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Welcome to the summer 2021 edition of The North Coast Observer! In this issue, you'll find articles on the ongoing Northwest California drought and wildfire preparation, as well as regular features detailing the weather this spring, an outlook for the summer months, and our Astronomy Corner.

As we transition into the summer months, our concerns will focus on the continued drought and its effects on water supplies, fish populations, and fire weather threats. During times of drought, seemingly welcome summer thunderstorms bring the risk of wildfire starts due to lightning. The National Weather Service in Eureka will keep you updated through it all!



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**Upcoming Events**

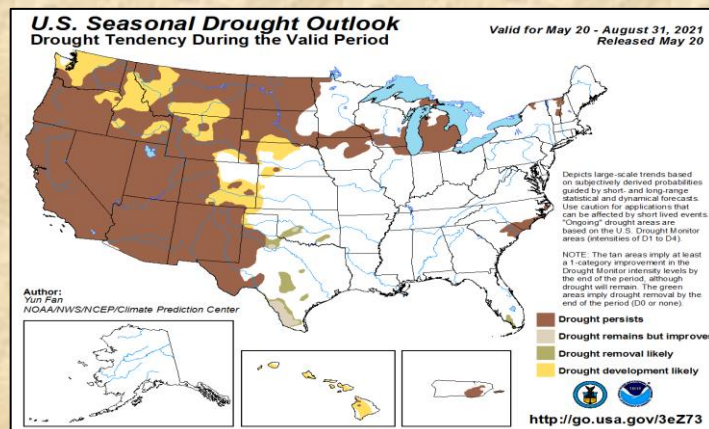
| Date     | Event                                   |
|----------|---|
| Jun 1    | Meteorological summer begins            |
| Jun 6-12 | Beach Safety/Rip Current Awareness Week |
| Jun 20   | Summer solstice at 8:32 PM              |
| Sep 1    | Meteorological fall begins              |
| Sep 22   | Fall equinox at 12:21 PM                |

## Northwest California Drought Continues

by Kathleen Zontos

Despite this being only the beginning of the dry season, almost 95% of California experienced severe drought conditions by late May. This is the outcome of two back-to-back dry winters with precipitation totals that were well below normal. With less water in the snowpack and water tables to replenish the rivers and reservoirs across the region, there is less water available to carry over into the dry summer months. Some of the most significant impacts that have been observed across northwest California as a result of this 2 year drought include: very low reservoir levels in Lake and Mendocino Counties, diseased juvenile fish in the Klamath River, and extremely low flows in mainstem watersheds causing an early presence of blue green algae.

What does this mean for the months to come? With little to no rain expected across the state through the summer months, there isn't much relief expected until the wet season rains arrive in the late fall. The Climate Prediction Center outlook has drought persisting across much of the western United States through August 2021. Unfortunately, drought conditions will likely worsen with time, with extreme to exceptional drought impacts ([United States Drought Monitor](#)) potentially expanding farther into Northwest California. If you're looking for ways you can conserve water both indoors and outdoors, check out the [California Department of Water Resources](#).





# Be Prepared for Wildfire Season!

by Jonathan Garner



The summer months bring a return of hot and dry weather across Northwest California, and, with that, the threat for wildfires increases through the fall. Now is a good time to review some simple steps that everyone can take to prepare for wildfires. CAL FIRE

[[readyforwildfire.org](http://readyforwildfire.org)] recommends that people living in wildfire country develop a plan of action before wildfires strike, because advanced planning keeps everyone prepared and allows for quick and efficient evacuation when a wildfire approaches.

Steps can also be taken to ensure that homes and property are more likely to survive an encroaching wildfire. Creating a defensible space out to 100 feet from homes reduces the intensity of fires by removing dead vegetation or flammable plants and bark, as well as branches hanging over a home, and plant material from roofs and gutters. Hardening a home is another way of making structures more fire resistant. Re-roofing a home with non-flammable materials, covering vents with metal mesh, boxing eaves, installing dual-paned windows, and using ignition resistant materials in other parts of the house are steps you can take to increase the chances of your home surviving a wildfire.

Do you know what to do if you have to evacuate due to wildfire? Developing a plan now is an important step in wildfire preparedness. CAL FIRE recommends that we all 1) create a wildfire action plan that includes evacuation planning for your home, family, and pets; 2) assemble an emergency supply kit (in a backpack) for each person in a household that can be grabbed quickly when it is time to go during evacuation; and 3) fill-out a family communication plan that includes important evacuation and contact information. One more thing to consider—do you have elderly or disabled neighbors? Now is the time to visit them and make sure they have a plan to evacuate.

