

The Night Sky

January

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:

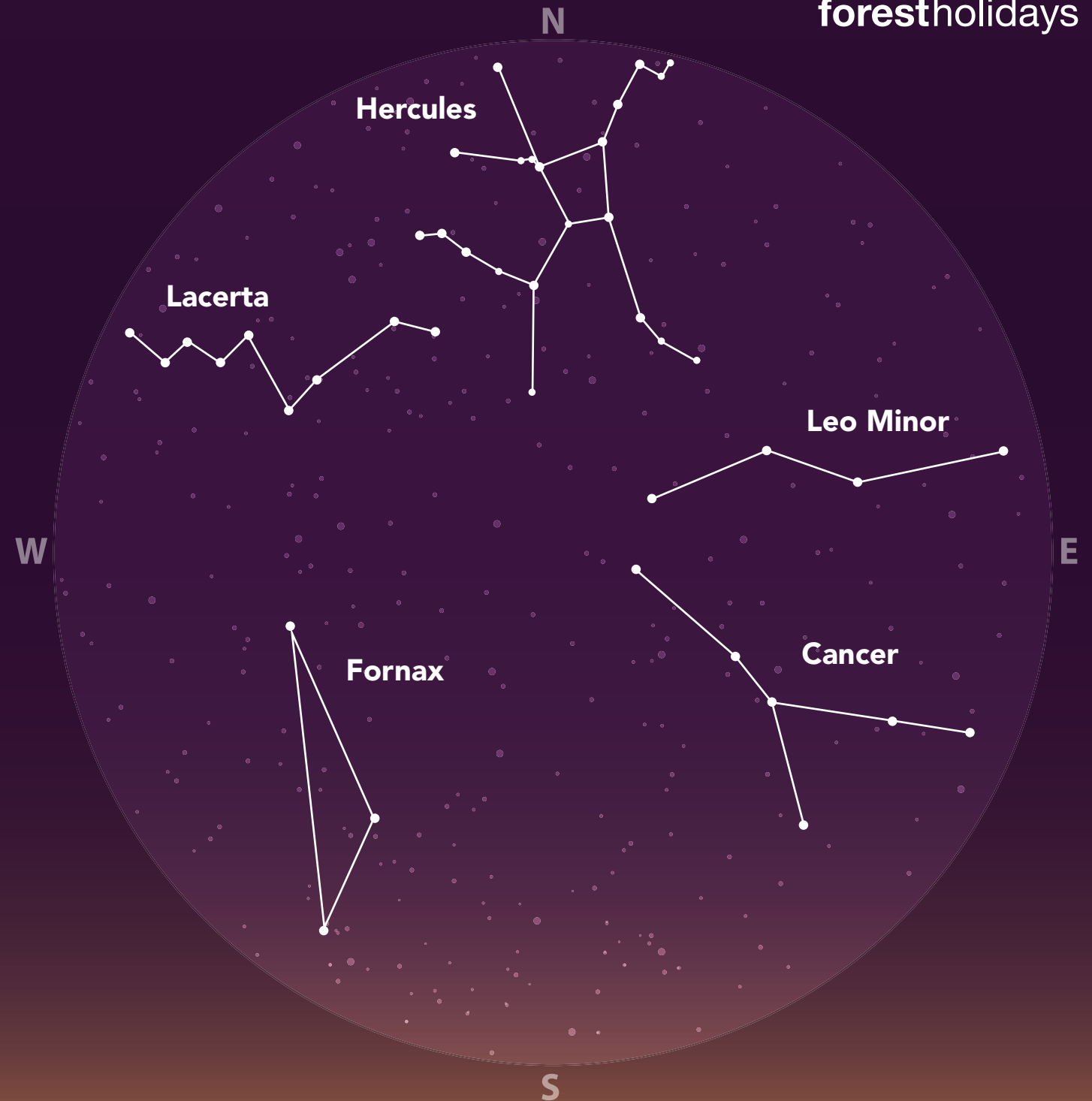
- **Binoculars** – cheaper and easier to carry than a telescope. Look for ones with glass lenses.
- **Camera** – to capture that fantastic star scene forever
- **Tripod** – essential for use with your camera
- **Telescope** – worth investing in for the really committed stargazer
- **Google Skymaps** – 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



Leo Minor

Although smaller and fainter than its bigger brother Leo 'the larger lion', Leo Minor includes two stars with planetary systems, two pairs of interacting galaxies and the unique deep-sky object Hanny's Voorwerp.

Hercules

Named after Hercules, the Roman mythological hero adapted from the Greek hero Heracles, it is the fifth largest of the modern constellations.

Lacerta

Its name is Latin for lizard with its brightest stars forming a 'W' shape similar to that of Cassiopeia and it is thus sometimes referred to as 'Little Cassiopeia'. The northern part lies on the Milky Way.

Fornax

Or 'furnace' in Latin, has been the target of investigations into the furthest reaches of the universe. A galaxy contained within it was identified as the most distant object in the universe from Earth as of January 2011.

Cancer

One of the twelve constellations of the zodiac, its name is Latin for crab and is identified with the crab that appeared whilst Heracles was fighting the many-headed Hydra.