

Asterism Atlas

Seasonal observing guide

Thirty named star-patterns for field use at roughly 50°N. Positions are J2000 from the site's generated BSC5 data; charts reuse the same computed member-star geometry as the live atlas, with best-month, span, and source-type cues carried over for planning.

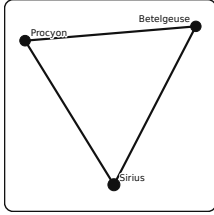
A5 layout. Print at actual size; use the web atlas for full citations and member-star tables.

Field notes

Use this as a compact route sheet, not a planetarium. RA/Dec are central J2000 coordinates for each pattern. “Bright” is the brightest member V magnitude, and the instrument is the lowest practical suggestion from the atlas. Black-on-white is deliberate: under a red light it keeps contrast without relying on colour.

The seasonal grouping follows evening visibility from about 50°N. The Little Dipper is circumpolar, so it appears in a short year-round section after the four seasonal lists.

Winter

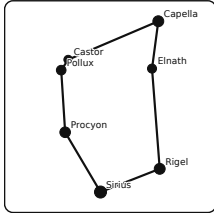


Winter Triangle

Orion / Canis Major / Canis Minor

| | | |
|-------------------------|----------------|---------------|
| RA | DEC | BRIGHT |
| 06h 46m 31.7s | -01° 21' 41" | V -1.46 |
| INSTRUMENT | BEST | SPAN |
| naked-eye | December-March | 27.1° |
| SOURCE | PATTERN | USE |
| common observer pattern | J2000 plot | field cue |

Betelgeuse, Sirius, and Procyon make a compact winter landmark.

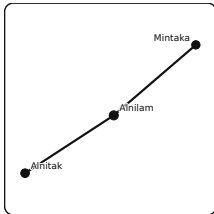


Winter Hexagon

Auriga / Taurus / Orion / Canis Major / Canis Minor / Gemini

| | | |
|-------------------------|----------------|---------------|
| RA | DEC | BRIGHT |
| 06h 31m 47.5s | +16° 24' 14" | V -1.46 |
| INSTRUMENT | BEST | SPAN |
| naked-eye | December-March | 65.8° |
| SOURCE | PATTERN | USE |
| common observer pattern | J2000 plot | field cue |

A tour of the brightest winter sky: Capella, Aldebaran, Rigel, Sirius, Procyon, Pollux, and Castor.

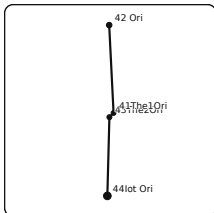


Orion's Belt

Orion

| | | |
|----------------------------|----------------|---------------|
| RA | DEC | BRIGHT |
| 05h 36m 19.6s | -01° 08' 53" | V 1.70 |
| INSTRUMENT | BEST | SPAN |
| naked-eye | December-March | 2.7° |
| SOURCE | PATTERN | USE |
| skylore / traditional name | J2000 plot | field cue |

Mintaka, Alnilam, and Alnitak form the straight belt that makes Orion unmistakable.

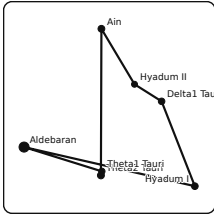


Orion's Sword

Orion

| | | |
|-------------------------|----------------|---------------|
| RA | DEC | BRIGHT |
| 05h 35m 22.2s | -05° 23' 19" | V 2.77 |
| INSTRUMENT | BEST | SPAN |
| small scope | December-March | 1.1° |
| SOURCE | PATTERN | USE |
| common observer pattern | J2000 plot | field cue |

The short hanging sword below the belt contains the Orion Nebula around Theta Orionis.



Hyades V

Taurus

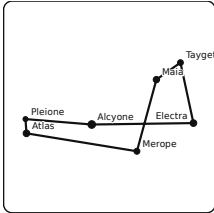
RA
04h 27m 08.5s
INSTRUMENT
7x50

SOURCE
catalogue / cluster listing

The nearest prominent open-cluster pattern forms a broad V around Aldebaran, which is a foreground star projected onto the group.

