

# Conservation Corner

By Corinne Peterson  
Pocahontas County Naturalist



February 24, 2016

2016 is a Leap Year, and so next week will have an extra day. Have you ever wondered why it's called a leap year? And no, it has nothing to do with frogs. As you know, any fixed calendar date such as July 4 or Christmas Day usually moves one weekday ahead each year. For example, Christmas Day 2014 fell on Thursday, Christmas Day 2015 fell on Friday, but this year Christmas will leap over Saturday to fall on Sunday.

To many our current system – add one day every four years except in century years unless the century year can also be evenly divided by 400 – may seem rather absurd, but it's not for lack of trying. One current proposal calls for a 364-day year, exactly 52 weeks, with each date falling on the same day of the week each year. Now, that might be convenient, but then every five or six years a whole week would have to be added. Not so convenient.

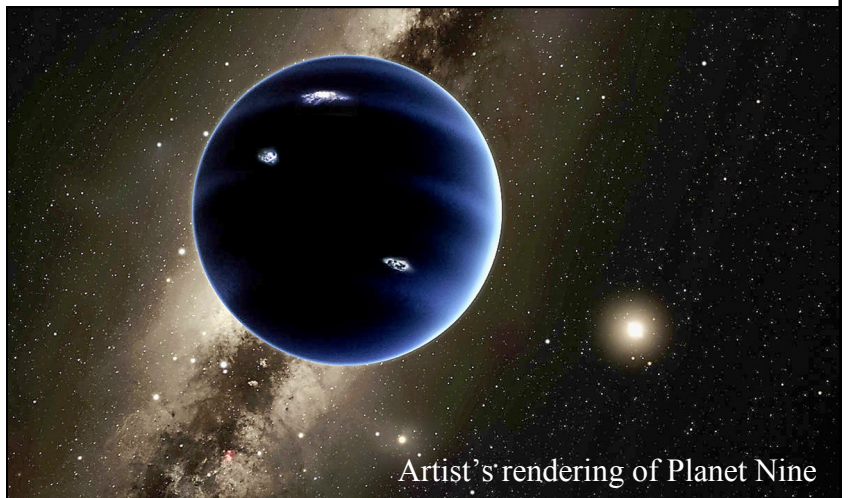
The challenge, of course, is that the length of Earth's revolution around the sun (365 days, 5 hours, 48 minutes, and 45 seconds) is not evenly divisible by the length of Earth's rotation (23 hours, 56 minutes, 4 seconds). Well, most of the time, anyway, as the exact lengths vary slightly over time. Even though it's not perfect, our current system won't be a day off again for about 3,300 years, and that's close enough for me.

Speaking of rotations and revolutions, this winter we've been taking a closer look at all the planets of our solar system via the digital Star Lab, including the possibility of a recently discovered planet. In January, the California Institute of Technology announced the finding by researchers Konstantin Batygin and Mike Brown. "This would be a real ninth planet," says Brown. "There have only been two true planets discovered since ancient times, and this would be a third. It's a pretty substantial chunk of our solar system that's still out there to be found, which is pretty exciting."

Planet Nine, its name for now, hasn't been spotted yet but everything points to it. At ten times the mass of Earth, this planet does dominate its neighborhood, with an orbital period ranging from 10,000 to 20,000 Earth years. And we're worried about an occasional leap day?

Back on Earth, some cultures have folk traditions surrounding the leaping of days. In Irish legend, St. Brigid suggested and St. Patrick agreed that during leap years women may propose to men, somewhat balancing the roles of the sexes, just as leap day helps balance the calendar. Greeks consider it bad luck to marry during a leap year, especially on leap day. When I was in high school, one February 29 we girls did the asking to the Sadie Hawkins Dance.

People born on Leap Days are known as leaplings or leapers. Mathematic probability tells me there should be four or five birthdays celebrated next Monday in Pocahontas County. Do you know a leapling?



Artist's rendering of Planet Nine

