

# The Night Sky

## September

### Equipment you will need

Because of the darkness of our forest locations, you can see many wonders of the night skies with your naked eye, although your eyes will need a good 20 minutes to adjust to the darkness. Any bright lights, such as that from your torch, will set them back again. You can reduce this effect by putting a red filter on your torch. Equipment worth investing in includes:

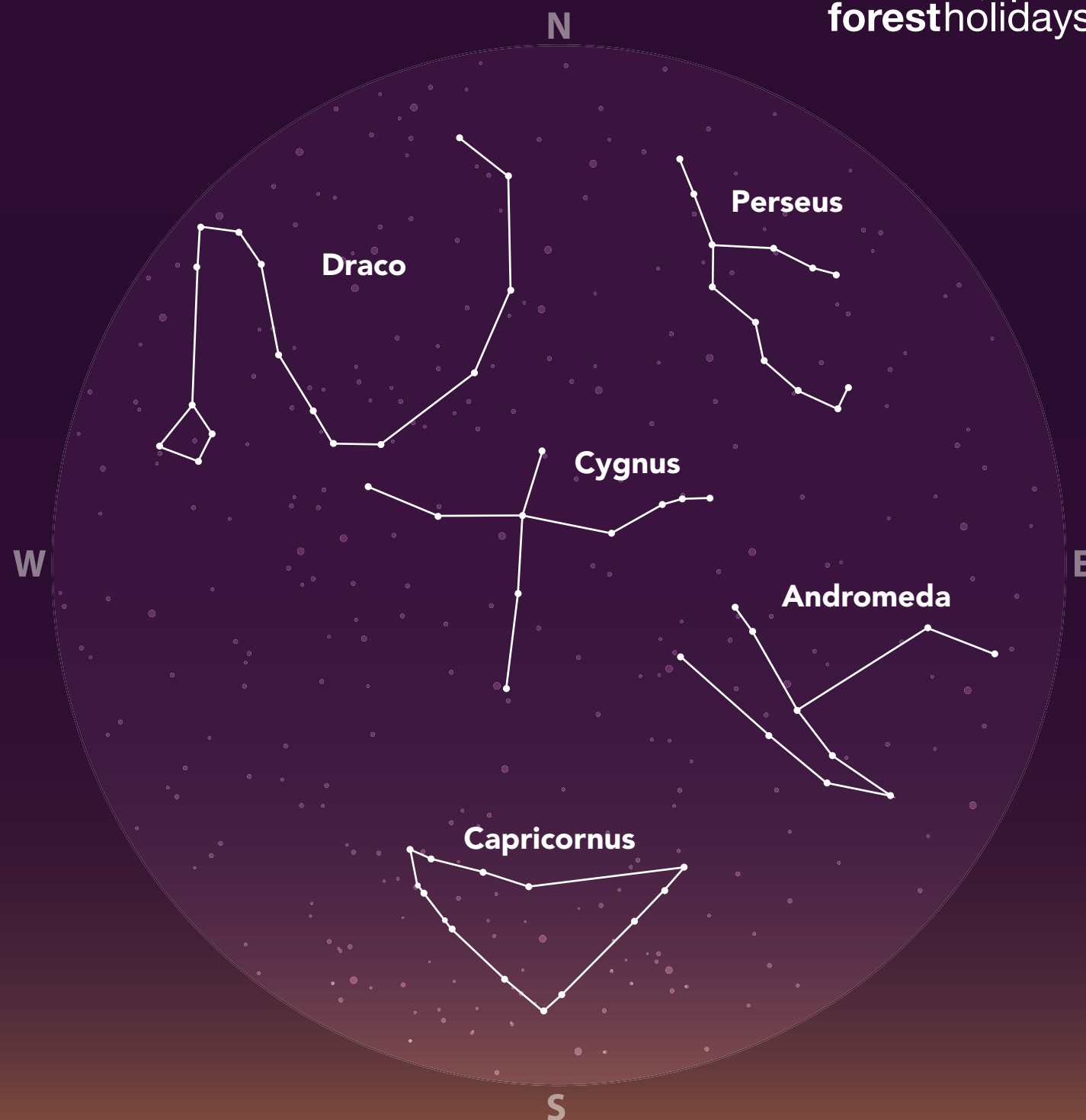
- **Binoculars** – cheaper and easier to carry than a telescope. Look for ones with glass lenses.
- **Camera** – to capture that fantastic star scene forever
- **Tripod** – essential for use with your camera
- **Telescope** – worth investing in for the really committed stargazer
- **Google Skymaps** – a superb free app, available for Android and iPhone. You point your phone towards the sky and it shows you the constellations and identifies the stars using inbuilt GPS

### Getting started – your first 5 constellations to spot

- **Ursa Major** (the Big Dipper) has been used by sailors since ancient times to locate the fixed-point Pole Star and navigate home
- **Leo** (the lion) is it a lion, as the Greeks decided? Or is it K9 from Doctor Who?
- **Cassiopeia** (the queen of Aethiopia) is one of the easiest constellations to locate and looks like a huge W, almost directly overhead
- **Cepheus** (the king of Aethiopia) is one of 48 constellations identified by 2nd century astronomer Ptolemy. Imagine a child's drawing of a house, complete with roof
- **Orion** (the hunter), with belt and sword, is perhaps the most famous constellation – and one of the few that actually bears some slight resemblance to its namesake

### Stargazing facts for kids

- You can see the International Space Station without using binoculars, and you can track it moving across the sky
- The sun is 300,000 times bigger than earth and 93 million miles away. If you could catch a plane to the sun, the journey would take 20 years
- We're more connected than you might think. The gravity of the sun and moon bring about the tides in our seas
- Footprints and tyre marks on the moon from the Apollo 11 mission will stay there forever – there is no wind to blow them away
- How much do you weigh? If you weigh 50kg here on earth you would only weigh 19kg on Mars because of lower gravity



#### Draco

Its name is Latin for dragon, it weaves between the constellations Ursa Minor, Cepheus and Hercules.

#### Cygnus

A northern constellation lying on the plane of the Milky Way. Its name means swan and it is one of the most recognisable constellations of the northern summer and autumn.

#### Perseus

Named after the Greek hero Perseus, this constellation hosts the radiant of the annual Perseids meteor shower, one of the most prominent meteor showers in the sky.

#### Capricornus

Its name is Latin for 'horned goat' or 'goat horn', and it is commonly represented in the form of a sea-goat: a mythical creature that is half goat, half fish.

#### Andromeda

Named for Andromeda, daughter of Cassiopeia, in the Greek myth, who was chained to a rock to be eaten by the sea monster Cetus.