DEC
+16° 56' 45"
BEST
December–March
evenings
PATTERN
J2000 plot

BRIGHT
V 0.85
SPAN
4.1°
USE
field cue



Pleiades Seven Sisters

Taurus

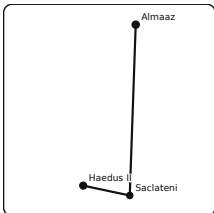
RA
03h 46m 52.0s
INSTRUMENT
7x50

SOURCE
catalogue / cluster listing

The tiny blue dipper of the Pleiades is the classic binocular showpiece.

DEC
+24° 10' 13"
BEST
December–March
evenings
PATTERN
J2000 plot

BRIGHT
V 2.87
SPAN
1.0°
USE
field cue



Kids of Auriga

Auriga

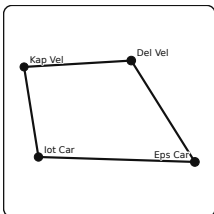
RA
05h 03m 39.2s
INSTRUMENT
naked-eye

SOURCE
skylore / traditional name

The three small stars near Capella are the goat-kids carried by the Charioteer.

DEC
+42° 02' 40"
BEST
December–March
evenings
PATTERN
J2000 plot

BRIGHT
V 2.99
SPAN
2.7°
USE
field cue



False Cross

Vela / Carina

RA
08h 56m 37.1s
INSTRUMENT
naked-eye

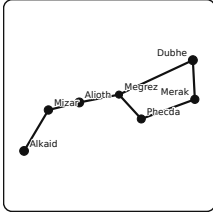
SOURCE
common observer pattern

A southern four-star cross often mistaken for Crux from lower latitudes.

DEC
−57° 07' 34"
BEST
December–March
evenings
PATTERN
J2000 plot

BRIGHT
V 1.86
SPAN
9.2°
USE
field cue

Spring



Big Dipper

Ursa Major

RA

12h 20m 02.0s

INSTRUMENT

naked-eye

SOURCE

common observer pattern

DEC

+55° 34' 47"

BEST

March–June evenings

PATTERN

J2000 plot

BRIGHT

V 1.77

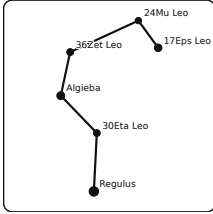
SPAN

25.7°

USE

field cue

The famous ladle is the brightest northern guide-pattern: use Merak-to-Dubhe to hop to Polaris, then follow the bent handle to Arcturus.



Sickle of Leo

Leo

RA

10h 05m 10.0s

INSTRUMENT

naked-eye

SOURCE

common observer pattern

DEC

+20° 17' 42"

BEST

March–June evenings

PATTERN

J2000 plot

BRIGHT

V 1.35

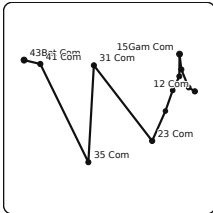
SPAN

14.5°

USE

field cue

A backward question mark above Regulus sketches the lion's head and mane.



Coma Star Cluster

Coma Berenices

RA

12h 38m 49.0s

INSTRUMENT

7x50

SOURCE

catalogue / cluster listing

DEC

+25° 58' 31"

BEST

March–June evenings

PATTERN

J2000 plot

BRIGHT

V 4.26

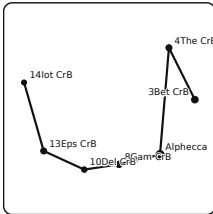
SPAN

11.2°

USE

field cue

Melotte 111 is a loose naked-eye haze under dark skies and a perfect binocular cluster.



Crown of Corona Borealis

Corona Borealis

RA

15h 43m 49.8s

INSTRUMENT

naked-eye

SOURCE

skylore / traditional name

DEC

+28° 02' 20"

BEST

March–June evenings

PATTERN

J2000 plot

BRIGHT

V 2.23

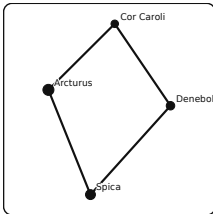
SPAN

7.4°

USE

field cue

A delicate semicircle between Boötes and Hercules, centred on bright Alphecca.



