CSA News

The Creation Science Association for Mid-America

"It is better to trust in the Lord than to put confidence in man." Psalm 118:8

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In This Issue

Signs and Seasons: Geometry of Eclipses

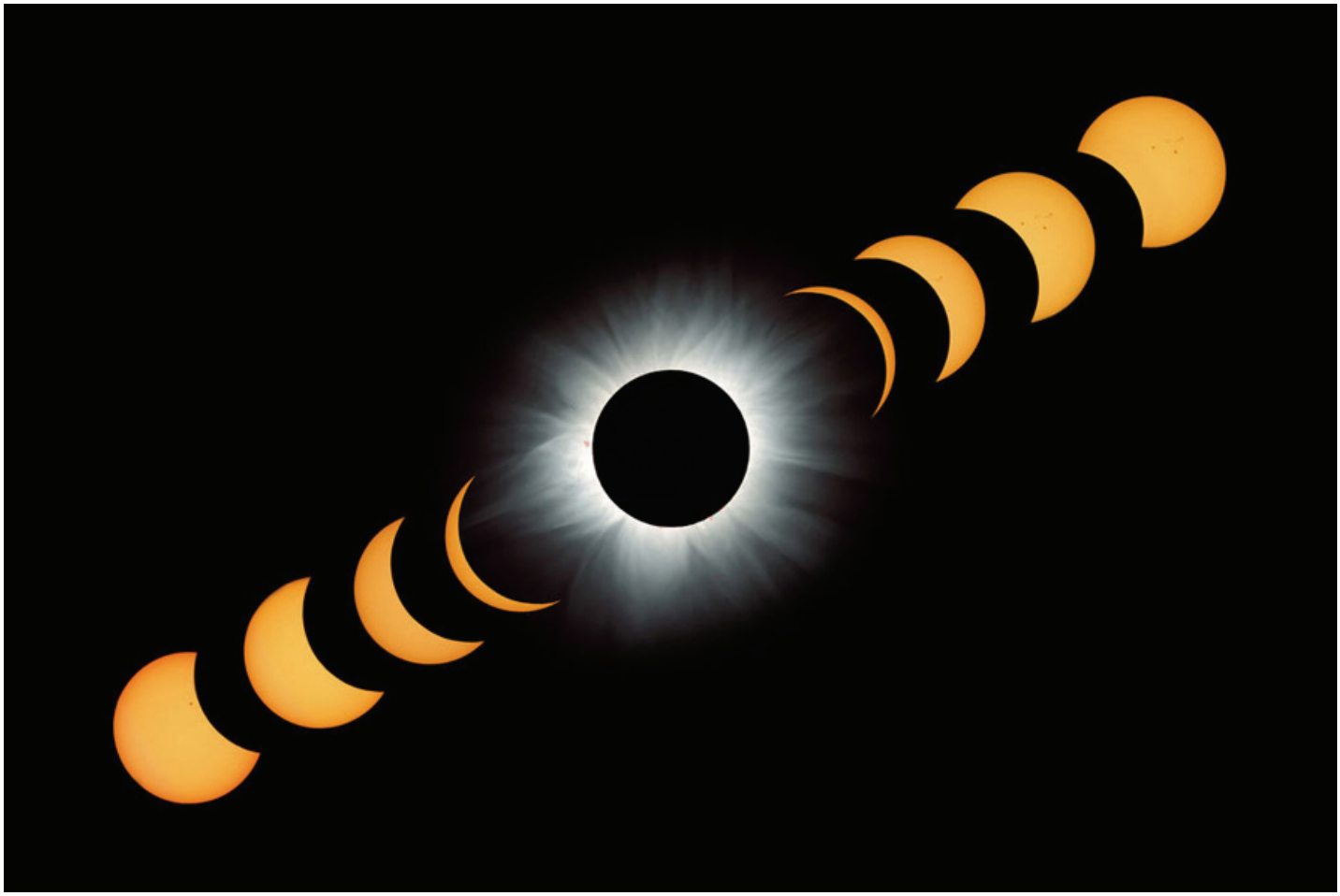
by *Douglas Roger Dexheimer*

This article will discuss the orbital geometry of the Sun, Earth and Moon. Most of this basic information was taught to me when I was in elementary school years ago (a detailed description of the astronomical factors that prevail during 2015 are available to astronomer "wannabees" at this website: http://www.eclipsewise.com/oh/ec2015.html).

BASIC DESCRIPTION OF ECLIPSES

An eclipse is a special unique event involving three celestial bodies.

