Eridanus Optics CC

December 2006

Taking on Taurus the Bull

Taurus lies above the eastern horison in the early December evenings and provides suitable targets for naked eye observation as well as for binocular and telescopic viewing. For directions, refer to the attached sky maps and images of the night sky.

Naked eye targets:

From Southern Africa the head of Taurus looks like an 'A' or 'V'. The prominent red star (right bottom) is 'Aldebaran' and represents the eye of the bull. The other four stars complete the head of the bull. Elnath and Zeta Tauri form the horn tips, meaning that Taurus is upside down when viewed towards the East from the Southern Hemisphere.

The Hyades is a wide open cluster made up by the four bright stars comprising the head of Taurus (excluding Aldebaran). These stars are about 790 million years old. Disregarding the Ursa Major cluster, the Hyades is the closest open cluster to Earth at a distance of about 150 lightyears. Aldebaran is a red giant and about 60 lightyears away.

North (left) of the Hyades is the more famous Pleiades or Seven Sisters. This is also an open cluster but it comprises of stars about 100 million years old and 440 lightyears away.

The objects mentioned above should be visible even from light polluted sites.

Binocular Targets:

Both the Hyades and Pleiades can be viewed through binoculars. Through binoculars, many more stars can be seen in the area. To date about 360 stars in this area are suspected to be members of the Hyades.

Binoculars will also reveal more stars in the Pleiades with an estimated 500 members. The Messier catalogue lists the Pleiades as M45. Use the detailed map of the Pleiades to identify individual stars.

These two clusters are best viewed with binoculars. Binoculars provide a suitable field of view.

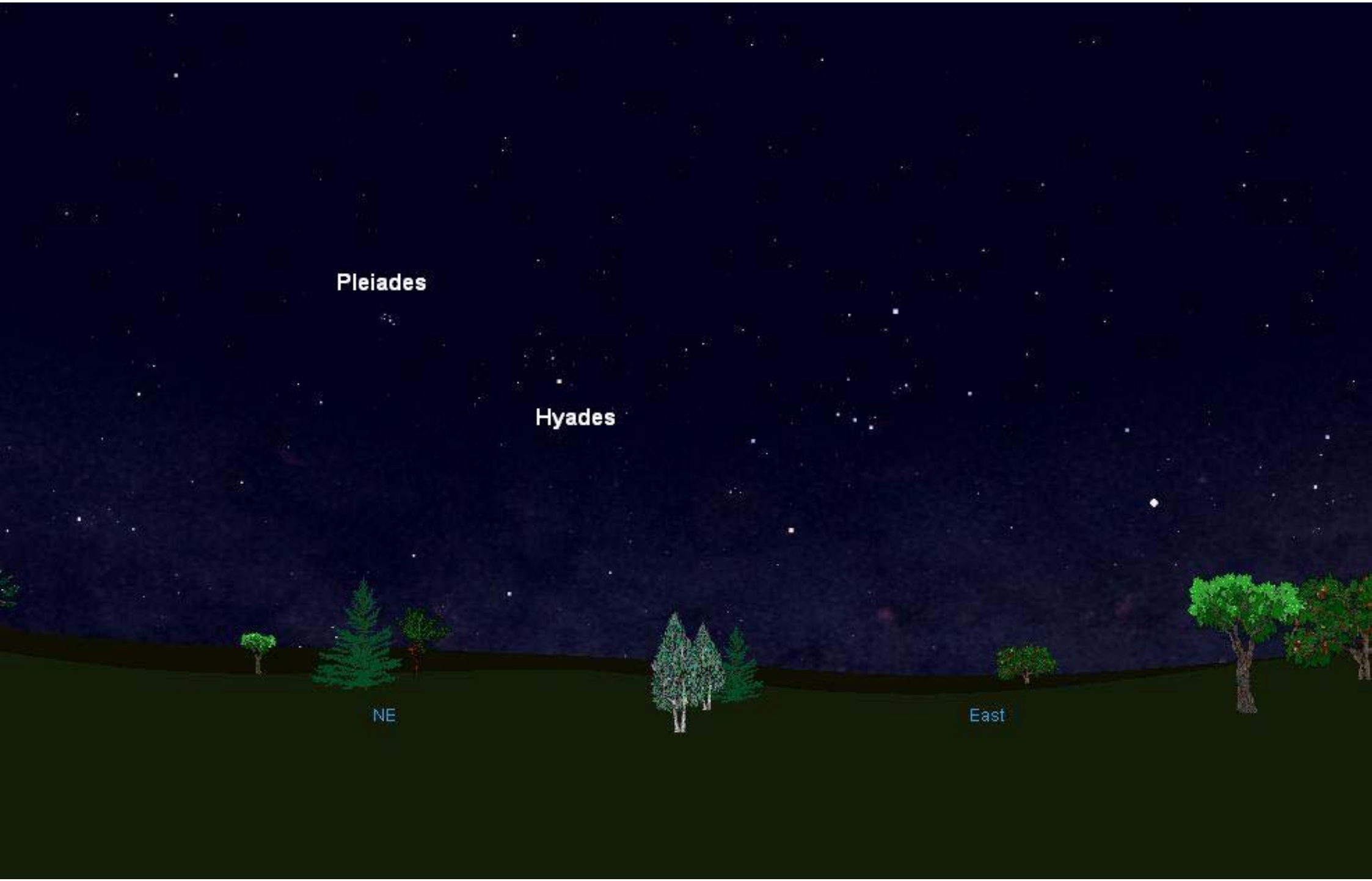
Telescope Targets:

