

**School of European Education
of Heraklion**



CASSIOPEIA CONSTELLATION

P5

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The origin of the name and mythology



Cassiopeia is a large constellation located in the northern sky. It was named after Cassiopeia, the vain queen in Greek mythology who boasted about her unrivalled beauty. **Cassiopeia was the wife of King Cepheus of Ethiopia** (represented by the neighbouring constellation Cepheus in the sky) and **Andromeda's mother**.

She used to say that **she was the most beautiful woman in the world** and even **more beautiful than gods**. **Poseidon**, the brother of Zeus and the god of the sea, **took great offense at this statement**, because he believed that **most beautiful beings** were his **sea nymphs**.

In his anger, he **created a great sea monster, Cetus** (a great fish or whale), to ravage the seas, **sinking ships, killing the sailors**, and destroying towns and villages along the seacoast. This created fear among the people of Cassiopeia's country.

The people asked Poseidon to stop the monster. He replied that if the beautiful Andromeda, **Cassiopeia's only daughter, were to be sacrificed to Cetus** the destruction would stop. The people took Andromeda and **chained her to a rock** near the sea to be sacrificed to Cetus. However, **Andromeda was saved by Perseus, and Cetus was turned to stone**.

Poseidon and his brother Zeus decreed that Cassiopeia be placed in the sky as a constellation, and as punishment for being so vain about her looks, she would suffer the humiliating position of **being upside down in the sky** during the fall of the year when her constellation is best seen [1].

What is the nickname of the Cassiopeia constellation?

The nickname of Cassiopeia is, the **W constellation**. Cassiopeia is easily recognizable for the prominent asterism formed by its five brightest stars.



Which are the five stars of Cassiopeia?

Cassiopeia's Stars:

Segin -bluewhite giant-440 light years distant.

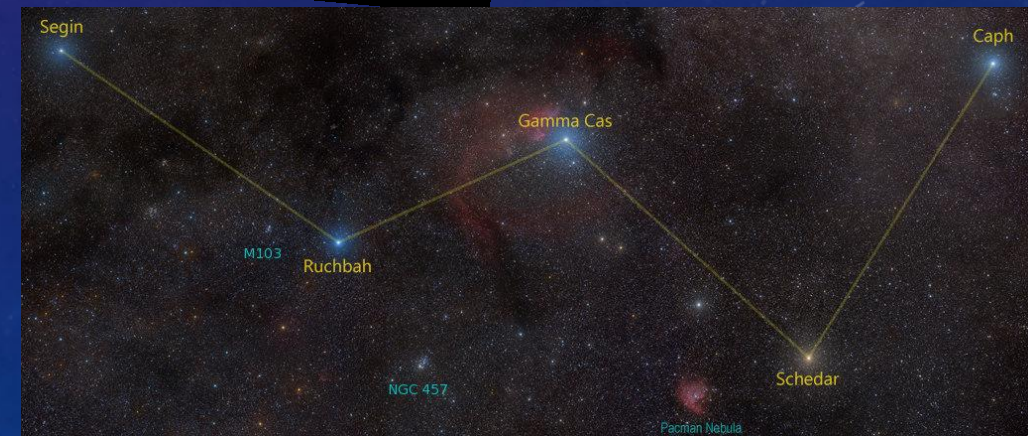
Ruchbah -eclipsing binary-99 light years
Gamma Cas-Achird -hydrogen fusing dwarf-19.4 light years

Schedar -orange giant- 228 light years.

Caph -subgiant-54.5 light years

What is the history of the constellation?

The constellation was **first catalogued** by the **Greek astronomer Ptolemy** in the **2nd century**, along with other constellations in the Perseus family [1].



The five bright stars of Cassiopeia [2]. Marina

Which family of the constellations does Cassiopeia belong to?

Cassiopeia belongs to the Perseus family of constellations, along with, Auriga, Cepheus, Cetus, Andromeda, Lacerta, Pegasus, Perseus, and Triangulum. The “West” Shape of Cassiopeia in the night sky.



What is the distance from earth?

Gamma Cassiopeia is a Be star, a variable star, and a binary star system. Based upon parallax measurements made by the Hipparions satellite, it is located at roughly 550 light-years from Earth [3].