A solar eclipse occurs when our Moon comes between the Sun and Earth, casting a shadow across a small track on the surface of the Earth. The Moon can be in any phase of its cycle. A solar eclipse is seen only by those along the path of the eclipse on the surface of the Earth.



A composite showing the various phases of a solar eclipse.[1]

A lunar eclipse occurs when the Moon passes through Earth's shadow opposite from the Sun. lunar eclipses can be seen by anyone on the same side of the Earth as the Moon. A total lunar eclipse can only occur during a full Moon.

Phases of a lunar eclipse.[2]

During the calendar year 2015 there are two solar eclipses and two lunar eclipses. Their dates are especially unique this year.

Eclipses in 2015

On March 20, 2015 – the same date as the equinox – the moon turns new only 14 hours after reaching *lunar perigee* – the Moon's closest point to Earth in its orbit. Thus this moon is a supermoon – a *new* supermoon, not visible in our sky. Plus this new supermoon swings right in front of the sun so that the moon's shadow falls on parts of Earth.[3]

April 4: Total lunar eclipse. This date is coincident with Pessach, the Feast of Passover.

September 13: Partial solar eclipse. This date coincides with Rosh Hoshannah, the Feast of Trumpets.

September 28: Total lunar eclipse. This date is coincident with Sukkot, the Feast of Tabernacles.[4]

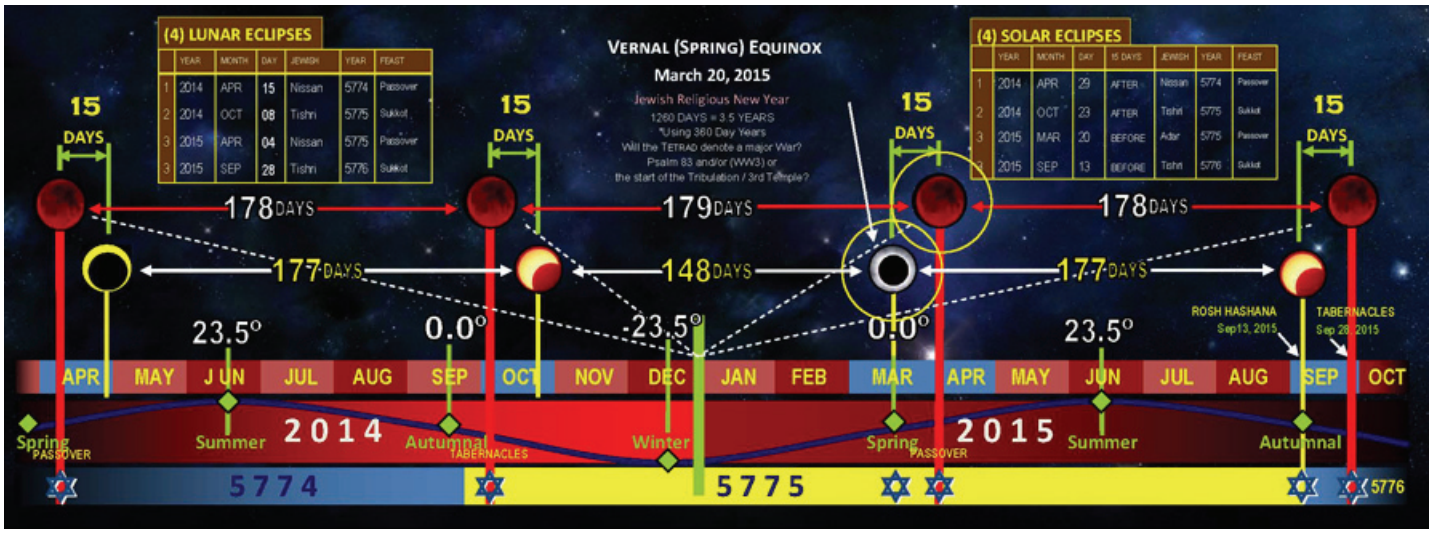
The following photo shows a total Lunar eclipse, also known as a "blood moon" in the night sky over the wailing wall in Jerusalem, Israel.[5]

The dates of these four eclipses are symmetrical in terms of days between comparable events. The next illustration was prepared in the form of a poster, by my friend Luis Vega[6] at Sonoma University. I have cropped the poster to make it more readable on this article. The following paragraphs are Lu Vega's explanation of the poster.