Finally, it is important to monitor sources of information that keep you informed of current wildfire activity (such as CAL FIRE), the latest weather conditions that can impact fire behavior (your local National Weather Service office), and evacuation orders and other safety information provided by local, state, and federal government agencies.

Let's all do our part in ensuring everyone has a safe wildfire season by planning ahead of time, staying informed, and acting when it is time to go!

## WILDFIRE IS COMING. ARE YOU READY?



Defensible Space is your property's front line defense against wildfire. Creating and maintaining defensible space around your home can dramatically increase your home's chance of surviving a wildfire and improves the safety of firefighters defending your property. 100 feet of defensible space is required by law.\*



ONE LESS SPARK  
ONE LESS WILDFIRE

\*For more information on creating defensible space and legal requirements visit  
[READYFORWILDFIRE.ORG](http://READYFORWILDFIRE.ORG)

### TWO ZONES MAKE UP THE REQUIRED 100 FEET OF DEFENSIBLE SPACE:

#### ZONE 1: 30 feet of Lean, Clean & Green

- 1 Remove all dead plants, grass and weeds.
- 2 Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- 3 Keep tree branches 10 feet away from your chimney and other trees.

#### ZONE 2: 30-100 feet of Reduced Fuel

- 4 Cut or mow annual grass down to a maximum height of 4 inches.
- 5 Create horizontal spacing between shrubs and trees.
- 6 Create vertical spacing between grass, shrubs and trees.

#### Use Equipment Properly to Keep from Sparking a Wildfire

- 7 Mow before 10 a.m., and never on a hot or windy day. String trimmers are a safer option (vs. lawnmowers) for clearing vegetation.



#### VERTICAL SPACING

Large trees do not have to be cut and removed as long as all of the plants beneath them are removed. This eliminates a vertical "fire ladder."



#### HORIZONTAL SPACING

Create horizontal and vertical spacing between plants; the amount of spacing will depend on how steep the slope is and the size of the plants.

## WILDFIRE SAFETY

Properly discard cigarettes.

Keep vehicles off of dry grass.

Avoid activities with open flames or sparks.

Avoid power equipment that creates sparks.

Obey burn bans.

Evacuate if fire/smoke is heading your way.

Evacuate if ordered to do so by local officials.



Find more fire safety tips at

[www.readyforwildfire.org](http://www.readyforwildfire.org)



# Spring Weather Summary

by Matthew Kidwell

**MARCH** The month started out with near normal rainfall in most areas. However, after the 20<sup>th</sup> of the month, rainfall has mostly ended. This left March with 50 to 75% of normal rainfall, lowest in the south and east. Temperatures throughout the month varied widely across the interior. Highs in Ukiah ranged from 47°F on the 10<sup>th</sup> to 84°F on the 30<sup>th</sup>. Inland areas saw high temperatures slightly above normal and low temperatures below normal as clear skies brought warm afternoon temperatures and allowed good radiational cooling at night. At the coast, temperatures generally remained below normal. However, on the 31<sup>st</sup>, temperatures warmed into the 70s with Scotia tying the record of 80°F last set in 1987.

**APRIL** High pressure remained across the region for much of April. A few weather systems did move through, but only two of them produced rainfall, and, of those, only one made it as far south as Mendocino and Lake counties. Overall, the month ended with 10 to 20% of the normal rainfall. The high pressure brought above normal temperatures to the inland areas, with most areas seeing high temperatures average 5 to 10°F above normal for the month. At the coast, most areas saw below normal temperatures. The breezy northerly winds kept the ocean waters cool due to upwelling, which held coastal temperatures down. Dry air and clear skies allowed the inland areas to cool off overnight, and low temperatures ended the month near to slightly below normal.

**MAY** The month saw several weather systems move through interspersed by periods of high pressure. In the middle of the month, there were several days of thunderstorms, although no significant rainfall fell at the climate sites. While it is not terribly unusual to see so little rain in May, it is more significant following such a dry winter. In fact, this was the fourth consecutive month of below normal rainfall since January in the north, with more than a year of below normal monthly rain for Mendocino and Lake counties. The aforementioned fronts brought a few days of below normal temperatures. For example, in Ukiah, the high temperature only reached 64°F on May 20<sup>th</sup>. Despite these fluctuations, inland temperatures ended the month about 5°F above normal, while coastal areas were near to slightly below normal. Ukiah hit 106°F on the last day of the month, breaking the old record of 104°F set back in 1910. This also set a new record for the entire month of May in Ukiah.

