

November's Suggested  
Constellation - but which one?

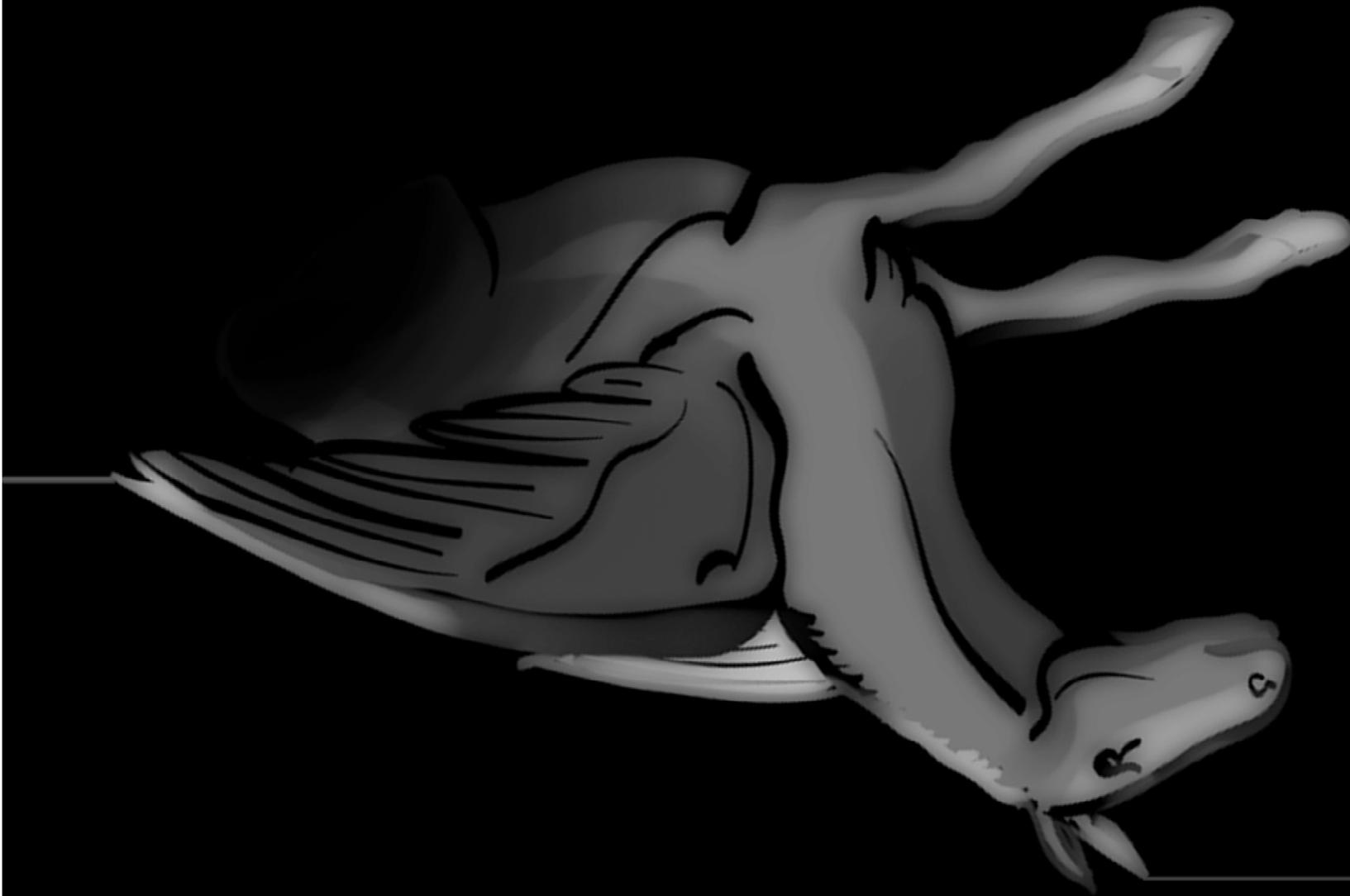


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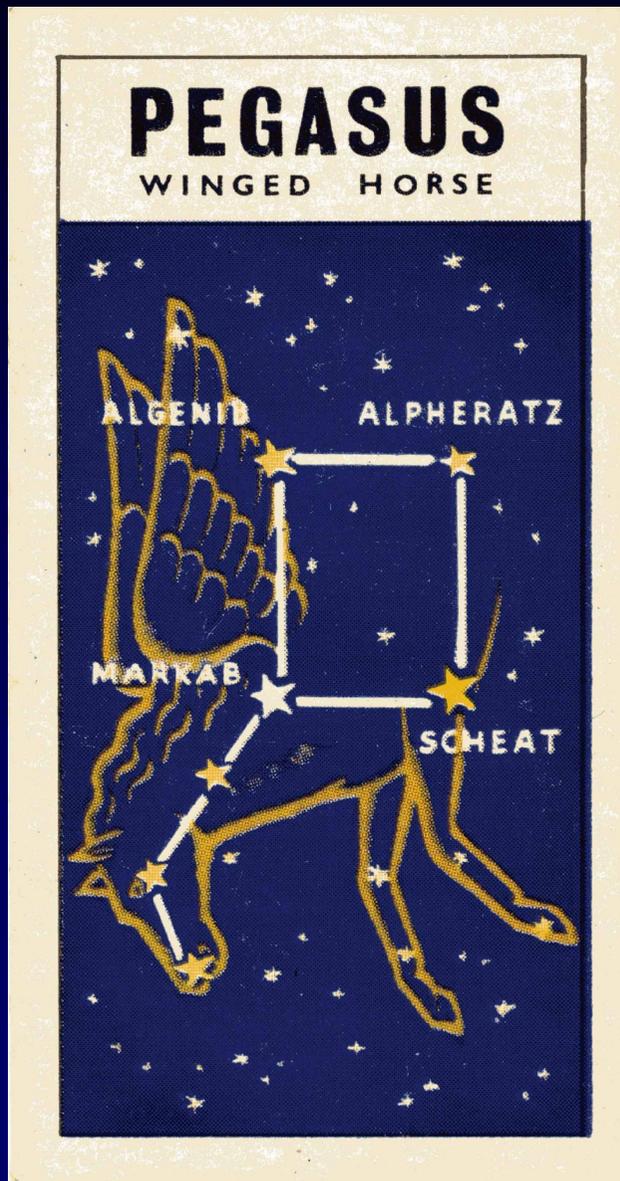


That's right - Pegasus

November's Suggested  
Constellation - but which one?



# November's Suggested Constellation



A SERIES OF 50 No. 42

## OUT INTO SPACE

*Approved by A. Hunter, Ph.D.,  
Sec. Royal Astronomical Society*

### PEGASUS (The Winged Horse)

Pegasus is seen upside down in our latitudes. Only half of Pegasus is illustrated in celestial maps—one star, Alpheratz, forming part of the adjoining constellation of Andromeda. It is prominent on the meridian at midnight in September. There are many small stars within and in clear atmosphere over 100 may be observed. Markab, a white star of second magnitude, is a navigational star. Scheat is a deep yellow star also of second magnitude. According to mythology Bellerophon tried to ride to heaven on Pegasus' back and was thrown off.

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# Where is it?





# Messier & Caldwell Objects in Pegasus



**M15 (NGC 7078)**

**Distance** 30,600 light years  
**Visual Brightness** Magnitude 6.3  
**Apparent Dimension** 18.0 arc minutes  
**Discovered** 1746 by Jean-Dominique  
Miraldi II



**C30 (NGC 7331)**

**Distance** 47,000,000 light years  
**Visual Brightness** Magnitude 9.5  
**Apparent Dimension** 9.7 arc minutes  
**Discovered** 1784 by William Herschel