> The purpose of this illustration is to layout astronomically, the 4 Blood Moons of the Tetrad of 2014-2015. This chart shows the patterns of just how the Solar and Lunar Eclipses are juxtaposed to each other. The 4 Total Lunar Eclipses are paired up with their Solar Eclipse that occur 15 days apart. …. A Tetrad is when 4 consecutive Total

Red Blood Moons occur without any partial lunar eclipse in-between the series. They come in pairs and are separated by 6 months.

One unique attribute of the 2015 Eclipses is that the Total Solar Eclipses occurs on the Spring Equinox to start the Religious New Year. Conversely the Partial Solar Eclipse occurs in the Civil New Year with the Fall Equinox occurring at the end of Yom Kippur. The last and final Blood Moon of the Tetrad is a Super Moon, meaning it is closest to the Earth in its elliptical orbit around the planet.[7]



A more readable, enlargeable, PDF file of the chart:
http://www.csamanewsletter.org/archives/HTML/201502/pic04.pdf

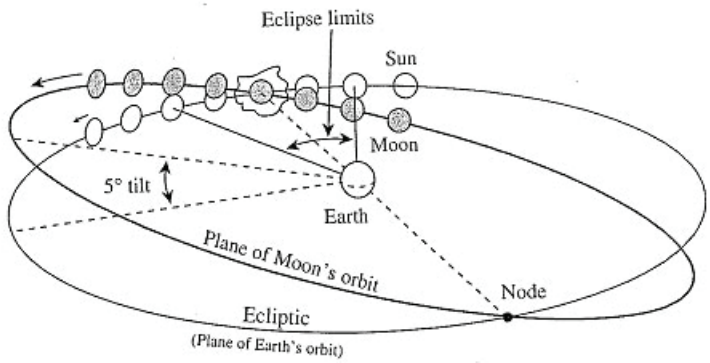
The above illustration was modified from a poster by Mr. Luis Vega.

> …Now, even more RARE is the fact that the coming BLOOD MOONS will be occurring exactly to the day on 2 of the most special Holy Holidays (Feasts) of the Lord as described in Leviticus 23:2. Those being 2 consecutive Feasts of Passover and 2 consecutive Feasts of Tabernacles. The Feast of Passover marks the day when the Lord supernaturally enables the Exodus from Egypt of all the enslaved Jewish people and their leader Moses, some 3,500 years ago. The Feast of Tabernacles welcomes the Glory of God's protection and the coming of his presence to all Jews and Gentiles alike.[8]

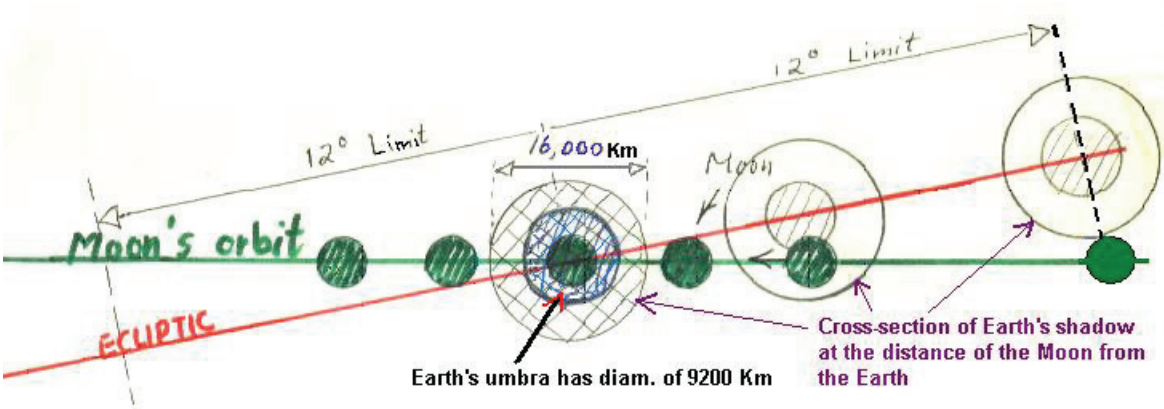
What is the geometry that makes it possible to have four total lunar eclipses back to back, together with four solar eclipses, as shown in the above diagram?

Disclaimer: Your author is an engineer, not an astronomer. The calculations I did were rough, to one decimal place. Follow my train of thought as I try to get a grip on this geometry:

- The moon's orbit is not on the same plane around the earth, as the earth's orbit around the Sun. In fact, it is tilted 5 degrees from the ecliptic. The planes of the orbits cross on a straight line called the node.



