Janus had 2 faces — looking back, forward

skywatch
Raymond E. Bullock

FOR MANY people, January is the beginning of a new year.

But in primitive Rome, the new year started with the first day of spring. Ancient Persians began their year with the first day of autumn.

Many other skywatchers divided their year into two parts: at the end of summer's heat and the end of winter's cold.

THE CUSTOM of celebrating Jan. 1 as New Year's Day goes back to the Roman Julian calendar.

The month January was named in honor of their god Janus, keeper of the gates. He had two faces: one looking back to the past, the other forward to the future.

It was also the Julian calendar that introduced the Leap Year. Since the earth takes 365¼ days to orbit the sun, the calendar is off by one day after every four years. Julius Caesar decreed that every fourth year would have 366 days to keep the calendar in line with the seasons.

While the Julian calendar was a vast improvement over other calendars, it, too, was off by 11 minutes and four seconds each year. That adds up to one day every 128 years.

BY THE YEAR 1582, the calendar was off by 10 days, so Pope Gregory revised the calendar by dropping those 10 days and introducing another correction.

The Gregorian calendar was not adopted by everyone at once. Another 170 years passed before England accepted it in 1752. By then it was necessary to drop 11 days from the calendar, much to the objection of a large number of people who started a riot, demanding the return of their 11 days.

Even the Gregorian calendar is off by 28 seconds a year. At that rate the discrepancy will add up to another full day . . . but not for 1,500 years.

THREE PLANETS will be visible in the evening sky this month: Mercury, Mars and Jupiter.

Venus can be seen in the morning sky. Saturn is too close to the sun to be seen at all.

The amount of sunlight we receive this month increases by 48 minutes. On Jan. 1 the sun rises at 8:01 a.m. and sets at 5:11 p.m., allowing for a possible nine hours and 10 minutes of sunlight. Sunrise on Jan. 31 is at 7:47 a.m. and sunset is at 5:45 p.m., for a possible nine hours and 58 minutes of sun.

Earth is at perihelion (its closest to the sun) on Jan. 1. The earth will be 147,101,000 kilometers (91,404,324 miles) from the sun.

Since we receive some of our coldest weather in January, it is obvious that our distance to the sun has little to do with the seasons. The seasons are due to the tilt of the earth's axis. The northern hemisphere has its warmest weather when we are farthest from the sun.

MERCURY WILL be visible during the first two weeks of the month. Look between the southwest and west-southwest, about 45 minutes after sunset, with binoculars. Mercury will be a faint "star" about five degrees above the horizon. Next week Mercury will be higher in the sky and a bit easier to find.

The bright star above and to the right of the waning crescent moon on the morning of the 1st is Spica (SPY ca), in Virgo. This blue-white star is about 275 light-years away. When we look into the sky, we look back in time. The light we see tonight left Spica in the year 1714. Spica must have a tremendous energy output to be seen so brightly at such a distance.

The Quadrantid (QUAD ran tid) meteor shower reaches its maximum on the morning of Jan. 3. Named for a now-obscure constellation, an average of about 40 meteors ("shooting stars") can be seen each hour. You do not need a telescope or binoculars to observe meteors. Just go outside, look up, and be patient.

LOOK FOR the moon in the southeast on the morning of Jan. 4. To the left of the moon is the orange-red star Antares (an TAR ees), the "heart" of Scorpius.

Antares is about 520 light-years away, so its light dates back to 1469. Antares is also about 700 times larger than the sun. The bright "star" to the left of Antares is Venus.

On the morning of Jan. 5, the moon has passed Antares and is approaching Venus.

New moon occurs at 2:22 p.m. on Jan. 7. The moon is located between the earth and the sun and is not visible.

Mercury is at its maximum elongation (greatest apparent distance) from the sun on the 8th. It is 19 degrees from the sun and visible in the sky shortly after sunset. Look for the day-old waxing crescent moon very close to the horizon. You will see Mercury four degrees above the moon.

If you are unable to spot the moon on Jan. 8, it will be easier on the 9th.

A rare visitor: the fox sparrow

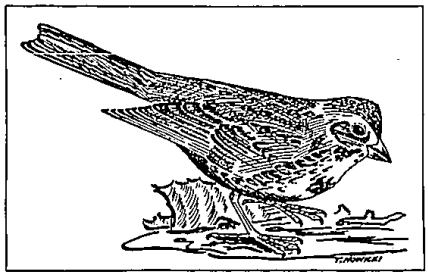
nature
Timothy Nowicki

ONCE YOU become aware of the usual things around you, then unusual or incongruous things stand out.

People who have been birding for a few years know those species that are likely to be seen in our area at particular times. Some visitors, like the tree sparrow, are seen only during the winter. Observing one during July would be most unusual.

Fox sparrows, not usually seen in our area during winter, have been seen at the feeding station of Independence Oaks Nature Center.

They are a large, gray-brown sparrow with a heavily streaked breast. In the center of the breast, several streaks form a spot, like that of the song sparrow.



The fox sparrow is a large, gray-brown sparrow with a heavily streaked breast and a reddish tail. It's rare in Michigan during winter.

In addition to its large size, it has a reddish tail — hence the name "fox." Before common names for birds were standardized, they were called foxy finch, fox-tail and fox-colored sparrow.

EARTHY RED coloration and size are physical features that make this species distinct, but so is its behavior.

At the feeder, it is the only species that scrapes the ground with both feet at the same time in a hopping like motion. This short, jumping behavior is used to unearth seeds covered by snow and soil.

Typically this bird should be wintering south of southern Ohio. But maybe the attractive feeding stations along its fall migration route from northern Canada were too distracting.

Last year about this time on Dec. 20, four fox sparrows were seen on the Detroit Audubon Society's Christmas Count. That was only the second time they had been recorded in the 43-year history of the count. Prior to that one was seen in 1975.

CAREFUL OBSERVATION of nature at various times of the year can provide new and different rewards.

I became familiar with the fox sparrow on its breeding ground near Hudson Bay. It's beautiful ringing song was new to me, but very enjoyable to hear while walking through the muskeg.

Since most people cannot see them on their breeding grounds, it's nice that some will visit you right in your own backyard.

The writer is a staff naturalist at Independence Oaks County Park.