January

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Object #1 The Cone Nebula (NGC 2264) Michael Gariepy/Adam Block/NOAO/AURA/NSF

OBJECT #1	NGC 2264
Constellation	Monoceros
Right ascension	6h41m
Declination	9°53′
Magnitude	3.9
Size	20′
Type	Open cluster
Other name	The Christmas Tree Cluster

Our first target, the Christmas Tree Cluster, is a fine deep-sky object in the faint constellation Monoceros the Unicorn. At magnitude 3.9, this grouping of stars is easily bright enough for you to spot with your naked eyes, albeit as an indistinct fuzz ball. To find it, look 3.2° south-southwest of magnitude 3.4 Xi (ξ) Geminorum.

It's easy to see why observers gave this deep-sky object its common name. At a magnification of 50×, you'll see a dozen or so stars to the east and west of the magnitude 4.7 star 15 Monocerotis. This line forms the half-degree-long base of the Christmas tree. Its top points to the south.

Although the southern stars form the tree's top, they don't belong to this cluster. That is, they're not moving through space with the main cluster. The stars only lie in the same direction. The true cluster lies approximately 2,500 light-years from Earth.

Through a 12-inch or larger telescope, you'll see a bright strip of nebulosity some 5′ long. It seems to radiate westward from the brightest star. This gas belongs to the emission nebula Sharpless 2–273, which stretches an additional 2° to the west.

At the top of the Christmas Tree Cluster lies the Cone Nebula, an obscuring cloud of dust visible only through the largest amateur telescopes, although you'll spot it easily on astroimages.

OBJECT #2	NGC 2266
Constellation	Gemini
Right ascension	6h43m
Declination	26°58′
Magnitude	9.5
Size	5′
Type	Open cluster

This nice little cluster lies 1.8° north of magnitude 3.3 Propus (Eta [η] Geminorum) in a rich Milky Way star field. Through a 4-inch telescope at 100×, you'll spot two dozen stars, the brightest of which is magnitude 8.9 SAO 78670, which lies at NGC 2266's southwest end.

OBJECT #3	NGC 2280
Constellation	Canis Major
Right ascension	6h45m
Declination	–27°38′
Magnitude	10.5
Size	6.3′ by 2.8′
Type	Spiral galaxy

Our next target lies 3.3° west-northwest of magnitude 1.5 Adhara (Epsilon [ε] Canis Majoris). A small telescope reveals an oval twice as long as it is wide with barely noticeable dark markings paralleling its long axis. The central region appears broad and uniform. Through a 12-inch scope, you'll see two thin spiral arms to the east and west of the core. Although they're tightly wrapped around NGC 2280, magnifications above 300× will show the dark gap between them and the nucleus.

OBJECT #4	12 Lyncis
Constellation	Lynx
Right ascension	6h46m
Declination	59°27′
Magnitudes	5.4/7.3
Separation	8.7″
Type	Double star

As a constellation, Lynx is difficult to find, so trying to locate a 5th-magnitude star in it can prove tough. The best star-hop starts at magnitude 3.7 Delta (δ) Aurigae. The binary lies 8.2° to the northeast. Once you do find it, even a small telescope will show a bluish primary and a yellow companion. Use a magnification around 100×.

Object #5 NGC 2281 Anthony Ayiomamitis

OBJECT #5	NGC 2281
Constellation	Auriga
Right ascension	6h49m
Declination	41°04′
Magnitude	5.4
Size	14′
Type	Open cluster

You'll find our next object 0.8° south-southwest of magnitude 5.0 Psi^7 (ψ^7) Aurigae. Through a 4-inch scope at 100×, you'll spot two dozen stars. Four stars forming a parallelogram sit at the center of the cluster. They range in magnitudes from 8.8 to 10.1. Through a 12-inch scope, you'll count more than 50 member stars.

OBJECT #6	Alpha (α) Canis Majoris
Constellation	Canis Major
Right ascension	6h45m
Declination	−16°43′
Magnitudes	−1.5/8.5

(continued)	
Separation	8.8″
Type	Double star
Other name	Sirius

American telescope-maker Alvin Graham Clark (1804–1887) discovered that Sirius was double in 1862. Clark was testing an 18-inch lens at the Dearborn Observatory in Illinois.

At times, Sirius is a nearly impossible binary star to split. At other times, separating the two components is not too difficult. Currently, the gap between the two stars is widening, and it won't start to close until 2025. By then, 11″ will lie between Sirius A and Sirius B, also known as the Pup. After that, the separation will close until 2043, when it will measure only 2.5″.

To spot Sirius B you'll need terrific seeing at your site. Let Sirius get to (or quite near) the meridian. You need every advantage, so look through the least amount of air. Be familiar with the separation of Sirius A and B. The separation between Rigel A and B (Object #939) is approximately 9″, the same as Sirius A and B in 2010 and 2011. Crank up the power. I use no less than 250× to attempt to separate the Pup from the brilliant primary.

The common name Sirius comes from the Greek σειριοσ, which means sparkling or scorching. Richard Hinckley Allen, writing in *Star Names and Their Meanings* (G. E. Stechert, 1899) attributes this star's name to the Greek poet Hesiod, who lived in the latter half of the 8th century B.C.

Admiral William Henry Smyth (1788–1865), who authored one of the great 19th-century observing guides, *A Cycle of Celestial Objects* (John W. Parker, 1844), offers an alternative explanation. He writes that, "Dr. Hutton [probably English mathematician Charles Hutton (1737–1823)] gravely informs us that the term is from *Siris*, which he says is the most ancient appellation of the Nile, for when this star rose heliacally, and became visible to the Egyptians and Ethiopians, their year commenced, and with it the inundation of their fecundating river. As that beneficial flood was attributed to the influence of the beautiful star, it was therefore worshipped as Sothis, Osiris, and Latrator Anubis; and was viewed as the abode of the soul of Isis".

OBJECT #7	NGC 2286
Constellation	Monoceros
Right ascension	6h48m
Declination	–3°09′
Magnitude	7.5
Size	15′
Type	Open cluster

You'll find our next object 6.1° northeast of magnitude 5.0 Beta (β) Monocerotis. A 4-inch telescope reveals 30 stars scattered about an area half the diameter of the Full Moon. A nice double star with components of magnitude 9.7 and 10.2 sits inside the southeastern edge of the cluster. The two stars lie 34″ apart and are NGC 2286's brightest stars.

OBJECT #8	M41 (NGC 2287)
Constellation	Canis Major
Right ascension	6h47m
Declination	–20°44′
Magnitude	4.5
Size	38′
Type	Open cluster

Our next object is one of the easiest deep-sky targets because you can use the sky's brightest star as a guide to it. Open cluster M41 lies 4° south of Sirius (Alpha [α] Canis Majoris). From a dark site you'll easily spot M41 with your naked eyes.

It's possible that Greek philosopher Aristotle (384–322 B.C.) knew of this cluster around 325 B.C. The modern discovery goes to Italian astronomer Giovanni Batista Hodierna (1597–1660) who saw it before 1654. M41 is one of the brightest deep-sky objects without a common name. Why that's so is a mystery to me.

Through a 6-inch telescope, you'll see about 50 stars. With twice the aperture, you'll dramatically increase that number of stars. Star counts by astronomers indicate M41 contains slightly more than 100 member stars strewn over an area slightly larger than that covered by the Full Moon. M41's stars range in brightness from 7th to 13th magnitude.

The brightest star in the field of view, 12 Canis Majoris, does not belong to the cluster. At a distance of 1,100 light-years, 12 CMa lies less than half as far away as M41. This magnitude 6.1 star sits 21′ southeast of M41's center.

At first glance, this cluster appears roughly circular. Closer inspection reveals several chains of stars running north-south. Through binoculars or a low-power telescope/eyepiece combination, look for these curving arrangements.

OBJECT #9	NGC 2298
Constellation	Puppis
Right ascension	6h49m
Declination	–36°00′
Magnitude	9.2
Size	6.8′
Type	Globular cluster

You'll find our next target 5.8° west of magnitude 2.7 Pi (π) Puppis. Because it lies 40,000 light-years away, this globular does not appear dazzling. Telescopes smaller than 8′ in diameter show a relatively smooth object with a broad, concentrated halo. At magnifications above 250×, you might see a graininess that suggests the presence of stars. Through a 14-inch scope, the cluster looks much larger. At 300×, about 30 stars pop into view around a still-unresolved core.

OBJECT #10	NGC 2301
Constellation	Monoceros
Right ascension	6h52m
Declination	0°28′
Magnitude	6.0
Size	15′
Type	Open cluster
Other name	Hagrid's Dragon

Our next target, which sharp-eyed observers can spot without optical aid from a dark site, sits 5.1° west of magnitude 4.2 Delta (δ) Monocerotis. It's a great object through any size telescope, and wide-angle views will show a rich surrounding star field. A 6-inch scope reveals some 50 stars. Crank the magnification past 200×, and look for a double star dead-center in the cluster. The two components have magnitudes of 8.0 and 8.8.

The common name, Hagrid's Dragon, is a recent one. *Astronomy* magazine Contributing Editor Stephen James O'Meara sees a dragon in flight when he looks at this cluster. He named it Hagrid's Dragon after a creature in the *Harry Potter* series of novels by J. K. Rowling. Why not call NGC 2301 Norbert, the name Rowling gave to the fictional dragon? Probably, and I certainly mean no disrespect to anyone named Norbert, because "Hagrid's Dragon" sounds more impressive.

OBJECT #11	NGC 2302
Constellation	Monoceros
Right ascension	6h52m
Declination	−7°04′
Magnitude	9.0
Size	2.5′
Type	Open cluster

This object lies 5.7° east of magnitude 5.0 Beta (β) Monocerotis. I could only coax 10 member stars out of this tiny cluster through an 8-inch telescope. Larger scopes may show more stars, but not all that many more. The magnitude 6.6 star SAO 133781 sits 9′ northwest of the cluster's center.

OBJECT #12	Epsilon (ε) Canis Majoris
Constellation	Canis Major
Right ascension	6h59m
Declination	−28°58′
Magnitudes	1.5/7.4
Separation	7.5″
Type	Double star
Other name	Adhara

Usually, binary stars are interesting because of their color contrast. In this case, however, it's the brightness contrast. The blue primary outshines the white secondary by some 230 times. Be patient when you observe this pair. Crank the magnification past 150× to separate the components enough so the primary doesn't overwhelm its companion.