## Spring Record Events

| Date   | Location      | Record   | Value | Previous Record |
|--------|---------------|----------|-------|-----------------|
| Mar 5  | Crescent City | Rainfall | 2.25  | 2.02 in 2013    |
| Mar 16 | Eureka        | Min Temp | 31    | 32 in 2020      |
| May 31 | Ukiah         | Max Temp | 106   | 104 in 1910     |

temperatures in °F, rainfall in inches

# Spring Climate & Summer Outlook

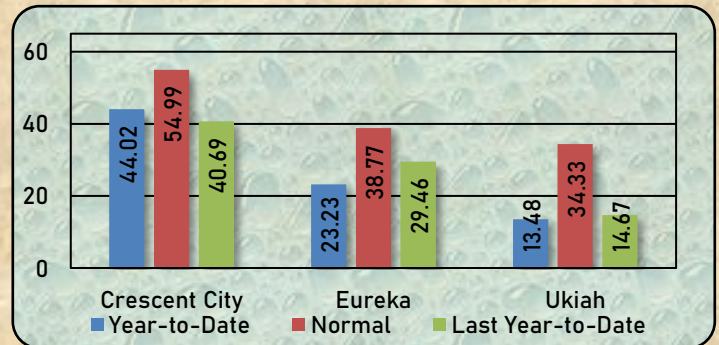
by Scott Carroll

## Spring 2021 Monthly Climate Comparison

|     | Crescent City |        |              | Eureka |        |              | Ukiah |        |              |
|-----|---------------|--------|--------------|--------|--------|--------------|-------|--------|--------------|
|     | Ave H         | Ave Lo | Total Precip | Ave H  | Ave Lo | Total Precip | Ave H | Ave Lo | Total Precip |
| Mar | 52.9          | 39.3   | 5.82         | 54.7   | 38.5   | 3.93         | 64.2  | 36.7   | 2.37         |
| Apr | 52.9          | 41.8   | 1.04         | 55.4   | 42.9   | 0.71         | 76.6  | 41.6   | 0.29         |
| May | 57.0          | 46.4   | 0.48         | 57.9   | 46.2   | 0.25         | 83.4  | 47.7   | Trace        |

temperatures in °F, rainfall in inches

## Water Year-to-Date Precipitation Comparison



rainfall in inches since Oct 1<sup>st</sup>, data through Jun 3<sup>rd</sup>

## Summer Outlook (June–August)

[click images for links](#)

The Climate Prediction Center's summer outlook for Northwest California is calling for above normal temperatures (*figure 1 below*) and nearly even chances of above and below normal precipitation (*figure 2 below*).

Most of the country is forecast to have above normal temperatures for the summer with the northern Mississippi Valley having equal chances of above and below normal temperatures. Drier than normal conditions are anticipated from the Pacific Northwest to the New Mexico, while wetter than normal weather is expected for much of the east.

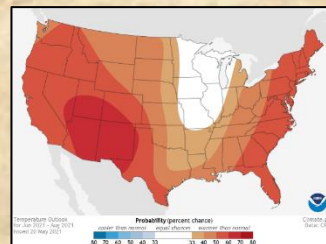


Figure 1 – Temperature Outlook

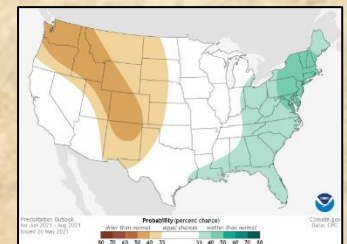


Figure 2 – Precipitation Outlook

More detailed outlook information can be found on the Climate Prediction Center's [website](#). For more detailed local climate information, visit NWS Eureka's [homepage](#), then click on the Climate and Past Weather menu.



# Astronomy Corner

by Scott Carroll

There are a couple of meteor showers during the summer months. The first is the Delta Aquarid shower, which reaches its maximum on July 27<sup>th</sup>. However, better viewing may be found after the maximum, as the moon continues to wane and moonrise occurs later each night. The second meteor shower of the summer is the Perseid shower, which reaches its peak on August 12<sup>th</sup>. The moon will set before midnight, making for dark skies after midnight and better meteor viewing.

The moon and both Venus and Mars will closely approach each other in the western evening sky around June 11<sup>th</sup>-13<sup>th</sup>. This will come at a time when the moon is a waxing thin crescent. The nearly full but waning moon, Saturn, and Jupiter will appear close in the southern sky around June 27<sup>th</sup>-28<sup>th</sup> after midnight.

