

Magical Moons & Seasonal Circles Presented by Susan Betz

Phenology is the study of the timing of natural periodic events in the plant and animal world influenced by the local environment, especially weather, temperature, seasonal change and climate. Examples include the first dates of budding and blooming flowers, insects hatching, bird migration and fall color. This integrative environmental science is gaining visibility and popularity among scientists, gardeners and nature lovers across the world.

References and observations associated with phenological events date back thousands of years. Historical records and journals of past seasonal events can be used to help predict future events. By tracking changes in the cycles and timing of seasonal events scientists are better able to understand climate change and its effects on the natural cycles of ecosystems. Gardeners keep journals recording planting dates, the arrival of unwanted weeds, emerging insects, harvest times and frost dates. Nature and outdoor lovers track migrating populations of birds, butterflies and the sequence of blooming wildflowers from early spring through late fall.

Native Americans were experts at reading their regional landscapes. Their knowledge of “nature’s calendar” helped ensure their survival and kept them in harmony with the natural world. For Native Americans, phenology was not only a well honed tool, it was plain common sense. Life revolved around seasonal cycles as they moved from one food source to another, continually modifying their behavior in response to the life cycles of local plants and animals. The emerging earthworm in March signaled the earth was beginning to thaw and the time to tap maple trees was not far off. The wild rose, (*Rosa* spp.) blooming in June alerted them it was time to collect cedar roots and basket grass. They kept track of the seasons by assigning descriptive names to each recurring full moon, alluding to notable phenological events taking place during that month. Slight variations in these names can be found across North America due to climate and temperature conditions affecting local regions.

Observing seasonal events and making connections helps people to better understand and appreciate the importance of biological diversity. Phenology provides a positive “hands on” approach to natural science and history. Anyone, regardless of age or educational background can observe and enjoy common natural cyclical events unfolding daily around their backyards and local communities.

Phenology can be used to enhance and expand natural history, ecology lessons and gardening activities. Predictions involving folk forecasts and plant proverbs are fun to investigate and prove, true or false. Phenological studies can be pursued in formal, informal and non-formal educational settings. Students, garden clubs, 4-H members, families and individuals can observe and record regional data concerning specific seasonal events and then contribute valuable information to one of numerous online Citizen Science Projects collecting phenological data.

“The question is not what you look at, but what do you see”
—Henry David Thoreau

Visit these Web sites for more in-depth information and resources.

Citizen Science

Plant Watch, www.plantwatch.ca

Project Bud Burst, www.windows.ucar.edu/citizen-science/budburst/collaborators.php

Earth Trek Project, www.goearthtrek.com

Citizen Science Guide / Cornell Lab of Ornithology and Audubon Society
www.birdsource.org/gbbc/get-involved/

Natures Calendar, www.naturescalendar.org.uk

Phenology

Phenology, Natures Cycles of Life, www.sws-wis.com/lifecycles/

Applied Phenology and Gardening, www.wihort.edu/landscape/phenology.htm

National Sustainable Agriculture Information Service, www.attra.org/atta-pub/phenology.htm

Backyard Nature, www.backyardnature.net

Wisconsin Phenology Society, www.naturenet.com/alnc/wps/

Four Directions Teachings

Department of Canadian Heritage, <http://www.fourdirectionsteachings.com/>

