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This Week's Night Sky: Glimpse Great Bear Galaxies

The Big Dipper will point the way to a beautiful cosmic duo that will be easy to see with binoculars.



A composite image from two NASA telescopes shows the elegant spiral of the galaxy M81.

PHOTOGRAPH BY NASA/JPL-CALTECH/ESA/HARVARD-SMITHSONIAN CfA



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Aquarids Arrive. Just as the Lyrid meteor shower dies out, the annual Eta-Aquarids will begin to awaken this week.

While the sky show is not scheduled to peak until May 5, sky-watchers across the tropics and the Southern Hemisphere should have front-row seats to these celestial fireworks as they ramp up this week, with about six shooting stars an hour. Stay tuned for more details next week.

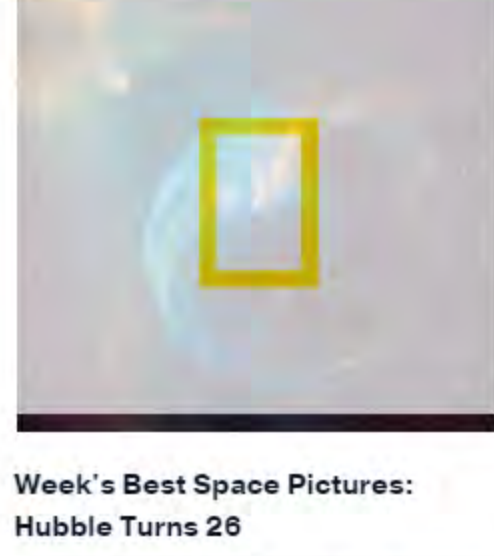


The moon will line up with Mars and Saturn at dawn toward the southwest on April 26.

ILLUSTRATION BY FAZEKAS, SKYSAFARI

Lunar Lineup. About an hour before sunrise on Tuesday, April 26, look for the waning gibbous moon to align with Saturn and Mars.

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The cosmic trio will be quite eye-catching, particularly because of their color differences. While the moon will have its distinctive silver glow, Saturn will appear to shine with creamy, yellow light, and Mars will beam brightly with an orange-red hue. If you train even a small telescope on Saturn, you should be able to see the gas giant's awesome rings.

Last week, [NASA announced](#) that the Cassini spacecraft currently orbiting Saturn found dust particles that blew in from beyond the solar system and settled in orbit around the planet.

Cassini has sampled millions of Saturn's dust grains, with the vast majority coming from ice jets that spew from the frozen moon

Enceladus. However, the probe found that 36 grains have a distinct chemical fingerprint that shows they came from interstellar space.



On April 27 the moon will be overlooking the star pattern known as the Teapot.

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Celestial Seasonings. By early Wednesday morning, the moon will have moved into the constellation Sagittarius, and it will sit perched above the distinct stellar pattern within that constellation known as the Teapot. When you look at this part of the night sky, you are facing the heart of the Milky Way galaxy, where a supermassive black hole lurks some 28,000 light-years away.

Jovian Shadows. Bring out the backyard telescope on Friday night and you can watch Jupiter's volcanic moon Io and its shadow glide across the planet's cloud-tops. From 9:42 p.m. ET to 11:57 p.m. ET, viewers can watch tiny Io transit across Jupiter's disk. Its black dotlike shadow will make its move from 10:44 p.m. to 12:58 a.m.

And if that's not enough, the Great Red Spot—the largest cyclonic storm in the solar system—will make an appearance near the center of the planet's disk around 10:52 p.m. ET.



Relatively moonless nights this week will make it easier to see the pair of galaxies known as M81 and M82.

ILLUSTRATION BY FAZEKAS, SKYSAFARI

Great Bear Galaxies. With dark, moonless nights all week long, it's the perfect time to go galaxy hunting. A great bet for novices is to look for the Big Dipper to point the way to a bright cosmic duo.

Messier 81 and 82 form a beautiful galactic pair that can be located easily with binoculars and backyard telescopes even from light-polluted suburbia. Both seem to lie just off the bowl of the Big Dipper, which is part of the constellation Ursa Major, or the Great Bear. The Big Dipper currently rides almost overhead for observers in mid-latitudes across the Northern Hemisphere.

The two islands of stars are separated by about 130,000 light-years, and both are about 12 million light-years from Earth. M81 is a giant spiral galaxy that is tilted toward us. It is the brighter of the two, shining at magnitude 6.8—just shy of what a typical observer can see under dark skies with the naked eye. Its neighbor M82, also known as Bode's Nebula, is an elongated, cigar-shaped galaxy that shines at magnitude 8.2, making it another easy target with binoculars.

Clear skies!

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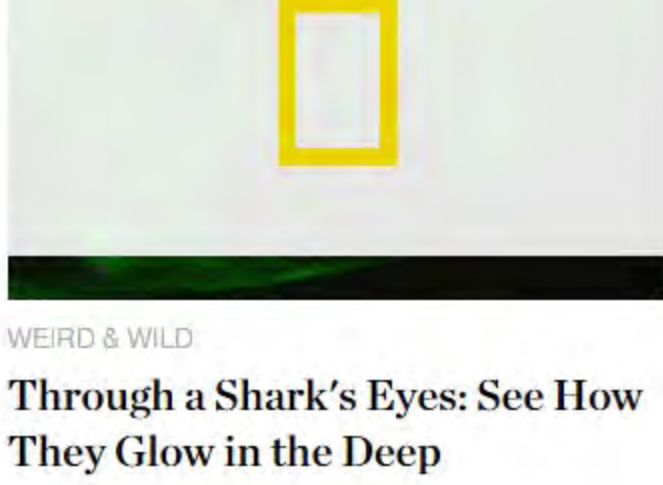
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