The common name Adhara (sometimes spelled Adara), comes from the Arabic "al Adhara," meaning "the virgins." That name refers to a now-extinct constellation that included several other nearby bright stars.

Adhara is the second-brightest star in Canis Major, but its Greek-letter label, Epsilon, indicates it should be fifth-brightest because Epsilon is the fifth letter in the Greek alphabet. The practice of labeling bright stars in constellations with Greek letters began with German mapmaker Johannes Bayer (1572–1625) when he published *Uranometria* in 1603. As Adhara demonstrates, Bayer was not infallible. He should have designated it Beta.

OBJECT #13	NGC 2311
Constellation	Monoceros
Right ascension	6h58m
Declination	−4°35′
Magnitude	9.6
Size	7′
Type	Open cluster

The brightest 15 stars in this cluster form a swath that stretches from the southeast to the northwest. Through a 4-inch telescope, you'll count these stars and perhaps a few more. An 8-inch scope bumps the star count to 30. You'll find this cluster 1.3° west-southwest of the magnitude 5.0 star 19 Monocerotis.

OBJECT #14	NGC 2316
Constellation	Monoceros
Right ascension	7h00m

(continued)	
Declination	−7°46′
Size	4′ by 3′
Type	Emission nebula

Our next target is a small, comet-shaped nebula that lies 1° northwest of open cluster M50 (Object #15). Through a 10-inch telescope at 200×, NGC 2316 has a uniform brightness across its face. A nebula filter will help you pull out what details are here.

Object #15 M50 Anthony Ayiomamitis

OBJECT #15	M50: (NGC 2323)
Constellation	Monoceros
Right ascension	7h03m
Declination	−8°20′
Magnitude	5.9
Size	16′
Type	Open cluster
Other name	The Heart-Shaped Cluster

You know, Messier's list is full of spectacular objects—the Andromeda Galaxy is M31; the Orion Nebula is M42; and M51 is the Whirlpool Galaxy. In such illustrious company, M50 might feel a bit intimidated.

Well, it shouldn't. At magnitude 5.9, sharp-eyed observers under a dark sky can spot this cluster with their naked eyes. Through a small telescope at 100×, you'll spot 50 stars in an area 12′ across. The brightest glows at 8th magnitude, and many more 8th- to 10th-magnitude stars form curving chains within the cluster.

Admiral Smyth in *Cycle of Celestial Objects* talks about the bright star, its companion, and the rest of the cluster: "A delicate and close double star in a cluster of the Via Lactea [Milky Way], on the Unicorn's right shoulder. A 8 and B 13, both pale white. This is an irregularly round and very rich mass, occupying with its numerous outliers more than the field, and composed of stars from the 8th to the 16th magnitudes; and there are certain spots of splendour which indicate minute masses beyond the power of my telescope."

You may not have heard much about M50, but don't overlook it. It's a hidden gem that will reward you for observing it. Its common name, the Heart-Shaped Cluster, refers to how the oval-shaped central region combines with two trails of stars that move outward.

OBJECT #16	NGC 2324
Constellation	Monoceros
Right ascension	7h04m
Declination	1°03′
Magnitude	8.4
Size	7′
Type	Open cluster

Our next target lies 2.5° northwest of magnitude 4.2 Delta (δ) Monocerotis. This cluster contains stars of mostly 12th and 13th magnitude. All Through a 4-inch telescope, you'll easily discern the cluster's slightly oval shape. You'll count more than 30 stars at 100×. An 8-inch scope will reveal more than 50 stars irregularly scattered across the field of view. Although NGC 2324 sits in a rich star field, the cluster shows a distinct edge.

OBJECT #17	NGC 2331
Constellation	Gemini
Right ascension	7h07m
Declination	27°21′
Magnitude	8.5
Size	19′
Type	Open cluster

You'll find our next target 3.1° south-southwest of magnitude 4.4 Tau (τ) Geminorum. This scattered cluster measures more than half the diameter of the Full Moon, but it is sparse. A 6-inch telescope will reveal only about 20 members.

OBJECT #18	NGC 2335
Constellation	Monoceros
Right ascension	7h07m
Declination	–10°02′
Magnitude	7.2
Size	7′
Type	Open cluster

The easiest way to locate our next object is to look 3.7° east-northeast of magnitude 4.4 Theta (θ) Canis Majoris. One of the first things you'll notice is magnitude 7.0 SAO 134220, which lies 8′ east-northeast of NGC 2335's core.

Through a 4-inch telescope, two dozen stars immediately pop into view. You'll see lots of curves and geometric shapes formed by the brightest members. A 12-inch scope at 150× will increase your star count to 50.

Object #19 NGC 2336 Adam Block/NOAO/AURA/NSF

OBJECT #19	NGC 2336
Constellation	Camelopardalis
Right ascension	7h27m
Declination	80°11′
Magnitude	10.4
Size	6.4′ by 3.3′
Type	Barred spiral galaxy

Our next target sits in a star-poor region. Find it by heading 15° north-northeast of magnitude 4.6 Gamma (γ) Camelopardalis. A small telescope shows a bright central region surrounded by an easily seen halo. Through a 10-inch telescope at 200×, you'll see this galaxy's bar. When you've finished with NGC 2336, head to magnitude 12.3 IC 467, which sits 20′ to the south-southeast.

OBJECT #20	NGC 2343
Constellation	Monoceros
Right ascension	7h08m
Declination	−10°37′
Magnitude	6.7
Size	6′
Type	Open cluster

Our next object lies within and on the northeastern end of the huge IC 2177 complex (Object #23). It's easily seen through binoculars or a finder scope, and sharp-eyed observers have at least an even chance of spotting it from a true-dark site without optical aid. Through a 4-inch telescope, you'll count 15 stars in a small region. A 12-inch scope will add another 10 stars to the cluster.

To find NGC 2343, look 3.7° east-northeast of magnitude 4.1 Theta (θ) Canis Majoris.

OBJECT #21	NGC 2345
Constellation	Canis Major
Right ascension	7h08m
Declination	−13°10′
Magnitude	7.7
Size	12′
Type	Open cluster

To find this object, look 3° east-northeast of magnitude 5.3 Mu (μ) Canis Majoris. A 6-inch telescope at 150× will reveal 30 stars splayed unevenly across the field of view. The eastern side of the cluster appears denser. Within it, an arc of the cluster's brightest stars moves from the south to the north. Increase to a 12-inch scope, and your star count will top 50. Despite the rich surrounding field, the cluster stands out well.

OBJECT #22	NGC 2348
Constellation	Volans
Right ascension	7h03m
Declination	−67°24′
Size	11′
Type	Open cluster

Is our next target a true open cluster or not? Astronomers are still unsure, so have a look and hazard your own guess. Star counts here are just enough to warrant open cluster status, but the real question is, "Do the stars move through space together?" Look for a couple dozen stars ranging from 10th to 14th magnitude over an area 10′ in diameter 1.4° west-northwest of magnitude 4.0 Delta (δ) Volantis.

Object #23 Cederblad 90 Tad Denton/Adam Block/NOAO/AURA/NSF

OBJECT #23	IC 2177
Constellation	Monoceros
Right ascension	7h05m
Declination	–10°38′
Size	120′ by 40′

(continued)	
Type	Emission nebula
Other name	The Seagull Nebula

Our next target is huge, so it looks best through a telescope/eyepiece combination that gives a wide field of view. A nebula filter will help a lot. Star chains extend along the length of the nebula. Disengage an 8-inch telescope's drive, and slowly sweep across the field at low power. You'll spot the nebula easily.

The detached part of the Seagull Nebula to the south represents the bird's head. Astronomers designated that object NGC 2327. It measures 19′ by 17′. Near the nebula's center lies an 8th-magnitude star that lies at one end of a thin channel of dark nebulosity. Could that dark division signify the seagull's mouth?

Lying 1° farther to the south is the reflection nebula Cederblad 90, which glows brightly as it reflects the light of the 8th-magnitude star at its center. Ced 90 measures 3′ across and appears round with a hazy edge. Because it's a reflection nebula don't use a nebula filter when you view it.

Through a 12-inch or larger scope, the boundary between IC 2177's eastern edge and the dark sky appears complex. Also look for several embedded open clusters, such as NGC 2335 (Object #18) and NGC 2343 (Object #20).

OBJECT #24	Gamma (γ) Volantis
Constellation	Volans
Right ascension	7h09m
Declination	–70°30′
Magnitudes	3.8/5.7
Separation	13.6″
Type	Double star

To view our next target, you'll have to travel to a latitude south of 20° north latitude. If you do, you'll see a nice yellow primary with a white companion star. Gamma Volantis lies about 9° east-southeast of the Large Magellanic Cloud.

OBJECT #25	Sharpless 2-301
Constellation	Canis Major
Right ascension	7h10m
Declination	–18°29′
Size	8′ by 7′
Type	Emission nebula

Our next target lies 3.2° south-southeast of magnitude 4.1 Gamma (γ) Canis Majoris. This nebula lies 42,000 light-years from the Milky Way's center. An unfiltered 8-inch telescope shows a hazy object with a bright center lying in a rich star field. Insert a nebula filter, and your view will improve dramatically. Larger apertures reveal dark regions scattered about the nebula's face.

OBJECT #26	NGC 2353
Constellation	Monoceros
Right ascension	7h15m
Declination	–10°18′
Magnitude	7.1
Size	20′
Type	Open cluster
Other name	Avery's Island

The first thing you'll notice about our next target is the magnitude 6.0 star SAO 152598, which sits just south of the cluster's center. Even a 4-inch scope will reveal three dozen stars. Step up to a 12-inch instrument, and you'll count more than 100 stars. Most shine between magnitudes 9 and 11. Even without the 6th-magnitude luminary, the southern half outshines the northern part.

To find NGC 2353, look 6.6° west of magnitude 3.9 Alpha (α) Monocerotis.

Astronomy magazine Contributing Editor Stephen James O'Meara named this treasure trove of stars after Captain Avery, a native of Devonshire, England. In 1695, Avery had captured a ship belonging to the Great Mogul of India. After looting the treasure aboard, Avery retired to an island a rich man.