# November's other Suggested Constellation ✨



- Andromeda

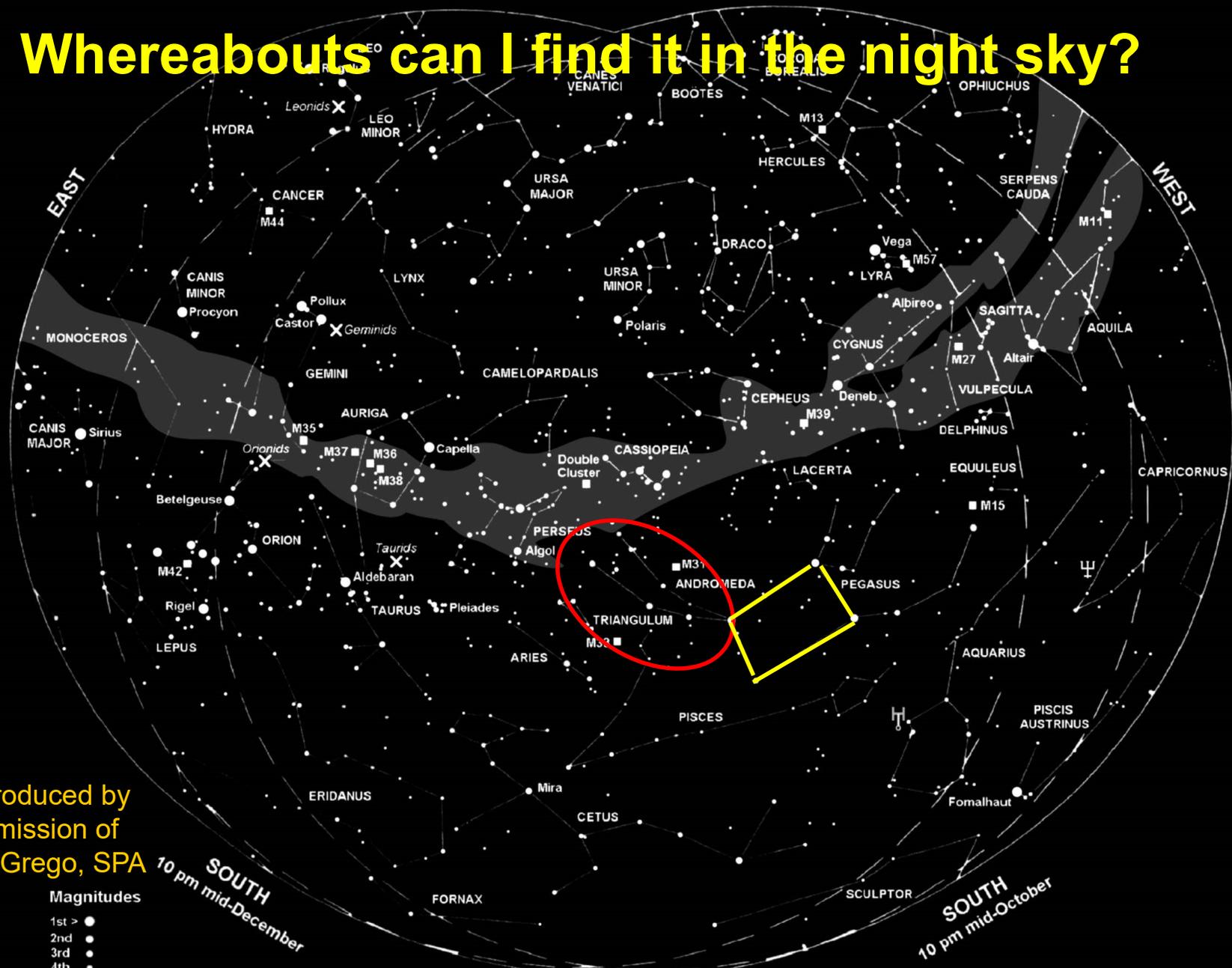
## Andromeda: the myth

- In Greek mythology Andromeda was the daughter of Cassiopeia and Cepheus. Cassiopeia angered Poseidon by claiming that both she and Andromeda were more beautiful than any of Poseidon's nymphs. Poseidon retaliated by chaining Andromeda to a rock to be eaten by his sea-monster. Perseus arrived in the nick of time, flying on Pegasus and clutching Medusa's head, which he used to kill the monster. Having rescued her, what else could he do? He married her!

# Andromeda

- Andromeda is relatively easy to find, it's first star is Alpheratz, which is actually the top left corner of the square of Pegasus.
- Its main stars are only of 3<sup>rd</sup> or 4<sup>th</sup> magnitude, and form a stream of stars flowing away to the upper left from Pegasus
- It contains perhaps the most famous Messier object of all, and three in total – all members of our own Local Group of galaxies
- It also contains some other nice deep sky objects, binaries and variable stars

# Whereabouts can I find it in the night sky?



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- Magnitudes
- 1st > ●
  - 2nd ●
  - 3rd ●
  - 4th ●
  - 5th ●

- Deep Sky object ■
- Meteor radiant X

**SOUTH**  
10 pm mid-November

♅ Uranus } Mid-November  
♆ Neptune }

# Andromeda

Triple Star  
Mag 2.5, 6.3 & 5.5  
Double Star  
Mag 6.5 & 5.5

M31/32/110  
(Galaxies)

Caldwell C23  
(Spiral Galaxy)

