

Draco

<https://www.agoramores.com/sky/constellations/draco>

Tags: sky · constellations · astronomy · mythology

Related

mythology

- Cygnus
- Bootes
- Corona Borealis
- Ursa Minor
- Andromeda
- Aquila

astronomy

- Perseus
- Scorpius
- Corvus
- Auriga
- Cancer
- Canis Major

constellations

- Delphinus
- Gemini
- Orion
- Pegasus
- Aries
- Hercules

sky

- Sagittarius
- Virgo
- Leo
- Taurus
- Cepheus
- Ursa Major

Draco

Draco, the Dragon, is the eighth-largest constellation in the sky, but you would not guess it from a glance — nothing in it is brighter than 2nd magnitude, and its long, looping body is easy to lose against a bright or hazy background. It coils in the gap between [Ursa Major](#) and [Ursa Minor](#), loops out past Ursa Minor's bowl, and ends in a small, distinctive quadrilateral — the dragon's head — wedged between Hercules and Vega. That head is the part actually worth learning to recognize; the rest of the body is a long-exposure project for a dark night, not a five-minute find.

Finding it

Start with the head. Look for a lopsided box of four stars roughly between Hercules and the bright star Vega: **Eltanin**, **Rastaban**, **Grumium**, and their fourth corner. From there, the body runs back toward [Ursa Major](#)'s bowl — down through Nu, Rastaban's neighbor, then a long bending line west through Zeta, Eta, Theta, Edasich, and **Thuban**, until it ends near Lambda and Kappa Draconis, tucked against the underside of the Big Dipper's bowl. Thuban itself sits almost exactly between the two Bears, which is no accident — it once marked the pole they both circle.

Draco is comfortably circumpolar from Columbus. Its lowest star on this chart, Eltanin, sits at declination 51.49° — above the roughly 50° threshold that applies at 40°N, with real margin to spare (see [Ursa Major](#) for how that threshold works and for the one star in this set of four that cuts it close).

The stars

RA and Dec below are J2000, matching the values the site's own chart is built from.

Star	RA (h)	Dec (°)	M ag	Dista nce	Spectral type	Name meaning
Thuban (?)	14. 073	64. 38	3. 65	303 ly	A0 III, white giant	Arabic <i>thu'ban</i> , "the serpent" or "the dragon" — Earth's pole star from roughly 3900 to 1800 BCE
Rastaban (?)	17. 507	52. 30	2. 79	~380 ly	G2 Ib–IIa, yellow bright giant	Arabic <i>ra's ath-thu'ban</i> , "the head of the serpent"
Eltanin (?)	17. 943	51. 49	2. 23	154 ly	K5 III, orange giant	Arabic <i>al-tinnin</i> , "the serpent"; Draco's brightest star despite carrying the Bayer letter gamma, not alpha
Altairs (?)	19. 209	67. 66	3. 07	~97 ly	G9 III, yellow giant	Arabic <i>al-tais</i> , "the goat," from an old asterism grouping this star with Pi, Rho and Epsilon Draconis
Zeta Dra (Aldhibah)	17. 146	65. 71	3. 17	~330 ly	B6 III, blue giant	Arabic <i>al-dhi'b</i> , "the wolf" (or hyena) — paired with Eta as "the two wolves"
Eta Dra (Athebyne)	16. 400	61. 51	2. 73	~92 ly	G8 III, yellow giant	Arabic <i>adh-dhi'bayn</i> , "the two wolves," shared with Zeta; officially named by the IAU in 2017
Edasich (?)	15. 415	58. 97	3. 29	~101 ly	K2 III, orange giant	Traditional name of uncertain etymology; hosts Iota Draconis b, one of the first exoplanets found orbiting a giant star (2002)

Grumium (?)	17. 892	56. 87	3. 75	~113 ly	K2 III, orange giant	Latin corruption of <i>grunnium</i> , "snout" — Ptolemy placed it at the dragon's jaw
Theta Dra	16. 032	58. 56	4. 01	~69 ly	F9 V, yellow-white dwarf	No traditional proper name
Nu Dra (Kuma)	17. 537	55. 18	4. 88	~99 ly	Am, two nearly identical stars	Fine equal double (Nu ¹ and Nu ² Draconis), separated by 62 arcseconds — resolvable in binoculars
Phi Dra	18. 347	71. 34	4. 22	~303 ly	A0p (Si), chemically peculiar	Traditional name Batentaban Australis, "the southern footprint," from a pair with an unlisted northern twin
Kappa Dra	12. 558	69. 79	3. 87	~460 ly	B6 III, blue giant	No traditional proper name
Lambda Dra (Giasar)	11. 523	69. 33	3. 84	~333 ly	M0 III, red giant	Slight brightness variation (mag 3.77–3.86) as an evolved asymptotic-giant-branch star

Eltanin is worth a second look: it is moving toward the solar system and, in roughly 1.3 million years, will pass within about 28 light years of the Sun and briefly become the brightest star in Earth's night sky — outshining today's Sirius for a stretch of several hundred thousand years before receding again.