OBJECT #27	NGC 2354
Constellation	Canis Major
Right ascension	7h14m
Declination	–25°44′
Magnitude	6.5
Size	20′
Type	Open cluster

Here's an easy target to find. Just locate magnitude 1.8 Delta (δ) Canis Majoris, and then move 1.5° to the east-northeast. A 4-inch telescope reveals three dozen stars, but through a 10-inch instrument, you'll count 100. Look for an oval dark void at the cluster's center elongated north-south.

OBJECT #28	ADS 5951
Constellation	Canis Major
Right ascension	7h17m
Declination	–23°19′
Magnitudes	4.8/6.8
Separation	26.8″
Type	Double star

Find this binary, and you'll see a nice color contrast. The brighter component shines yellow or golden, and the secondary is blue. You'll find this star 3° east of magnitude 3.0 Omicron^2 (o^2) Canis Majoris.

This star's designation (ADS) makes it apparent to astronomers that it is a double star. The label comes from American astronomer Robert Aitken's (1864–1951) massive two volume *New General Catalogue of Double Stars within 120 degrees of the North Pole*, published by the Carnegie Institution in 1932. Aitken's catalog contained measurements of 17,180 double stars north of declination –30°.

OBJECT #29	NGC 2355
Constellation	Gemini
Right ascension	7h17m
Declination	13°47′
Magnitude	9.7
Size	8′
Type	Open cluster

Our next target lies in southern Gemini only 1.5° from the Canis Major border. To find it, look 2.8° south of magnitude 3.6 Lambda (λ) Geminorum. This cluster really benefits from increased telescope aperture. Some 20 stars are visible through a 4-inch telescope. An 8-inch scope, on the other hand, shows nearly 50.

Object #30 Thor's Helmet (NGC 2359) Christine and David Smith/Steve Mandel/Adam Block/NOAO/AURA/NSF

OBJECT #30	NGC 2359
Constellation	Canis Major
Right ascension	7h19m
Declination	–13°12′

(continued)	
Size	9′ by 6′
Type	Emission nebula
Common names	Thor's Helmet, the Duck Nebula

Thor's Helmet—perhaps the most impressive name for any deep-sky object—is a cosmic bubble sculpted by radiation from a type of luminous, massive star called a Wolf-Rayet star. These short-lived supergiant stars are rare; astronomers have discovered less than 250 of them within the Milky Way.

As the star enters the Wolf-Rayet stage, a powerful stellar wind of up to 6 million mph (10 million km/h) ejects the star's outer envelope. This gas slams into the surrounding interstellar medium and sculpts a beautiful shocked shell of ionized gas.

NGC 2359 lies 8.8° east-northeast of Canis Major's brightest star, Sirius. Alternatively, you'll find it 4.3° northeast of magnitude 4.1 Muliphain (Gamma [γ] Canis Majoris). The nebula responds well to narrowband and nebula filters. Through a 12-inch telescope, you'll see the circular central area and the helmet's two "wings." The brightest part measures 1′ wide and extends to the south approximately 4′.

Recently, I observed Thor's Helmet through a 30-inch telescope. The intricate details I thought visible only in photographs amazed me. My view differed from a CCD image only because it's tough to see the nebula's striking colors with your eyes. If you have the opportunity to observe NGC 2359 through a large telescope, take it. You won't be disappointed.

Although the common name "Thor's Helmet" seems to indicate a mythological tie, it's more likely this moniker has a more recent history. Why? Because Thor, the Norse god of thunder, did not wear a helmet, let alone a winged one. Only since August 1962 has any publication pictured Thor wearing such a cap. His first appearance so adorned occurred in Marvel Comics' *Journey into Mystery* #83 (a copy of which I happen to own).

OBJECT #31	NGC 2360
Constellation	Canis Major
Right ascension	7h18m
Declination	–15°37′
Magnitude	7.2
Size	12′
Type	Open cluster
Other name	Caldwell 58

Our next object lies 3.3° east of magnitude 4.1 Gamma (γ) Canis Majoris in a rich star field. Through a 4-inch telescope at 100×, you'll spot what looks like a stellar bar stretching east to west through the cluster's center. NGC 2360's brightest member is magnitude 8.9 SAO 152691, which sits on the eastern end.

An 8-inch telescope under a dark sky reveals more than 50 stars. The background is so dense here that you may have trouble defining where the cluster's eastern edge ends and the field stars begin.

OBJECT #32	NGC 2362
Constellation	Canis Major
Right ascension	7h19m
Declination	–24°57′
Magnitude	4.1
Size	8′

(continued)	
Type	Open cluster
Other names	The Tau Canis Majoris Cluster, the Mexican Jumping Star, Caldwell 64

Our next object ranks as the sky's 9th-brightest open cluster. Named for the brightest star it contains, the Tau Canis Majoris Cluster contains magnitude 4.4 Tau (τ) CMa and lots of fainter stars. In fact, no cluster star shines within 3 magnitudes of Tau.

Tau is one of the most luminous supergiants known. Its absolute magnitude (the brightness it would have if its distance were 32.6 light-years) is –7. That makes it roughly 50,000 times brighter than the Sun.

One of Tau CMa's common names, the Mexican Jumping Star, probably arose when Northern Hemisphere amateur astronomers observed it twinkling wildly. Because the star sits so low in the sky (it stands a maximum of only 25° high as viewed from 40° north latitude), its light passes through a lot of atmosphere before it reaches northern telescopes.

To locate NGC 2362, find magnitude 1.8 Wezen (Delta [δ] Canis Majoris), and move 2.7° to the east-northeast. You'll spot the cluster easily with your naked eyes. Use binoculars, and you'll see that many stars pack this area of the winter Milky Way.

Through a telescope, Tau dominates the view, partially obscuring many of the 10th-magnitude stars surrounding it. To get an accurate count of the stars in NGC 2362, place Tau just outside the field of view, first to the north, then to each of the other three cardinal directions. Then, simply count the suddenly visible fainter stars and add the four numbers together.

OBJECT #33	Delta (δ) Geminorum
Constellation	Gemini
Right ascension	7h20m
Declination	21°59′
Magnitudes	3.5/8.2
Separation	6.8″
Type	Double star
Other name	Wasat

This easy naked-eye star sits in the middle of Gemini. The primary is white and its companion glows much fainter and orange. Be sure to use a magnification of 100× or more to split it.

The name Wasat comes from the Arabic "Al Wasat," which means "middle." This may refer to the center of the constellation (more specifically, the twin Pollux), or to its position (less than 0.2°) from the ecliptic.

OBJECT #34	NGC 2366
Constellation	Camelopardalis
Right ascension	7h29m
Declination	69°13′
Magnitude	10.8
Size	8.2′ by 3.3′
Type	Irregular galaxy

Our next target is a faint, rather large galaxy. Because of its size, NGC 2366's surface brightness is low. You'll need at least a 12-inch telescope under a dark sky to see anything more than a faint dull glow.

What you can see through smaller scopes is a cloud of ionized hydrogen, called an HII region, that lies off the galaxy's southwestern edge. You may see this feature cataloged as NGC 2363. That's an error.

Unlike the galaxy, the nebula has a high surface brightness. Two star clusters supply the energy to make it glow, the more energetic one of which lies embedded in the cloud. Crank the magnification up to 200×, and insert an Oxygen-III filter. The galaxy will disappear, but the HII region remains bright. Look for the nebula's bright center.

OBJECT #35	NGC 2367
Constellation	Canis Major
Right ascension	7h20m
Declination	–21°53′
Magnitude	7.9
Size	5′
Type	Open cluster

This nice object sits in a rich starfield 4.4° east-northeast of magnitude 3.0 Omicron^2 (o^2) Canis Majoris. Most of the cluster's bright members lie on its eastern side. The luminary is a double star barely east of center with a separation of 5″ and magnitudes of 9.4 and 9.7.

OBJECT #36	19 Lyncis
Constellation	Lynx
Right ascension	7h23m
Declination	55°17′
Magnitudes	5.6/6.5
Separation	14.8″
Type	Double star

You'll split this double through any telescope. The primary shines sunflower yellow, while the secondary appears medium-blue. Find this star 10.5° west-southwest of magnitude 3.4 Muscida (Omicron [*o*] Ursae Majoris). Deep-sky observers might want to note that the rich galaxy cluster Abell 576 lies 0.5° to the north-northwest.

OBJECT #37	NGC 2371–2
Constellation	Gemini
Right ascension	7h26m
Declination	29°29′
Magnitude	11.3
Size	54″ by 35″
Type	Planetary nebula
Other name	The Double Bubble Nebula

The Double Bubble Nebula, also known as NGC 2371 and NGC 2372, is a twin-lobed planetary nebula that glows at 11th magnitude.

This object's common name comes from its unusual appearance: Two rounded puffs of gas lie side by side, with each lobe getting brighter toward the middle.

You'll find the Double Bubble 1.7° north of magnitude 3.8 Iota (*ι*) Geminorum. And although you can spot it through an 8-inch telescope, a 12-inch or larger instrument will help you see more of its details.

When you're first hunting NGC 2371–2, use low power. This object measures 54″ by 35″, making it nearly as big as the Ring Nebula (M57) in Lyra. An Oxygen-III eyepiece filter definitely helps.

If the seeing is good, crank the magnification past 200×, and look for a brightness difference between the two lobes. Then try to spot the central star. If you can observe it, you'll see the object whose radiation fuels the glow of the Double Bubble Nebula.

OBJECT #38	NGC 2374
Constellation	Canis Major
Right ascension	7h24m
Declination	–13°16′
Magnitude	8.0
Size	12′
Type	Open cluster

To find this object, look 5.6° southwest of magnitude 3.9 Alpha (α) Monocerotms. Through a 4-inch telescope at 100×, you'll spot 20 stars of equal brightness. An 8-inch scope shows twice that number of stars and also reveals some dark lanes snaking between lines of stars.

