



## FRESHWATER

### SALT SMART THIS WINTER

Salt buildup in lakes, streams and groundwater is a growing problem in Minnesota. It is toxic to freshwater organisms, can damage infrastructure and is permanent. It only takes one teaspoon to permanently pollute five gallons of water. You can help this winter by following these steps:

- 💧 **Shovel:** Clear walkways before snow turns to ice.
- 💧 **Scatter:** Use salt only where critical. There should be 3-4 inches between salt granules.
- 💧 **Switch:** Salt doesn't melt ice below 15 degrees. Use sand or other grit for traction when it's too cold.
- 💧 **Sweep:** Clean up leftover salt to save and reuse as needed.

## NOVEMBER PHENOLOGY

### Jim Gilbert's Nature Notes

#### First week of November

Watch for steam fog rising from ponds, lakes and rivers on cold mornings. The crunching and aroma of fallen leaves makes walking on woodland trails special this time of year.

Look for tundra swans overhead and listen for their muffled musical whistles – a wonderful sign of fall. They are coming from their summer range, which is mainly north of the Arctic Circle, and heading to their wintering range along the Atlantic coast. A good area to see hundreds or more of these swans is the Mississippi River and its backwaters near Brownsville.

Look for flocks of snow buntings, winter visitors from the far north. Dark-eyed juncos and white-throated sparrows, also visitors from the north, come to our feeding stations for seeds scattered on the ground.

*November 1, 2024: A low of 25 degrees ended the growing season for many garden plants.*

#### Second week of November

A few common dandelions still bloom but on short stems. Witch-hazel shrubs continue blooming. Winterberry fruit is bright red and bittersweet fruit is glowing orange.

Gossamers – single strands of spider silk – hang from tree and shrub branches, glistening silver-white in the sunshine.

Short-tailed weasels have turned from brown to white except for the tips of their tails, which remain black. They are now called ermines and are ready for snow cover.

Canada geese and sandhill cranes forage in harvested soybean and corn stubble fields.

*November 14, 2024: Norway maples displayed golden-yellow leaves. With a bumper crop of apples, growers were still picking. Apples can withstand temperatures in the mid-20s for short periods of time.*

#### Third week of November

Native red cedar trees, also called junipers, have turned reddish-brown for the winter. Ginkgo trees have sunny-yellow leaves.

Rutabagas and parsnips, sweetened by frosts, can be dug for good eating or stored for winter.

Dark-eyed juncos are numerous at feeding stations, where they like cracked corn and millet seeds scattered on the ground. Northern cardinals arrive at feeders 25 minutes before sunrise, and come back in the evening to stay until darkness arrives.

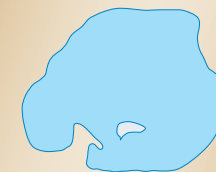
#### Fourth week of November

November's clouds and low angle sunshine produce some of the most colorful sunrises and sunsets of the year. Farmers labor to finish corn combining and other field work.

By the end of the month, raccoons enter their sleeping dens and new ice appears at least on some ponds and lakes. Immersion heaters, available commercially, keep birdbaths ice-free. Birds need water year-round, and so do other wildlife such as deer, squirrels and foxes.

*November 24, 2024: Last day for apple picking at Havlicek Orchard near New Prague. Red Haralson, Fireside and Sweetango were still good for picking.*

#### LOOK FOR...



#### Freeze-up for Lake Waconia (Carver Co.)

2024	Dec. 3
2023	1/4/24
2022	Dec. 4
2021	Dec. 7
2020	Dec. 24
2019	Dec. 2
2018	Nov. 28
2017	Dec. 7
2016	Dec. 9
2015	Dec. 19



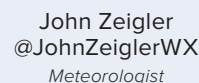
EDWARD LEE | AMERICAN PINE MARTEN | SAX-ZIM BOG, MN





As if the lack of sunlight wasn't tough enough, November is also the cloudiest month, with only 39 percent of the days sunny. On average, we see 18 cloudy days, six partly sunny days, and just six sunny days. The reason for the clouds? Temperatures are dropping and the winter jet stream, which had been hanging out in Canada from August to October, starts to make its return. Thank goodness for football and Thanksgiving to bring some light to this month!