Great Diamond

Boötes / Canes Venatici / Leo / Virgo

RA

13h 06m 35.3s

INSTRUMENT

naked-eye

SOURCE

common observer pattern

DEC

+15° 13' 40"

BEST

March–June evenings

PATTERN

J2000 plot

BRIGHT

V -0.04

SPAN

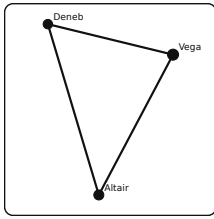
49.9°

USE

field cue

Arcturus, Cor Caroli, Denebola, and Spica make a huge spring diamond spanning several constellations.

Summer



Summer Triangle

Lyra / Cygnus / Aquila

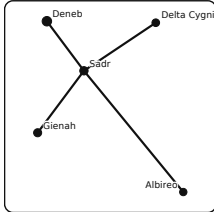
RA
19h 43m 08.9s
INSTRUMENT
naked-eye

SOURCE
common observer pattern

DEC
+30° 58' 39"
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 0.03
SPAN
38.0°
USE
field cue

Vega, Deneb, and Altair frame the Milky Way's summer river.



Northern Cross

Cygnus

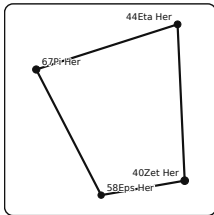
RA
20h 13m 08.3s
INSTRUMENT
naked-eye

SOURCE
common observer pattern

DEC
+38° 31' 10"
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 1.25
SPAN
22.3°
USE
field cue

The long axis of Cygnus turns into a cross flying down the Milky Way.



Keystone of Hercules

Hercules

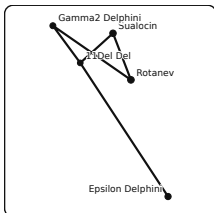
RA
16h 54m 52.6s
INSTRUMENT
naked-eye

SOURCE
common observer pattern

DEC
+34° 33' 55"
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 2.81
SPAN
8.8°
USE
field cue

The lopsided four-star keystone anchors Hercules and points the way to M13 on the western edge.



Job's Coffin

Delphinus

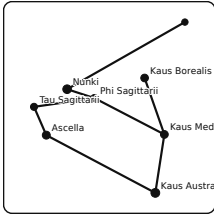
RA
20h 40m 06.2s
INSTRUMENT
naked-eye

SOURCE
skylore / traditional name

DEC
+14° 36' 07"
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 3.63
SPAN
5.8°
USE
field cue

Delphinus's compact diamond and tail has long been nicknamed Job's Coffin.



Teapot

Sagittarius

RA
18h 39m 40.1s
INSTRUMENT
naked-eye

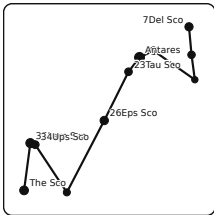
SOURCE
common observer pattern

Sagittarius becomes a squat teapot pouring steam into the Milky Way.

DEC
−27° 41′ 29″
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 1.85
SPAN
14.1°

USE
field cue



Fish Hook of Scorpius

Scorpius

RA
16h 44m 12.3s
INSTRUMENT
naked-eye

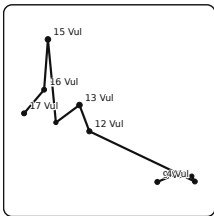
SOURCE
common observer pattern

The northern claws and red Antares curve into the scorpion's long low hook.

DEC
−32° 06′ 07″
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 0.96
SPAN
28.6°

USE
field cue



Coathanger

Vulpecula

RA
19h 46m 56.3s
INSTRUMENT
7x50

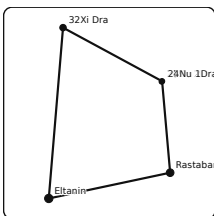
SOURCE
modern informal / binocular asterism

Brocchi's Cluster is the binocular asterism that really looks like its name: a straight bar with a dangling hook.