OBJECT #39	NGC 2383
Constellation	Canis Major
Right ascension	7h25m
Declination	–20°57′
Magnitude	8.4
Size	5′
Type	Open cluster

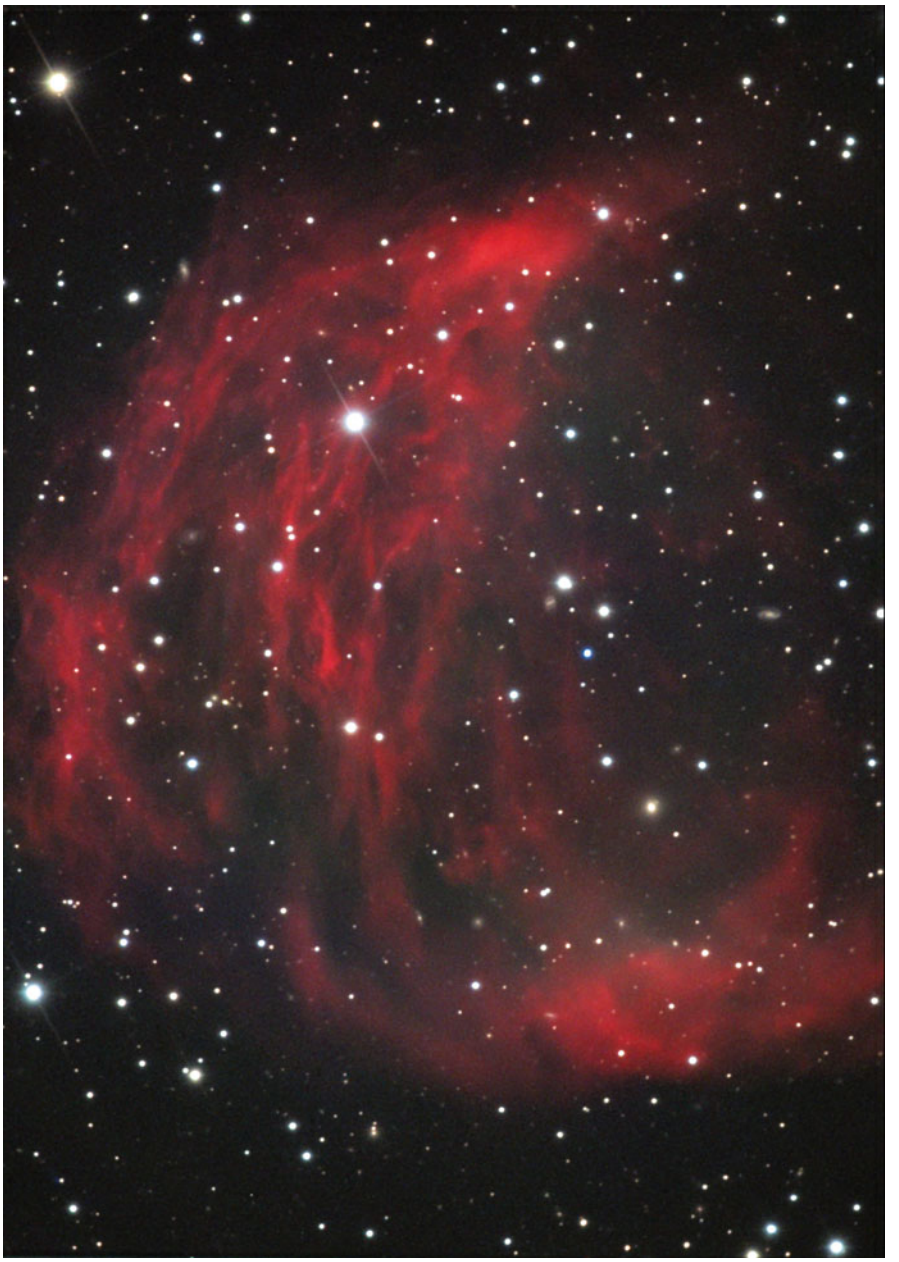
You'll find this target 5.8° east-northeast of magnitude 3.0 Omicron^2 (o^2) Canis Majoris. It's a small cluster in which most telescopes will reveal 20 stars. Two magnitude 9.7 stars sit at the east and west ends. Our next object, NGC 2384, lies 8′ to the east-southeast.

OBJECT #40	NGC 2384
Constellation	Canis Major
Right ascension	7h25m
Declination	–21°01′
Magnitude	7.4
Size	5′
Type	Open cluster

Our next target lies 8′ west-northwest of our previous object, NGC 2383. You'll first spot the cluster's two brightest stars, magnitude 8.6 SAO 173685 and magnitude 8.9 HD 58465. Then look for an irregular flow of stars that has an east-west orientation.

OBJECT #41	NGC 2395
Constellation	Gemini
Right ascension	7h27m
Declination	13°37′
Magnitude	8.0
Size	15′
Type	Open cluster

You'll find our next target 3.7° southeast of magnitude 3.6 Lambda (λ) Geminorum. Through a 6-inch telescope, you'll see a gentle wash of stars starting in the southeast and progressing toward the northwest. Three 10th-magnitude stars, one near the center and two at the southeastern edge, gently dominate the cluster. The rest, about 50 stars brighter than magnitude 15, form a nice background.

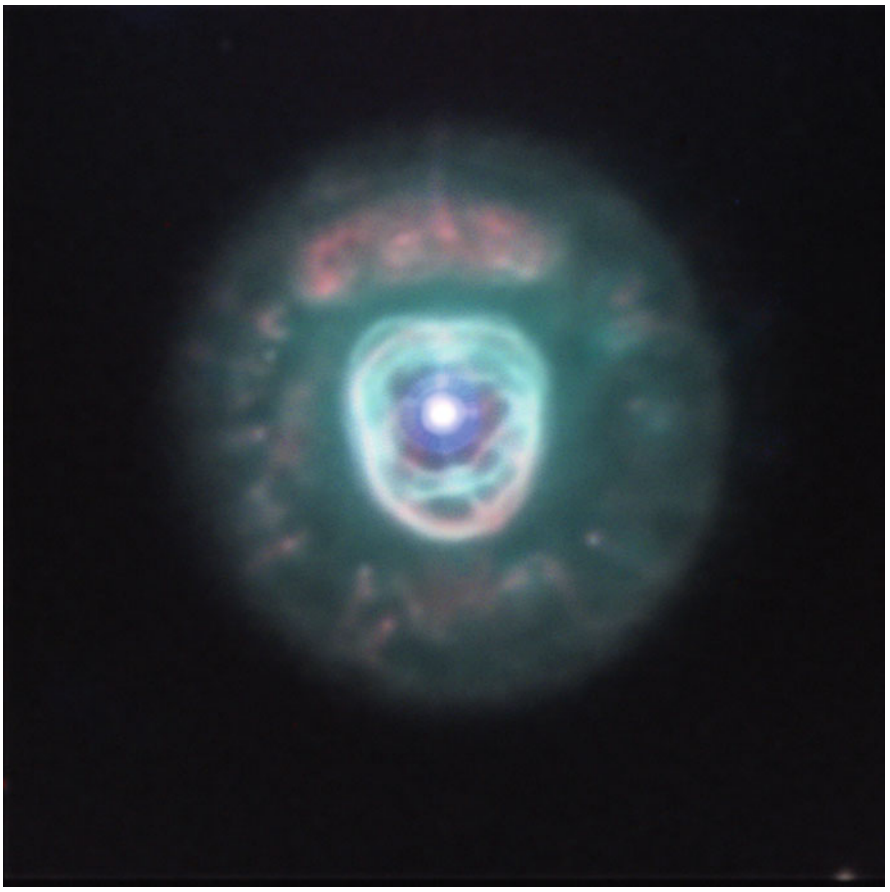


Object #42 The Medusa Nebula (Abell 21) Al and Andy Ferayomi/Adam Block/NOAO/AURA/NSF

OBJECT #42	Abell 21
Constellation	Gemini
Right ascension	7h29m
Declination	13°15′
Magnitude	10.3
Size	615″
Type	Planetary nebula
Other name	The Medusa Nebula

Our next object lies 0.5° southeast of our previous treat, NGC 2395. Although the Medusa Nebula (also known as Sharpless 2–274) has a moderate listed brightness, it can be tough to spot through an 8-inch telescope unless your sky conditions are ideal. Expect to see a fat, discontinuous arc of nebulous material with numerous dark gaps. A wedge on the northern end and a round region due south are the nebula's brightest areas. An Oxygen-III filter really will help with this object. Step up to a 16-inch telescope to get a really good look.

This object's common name comes from the braided filaments of glowing hydrogen that, on long-exposure images, resemble the Gorgon Medusa's dreadful locks.



Object #43 The Eskimo Nebula (NGC 2392) Peter and Suzie Erickson/Adam Block/NOAO/AURA/NSF

OBJECT #43	NGC 2392
Constellation	Gemini
Right ascension	7h29m
Declination	20°55′
Magnitude	9.2
Size	15″
Type	Planetary nebula
Other names	The Eskimo Nebula, the Clown Face Nebula, Caldwell 39

This deep-sky object is a planetary nebula called the Eskimo. Through a medium-size telescope, this object resembles a face surrounded by a fur parka.

To find the Eskimo Nebula, point your telescope 2.4° east-southeast of magnitude 3.5 Delta (δ) Geminorum. The planetary glows at magnitude 9.1, which means you can spot it through just about any scope.

Seeing detail in this object, especially through telescopes with apertures of 10 inches or larger, is easy. Use as high a magnification as sky conditions warrant. You'll easily spot the planetary's 10th-magnitude central star.

NGC 2392 has a double-shell appearance. The inner shell appears bright, with a mottled texture. The outer shell looks fainter than the inner one, and a dark ring separates the two. The outer shell also dims with increasing distance from the central star.

OBJECT #44	Alpha (α) Geminorum
Constellation	Gemini
Right ascension	7h35m
Declination	31°53′
Magnitudes	1.9/2.9
Separation	3.9″
Type	Double star
Other name	Castor

Castor is one of the brightest double stars in the sky, but the separation between the two stars is quite close, so crank the magnification to 150× or above. To most observers, the primary is white, and the secondary appears pink or orangish.

"Castor" is a proper name. He was the mortal of the Twins. His brother, Polydeuces (Pollux), was immortal. According to legend, both had the same mother, Leda, but Pollux's father was Zeus, while Castor's was Tyndareus, a king of Sparta.

Object #45 NGC 2403 Adam Block/Mount Lemmon SkyCenter/University of Arizona

OBJECT #45	NGC 2403
Constellation	Camelopardalis
Right ascension	7h37m
Declination	65°36′
Magnitude	8.5
Size	25.5′ by 13.0′
Type	Barred spiral galaxy
Other name	Caldwell 7

NGC 2403 is one of the sky's brightest galaxies, shining with a magnitude of 8.5. It's large, however, so that brightness spreads over an area defined by the galaxy's 25.5′ by 13′ dimensions. Its size, by the way, makes NGC 2403's area 47% as large as that of the Full Moon.