Myth and history

The version of Draco's myth repeated most often today identifies it with **Ladon**, guardian of the golden apples in the garden of the Hesperides — Hera's wedding gift, planted on Mount Atlas and set behind Ladon's coils so the Hesperides could not pick from it themselves. Stealing those apples was the eleventh of Heracles's labors; he killed Ladon to do it, and Hera placed the dragon's image among the stars afterward. This is the standard account found in the constellation-myth compilations attributed to Eratosthenes and to Hyginus, and Ptolemy catalogued the figure under this general reading in the 2nd-century *Almagest*. Accounts of Ladon's parentage disagree even within that tradition — sometimes a hundred-headed offspring of Typhon and Echidna, sometimes a child of the sea deities Ceto and Phorcys with no head count given at all.

Hyginus also preserves a second, unrelated myth for the same stars: an unnamed dragon that fought on the side of the Giants against the Olympian gods, seized by Athena and hurled into the sky still writhing — which, in this telling, is why the constellation looks twisted rather than lying straight. Both stories are Greek and both are old; neither obviously wins, and it is worth knowing that the "official" myth is really the more popular of two.

Pre-Islamic Arabian sky-watchers did not see one dragon here at all. They carved the same stretch of sky into several smaller figures: Zeta and Eta Draconis as **al-dhi'bayn**, "the two wolves" (or hyenas); Delta, Pi, Rho and Epsilon Draconis grouped as goats, giving Delta its name Altais; Phi and a neighboring star read as a camel's footprints. Those older asterisms are fossils, preserved only in the star names that survived translation into the Arabic versions of Ptolemy's catalogue and then into Latin and English — a reminder that the "dragon" reading is a Greek overlay on a sky other cultures had already divided up differently.

Precession and the pole star before Polaris

Earth's axis does not point at a fixed spot on the sky. It traces a slow circle, driven by the gravitational pull

of the Sun and Moon on Earth's equatorial bulge, completing one full loop roughly every 26,000 years — the same wobble that makes a spinning top's axis trace a cone as it slows. **Thuban**, Draco's brightest star for most of its history despite carrying the constellation's "alpha" label, was the star nearest that point from roughly 3942 to 1793 BCE, passing closest to the pole around 2830 BCE. That window covers the construction of the Great Pyramid of Giza (c. 2560 BCE); the pyramid's narrow descending passage is often cited as having been aligned so that Thuban was visible from the passage floor near its lower culmination, though how deliberate that alignment was remains debated among Egyptologists rather than settled fact.

No single bright star sat at the pole for most of the roughly five thousand years between Thuban's reign and today — which is why Kochab and Pherkad in [Ursa Minor](#) earned the name "Guardians of the Pole" in the interim, bracketing a gap rather than marking a point. **Polaris**, in Ursa Minor, is the current pole star and is still closing in; it will make its closest approach around March 2100 CE before it, too, begins to drift away. Thuban itself now sits about 26° from the pole, still a member of this circumpolar family but no longer anywhere near the axis it once marked.

Deep sky

Object	Type	Magnitude	Distance	Note
NGC 6543 (Cat's Eye Nebula)	Planetary nebula	~8.1	~3,300 ly	Discovered by William Herschel in 1786; one of the most structurally complex planetary nebulae known, with concentric shells and high-velocity jets visible in deep images.
NGC 5866 (Spindle Galaxy)	Lenticular galaxy	~10	~44 million ly	Sometimes catalogued as Messier 102 — a long-disputed identification, since Messier's own notes for M102 may actually describe a repeat observation of M101.
Draco Dwarf Galaxy	Dwarf spheroidal galaxy	—	~260,000 ly	A Local Group satellite of the Milky Way, discovered by Albert George Wilson in 1954 on Palomar Sky Survey plates; extremely diffuse and not a visual target — its stars are studied statistically, not seen.

Key dates

Date	Event
c. 3942–1793 BCE	Thuban is the star nearest the north celestial pole, closest around 2830 BCE.
c. 2560 BCE	The Great Pyramid of Giza is built during Thuban's reign as pole star.
c. 150 CE	Ptolemy catalogues Draco among the 48 constellations in the <i>Almagest</i> .
15 February 1786	William Herschel discovers the Cat's Eye Nebula, NGC 6543.
1930	The IAU fixes the modern constellation boundaries.
1954	Albert George Wilson discovers the Draco Dwarf Galaxy on Palomar Sky Survey plates.
present	Thuban sits about 26° from the pole; Polaris, in Ursa Minor , holds the job now.

Related

- [Ursa Major](#) — Draco's tail tucks against the underside of its bowl; the full explanation of circumpolar visibility from Columbus lives there.
- [Ursa Minor](#) — home of Polaris, the current pole star, and the "Guardians of the Pole" that bracketed the long gap after Thuban.
- [Cassiopeia](#) — the other unmistakable circumpolar landmark, on the far side of the pole from Draco's coils.