DEC
+22° 36′ 17″
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 4.58
SPAN
11.4°

USE
field cue



Lozenge of Draco

Draco

RA
17h 41m 00.0s
INSTRUMENT
naked-eye

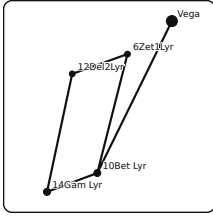
SOURCE
common observer pattern

Draco's head is a small tilted lozenge north of Hercules, with the Nu Draconis pair on one corner.

DEC
+54° 12′ 15″
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 2.23
SPAN
5.7°

USE
field cue



Lyra Parallelogram

Lyra

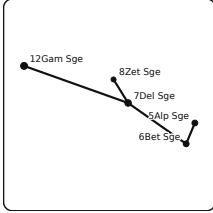
RA
18h 49m 02.9s
INSTRUMENT
naked-eye

SOURCE
common observer pattern

Vega dominates Lyra, but the little parallelogram below it holds the Ring Nebula between Beta and Gamma.

DEC
+35° 52' 05"
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 0.03
SPAN
7.6°
USE
field cue



Sagitta Arrow

Sagitta

RA
19h 47m 15.2s
INSTRUMENT
naked-eye

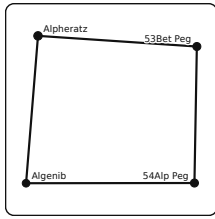
SOURCE
skylore / traditional name

Sagitta is one of the few constellations whose main figure is also an obvious asterism: a tiny arrow in the Milky Way.

DEC
+18° 31' 54"
BEST
June–September
evenings
PATTERN
J2000 plot

BRIGHT
V 3.47
SPAN
4.7°
USE
field cue

Autumn



Great Square of Pegasus

Pegasus / Andromeda

RA

23h 37m 32.4s

INSTRUMENT

naked-eye

SOURCE

common observer pattern

Four second-magnitude corner stars make autumn's large empty-looking square.

DEC

+21° 53' 26"

BEST

September–December

evenings

PATTERN

J2000 plot

BRIGHT

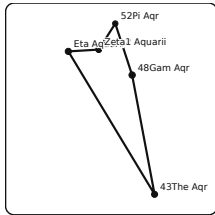
V 2.06

SPAN

20.6°

USE

field cue



Water Jar

Aquarius

RA

22h 26m 07.9s

INSTRUMENT

naked-eye

SOURCE

common observer pattern

A small Y-shaped jar near the celestial equator marks the water-bearer's stream.

DEC

−01° 19' 30"

BEST

September–December

evenings

PATTERN

J2000 plot

BRIGHT

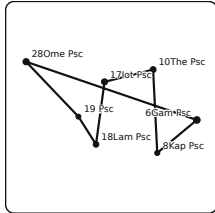
V 3.84

SPAN

9.4°

USE

field cue



Circler of Pisces

Pisces

RA

23h 37m 06.5s

INSTRUMENT

naked-eye

SOURCE

common observer pattern

This modest oval of fourth- and fifth-magnitude stars is the western fish of Pisces.

DEC

+04° 05' 46"

BEST

September–December

evenings

PATTERN

J2000 plot

BRIGHT

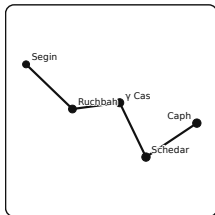
V 3.69

SPAN

11.1°

USE

field cue



Cassiopeia W

Cassiopeia

RA

01h 01m 18.8s

INSTRUMENT

naked-eye

SOURCE

common observer pattern

The zig-zag W is circumpolar from Alberta and flips to an M when it passes over the pole.