On July 12<sup>th</sup>-13<sup>th</sup>, another thin crescent moon will near Venus and Mars once again in the early evening western sky. On July 24<sup>th</sup>-25<sup>th</sup>, a nearly full moon will reach conjunction with Saturn and Jupiter in the southern sky after midnight. In addition, Saturn will be reaching opposition shortly thereafter on August 1<sup>st</sup>. This means the planet will be on the opposite site of the earth from the Sun.

Around August 10<sup>th</sup> and again around September 9<sup>th</sup>, a very thin crescent moon will appear close to Venus in the low western sky during the early evening. On August 20<sup>th</sup>-21<sup>st</sup> and again on September 16<sup>th</sup>-17<sup>th</sup>, a nearly full moon will share the sky with nearby Saturn and Jupiter in the low southeastern sky during the early evening.

| Moon Phases |                  |      |                  |        |                  |           |                  |
|-------------|------------------|------|------------------|--------|------------------|-----------|------------------|
| June        |                  | July |                  | August |                  | September |                  |
| ☾           | 2 <sup>nd</sup>  | ☾    | 1 <sup>st</sup>  | ●      | 8 <sup>th</sup>  | ●         | 6 <sup>th</sup>  |
| ●           | 10 <sup>th</sup> | ●    | 9 <sup>th</sup>  | ☾      | 15 <sup>th</sup> | ☾         | 13 <sup>th</sup> |
| ☾           | 17 <sup>th</sup> | ☾    | 17 <sup>th</sup> | ●      | 22 <sup>nd</sup> | ●         | 20 <sup>th</sup> |
| ●           | 24 <sup>th</sup> | ●    | 23 <sup>rd</sup> | ☾      | 30 <sup>th</sup> | ☾         | 28 <sup>th</sup> |
|             |                  | ☾    | 31 <sup>st</sup> |        |                  |           |                  |

| Night Sky Calendar |                                     |
|--------------------|-------------------------------------|
| Date               | Event                               |
| Jun 11             | Moon-Venus conjunction              |
| Jun 13             | Moon-Mars conjunction               |
| Jun 27             | Moon-Saturn conjunction             |
| Jun 28             | Moon-Jupiter conjunction            |
| Jul 7              | Moon-Mercury conjunction            |
| Jul 12             | Moon-Venus-Mars conjunction         |
| Jul 13             | Venus-Mars conjunction              |
| Jul 24             | Moon-Saturn conjunction             |
| Jul 25             | Moon-Jupiter conjunction            |
| Jul 27             | Delta Aquarid meteor shower maximum |
| Aug 1              | Saturn opposition                   |
| Aug 10             | Moon-Venus conjunction              |
| Aug 12             | Perseid meteor shower maximum       |
| Aug 18             | Mercury-Mars conjunction            |
| Aug 19             | Jupiter opposition                  |
| Aug 20             | Moon-Saturn conjunction             |
| Aug 21             | Moon-Jupiter conjunction            |
| Sep 9              | Moon-Venus conjunction              |
| Sep 14             | Neptune opposition                  |
| Sep 16             | Moon-Saturn conjunction             |
| Sep 17             | Moon-Jupiter conjunction            |

Moon phases and event information courtesy of NASA

# Summer Weather Safety

## Practice HEAT SAFETY Wherever You Are

Heat related deaths are preventable. Protect yourself and others from the impacts of heat waves.

**Job Sites**  
Stay hydrated and take breaks in the shade as often as possible

**Indoors**  
Check up on the elderly, sick and those without AC

**Vehicles**  
Never leave kids or pets unattended - LOOK before you LOCK

**Outdoors**  
Limit strenuous outdoor activities, find shade, and stay hydrated

weather.gov/heat

## Heat Related Deaths ARE Preventable LOOK BEFORE YOU LOCK

The temperature in your car can quickly become deadly!

Outside Temperature 80°

Inside 99°

Time Elapsed: 10 Minutes

Inside 109°

Time Elapsed: 20 Minutes

Inside 114°

Time Elapsed: 30 Minutes

Inside 123°

Time Elapsed: 60 Minutes

weather.gov/heat nhtsa.gov

## Heat Impacts: Vulnerable Populations

**PREGNANT**

**NEWBORNS**

**CHILDREN**

**ELDERLY**

**CHRONIC ILLNESS**

Everyone is at risk from the dangers of extreme heat, but these groups are more vulnerable than most. Age and certain conditions make the body less able to regulate temperature.

NEVER leave anyone alone in a closed car

Use air conditioners and stay in the shade

Drink plenty of water, even if not thirsty

Wear loose-fitting, light-colored clothing

weather.gov



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