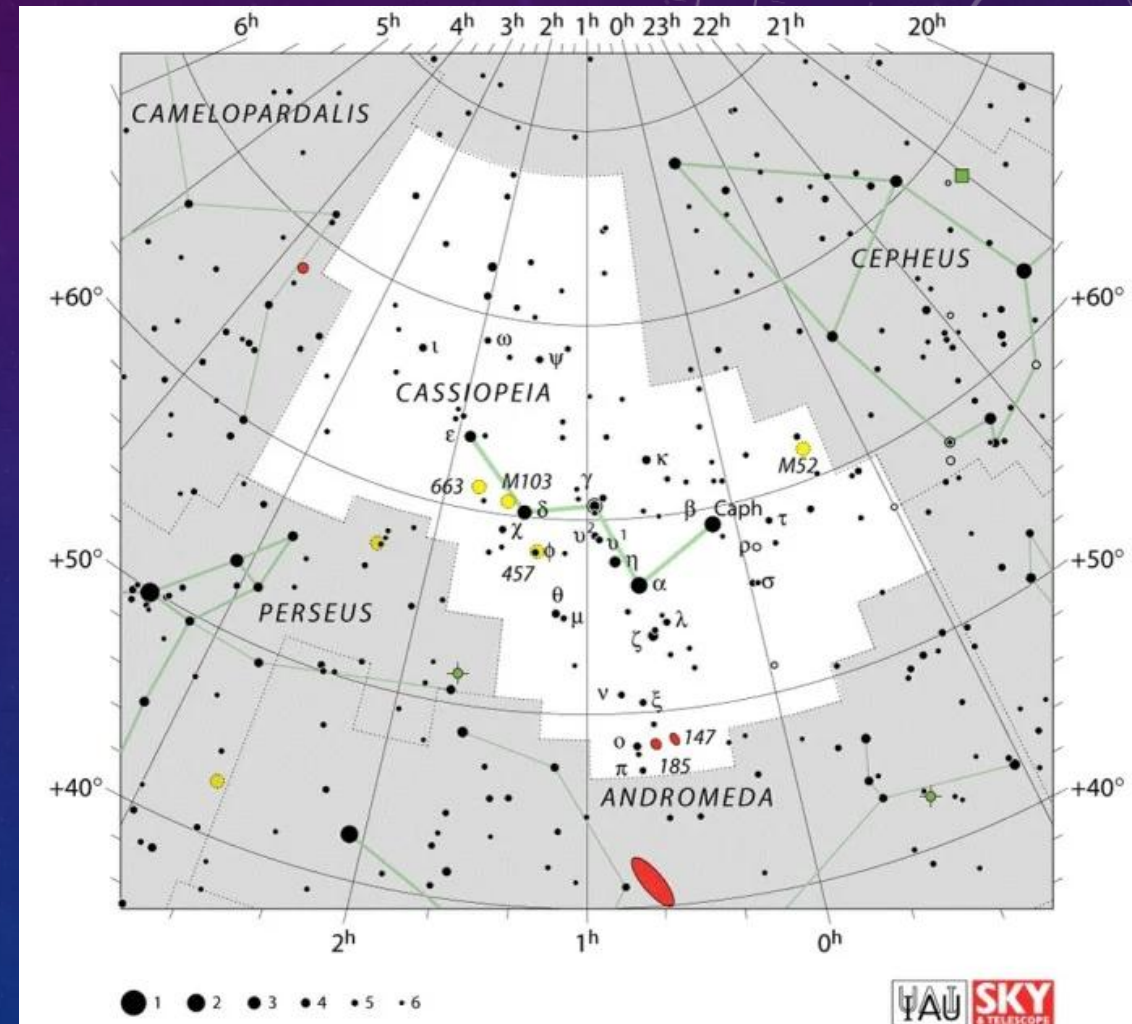


Where is Cassiopeia located?

Cassiopeia is located in the first quadrant of the northern hemisphere (NQ1) and can be seen at latitudes between $+90^\circ$ and -20° [1].
in fact it is such a northern constellation it is almost invisible from Greece [4].

How big is Cassiopeia?

Cassiopeia is the 25th largest constellation in the night sky, occupying an area of 598 square degrees. It remains one of the 88 modern constellations today.



Cassiopeia constellation map by IAU and Sky&Telescope magazine [1]



Thank you for your attention!

References:

1. <https://www.constellation-guide.com/constellation-list/cassiopeia-constellation/>
2. <https://www.universetoday.com/19850/cassiopeia/>
3. [https://en.wikipedia.org/wiki/Cassiopeia_\(constellation\)](https://en.wikipedia.org/wiki/Cassiopeia_(constellation))
4. <https://www.larissanet.gr/2018/09/12/o-asterismos-kassiopi/>
(Translated in English)