| Kinston 1.2 NW | Lenoir | 2.01 |
| Kinston 5.1 WNW | Lenoir | 1.98 |

| Site | County | Amount (in.) |
|----------------------|---------|--------------|
| Williamston 8.9 SSE | Martin | 1.70 |
| Jacksonville 1.0 NW | Onslow | 4.60 |
| Jacksonville 3.3 W | Onslow | 3.93 |
| Swansboro 1.4 N | Onslow | 2.98 |
| Sneads Ferry 1.2 SSW | Onslow | 2.81 |
| Camp Lejeune 1.4 NW | Onslow | 2.70 |
| Sneads Ferry 3.3 SW | Onslow | 2.67 |
| Holly Ridge 9.0 ENE | Onslow | 2.47 |
| Hubert 4.9 SE | Onslow | 2.45 |
| Lowland 0.2 SE | Pamlico | 5.09 |
| Oriental 2.1 WSW | Pamlico | 3.72 |
| Oriental 1.9 WSW | Pamlico | 3.37 |
| Oriental 4.3 NNW | Pamlico | 3.30 |
| Merritt 1.5 WSW | Pamlico | 3.26 |
| Greenville 4.6 W | Pitt | 3.33 |
| Fountain 0.1 NE | Pitt | 2.56 |
| Greenville 5.7 NW | Pitt | 2.49 |
| Winterville 2.8 WNW | Pitt | 2.23 |
| Greenville 7.1 SSE | Pitt | 2.06 |
| Winterville 3.5 W | Pitt | 1.83 |
| Greenville 2.0 SE | Pitt | 1.80 |
| Greenville 2.8 ESE | Pitt | 1.68 |
| Greenville 5.0 SE | Pitt | 1.64 |

| Site | County | Amount (in.) |
|---------------------|---------|--------------|
| Greenville 4.3 SSE | Pitt | 1.56 |
| Winterville 1.0 ENE | Pitt | 1.32 |
| Columbia 0.8 NNE | Tyrrell | 3.23 |

CoCoRaHS inclusion in this table is based on a complete 30-day liquid precipitation record. Thank you to all observers!