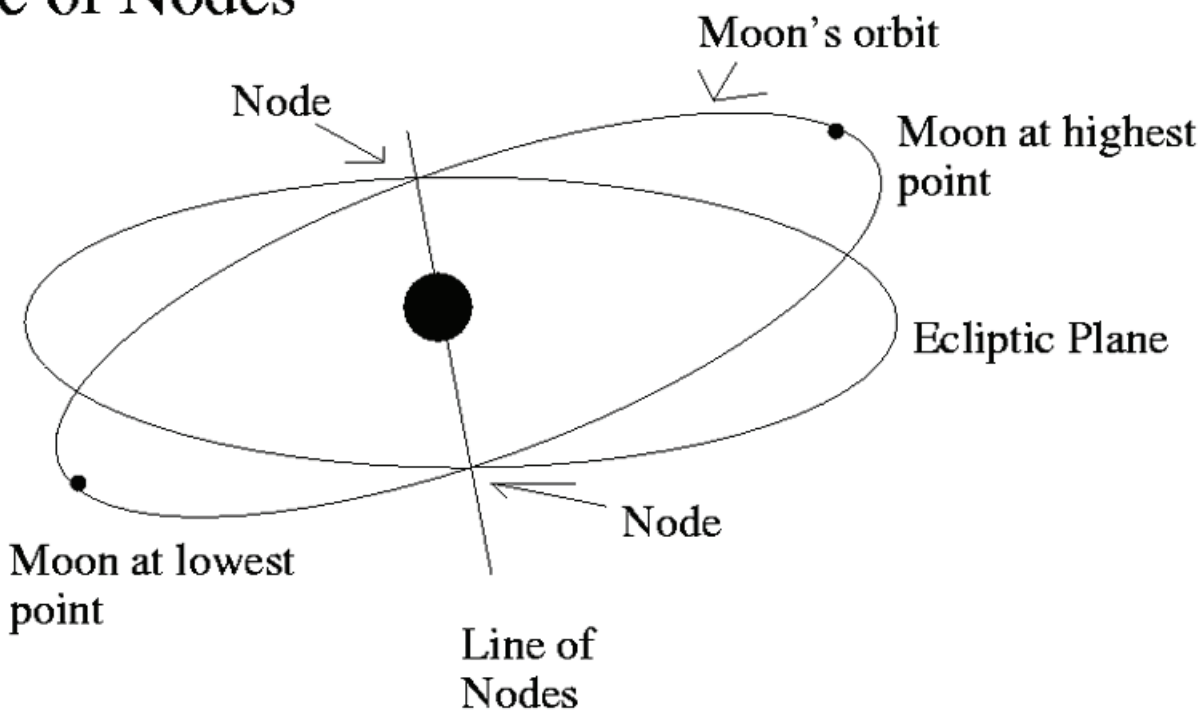
- The eclipse limits: The possible eclipses are limited to the small range of days that the moon passes through the Earth's shadow. When the Moon is above or below the shadow of the Earth, there would not be an eclipse. The twelve degree limit is the maximum number of days that any lunar eclipse could occur. This boils down to only 12/360, or thirty days each time the Moon passes through the revolving node. This is illustrated by the following sketch:



- Special Lunar Tetrads occur when the node is very close to the spring and fall equinoxes. The first two occur when the moon is below the ecliptic plane, and the second two occur when the moon is above the ecliptic plane.