Small telescopes show this object as an indistinct haze roughly twice as long as wide, with a bright central region. Through a 12-inch scope, you'll begin to see the galaxy's spiral arms, but you'll need an even larger instrument to trace them all the way back to the nucleus.

Look for stellar associations in NGC 2403's spiral arms. Associations are a type of star cluster resembling open clusters but larger and holding only up to about 100 stars. The presence of these clusters indicates star formation is ongoing within this galaxy.

Plan to spend a lot of time observing NGC 2403. It's one of the sky's most spectacular wonders. You'll find it 7.7° northwest of magnitude 3.4 Muscida (Omicron [*o*] Ursae Majoris).

OBJECT #46	NGC 2414
Constellation	Puppis
Right ascension	7h33m
Declination	–15°27′
Magnitude	7.9
Size	6′
Type	Open cluster

Our next object is a small cluster with a bright star centered. The star is magnitude 8.2 SAO 153056. A 4-inch telescope at 150× will reveal about 15 stars around it, while an 8-inch scope will double the count to 30.

Object #47 The Intergalactic Wanderer (NGC 2419) Anthony Ayiomamitis

OBJECT #47	NGC 2419
Constellation	Lynx
Right ascension	7h38m
Declination	38°53′
Magnitude	10.3
Size	4.1′
Type	Globular cluster
Other names	The Intergalactic Wanderer (or Tramp), Caldwell 25

The Intergalactic Wanderer lies in a region of southwestern Lynx devoid of bright stars. To find it, use magnitude 1.6 Castor (Alpha [α] Geminorum). From that brilliant luminary, move 7° due north.

This object isn't famous for its brightness or beauty through a telescope, but rather because it's one of the Milky Way's most remote globular clusters. It lies some 300,000 light-years from our galaxy's core and only 25,000 light-years closer to us. That places NGC 2419 more than 100,000 light-years beyond the Milky Way's most famous satellite galaxy, the Large Magellanic Cloud and even farther away than the Small Magellanic Cloud

Astronomers christened it the Intergalactic Tramp, then the Intergalactic Wanderer (Was the change because "tramp" is now a politically incorrect word?), because they thought its position placed it in the space between galaxies. We now know that gravity binds NGC 2419 to the Milky Way, although it takes some 3 billion years to complete one orbit.

A 4-inch telescope reveals scant detail in NGC 2419, but you will see it. Through an 8-inch or larger scope at 200× or above, look for an ever-so-slightly brighter center ringed by an irregularly lit halo. Despite the lack of details, seeing the most distant globular visible through most amateur instruments makes the Intergalactic Wanderer a worthy catch.

OBJECT #48	NGC 2420
Constellation	Gemini
Right ascension	7h39m
Declination	21°34′
Magnitude	8.3
Size	10′
Type	Open cluster

Our next target lies 4.3° east of magnitude 3.5 Wasat (Delta [δ] Geminorum). Through an 8-inch telescope, you'll spot about two dozen stars here. Most shine at magnitude 12 or 13. The magnitude 9.4 star on the cluster's edge is not part of NGC 2420. That star is GSC 1373:1207.

OBJECT #49	NGC 2421
Constellation	Puppis
Right ascension	7h36m
Declination	–20°36′
Magnitude	8.3
Size	8′
Type	Open cluster

You'll find our next treat 5.2° northwest of magnitude 3.3 Xi (ξ) Puppis. It's a rich open cluster that looks good through any size telescope, especially if your location allows you to see it more than halfway up in the sky. A 4-inch scope at 150× will show the cluster's 30 brightest stars. Step up to a 10-inch instrument at 200×, and a new tier of stellar brightness appears. In addition to the bright 30, another, slightly fainter 30 stars tremble into view.

Object #50 M47 Anthony Ayiomamitis

OBJECT #50	M47 (NGC 2422)
Constellation	Puppis
Right ascension	7h37m
Declination	–14°30′
Magnitude	4.4
Size	29′
Type	Open cluster

Our next target is one you'll see easily from a dark site without optical aid. Still, some observers like landmarks, so M47 lies 5° south-southwest of magnitude 3.9 Alpha (α) Monocerotis.

This cluster ranks as the sky's 14th-brightest open cluster. Most of that brightness comes from just six stars. They range in brightness from magnitude 5.7 to magnitude 8.0.

Although it's terrific through binoculars or a finder scope, M47 is somewhat disappointing through a telescope, especially at magnifications above about 75×. That's probably because the stars spread out over an area equal to that covered by the Full Moon. The cluster's six luminaries lie in a field of about another 75 stars.

OBJECT #51	NGC 2423
Constellation	Puppis
Right ascension	7h37m
Declination	–13°52′
Magnitude	6.7
Size	12′
Type	Open cluster
Gemini	

This object lies just 0.6° north of our previous target, M47. It's a moderately rich cluster that sharp-eyed observers can just detect from a dark site with their naked eyes. A 4-inch telescope will show you 30 stars, and the star count goes up from there as you increase your aperture. Through a 12-inch scope at 200×, you'll count 100 stars. The brightest is magnitude 9.0 HD 61098, which sits at NGC 2423's center.

Object #52 M46 Anthony Ayiomamitis

OBJECT #52	M46 (NGC 2437)
Constellation	Puppis
Right ascension	7h42m
Declination	–14°49′
Magnitude	6.1
Size	27′
Type	Open cluster

Several open clusters within Puppis are more prominent than M46. M47, for example, outshines M46 by more than a magnitude and a half, and NGC 2451 is more than 3 magnitudes brighter. But I think M46 is one of the top 100 celestial objects in the sky. Point a 4-inch or larger telescope its way, and you'll see why.

The star cluster, discovered by French comet-hunter Charles Messier (1730–1817) in 1771, contains several hundred stars. You'll see 100 of them through an 8-inch scope. The stars appear evenly distributed throughout a circle slightly less than half a degree across. Look closely, however, and you'll see a slightly denser concentration of stars at M46's southern edge. A dark lane separates this region from the rest of the cluster.

To continue your enjoyment of M46, go immediately to our next object.

Object #53 NGC 2438 Nicole Bies and Esidro Hernandez/Adam Block/NOAO/AURA/NSF

OBJECT #53	NGC 2438
Constellation	Puppis
Right ascension	7h42m
Declination	–14°44′
Magnitude	11.0
Size	66″
Type	Planetary nebula

Within the boundaries of M46 (Object #52) resides planetary nebula NGC 2438. It sits 7′ north of the cluster's center and measures about 1′ across. Use a 10-inch telescope and high magnification, and you may detect the planetary's donut-like appearance. Several stars lie within the donut's boundary, but none is the object's central star, which glows dimly at magnitude 17.7.

Most astronomers agree that NGC 2438 is a foreground object, somewhat fortunately superimposed upon M46. Distance calculations place NGC 2438 several thousand light-years closer than M46.

OBJECT #54	NGC 2439
Constellation	Puppis
Right ascension	7h41m
Declination	–31°39′
Magnitude	6.9
Size	10′
Type	Open cluster

The easiest way to find our next target is to draw a line from magnitude 1.8 Wezen (Delta [δ] Canis Majoris) through magnitude 2.5 Aludra (Eta [η] Canis Majoris). Extend it about an equal distance in the same direction, and you'll land on NGC 2439.

Through a 4-inch telescope, you'll see 15 stars forming a well-defined ring. R Puppis, a variable star that hovers around magnitude 6.6, lies at the northeastern edge of the ring. An additional 20 fainter stars surround the ring.

On the best nights with at least a 12-inch scope, look for the faint cluster Ruprecht 30. It appears as a light stellar dusting half as large as NGC 2439 and lying 23′ to the brighter cluster's northeast.

Object #55 The Albino Butterfly Nebula (NGC 2440) Jeff Cremer/Adam Block/NOAO/AURA/NSF

OBJECT #55	NGC 2440
Constellation	Puppis
Right ascension	7h42m
Declination	–18°13′
Magnitude	9.4
Size	14″
Type	Planetary nebula
Other names	The Albino Butterfly Nebula, the Kiss Nebula

Our next target lies 8.5° northwest of magnitude 2.8 Rho (ρ) Puppis, or a little more than 3° south of M46. This planetary nebula lies some 3,500 light-years from Earth.

A 4-inch telescope shows NGC 2440 as an oval disk oriented northwest to southeast with a high surface brightness. Because it is so bright, you can use high magnifications on it. A 12-inch scope at 300× will help you begin to resolve two lobes, with the northeastern one appearing brighter. A faint haze surrounds the bright inner disk.

Don't confuse this planetary with Minkowski's Butterfly, which has the designation M2–9. The Albino Butterfly Nebula got its name quite naturally. Many planetary nebulae take a butterfly, or hourglass, shape as they form. This one's white, so that solves the mystery of its name.

OBJECT #56	NGC 2442
Constellation	Volans
Right ascension	7h36m
Declination	–69°32′
Magnitude	10.4
Size	5.4′ by 2.6′
Type	Barred spiral galaxy
Other name	The Meat Hook Galaxy

One look at our next treat, and you'll understand how it got its common name. The Meat Hook Galaxy lies 2.3° southeast of magnitude 4.0 Delta (δ) Volantis. Through a 10-inch telescope, NGC 2442 shows symmetrical hooks curving from a 4′-long faint, thick bar. Except for its bright core, the body of the galaxy has a uniform brightness. Its distorted form hints at past interaction with other galaxies. It's a joy to observe this object through a 16-inch or larger scope.

If you can use such an instrument, look 10′ east-northeast of NGC 2442 for the magnitude 13.4 spiral galaxy PGC 21457. At magnifications above 150×, this galaxy has an unusual rectangular shape.

OBJECT #57	Melotte 71
Constellation	Puppis
Right ascension	7h38m
Declination	–12°04′
Magnitude	7.1
Size	9′
Type	Open cluster

Despite its obscure designation, our next treat ranks as one of the showpiece clusters in Puppis. Look for it 2.7° south-southwest of magnitude 3.9 Alpha (α) Monocerotis, just 1° south of Puppis' border with Monoceros.

Through a 10-inch telescope, Melotte 71 shows up as a well-defined group of 30 stars magnitude 10 and fainter. The star count doubles through a 16-inch scope.

