



NATURALIST NOTES

July 2025



HANC ADA Trail Maintenance – July 2025
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Birds Use Snakeskin to Deter Predators

According to a study published in *The American Naturalist*, birds use shed snakeskin to deter predators. Cavity nesters benefit more than cup nesters.

Image Cornell Lab of Ornithology

“Literature can teach us the qualitative texture of the world. And we need it to. We need to communicate the value of things, so that more of us might fight to save them.”

- Helen Macdonald “Vesper Flights” pd ix

Organism of the Month – Globe Skimmer (*Pantala flavescens*)

The globe skimmer, globe wanderer, or wandering glider is the most widespread dragonfly on the planet. It is, however, absent in Antarctica and rarely observed in Europe. The globe skimmer completes a multi generation migration from India to North Africa, taking advantage of prevailing winds and its unique physiology to travel across the Indian Ocean. Genetic analysis suggests that the global mainland population is connected through regular migrations, with migration from west to east and north to south most prevalent.

Globe skimmers are up to 1.8 inch long, with a wingspan of up to 3.3 in. Males sport a brownish spot near the tip of the hindwings and tend to have a more reddish body. Females lack the brown spot and tend to have a more yellowish body. Color is not a reliable field marking across the world as it can vary widely. Because individuals migrate, no one knows how long the adults live.

There is no courtship display in globe skimmers. The male and female remain connected as she lays eggs. Laval development takes only about 38 – 65 days, depending on temperature. This allows the globe skimmer to take advantage of ephemeral pools.

Sources: Ware et. al., 2022 doi:10.48156/1388.2022.1917166; wikipedia



Pantala flavescens male (left) and female (right). Credit Davidvraju, Jee & Rani Nature Photography.



Weather – Temperature

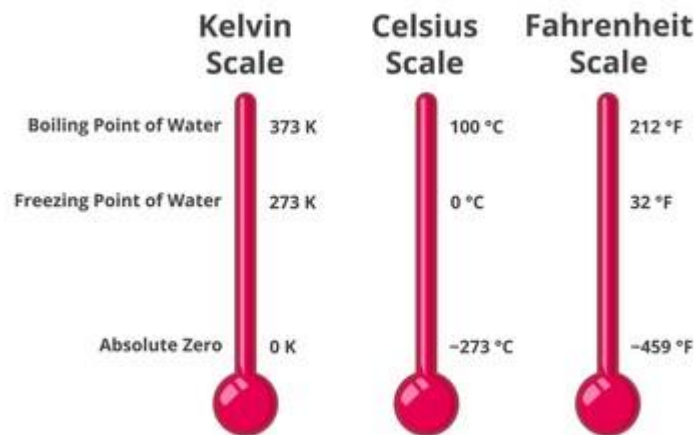
Definition

Air temperature measures how warm or cold the air is. It represents the kinetic energy of air molecules. Faster moving molecules indicate higher temperature. The energy for heating the air comes from the sun.

Temperature Scales

Three different scales exist to measure temperature, Celsius, Fahrenheit, and Kelvin. The Celsius or centigrade scale is based on the freezing point (0°C) and boiling point (100°C) of water at standard atmospheric pressure. In contrast, water freezes at 32 F and boils at 212 F. The Fahrenheit scale was developed in 1724 by German physicist Daniel Gabriel Fahrenheit. The United States, the Bahamas, the Cayman Islands, and a few other places use Fahrenheit.

While both Celsius and Fahrenheit are relative temperature scales, the Kelvin scale is an absolute scale. 0 K is when molecular motion ceases. The Kelvin scale is mostly used in physics and chemistry. See the graphic below for a comparison of all three scales.



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Measuring Air Temperature

Liquids such as mercury expand with increasing temperature in a predictable way and measure temperature accurately. However, mercury is highly toxic, and mercury thermometers have been phased out. Current thermometers use electricity. They measure changes in resistance of a metal. As the temperature changes, so does the resistance. These thermometers are accurate to within fractions of a degree.

Relationship between Air Temperature and Air Pressure

Hot air is less dense than cold air. Therefore, the air pressure felt at a given location will be less when it is warmer, and more when it is cooler. This difference in pressure contributes to wind.

Air Temperature and Humans

Humans maintain their own body temperature through a combination of physiological and behavioral means. The lower end of the thermal neutral zone, in which the body does not have to expend additional energy to maintain its temperature, is about 82F. The upper limit appears to be between 104F and 122F. Effects of temperature depend on humidity, with higher humidity requiring more energy expenditure.

People acclimated to higher temperatures experience less pronounced changes in energy expenditure than those acclimated to lower temperatures. In Houston, more heat-related emergencies occur when the heat index is 103F or higher.

Sources: Lennon, Annie (2023) Medical News Today; Wikipedia; Houston Public Health 2024 Report

YOUR Chapter Needs YOU

Our chapter cannot function without dedicated board members and the volunteers who support them. Please consider joining one of the committees.