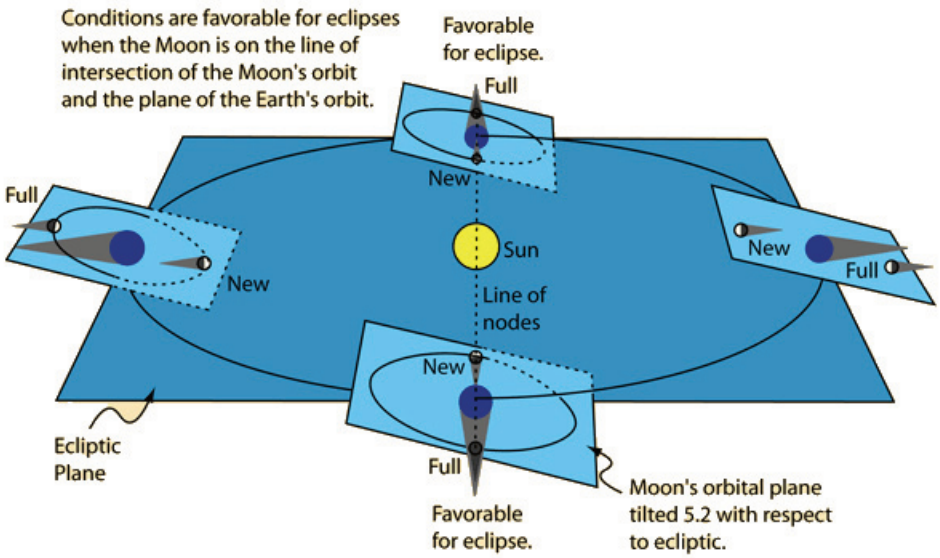
The Moon's Orbit and the Line of Nodes

DJ Jeffery
UNLV 2003



The line of nodes rotates westward 19.4 degrees per year due the gravitational perturbation of the Sun on the Earth-Moon system.

- As noted in the above figure, the node is not always in the same location relative to the Universe, but rotates around 19.4 degrees westward each year.
- Since the node rotates each year, there will be many lunar eclipses at other times of the year. Only when the node lines up just so, will there be a Lunar Tetrad on Jewish or Hebrew feast days.
- It would take only 360/19.4 years for the node to go all the way around. This is 18.5 years minimum. If the node rotates all the way around in 18.5 years, the node would be lined up with the original orientation.
- Let's see if this makes sense: Tetrad 6: 1950+18.5 years =1968.5. This is the year for tetrad 7!
- What about the span of time from 1968 to 2014 = 46 years. If the node rotated 19.4 degrees each year for 46 years, the node would have rotated almost exactly two and a half full revolutions from Tetrad 7 to Tetrad 8.
- Again, the nodes line up with the original direction.



How is it possible for the four total lunar eclipses to coincide with the Feasts of Passover, and Sukkot?

- Remember, both of these feast days always fall on the full moon, on the 14th day of the lunar month. Secondly, the two feasts are always six lunar months apart from spring to fall. When there is just one month of Adar in the second year, the second Passover is exactly six lunar months after the previous Sukkot.
- However, every now and then, a second month of Adar is added to the calendar to keep it in step with the spring harvest. When this happens, the lunar tetrad fails. The second Passover and second Sukkot will not occur exactly on the revolving node, so if there is a Lunar Tetrad, it will not fall on the Feasts of Passover or Tabernacles in the second year.

Statistician Paul Grevas[9] has determined that the timing of this unusual Lunar Tetrad is so rare, "[t]he probability of successfully predicting 4 consecutive BLOOD MOONS to fall on these 2 Holy Days beginning ... with Passover … on the first of the 2014-2015 BLOOD MOONS is INDESCRIBABLE: 1 chance in 1.85 x 10 to the 139th power. Yes, that is 139 consecutive zeroes."[10]

When will the next Lunar Tetrad occur? "NASA says there will be no more 'BIBLICAL' TETRADS for almost another 600 years, until the year 2582-83 AD (please look it up on NASA websites)."[11]

Stay tuned. We are living in very unusual days. The LORD set the Sun and Moon into their orbits long ago, to be a sign to mankind that something incredible is about to happen. In an upcoming article we will show you correlations between past Lunar Tetrads and historical events. We will also show many more astronomical charts of eclipses surrounding the special Tetrads.

In another upcoming article, we expect to have some quotations from creationist Dr. Danny Faulkner and others, in addition to some Bible scholars.

In subsequent months, we will have reports on the third of four Blood Moons.

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[1] http://www.nikonusa.com/en/Learn-And-Explore/Article/h20zakgu/How-to-Photograph-a-Solar-Eclipse.html
[2] http://www.mreclipse.com/
[3] http://earthsky.org/tonight/supermoon-to-stage-total-eclipse-of-the-sun-on-march-20
[4] http://earthsky.org/astronomy-essentials/dates-of-next-lunar-and-solar-eclipses
[5] http://www.pray4zion.org/thecomingbloodmoons.html
[6] www.postscripts.org
[7] http://www.csamanewsletter.org/archives/HTML/201502/Blood_Moons_of_the_Tetrad.pdf
[8] http://bloodmoonscoming.com/?page_id=127
[9] http://bloodmoonscoming.com/?page_id=123/about
[10] http://bloodmoonscoming.com/?page_id=127
[11] Ibid.