OBJECT #58	Kappa (κ) Puppis
Constellation	Puppis
Right ascension	7h39m
Declination	–26°48′
Magnitudes	4.5/4.7
Separation	9.9″
Type	Double star

This nicely spaced binary combines two white stars of nearly identical magnitudes. I've often imagined a pair of car headlights as I've observed this pair.

OBJECT #59	Canis Minor
Right ascension (approx.)	7h36m
Declination (approx.)	6°30′
Size (approx.)	183.37 square degrees
Type	Constellation

The tiny constellation Canis Minor the Small Dog is small — its size ranks 71st out of the 88 star patterns that cover the sky. Canis Minor occupies only 183 square degrees, or just 0.4% of the sky.

Its big brother, Canis Major, is a well-formed constellation that contains seven of the 200 brightest stars. The Small Dog, on the other hand, contains only two.

Luckily, one of those is Procyon (Alpha [α] Canis Minoris, the sky's eighth-brightest star. It shines at magnitude 0.34, and lies 11.4 light-years away. The name Procyon is Greek and means "before the Dog." This refers to the fact that, in mid-northern latitudes, the star rises slightly before brilliant Sirius, known for millennia as the Dog Star. Procyon, therefore, is Sirius' herald.

The other notable star in this constellation in Gomeisa (Beta [β] Canis Minoris). This luminary glows at magnitude 2.9, making it the sky's 149th-brightest star.

When you go out at night, these two stars comprise the constellation. Procyon marks the dog's head and Gomeisa its tail. And that's all there is of the Small Dog.

The best date to spot Canis Minor is January 14. Around that date, it sits opposite the Sun as seen from Earth. Conversely, you'll have no luck spotting the Small Dog around July 16, which is when the Sun is in its area.

OBJECT #60	Alpha (α) Canis Minoris
Constellation	Canis Minor
Right ascension	7h39m
Declination	5°14′
Magnitudes	0.4/10.0
Separation	4.8″
Type	Double star
Other name	Procyon

"Procyon" comes from the Greek, and it means "before the dog." This refers to the fact that Procyon's rising occurs slightly before that of Sirius, the Dog Star.

Astronomers measuring Procyon's motion in the mid-nineteenth century noticed it didn't move through space in a straight line. Instead, the star seemed to wobble back and forth as if acted upon by an outside force. It turned out that the outside force was a companion star. In 1896, American astronomer James M. Schaeberle discovered Procyon B at Lick Observatory's 36-inch refractor. Like Sirius B (Object #6), Procyon B is a white dwarf.

Visually, splitting Procyon is tough, but you can try my most recent method. At the 2001 Texas Star Party, I observed it during mid-evening twilight. The seeing was excellent, and I made my sighting through a superb 11-inch Starmaster Dobsonian-mounted Newtonian reflector using an eyepiece that

magnified about 300×. I confirmed the sighting by asking three observing friends to view the stars and provide a position for the fainter one. Each verified Procyon B in the position I had seen it.

OBJECT #61	M93 (NGC 2447)
Constellation	Puppis
Right ascension	7h45m
Declination	–23°52′
Magnitude	6.2
Size	22′
Type	Open cluster

Our next treat comes from Charles Messier's catalog. It lies 1.5° northwest of magnitude 3.3 Xi (ξ) Puppis. Odds are that you may be able to glimpse M93 without optical aid from a dark site.

Through a 4-inch telescope at 100×, you'll see an arrowhead shape formed by the cluster's 30 brightest stars pointing toward the southwest. An 8-inch scope adds about two dozen more stars around the arrowhead.

OBJECT #62	NGC 2451
Constellation	Puppis
Right ascension	7h45m
Declination	–37°58′
Magnitude	2.8
Size	45′
Type	Open cluster
Other name	The Stinging Scorpion

To find our next target, look 4.1° west-northwest of magnitude 2.2 Naos (Zeta [ζ] Puppis). There you'll find one of the sky's brightest apparent open clusters. I say "apparent" because astronomers have plotted the motions of the individual stars here, and they are not traveling through space together. Still, it's a nice target that's so bright you can even spot it without optical aid from locations with low levels of light pollution.

Binoculars with a magnification of 15× really bring out the best in this object. When you switch to your telescope, use a low-power eyepiece. You'll see 15 bright stars around orange, magnitude 3.6 SAO 198398, which sits dead-center.

Astronomy magazine Contributing Editor Stephen James O'Meara bestowed the common, although little-used, name on this object. He said it appears to him like a scorpion approaching head-on, with two outstretched claws and an upright tail ready to sting.

OBJECT #63	2 Puppis
Constellation	Puppis
Right ascension	7h46m
Declination	–14°41′
Magnitudes	6.1/6.8
Separation	17″
Type	Double star

The easiest way to find 2 Puppis is to look 0.9° east of open cluster M46. This is a moderately wide pair, and both components appear white.

OBJECT #64	NGC 2452
Constellation	Puppis
Right ascension	7h47m

(continued)	
Declination	–27°20′
Magnitude	12.0
Size	19″
Type	Planetary nebula

To find our next target, look 2.5° south of magnitude 2.2 Naos (Zeta [ζ] Puppis). Through an 8-inch telescope at 200×, you'll easily see the bright rectangular shape, 50% longer than it is wide, stretched in a north-south orientation.

A 14-inch scope at 300× reveals the rectangle to be two fuzzy lobes. A bit of mottling (small dark areas visible on the bright surface) and an irregular edge are the only visible details.

OBJECT #65	NGC 2453
Constellation	Puppis
Right ascension	7h48m
Declination	–27°12′
Magnitude	8.3
Size	4′
Type	Open cluster

You'll find this object in the same telescopic field at NGC 2452 (Object #64), just 8′ to the planetary nebula's north-northeast. About a dozen stars huddle together in the center of the cluster. The brightest star, magnitude 9.4 SAO174539, lies in the northwest corner. At a distance of some 19,000 light-years, the cluster lies about twice as far away as the planetary.

OBJECT #66	NGC 2467
Constellation	Puppis
Right ascension	7h53m
Declination	–26°23′
Magnitude	7.1
Size	14′
Type	Open cluster

Our next treat lies 1.7° south-southeast of magnitude 3.3 Xi (ξ) Puppis. It's a combination object that pairs an open cluster with emission nebula Sharpless 2–311.

The cluster appears as little more than a spray of randomly distributed stars enveloped by gas. Just to the northwest of the nebula's main mass is magnitude 9.4 Haffner 19, a tiny, separate cluster. But stars are not why you're pointing your telescope here.

Through an 8-inch scope, use a magnification of 150×, and insert an Oxygen-III filter. That will effectively eliminate the stars, making Sh 2–311 really stand out. Its high surface brightness will let you really crank up the magnification. The bright central clump, which surrounds an 8th-magnitude star, appears mottled with a hollow center and a bright southern rim. A 14-inch scope at 350× will reveal brightness differences along the face of the nebula, as well as several gaps and disassociated nebular regions.

OBJECT #67	NGC 2477
Constellation	Puppis
Right ascension	7h52m
Declination	–38°33′
Magnitude	5.8
Size	27′
Type	Open cluster
Other name	Caldwell 71

You'll find this object 2.6° west-northwest of magnitude 2.2 Naos (Zeta [ζ] Puppis). From a dark observing location, most of you will spot this cluster with your naked eyes. It lies in a rich star field, however, so using averted vision really helps make it pop.

This is a spectacular target through any size telescope. Even a 4-inch instrument will reveal 60 or more stars. Most lie tightly packed near the center, and all have roughly equal brightnesses. Through a 12-inch scope, you'll have to segment the cluster to count all its stars.

Segmenting involves counting the stars that lie within a pie-shaped region. You can divide the cluster into thirds, fourths, fifths, etc. If you choose a quadrant, count the stars that lie in the section of NGC 2477 that covers a clock's face from noon to 3 o'clock. Then multiply by 4. What's your tally? 150? 200? More?

This cluster is huge. It covers almost as much sky as the Full Moon. Oh, and the magnitude 4.5 foreground star 20′ to the south-southeast is SAO 198545.

OBJECT #68	NGC 2482
Constellation	Puppis
Right ascension	7h55m
Declination	–24°15′
Magnitude	7.3
Size	10′
Type	Open cluster

Our next target lies 1.5° east-northeast of magnitude 3.3 Xi (ξ) Puppis. Through an 8-inch or smaller telescope, use a magnification of 75× or lower, and try to pick out this cluster's distinctive "Y" asterism. The Y opens toward the northwest, and its base points southeastward. It's definitely there, so try different eyepieces until you spot it.

The cluster appears as a rich but irregular grouping of 50 stars. Step up to a 12-inch scope, and your star count will double.

OBJECT #69	NGC 2489
Constellation	Puppis
Right ascension	7h56m
Declination	–30°04′
Magnitude	7.9
Size	5′
Type	Open cluster

Look 5.4° south-southeast of magnitude 3.3 Xi (ξ) Puppis, and you'll sweep up our next target. Small telescopes show only 15 or 20 stars scattered about the field of view. An 8-inch scope at 200× will let you count 50 members.

Three nice field stars lie generally south and nearby. Magnitude 6.3 SAO 198609, which glows with a deep-orange hue, appears brightest. Another 7′ south from this star lies another open cluster, magnitude 11.0 Haffner 20. Your best approach to viewing this dim object is to place SAO 198609 just out of the field of view to the north.

OBJECT #70	NGC 2506
Constellation	Monoceros
Right ascension	8h00m
Declination	–10°46′
Magnitude	7.6
Size	12′
Type	Open cluster
Other name	Caldwell 54

Our next target lies in the far southeastern corner of Monoceros 0.5° from that constellation's border with Puppis and less than 3° from its Hydra border. From magnitude 3.9 Alpha (α) Monocerotis, move 4.8° east-southeast, and you'll land on NGC 2506.

Through a 4-inch telescope, this cluster isn't all that impressive. Its stars all appear to be about the same brightness, but they have a wildly uneven distribution. Spread them out with a magnification of 150×, and you'll see a clumpy center and lots and lots of patterns: streamers, spiral "arms," letters, and more.

Move up to a 12-inch scope at 200×, and the scene gets interesting. The same 30 or 40 stars you saw through the smaller aperture now hang before a background glow that glistens like a diamond-encrusted black velvet sheet. The gaps between twisting lines of stars also appear wider and darker.