Double Star  
Mag 4 & 11

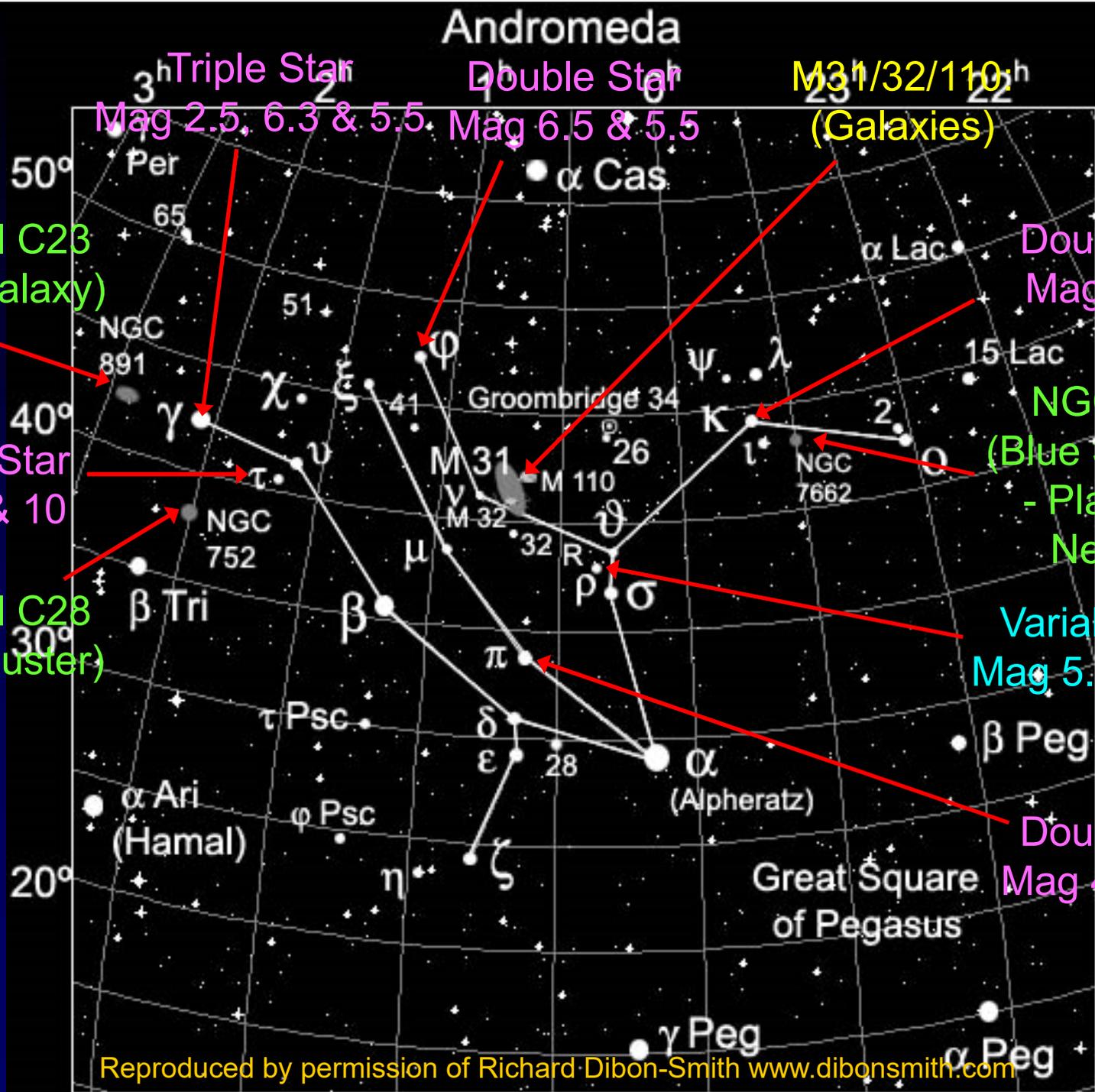
Double Star  
Mag 5 & 10

NGC7662  
(Blue Snowball  
- Planetary  
Nebula)

Caldwell C28  
(Open Cluster)