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March Monthly Meeting

March 3rd, 2015

"Lunar Eclipses"

by *Douglas Roger Dexheimer*

The subject of *blood moons*, or *lunar tetrads* will be examined from different points of view:

1. Scriptural passages referring to *signs in the heavens*.
2. Description of the Hebrew calendar, and calendar conversions.
3. Scriptural references to the dates for *Passover* and *Sukkot*.
4. Historical concurrences of blood moons with the above *feast days*.
5. NASA catalogs of solar and lunar eclipses.
6. Diagrams showing the intersections of *orbital planes*.
7. Symmetry of eclipses during tetrads, past and present.
8. Commentary by creationist astronomer, Dr. Danny Faulkner.

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Monthly Meetings

2015

(1st Tuesday of each month; content subject to change; no sign up or registration necessary.)

- January 6th: "Formed to Fly" DVD, by Dr. David Menton, moderated by *Kevin Anderson*.
- February 3rd: "Expelled: No Intelligence Allowed" (the 2008 motion picture) DVD, moderated by *Bob Farwell*.
- March 3rd: "Lunar Eclipses," by *Douglas Roger Dexheimer*.
- April 7th: "Canopy Theory," by *Dave Penny*.
- May 5th: "Living Fossils Evolution: The Grand Experiment" Episode 2 DVD, moderated by *Bob Farwell*.
- June 2nd: "Evolution's Achille's Heels" DVD, by Creation Ministries International, moderated by *Kevin Anderson.*

CSA Monthly Meeting Location

Westbrooke Church
9777 Antioch
Overland Park, KS 66121
10 blocks east of 69 Highway (or Switzer) on 95th St. to Antioch, south two blocks on Antioch, on east side of street.
Fellowship & book table: 6:15PM. Meeting: 7:00PM.

For detailed Monthly Meeting information:
www.csama.org

2015 Creation Safaris

- March 20 – (Friday, 7:15 PM) – Astronomy Safari.
- April 17 – (Friday, 8:00 PM) – Astronomy Safari.
- April 25 – (Saturday) 8AM - 6PM - Southeast KS Fossils and Mineral Safari.
- May 15 – (Friday, 8:30 PM) – Astronomy Safari.
- May 22 – 25 – (Saturday - Monday) – Southeast Missouri & Saint Francious Mountains, Johnson's Shut-Ins, and Elephant Rocks.
- June 6 – (Saturday) – Photo/Nature Hike Creation Safari at O.P. Arboretum.
- June 18-20 – (Thursday - Saturday) – Ozark Stream Float - Elk River.
- June 20 – (Saturday, 8:45 PM) – Astronomy Safari.
- July 11 – (Saturday, 8:45 PM) – Astronomy Safari.
- July 18 – (Saturday) – KU Natural History Museum.

- August 14 – (Friday, 8:15) – Astronomy Safari.
- August 15 – (Saturday) – Greater KC Fossil Hunt.
- September 4 - 7 – (Friday - Monday) – Cahokia Mounds / Keokuk Geodes / Mammoth State Park.
- September 11 – (Friday, 7:30 PM) – Astronomy Safari.
- October 9 – (Friday,7:15 PM) – Astronomy Safari.
- October 17 – (Saturday) – HaHa Tonka Safari.
- November 6 – (Friday, 7:15 PM) – Astronomy Safari.
- November 21 – (Saturday) – Squaw Creek National Wildlife Refuge Safari.

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Safari Summary and Highlights for 2015

*Please note: ***Astronomy Safaris*** are held (weather permitting) at *The Berry Patch*, 22509 State Line Road, in Cleveland, Missouri. Each safari consists of an inspiring slide seminar, followed by a tour of the heavens using tracking telescopes and binoculars. *Don't wait to see if the weather will permit. Instead, sign up, and we'll contact you if we decide to cancel.*

Below is a date and brief statement about each safari for the current year. Brief highlights of previous safaris to the same location, or of the same general type, may be viewed by clicking on the link beside each date.

March 20 – (Friday 7:15pm) - Astronomy Safari* (Click on Safari for more info)

April 17 – (Friday 8:00 PM) - Astronomy Safari* (Click on Safari for more info)

April 25 – (Saturday) 8AM - 6PM - Southeast KS Fossils and Mineral Safari (Click on Safari for more info)
A day trip to see "Big Brutus," and a short trek to Pitcher, Oklahoma. We'll hunt for fossils and minerals along the way, and have some inspiring discussions about fossil and coal formation.