DEC

+60° 03' 42"

BEST

September–December

evenings

PATTERN

J2000 plot

BRIGHT

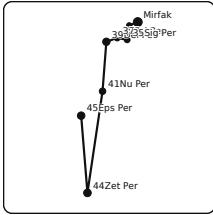
V 2.23

SPAN

13.3°

USE

field cue



Alpha Persei Cluster

Perseus

RA

03h 40m 06.4s

INSTRUMENT

7x50

SOURCE

catalogue / cluster listing

DEC

+44° 43' 38"

BEST

September–December

evenings

PATTERN

J2000 plot

BRIGHT

V 1.79

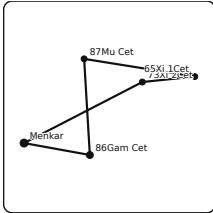
SPAN

18.8°

USE

field cue

The bright association around Mirfak is a sprawling binocular field rather than a tight cluster.



Head of Cetus

Cetus

RA

02h 38m 20.3s

INSTRUMENT

naked-eye

SOURCE

skylore / traditional name

DEC

+06° 56' 57"

BEST

September–December

evenings

PATTERN

J2000 plot

BRIGHT

V 2.53

SPAN

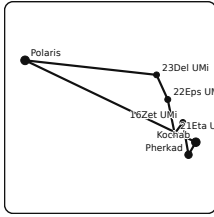
13.1°

USE

field cue

Menkar and nearby third- and fourth-magnitude stars form the whale's head below Pisces and Aries.

Year-round / circumpolar



Little Dipper

Ursa Minor

RA

16h 23m 29.2s

INSTRUMENT

naked-eye

SOURCE

skylore / traditional name J2000 plot

A fainter dipper wrapped around the north celestial pole.

DEC

+79° 37' 57"

BEST

Year-round from 50°N;
best when highest above

the pole

PATTERN

J2000 plot

BRIGHT

V 2.02

SPAN

18.9°

USE

field cue

Observability by latitude

The web atlas uses each pattern's centroid RA/Dec to compute transit altitude and hours above 20° for any northern latitude from 0–70°N. Use this appendix as a quick field reference before opening the interactive [/observe/](#) ranking.

| Lat | Circumpolar Dec | Never rises Dec | Circ. | Well placed | Low | Not visible |
|------|-----------------|-----------------|-------|-------------|-----|-------------|
| 0°N | none | none | 0 | 26 | 3 | 1 |
| 30°N | ≥ +60° | ≤ -60° | 2 | 25 | 2 | 1 |
| 50°N | ≥ +40° | ≤ -40° | 6 | 20 | 1 | 3 |
| 70°N | ≥ +20° | ≤ -20° | 16 | 4 | 3 | 7 |

Transit altitude is $90^\circ - |\text{latitude} - \text{declination}|$. A target is marked circumpolar when it never sets, not visible when it never rises or never reaches 20° altitude, well-placed when it transits at least 35° high and spends three or more hours above 20°, and low otherwise. Month rankings prefer targets transiting near a 21:00 local evening sky.

Reading the sky: Bortle classes & limiting magnitude

The web atlas now combines geometry with sky brightness. Bortle class is a field shorthand for light pollution: Bortle 1 is an exceptional dark site and Bortle 9 is an inner-city sky. The planner maps those classes to approximate naked-eye limiting magnitudes — about V 7.5 at Bortle 1, V 6.1 at Bortle 4, V 5.6 at Bortle 5, V 4.6 at Bortle 7, and V 3.6 at Bortle 9.

For each asterism, member-star V magnitudes are counted against that limit. If every defining star clears the limit the pattern is “fully visible”; if at least 70% clear it, the shape is “partial” but probably recognisable; below that it is “washed out” for naked-eye use. Binoculars can still rescue many washed-out patterns, but the ranking is answering the stricter question: what will the eye actually see in this sky?

Sources and verification

The printable guide is derived from `data/asterisms.generated.json` and the already-built SVG chart geometry in `public/asterisms/*.html`; it does not introduce new star positions. The companion verification note checks member counts, magnitude bounds, angular separation from each computed pattern centre, observing/imaging metadata, finder-map presence, and the shared latitude/month observability model on every detail page plus `/observe/`.