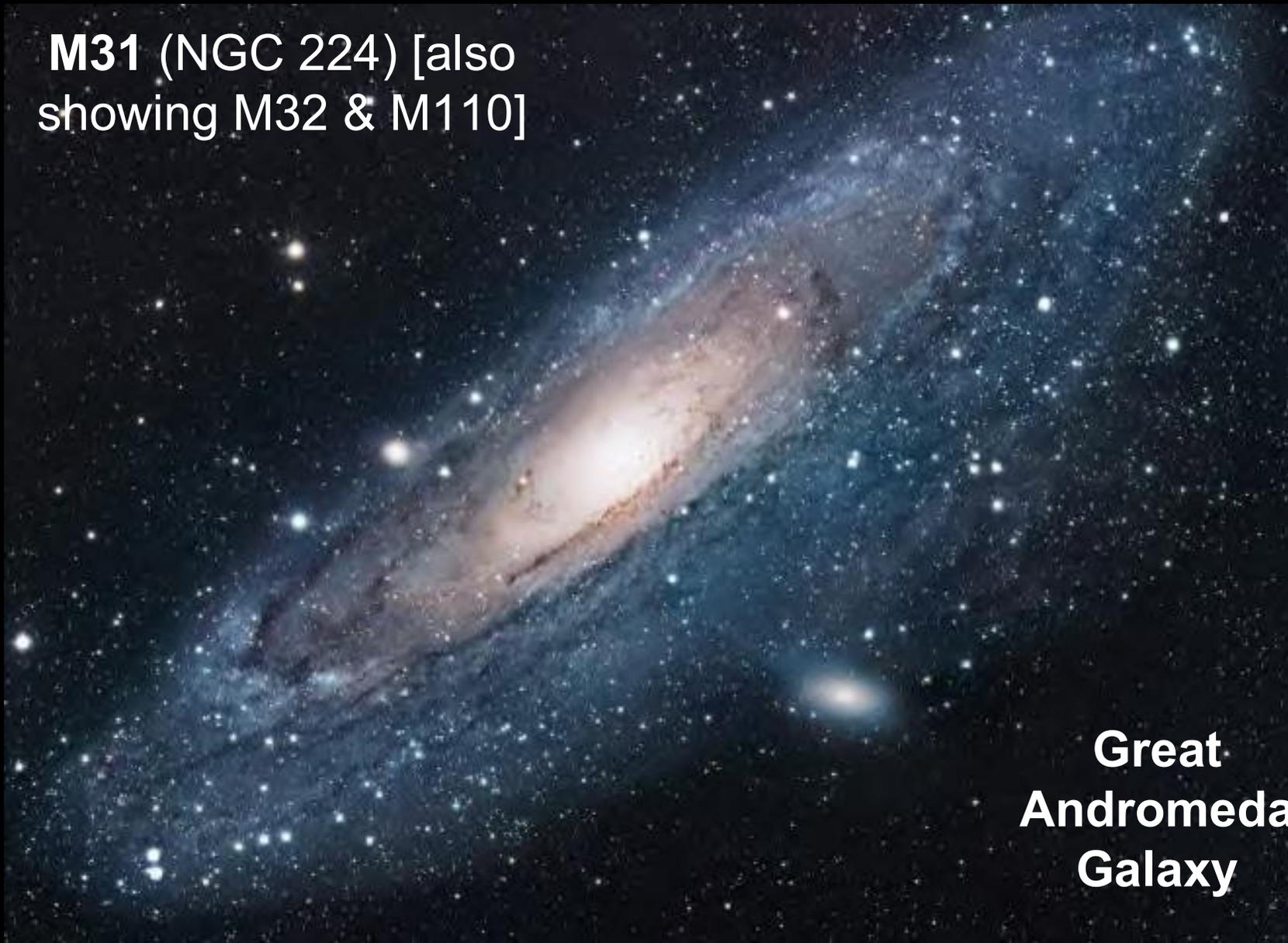
Variable Star  
Mag 5.8 → 14.9

Double Star  
Mag 4.4 & 8.9



## Messier Objects in Andromeda

**M31** (NGC 224) [also  
showing M32 & M110]



**Great  
Andromeda  
Galaxy**

**Distance** 2,900,000 light years  
**Visual Brightness** Magnitude 3.4

**Apparent Dimensions** 178 arc minutes  
**Discovered** 964 Abd-al Al-Sufi

## Messier Objects in Andromeda (contd)



**M32 (NGC 221)**

**Distance** 2,900,000 light years  
**Visual Brightness** Magnitude 8.1  
**Apparent Dimension** 8 arc minutes  
**Discovered** 1749 Le Gentil

**M110 (NGC 205)**

**Distance** 2,900,000 light years  
**Visual Brightness** Magnitude 8.5  
**Apparent Dimension** 17 arc minutes  
**Discovered** 1780 Messier

## Caldwell Objects in Andromeda



**C23 (NGC 891)**

**Distance** 10,000,000 light years  
**Visual Brightness Magnitude** 10.0  
**Apparent Dimension** 13.5 arc minutes  
**Discovered** 1784 William Herschel



**C28 (NGC 752)**

**Distance** 1,300 light years  
**Visual Brightness Magnitude** 5.7  
**Apparent Dimension** 60 arc minutes  
**Discovered** 1786 William Herschel

# Another Deep Sky Object of interest in Andromeda



NGC 7669  
Blue Snowball Nebula

**Distance** 2,200 light years  
**Visual Brightness** Magnitude 8.3  
**Apparent Dimension** 18 arc seconds  
**Discovered** 1865 Gaspare Ferrari