May 15 – (Friday 8:30 PM)
Astronomy Safari* (Click on Safari for more info)

May 22 - 25 – (Saturday - Monday)
Southeast Missouri & Saint Francious Mountains, Johnson's Shut-Ins, and Elephant Rocks
(Click on Safari for more info)
The SE Missouri Ozarks are among the most beautiful areas in the nation. Sights we'll see include: Missouri's tallest mountain; water slides made by God; a river that disappears; water falls; historic silver, lead, and iron mines; and campsites right on the beautiful Black River. It is a long trip for a weekend, but it is well worth it. CSA has visited this area over Labor Day weekend in the past. This is the first time we plan to go there over Memorial Day weekend.

June 6 – (Saturday)

Photo/Nature Hike Safari at O.P. Arboretum
Join us for a nature hike and photo safari in the botanical gardens and nature trails of the Overland Park Arboretum. Not a photo bug? We'll present some basic photo techniques to help get you started. We'll also discuss God's wonderful creation and suggest photo subjects so you can share what you've learned by posting photos on Facebook, other social media, e-mails, or perhaps by simply sharing them in a slide show for your Sunday school class or other venue. So pack your camera, water, trail mix, and comfortable shoes, and join us as we learn to appreciate God's wonderful creation.

We do not charge for the safari, but the arboretum does charge, as follows:
$3 for visitors 13 and over
$1 for visitors 6 to 12
Free for 5 and under
Free for "Friends of the Arboretum" members

June 18-20 – (Thursday - Saturday)
Ozark Stream Float - Elk River (Click on Safari for more info)
A beautiful river that will provide family fun, fishing, and fellowship. By getting there on Thursday and floating on Friday we miss most of the noisy groups, which makes for better fishing.

June 20 – (Saturday 8:45 PM)
Astronomy Safari* (Click on Safari for more info)

July 11 – (Saturday 8:45 PM)
Astronomy Safari* (Click on Safari for more info)

July 18 – (Saturday)
KU Natural History Museum (Click on Safari for more info)
This very popular safari is back. Last year we did it three times. Yet once more, we'll enter "evolution´s cathedral" to unmask its misleading displays and show that the same evidence better supports creation. We'll also do some fossil hunting on the way there, so that you can collect some evidence of your own.

August 14 – (Friday 8:15)
Astronomy Safari* (Click on Safari for more info)

August 15 – (Saturday)
Greater KC Fossil Hunt (Click on Safari for more info)
We visit many of Kansas City's fossil sites and bring home lots of fossils and a respect for the Biblical flood.

September 4 - 7 – (Friday - Monday)
Cahokia Mounds / Keokuk Geodes / Mammoth State Park

(We'll visit two or three of the above-named areas. Final details, including available camping facilities, will be carefully determined and posted in plenty of time for you to organize your trip.)

- Geode hunting in Keokuk area, where the States of Iowa, Illinois and Missouri meet along the Mighty Mississippi River.
- Indian Mound exploration in Cahokia Mounds State Park in Illinois, across the Mississippi River from St. Louis.
- Mammoth State Park, south of St. Louis, Missouri.

September 11 – (Friday 7:30 PM)
Astronomy Safari* (Click on Safari for more info)

October 9 – (Friday) – (Friday 7:30 PM)
Astronomy Safari* (Click on Safari for more info)

October 17 – (Saturday)
HaHa Tonka Safari (Click on Safari for more info)
We'll visit the *karst topography* (caves, sink holes, rock bridges) of *Ha Ha Tonka* State Park around Camdenton, Missouri, and later, *Jacob's Cave*.

November 6 – (Friday 7:15 PM)
Astronomy Safari* (Click on Safari for more info)

November 21 – (Saturday)
Squaw Creek National Wildlife Refuge Safari (Click on Safari for more info)
Depending on the weather, we'll see somewhere around 400,000 snow geese and 124 bald eagles, along with ducks, herons, and trumpeter swans. A bird lover´s paradise, although it can get quite cold. It´s well worth bundling up for. We´ll fossil-hunt on the way. We´ll stop to see and discuss some ice-age loess soil. We also discuss migration patterns and the "dinosaur-to-bird" evolution story.

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You must register for any safari.
For safari details, and to register please visit:
www.csama.org

Astronomy safaris only, call:
(913)-515-6421.

Natural or Artificial Selection:
The Plant Breeder's Weapon - 'Landraces'

by *Douglas Roger Dexheimer*

Back in High School, I learned about Gregor Mendel and his garden pea plant breeding experiments in a monastery garden.

> Gregor Mendel, an Augustinian Monk, is usually considered to be the founder of modern genetics. Though farmers had known for centuries that crossbreeding of animals and plants could favor certain desirable traits, Mendel's pea plant experiments conducted between 1856 and 1863 established many of the rules of heredity. [1]

I do not believe Mendel would have recognized the term "landrace," but I think he would have agreed with the principle. On the other hand, Mendel would have been opposed to Darwinian evolution.