OBJECT #71	NGC 2516
Constellation	Carina
Right ascension	7h58m
Declination	–60°52′
Magnitude	3.8
Size	30′
Type	Open cluster
Other name	Caldwell 96

You'll find this spectacular cluster 3.3° west-southwest of magnitude 1.9 Avior (Epsilon [ε] Carinae), the westernmost and southernmost star of the False Cross asterism. You'll have no trouble spotting this object with your naked eyes — it's one of the sky's 10 brightest open cluster.

Through a 6-inch telescope, you'll count 75 stars, but it won't be easy. Here, the stars divide into two brightness ranges. The "upper class" ranges from magnitude 5.8 SAO 250055, the cluster's brightest star, through magnitude 8. Unless you use high magnification — and I mean above 250× — all those bright stars will mask the many faint stars this cluster contains.

OBJECT #72	Gamma (γ) Velorum
Constellation	Vela
Right ascension	8h10m
Declination	–47°20′
Magnitudes	1.9/4.2
Separation	41.2″
Type	Double star
Other name	Al Suhail (al Muhlif), Regor

Our next target is one you'll have no trouble finding if you're far enough south. The components are bright, and both shine with a blue light.

The Arabic name for this star means the "Plain of the Oath," and is one of many Suhails in the region (the most notable being Canopus (Alpha [α] Carinae). This star's other name, Regor, is "Roger" spelled backward. It honors American astronaut Roger Chaffee, who died in the Apollo 1 fire at the Kennedy Space Center.

OBJECT #73	NGC 2525
Constellation	Puppis
Right ascension	8h06m
Declination	–11°26′
Magnitude	11.6
Size	3′ by 2′
Type	Spiral galaxy

You'll find our next target 6.3° east-southeast of magnitude 3.9 Alpha (α) Monocerotis. Through an 8-inch telescope at 100×, you'll see an evenly illuminated object 50% longer than it is wide, oriented east-west. A 16-inch scope shows a slight darkening between the central region and the thick southern spiral arm, which curves toward the west.

OBJECT #74	NGC 2527
Constellation	Puppis
Right ascension	8h05m
Declination	–28°09′
Magnitude	6.5
Size	10′
Type	Open cluster

This sparse cluster lies 4.8° southeast of magnitude 3.3 Xi (ξ) Puppis. A 4-inch telescope at 150× will reveal two dozen stars, haphazardly strewn about the field of view. Larger apertures add a few fainter stars, but not many. The most interesting section of NGC 2527 is its eastern side, where a U-shaped chain of closely spaced stars reside.

OBJECT #75	NGC 2533
Constellation	Puppis
Right ascension	8h07m
Declination	–29°52′
Magnitude	7.6
Size	6′
Type	Open cluster

Our next object is a loose cluster that features the magnitude 9.0 star SAO 175203. The magnitude 10.8 star HIP 39707 sits 1′ to its southwest. About a dozen much fainter points surround this pair, mainly to the north. NGC 2533 isn't close to any bright star. You'll find it 6.4° southeast of magnitude 3.3 Xi (ξ) Puppis.

OBJECT #76	NGC 2539
Constellation	Puppis
Right ascension	8h11m
Declination	–12°50′
Magnitude	6.5
Size	21′
Type	Open cluster
Other name	The Dish Cluster

Our next target sits nearly 8° east-southeast of magnitude 3.9 Alpha (α) Monocerotis. When you move into the area, look for the yellow-white magnitude 4.7 star 19 Puppis. NGC 2539 sits less than 12′ to the west-northwest.

The common name the Dish Cluster comes from a description of NGC 2539 by *Astronomy* magazine Contributing Editor Stephen James O'Meara. He sees an oval shape in the brightest stars of this cluster when he observes it at a magnification of 23×.

A 4-inch telescope shows 75 stars between 9th and 13th magnitude, while a 10-inch scope reveals more than 100 stars. The brightest stars appear clumped in an oval a bit south of center that stretches east-west.

OBJECT #77	NGC 2546
Constellation	Puppis
Right ascension	8h12m
Declination	–37°37′
Magnitude	6.3
Size	70′
Type	Open cluster
Other names	The Heart and Dagger Cluster, the Wounded Heart Cluster

Here's a target that really benefits from increased aperture. Through a 4-inch telescope, you'll see only about 15 stars generally strewn in a southeast to northwest direction. An 8-inch scope doubles the star count, and through a 14-inch instrument at 150×, you'll count 75 stellar points. Two magnitude 6.4 stars will attract your attention immediately. One, SAO 198942, lies halfway from the cluster's center to its southern border. The other, SAO 198848, sits off NGC 2546's western edge.

You'll find this object not quite 3° northeast of magnitude 2.3 Naos (Zeta [ζ] Puppis).

Both of the common names for this object originate with *Astronomy* magazine Contributing Editor Stephen James O'Meara. I've tried to see the complex figure of a heart pierced by a dagger he describes. If, like me, you can't imagine that, try seeing a Greek letter Phi (ϕ).

OBJECT #78	NGC 2547
Constellation	Vela
Right ascension	8h11m
Declination	–49°16′
Magnitude	4.7
Size	74′
Type	Open cluster
Other name	The Golden Earring

Oh, my! Here's a gorgeous object that, unfortunately, many Northern Hemisphere observers have never seen. NGC 2547 is easily visible to the naked eye from a dark site. It lies in a dense star field 1.9° south of magnitude 1.7 Regor (Gamma [γ] Velorum).

Through any size telescope, you'll see a dozen stars that shine at magnitude 9 or brighter. The brightest is magnitude 6.5 SAO 219538, which sits just to the east of center. Note that the given size exceeds 1°. Because of the richness of the surrounding star field, you'll have trouble following the cluster's boundary to anywhere near that size. Still, what you detect will cover more area than the Full Moon.

Astronomy magazine Contributing Editor Stephen James O'Meara coined the common name (among others) for this cluster from a drawing by Australian astronomer James Dunlop (1793–1848). Dunlop drew the cluster as an oval of stars dangling from two rows of parallel stars. O'Meara likened the image to a golden earring dangling from a pirate's ear.

OBJECT #79	Zeta (ζ) Cancri
Constellation	Cancer
Right ascension	8h12m
Declination	17°39′
Magnitudes	5.6/6.0
Separation	5.9″
Type	Double star
Other name	Tegmeni

This nice binary sits 7° west-southwest of the Beehive Cluster (M44). Both of its components shine with an attractive yellow light.

The star's name, sometimes spelled Tegmen, means "in the covering," and may refer to its position on the rear edge of the Crab's shell.

Object #80 M48 Anthony Ayiomamitis

OBJECT #80	M48 (NGC 2548)
Constellation	Hydra
Right ascension	8h14m
Declination	–5°48′
Magnitude	5.8
Size	54′
Type	Open cluster

Our next target is visible to sharp-eyed observers at a dark site without optical aid. Large binoculars resolve a couple dozen of its brightest stars scattered over 1° of sky.

A 6-inch telescope reveals about 75 stars sprinkled across the entire field of view. Increasing the magnification increases the star count, although the appearance that this object is a cluster becomes lost. Look for a zigzag chain of 9th- and 10th-magnitude stars running from the south-southwest to the north-northeast through the cluster's center.

You'll find the 48th entry in Charles Messier's catalog 3° south-southeast of magnitude 4.4 Zeta (ζ) Monocerotis only 0.6° from Hydra's border with that constellation.

OBJECT #81	NGC 2559
Constellation	Puppis
Right ascension	8h17m
Declination	–27°28′
Magnitude	10.9

(continued)	
Size	4.2′ by 2.3′
Type	Barred spiral galaxy

This object appears twice as long as it is wide, with the long axis oriented north-south. Small telescopes show a nearly rectangular shape. Through an 8-inch scope, you'll see a faint, broad central concentration. Both NGC 2559 and our next target, NGC 2566, belong to a cluster of galaxies known as the Puppis concentration. Less than 1′ east-southeast of NGC 2559's core, you'll spot magnitude 9.4 SAO 175514.

Look for this galaxy 3.8° southeast of magnitude 2.8 Rho (ρ) Puppis.

OBJECT #82	NGC 2566
Constellation	Puppis
Right ascension	8h19m
Declination	–25°29′
Magnitude	11.0
Size	4.1′ by 2.0′
Type	Barred spiral galaxy

Our next target lies 2.8° east-southeast of magnitude 2.8 Rho (ρ) Puppis. Through a 12-inch telescope it appears small and bright with little central concentration save for a faint stellar core. The elliptical galaxy IC 2311, located 7′ to the northeast, looks a little brighter than NGC 2566 and shows a strong brightening toward its center. It glows at magnitude 11.5.

OBJECT #83	NGC 2567
Constellation	Puppis
Right ascension	8h19m
Declination	–30°38′
Magnitude	7.4
Size	11′
Type	Open cluster

This attractive cluster lies 6.8° south-southeast of magnitude 2.8 Rho (ρ) Puppis. Through a 6-inch telescope, you'll see 30 stars. Half of them form two figures. The first is an ever-so-slightly curved line of stars that runs north-south and terminates near the cluster's center. The second is a U-shaped group that sits in the southwest quadrant.

The brightest star in your field of view, magnitude 8.9 SAO 199057, is not part of NGC 2567. It lies 7′ to the south-southwest.

OBJECT #84	NGC 2571
Constellation	Puppis
Right ascension	8h19m
Declination	–29°45′
Magnitude	7.0
Size	7′
Type	Open cluster

You'll find our next target 6.3° west-northwest of magnitude 3.7 Alpha (α) Pyxidis. Train any telescope on this cluster, and you'll first see its two brightest stars at dead-center. They appear evenly bright, but the easternmost, magnitude 8.8 SAO 175580, shines slightly brighter than its companion, magnitude 8.9 SAO 175577. These stars lie 1′ apart.

OBJECT #85	NGC 2610
Constellation	Hydra
Right ascension	8h33m
Declination	–16°09′
Magnitude	12.8
Size	37″
Type	Planetary nebula

You'll find this bright planetary nebula in Hydra's southwestern corner. Find it by sweeping 2° west of the magnitude 4.9 star 9 Hydrae. Through anything less than a 16-inch telescope, this object appears uniformly bright, circular, and featureless. Really big scopes show it as a thick ring with an elusive central star.

