

Corona Borealis

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Corona Borealis

Corona Borealis, the Northern Crown, is a small, unmistakable semicircle of seven stars wedged into the gap between Boötes and Hercules. It is one of the few constellations that still looks like the thing it is named for. Its brightest star, Alphecca, sits near the front of the arc like a jewel set in a band. From Columbus, Ohio (about 40°N), it shares Boötes's and Hercules's stretch of sky: it rises in the northeast in late winter, is well placed on spring and summer evenings, and is gone by autumn.

Finding it

Find Boötes first — "arc to Arcturus" off the handle of the Big Dipper — then look about one fist-width (roughly 10°) to the east. The small bowl shape stands alone in a fairly empty stretch of sky, so once you know roughly where to look it is easy to pick out even from a moderately light-polluted yard. Corona Borealis sits directly between Boötes to its west and Hercules to its east; the three make a connected chain across the same evening sky.

None of its stars reach far enough north to be circumpolar from Columbus's latitude — the whole constellation rises and sets. Best viewing is May through August, highest in the south around 10 p.m. in June and July.

The stars

RA and Dec are J2000, matching the site's own sky chart, given exactly as supplied.

Star	Designation	RA (h)	Dec (°)	Mag	Distance	Spectral type	Name
Alphecca (Gemma)	? CrB	15 .5 78	26 .7 1	2. 22	~75 ly	A0 V with a fainter G5 companion	Arabic <i>an-nayyir al-fakka</i> , "the bright one of the broken (ring)"; the Greeks called it <i>Gemma</i> , "jewel." It is itself a shallow eclipsing binary, dipping by a few hundredths of a magnitude every 17.4 days — too slight to notice by eye.
Nusakan	? CrB	15 .4 64	29 .1 1	3. 66	~114 ly	B8p–A7p, a chemically peculiar star	Arabic <i>an-nasaqan</i> , "the (two) rows." Nusakan is also a rapidly oscillating Ap (roAp) star, one of the brightest known of its kind, pulsing on a timescale of minutes.
Gamma Coronae Borealis	? CrB	15 .7 12	26 .3 0	3. 81	not independently verified here	A0, a Delta Scuti pulsator in a 91-year binary orbit	carries no widely used proper name
Delta Coronae Borealis	? CrB	15 .8 26	26 .0 7	4. 59	167 ly	G5 III–IV	carries no widely used proper name

Epsilon	?	15	26	4.	242 ly	K2 III	carries no widely used proper name
Coronae	CrB	.9	.8	14			
Borealis		60	8				
Theta	?	15	31	4.	~375 ly	B6Vnne, a hot Be star with a gaseous disk	carries no widely used proper name
Coronae	CrB	.5	.3	14			
Borealis		49	6				
Iota Coronae	?	16	29	4.	~372 ly	A0 IIIp(HgMnEu), chemically peculiar (mercury-manganese)	carries no widely used proper name
Borealis	CrB	.0	.8	96			
		23	5				

Myth and history

As later Greek and Roman mythographers told it — Hyginus's *Poetic Astronomy* (2nd century CE) is the standard surviving source — the crown belonged to Ariadne of Crete. After she helped Theseus escape the Labyrinth, he abandoned her on Naxos; the god Dionysus found her, married her, and gave her a crown made by Hephaestus. When the wedding celebration ended, the crown was thrown into the sky, its jewels becoming the seven stars of the constellation.

Arab astronomers, working from an independent tradition, saw the same stars differently: not a crown but a shallow, broken bowl, *al-Fakka*, "the broken (one)." That name is preserved directly in Alphecca, "the bright one of the broken ring" — the constellation's own brightest star still carries the Arabic description of its shape rather than the Greek story of its owner.

The Blaze Star and the Fade-Out Star

Two of Corona Borealis's stars are worth watching for reasons that have nothing to do with their position in the arc.

T Coronae Borealis, nicknamed the Blaze Star, is a recurrent nova: a close binary, roughly 3,000 light-years away, made of a red giant (spectral type M3 III) and an unusually massive white dwarf — about 1.35 solar masses, close to the theoretical limit for a white dwarf — orbiting each other every 227.6 days. Gas pulled from the giant piles up on the white dwarf until it detonates in a thermonuclear flash, briefly turning a telescope-only 10th-magnitude star into a naked-eye object around magnitude 2, rivaling Polaris, before fading back to quiescence over the following weeks. It has done this twice in the historical record with certainty — 12 May 1866 and 9 February 1946, both to about magnitude 2–3 — and possibly twice more, in December 1787 and October 1217, though those older sightings are less certain. Because the pattern before the 1946 eruption included a distinctive pre-eruption brightening, and T CrB showed a similar signal starting around 2015 and sharpening after 2023, astronomers have spent the past few years expecting another outburst, with various specific dates — including 25 June 2026, floated by a 2024 statistical study as the single most likely day — circulating in the press. As of the most recent confirmed monitoring available for this page (late June 2026), T CrB remained in ordinary quiescence around magnitude 10 and had not erupted. That is worth reading as a snapshot, not a forecast: predictions like this are a probability estimate, not a countdown, and by the time you are reading this it may already have happened. Current status is worth checking directly rather than trusting a fixed date on a page.

R Coronae Borealis, the constellation's other named variable, does the opposite of what a nova does — astronomers call it a "reverse nova." It is the prototype of its own class (RCB stars): a rare, hydrogen-poor

yellow supergiant that normally sits around magnitude 5.7, faintly visible without help under a dark sky. Without warning, it can plunge by as much as 8–9 magnitudes over a few weeks, then climb back to normal brightness over the following months to years. The cause is dust, not detonation: R CrB sheds a powerful stellar wind rich in carbon, and occasionally a cloud of freshly condensed carbon soot drifts directly into our line of sight, blotting the star out until the cloud disperses or the sightline clears. Its unusual behavior was first recognized by the English astronomer Edward Pigott in the 1790s.

Key dates

Date	Event
c. 275 BCE	Aratus's <i>Phaenomena</i> includes the Crown among the standard northern figures.
c. 150 CE	Ptolemy catalogues Corona (Borealis) among the <i>Almagest</i> 's 48 constellations.
1790s	Edward Pigott recognizes R Coronae Borealis's unusual "reverse" dimming.
12 May 1866	First well-documented eruption of T Coronae Borealis, reaching about magnitude 2.
9 February 1946	Second confirmed eruption of T Coronae Borealis, reaching about magnitude 3, 80 years after the first.
October 2024	A statistical study (published in <i>Research Notes of the AAS</i>) proposes 25 June 2026 as the single most likely date for T CrB's next eruption.
late June 2026	The most recent monitoring available for this page still shows T CrB in quiescence, around magnitude 10 — it has not yet erupted.

Related

- [Boötes](#) — the western neighbor, and the star-hop that leads here.
- [Hercules](#) — the eastern neighbor, continuing the same chain.
- [Leo](#) — the zodiacal figure that opens this stretch of spring sky.