This concept of "landrace" is different from "natural selection," in that the breeder, farmer, or gardener introduces the varieties to his biome, and encourages the survivors.

> **Natural selection** is the gradual process by which heritable biological traits become either more or less common in a population of similar organisms as a function of the effect of inherited traits on the differential reproductive success of organisms interacting with their environment. It is a key mechanism of evolution. The term "natural selection" was popularized by Charles Darwin, who intended it to be compared with artificial selection, now more commonly referred to as selective breeding.[2]

> **Selective breeding** (also called **artificial selection**) is the process by which humans breed other animals and plants for particular traits. Typically, strains that are selectively bred are said to be domesticated, and the breeding is normally done by a professional breeder. Bred animals are known as breeds, while bred plants are known as varieties, cultigens, or cultivars. The offspring of two purebred animals but of different breeds is called a crossbreed, and crossbred plants are called hybrids.[3]

I enjoy gardening fruits and vegetables. I have several fruit and nut trees and six raised bed gardens on my side yard. Without consciously knowing what I do, I have been practicing the fine art of selective breeding, which has been given the slang name, "landracing."

> By that I mean that in my backyard food forest only the best-adapted survive. Over time I am creating what are called “landraces,” which are plants that have been selected for how well they grow in my bioregion."[4]

What I do is plant seeds of numerous varieties of veggies. Those that survive and thrive under my brown thumb are noted and will be given another trial in the next growing cycle. Those that do not survive and thrive end up on the compost pile.

Often, the strong survivors have come back again the following year on their own, without my help. These are my "volunteers," and are the hardiest plant varieties. I have found this phenomenon in carrots, onions, potatoes, and garlic. I expect to see other hardy veggies appear again in a few weeks, as soon as the weather permits. I hope to see little sprouts of kale, broccoli, and fennel.

On the other hand, some plants are delicate and do not survive the winter. Tomatoes, eggplant, and peppers are three that come to mind. This past year, I planted three varieties of each. I had abundant tomatoes, a handful of eggplants, and practically zero peppers after a full summer of mild weather. Obviously, what I did was not conducive to the health of peppers, while it boosted the production of the tomatoes growing nearby.

> Landraces of annual crops are easily developed through repeated crossing, promiscuous pollination, and harvesting seeds from only the choicest hybrids that result.[5]

Trees and shrubs are another thing. I have never started trees from seed. It takes too long for a tree to grow into a productive specimen. One way to speed up the trial is to graft small parts of new varieties onto established trees. This is precisely what I hope to attempt this coming spring, when I graft selected pecan scions onto a pecan tree that is many years old but has never borne any pecans.

> In both cases, the key to successfully breeding landraces starts with planting many seeds, and not being afraid to cull those that don't thrive. For example, I planted several hundred … seeds last year, and while I had several hundred seedlings, I selected only half of them for height, health, and vigor. I composted the rest. The other part of the equation is to not baby the resulting seedlings, allowing the weaker plants to die from disease, fluctuations in water, and the other challenges of your climate. The plants you are left with will be the hardiest for your biome, and they will in turn pass on some of those characteristics to their offspring.[6]

None of the above discussion begins to suggest *GMO*, or *genetic modification of organisms*. In creationist circles, I have met Dr. John Sanford and Dr. Robert Carter, both of whom are experts in genetics and gene manipulation.

In my opinion, modification to improve characteristics and/or yield is acceptable, whereas genetic modification which aims to introduce resistance to herbicides and pesticides should be forbidden. This practice has had a devastating result on the native insect populations (bees and butterflies) which depend on certain weeds essential for their natural life cycle.

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[1] http://en.wikipedia.org/wiki/Gregor_Mendel

[2] http://en.wikipedia.org/wiki/Natural_selection

[3] http://en.wikipedia.org/wiki/Selective_breeding

[4] http://growyourowngroceries.org/landrace-gardening-making-evolution-work-for-you/

[5] Ibid.
[6] Ibid.

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www.csama.org
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Overland Park, KS 66212
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You are invited to attend all of the monthly meetings, and as many of the safaris as you can fit into your schedule. Pass the word. Tell your friends and neighbors about CSAMA and our activities. Show them how to subscribe to the **CSAMA Newsletter**.
Never miss an opportunity to debunk the "millions-of-years" notion that evolutionists insist is necessary for life as we know it.

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