OBJECT #86	NGC 2613
Constellation	Pyxis
Right ascension	8h33m
Declination	–22°58′
Magnitude	10.5
Size	7.6′ by 1.9′
Type	Spiral galaxy

Our next target lies 6.1° east of magnitude 2.8 Rho (ρ) Puppis. Through a 10-inch telescope at 200×, this relatively bright galaxy appears hazy with a slightly brighter center. It stretches four times as long as it is wide. Like NGC 2559 (Object #81), NGC 2613 belongs to a galaxy cluster called the Puppis Concentration. Although this cluster has a density comparable to that of the Virgo Cluster, our intervening Milky Way blocks the light from most of its members.

OBJECT #87	Vela SNR
Constellation	Vela
Right ascension	8h34m
Declination	–45°45′
Size	5°
Type	Supernova remnant
Other name	The Vela supernova remnant

The Vela supernova remnant (SNR) formed as the result of a massive star exploding approximately 11,000 years ago. The progenitor star was about 800 light-years away. The most observed part of the Vela SNR is the Pencil Nebula (Object #101). The Vela SNR is the sky's largest supernova remnant and one of the closest, covering an incredible 5°. The Pencil Nebula forms the east-southeast section.

As you observe the Vela SNR, you'll see a pretty double star. That's DUN 70. Its blue and white components shine at magnitudes 5.2 and 6.8, respectively, and they lie 4.5″ apart.

The designation "DUN" refers to the double star catalog *Approximate Places of Double Stars in the Southern Hemisphere, observed at Paramatta in New South Wales* by Australian astronomer James Dunlop (1793–1848). His catalog contains 256 binary stars below declination –30°.

To find the Vela SNR, look roughly 2° south of magnitude 2.2 Lambda (λ) Velorum.

OBJECT #88	NGC 2627
Constellation	Pyxis
Right ascension	8h37m
Declination	–29°57′

(continued)	
Magnitude	8.4
Size	11′
Type	Open cluster

Our next object lies only 0.7° southwest of magnitude 4.9 Zeta (ζ) Pyxis. Through an 8-inch telescope, you'll see three dozen stars. Most fill a wide swath that stretches east-west across the cluster. A faint background glow hints at the presence of additional stars.

OBJECT #89	IC 2391
Constellation	Vela
Right ascension	8h40m
Declination	–53°04′
Magnitude	2.5
Size	50′
Type	Open cluster
Other names	The Omicron Velorum Cluster, Caldwell 85

Here's an object you won't have any trouble locating. Being one of the sky's half-dozen brightest open clusters, it will jump out at your naked eyes from a dark site. As its common name implies, this star group centers on magnitude 3.6 Omicron (*o*) Velorum. If that's not a bright enough signpost, then locate magnitude 1.9 Delta (*δ*) Velorum, and move not quite 2° to the north-northwest.

My preferred view of this cluster is through 15× binoculars or through a 3-inch telescope at a magnification around 30×. The brilliant stars dominate the field of view, but there are many fainter stars hovering about as well.

Two stars at magnitudes 4.8 and 5.5 on IC 2391's eastern side form a terrific pair separated by 75″. Surrounding them is a group of four stars, magnitudes 7.4–8.7, that resemble the constellation Corvus the Crow.

Object #90 The Beehive Cluster (M44) Tom Bash and John Fox/Adam Block/NOAO/AURA/NSF

OBJECT #90	M44 (NGC 2632)
Constellation	Cancer
Right ascension	8h40m
Declination	19°40′
Magnitude	3.1
Size	95′
Type	Open cluster
Common names	The Beehive Cluster; The Praesepe, the Manger

The richness of the Beehive Cluster — a celestial object known since antiquity — makes up for the faintness of the constellation that contains it. M44 sits midway between Castor and Pollux, the two brightest stars of Gemini, and Regulus, Leo the Lion's luminary.

The usual common name for this object, the Beehive Cluster, is self explanatory. The meaning of "Praesepe," however, may be less obvious. That term is the Latin word for "manger," and it (and the English equivalent) refers to the birthplace of Jesus of Nazareth.

If your sky isn't all that dark, use binoculars to locate the Beehive. With an apparent size of some three Full Moons side by side, M44 looks best to some observers through binoculars with magnifications between 10× and 16×.

To the unaided eye, the Beehive appears nebulous, but the telescope's invention revealed its true nature. Galileo wrote in *Sidereus Nuncius* that he counted more than 40 stars in M44 as early as 1610. Astronomers today list upwards of 350 stars belonging to the cluster.

The Beehive's brightest star is Epsilon (ε) Cancri, which shines at magnitude 6.3. Some 80 of the cluster's stars are brighter than 10th magnitude.

OBJECT #91	NGC 2655
Constellation	Camelopardalis
Right ascension	8h56m
Declination	78°13′
Magnitude	10.1
Size	6.0′ by 5.3′
Type	Spiral galaxy

Through small telescopes you won't see much of this bright galaxy except an evenly illuminated face and an oval shape. It's 50% longer than it is wide, stretched in an east-west orientation. A 12-inch scope shows a bit more: NGC 2655's central region is brighter, and a thin outer halo surrounds it.

NGC 2655 effectively sits in the middle of nowhere. You'll find it 13.5° northwest of magnitude 3.8 Lambda (λ) Draconis.

OBJECT #92	Eta Chamaeleontis Cluster
Constellation	Chamaeleon
Right ascension	8h41m
Declination	–78°58′
Size	30′
Type	Open cluster

Our next object has just 13 stars lying within a 0.5° circle. It took astronomers until 1999 to recognize this group as an open cluster. The Eta Chamaeleontis Cluster is quite close, only 315 light-years away. Through a small telescope, three stars dominate. Eta (η) Chamaeleontis shines at magnitude 5.5. Only 5′ to the south-southeast sits magnitude 7.4 SAO 256544. Brighter SAO 256549, which glows at magnitude 6.1, lies 8′ southeast of Eta.

This cluster sits 2.4° south-southeast of magnitude 4.1 Alpha (α) Chamaeleontis.

OBJECT #93	The Head of Hydra
Right ascension	8h42m
Declination	4°39′
Type	Asterism

Our next object is a good one for beginning stargazers. It's the Head of Hydra. This asterism marks the westernmost part of the sky's largest constellation.

The Head of Hydra lies 2° due south of the midpoint of a line that joins Procyon (Alpha [α] Canis Minoris) and Regulus (Alpha Leonis). Unless you live under the worst light pollution, you'll see the Head with your naked eyes.

Six stars form the asterism. The brightest is magnitude 3.1 Zeta (ζ) Hydrae. From there, move west to Epsilon (ε) and Delta (δ) Hydrae. Then swing back east to Rho (ρ) Hydrae. Drop 3.5° southwest to Sigma (σ) Hydrae. At magnitude 4.4, this is the faintest star in the asterism. Finally, head east again to the sixth and final star, Eta (η) Hydrae.

OBJECT #94	Iota (ι) Cancri
Constellation	Cancer
Right ascension	8h47m
Declination	28°46′
Magnitudes	4.2/6.6
Separation	30″
Type	Double star

Iota Cancri is the northernmost star in this constellation's inverted Y shape. It's a great target for any size scope. The primary shines yellow and its companion is blue.

OBJECT #95	Epsilon (ε) Hydrae
Constellation	Hydra
Right ascension	8h47m
Declination	6°25′
Magnitudes	3.4/6.8
Separation	2.7″
Type	Double star

This nice binary has a lemon-yellow primary and a grayish-blue secondary. The separation is close, so crank the magnification up to 150× or beyond.

OBJECT #96	NGC 2659
Constellation	Vela
Right ascension	8h43m
Declination	−45°00′
Magnitude	8.6
Size	15′
Type	Open cluster

You'll find our next target between two really bright stars. It lies slightly more than halfway from magnitude 1.8 Regor (Gamma [γ] Velorum) to magnitude 2.2 Suhail (Lambda [λ] Velorum).

Through a 4-inch telescope at 100×, you'll see 30 stars of relatively equivalent brightness scattered across the field of view. The brightest, magnitude 9.7 GSC 8151:259, sits at the cluster's southeast corner.

OBJECT #97	NGC 2681
Constellation	Ursa Major
Right ascension	8h54m
Declination	51°19′
Magnitude	10.2
Size	3.6′ by 3.3′
Type	Spiral galaxy

Our next treat is a small, round galaxy, but it's quite bright. The central region takes up most of the diameter, with a faint haze surrounding it. You'll need magnifications above 400× and at least a 16-inch scope to identify the diaphanous spiral arms. They certainly do hug the galaxy's core tightly.

Object #98 M67 Anthony Ayiomamitis

OBJECT #98	M67 (NGC 2682)
Constellation	Cancer
Right ascension	8h51m
Declination	11°50′
Magnitude	6.9
Size	29′
Type	Open cluster

Our next target is the "other" open cluster in Cancer, M67. (It's the one that's not the Beehive [M44]). You'll find M67 easily through binoculars or a small telescope 1.7° due west of magnitude 4.3 Alpha (α) Cancri.

Through a 4-inch telescope, you'll resolve roughly two dozen stars in M67 across an area two-thirds the width of the Full Moon. Increase the aperture to 6′, and 50 stars will shine forth.

A dozen of M67's stars shine brighter than 11th magnitude. When you view the Beehive through a telescope, you'll note the yellow star on its northeastern edge. Identified as SAO 98178, this star shines at magnitude 7.8 but is not a member of the cluster.

Object #99 The UFO Galaxy (NGC 2683) Doug Matthews/Adam Block/NOAO/AURA/NSF

OBJECT #99	NGC 2683
Constellation	Lynx
Right ascension	8h53m
Declination	33°25′
Magnitude	9.8
Size	8.4′ by 2.4′
Type	Spiral galaxy
Other name	The UFO Galaxy

This spectacular deep-sky object lies in a constellation even more difficult to find than some deep-sky objects — Lynx. The obscure star group lies due north of Cancer and stretches to the northwest from there.

NGC 2683 is a spiral galaxy, and a relatively bright one at that. You can spot it through a 3-inch telescope from a dark observing site. To pull out its details, however, you'll need a bigger scope.

This galaxy is a classic edge-on spiral that orients exactly northeast to southwest. Its common name derives from the resemblance of its shape to descriptions of unidentified flying objects from the 1950s. It appears more than three times as long as it is wide with an extended, bright central region.

The faint spiral arms begin to show alternate dark and bright patches called mottling through a 12-inch telescope. Through even larger scopes, you'll notice that the northeastern arm extends a bit farther than the southwestern one.