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*Meteorologist*



Weather Blog:  
[mprnews.org/  
updraft](http://mprnews.org/updraft)

**MPRnews**[mprnews.org/podcasts/climate-cast](https://mprnews.org/podcasts/climate-cast)

## Transition to winter

November brings Minnesota's largest temperature drop of the year on average. The normal high temperature on November 1 is 50 degrees. Our normal high drops to 35 by the end of the month! That's a 15-degree temperature crash during November, the biggest of any month of the year.

The first measurable snowfall arrives in the Twin Cities the first week of November on average. The average date for the first inch of snow is around November 18. Overall, the November snowfall average in the Twin Cities is 6.8 inches.



## MY NATURE NOTES

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## ASTRONOMY

Ron Schmit

## Morning sky

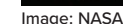
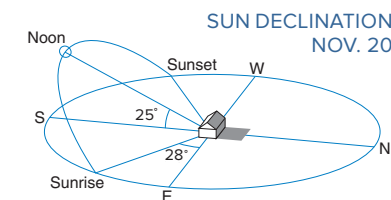
Mars and Jupiter are joined by the Moon, high in the south, before sunrise on 11/2 and 11/30. Mars passes  $1.25^\circ$  north of Jupiter on 11/14. Mercury passes Inferior Conjunction 11/4, moving into morning. By 11/20, it is at Greatest Western Elongation,  $19.6^\circ$  from the Sun and  $16^\circ$  above the horizon at sunrise – the best viewing opportunity of the year. Venus quickly climbs into dawn. The Moon visits on 11/7. By month's end, it's  $30^\circ$  up at sunrise.

## Evening sky

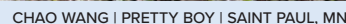
The Moon will pass Saturn on 11/20 in the constellation Pisces. The Full Moon of 11/24 will be the second Supermoon of the year, so called when the Full Moon is within 90 percent of its closest approach, or perigee. The technical term is a perigee syzygy. The Moon will look seven percent larger and 15 percent brighter than normal, but with nothing for comparison it may be hard to tell the difference. Chances are you'll think it's the biggest Moon you ever saw.

## Highlights

When we look into the night sky, the stars are just tiny points of light – some brighter, some dimmer. The brightness can be affected by the star's size, distance and temperature. Most of the stars we see in the sky are big and hot and within 1,000 light years. Stars that are smaller and cooler are mostly beyond the ability of our eyes. Of course, telescopes can increase that ability, and one of the strongest is the Hubble Space Telescope. In 2022, Hubble discovered the most distant star ever found: 28 billion light-years away. Its official name is WHL0137-LS, but its nickname is Earendel, derived from the Old English name for “morning star” or “rising light.” The star appears to be 50 times the size of our Sun, but a million times brighter – a massive B-type star, the second hottest category. The star is in the constellation of Cetus, the mythological sea monster, in our night sky this month, about 30° above the southern horizon at 10 p.m.



## SPECIES HIGHLIGHT by Jim Gilbert



### White-tailed deer (*Odocoileus virginianus*)

The back of an adult deer is seldom more than waist high to the average adult person. Average weights in autumn are 170 pounds for bucks and 145 for does. In early fall, bucks rub their antlers on young trees to remove velvet from antlers and to mark the edges of mating territories with a scent from a specialized gland on their forehead. As rutting season reaches its peak during the last two weeks of November and into December, bucks often engage in fights using both their antlers and hoofs, for possession of a doe. Bucks shed their antlers beginning in late December. A buck is without its antlers until April or May when new growth begins and continues for about 15 weeks.