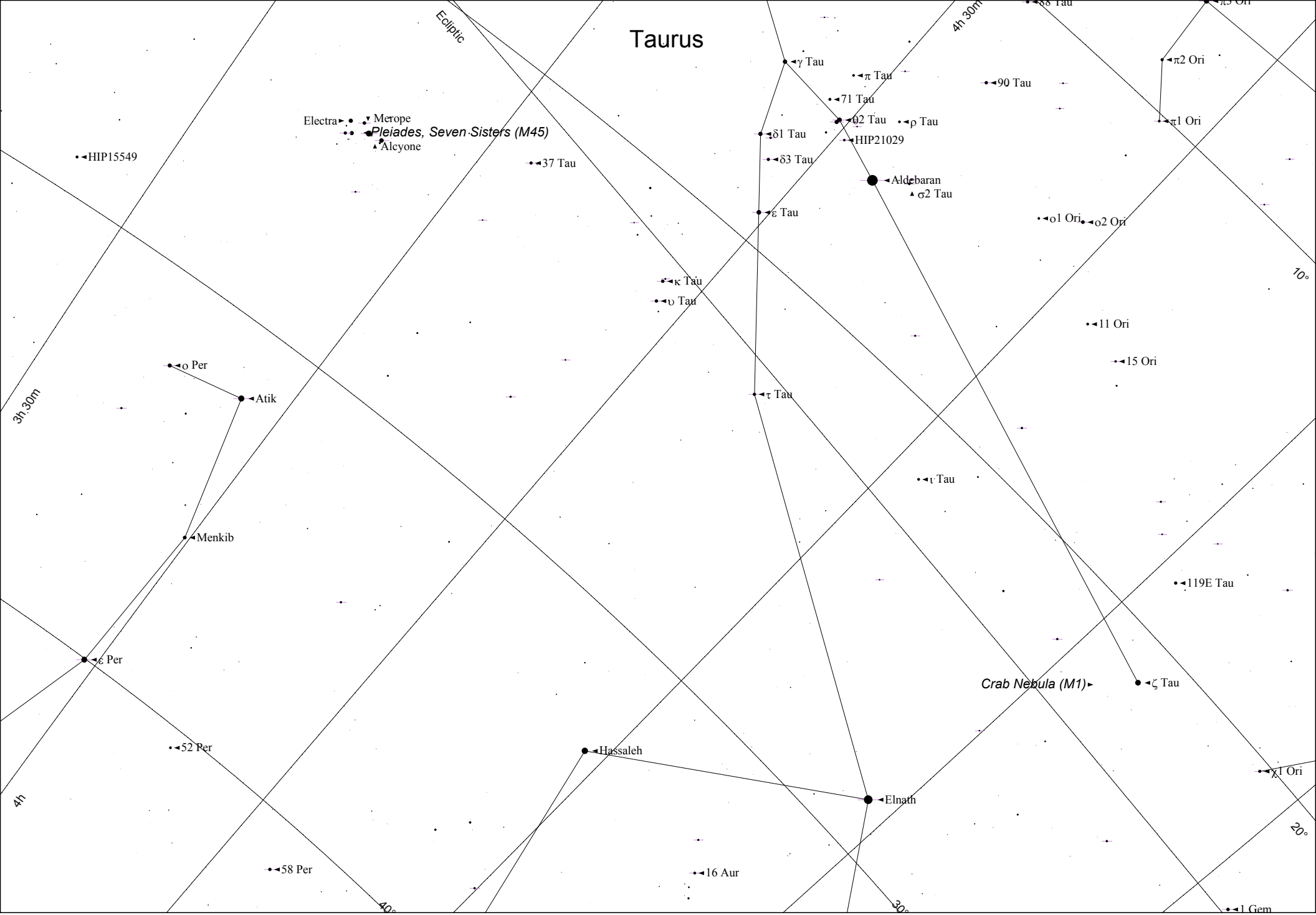
The Crab Nebula (M1) is the most important object within Taurus for telescopes. I have not been able to view it with a 6" telescope from Pretoria yet. I include a map for the brave with larger telescopes and darker skies.

If you cannot find M1, it is a good idea to observe the Hyades and Pleiades through your telescope.

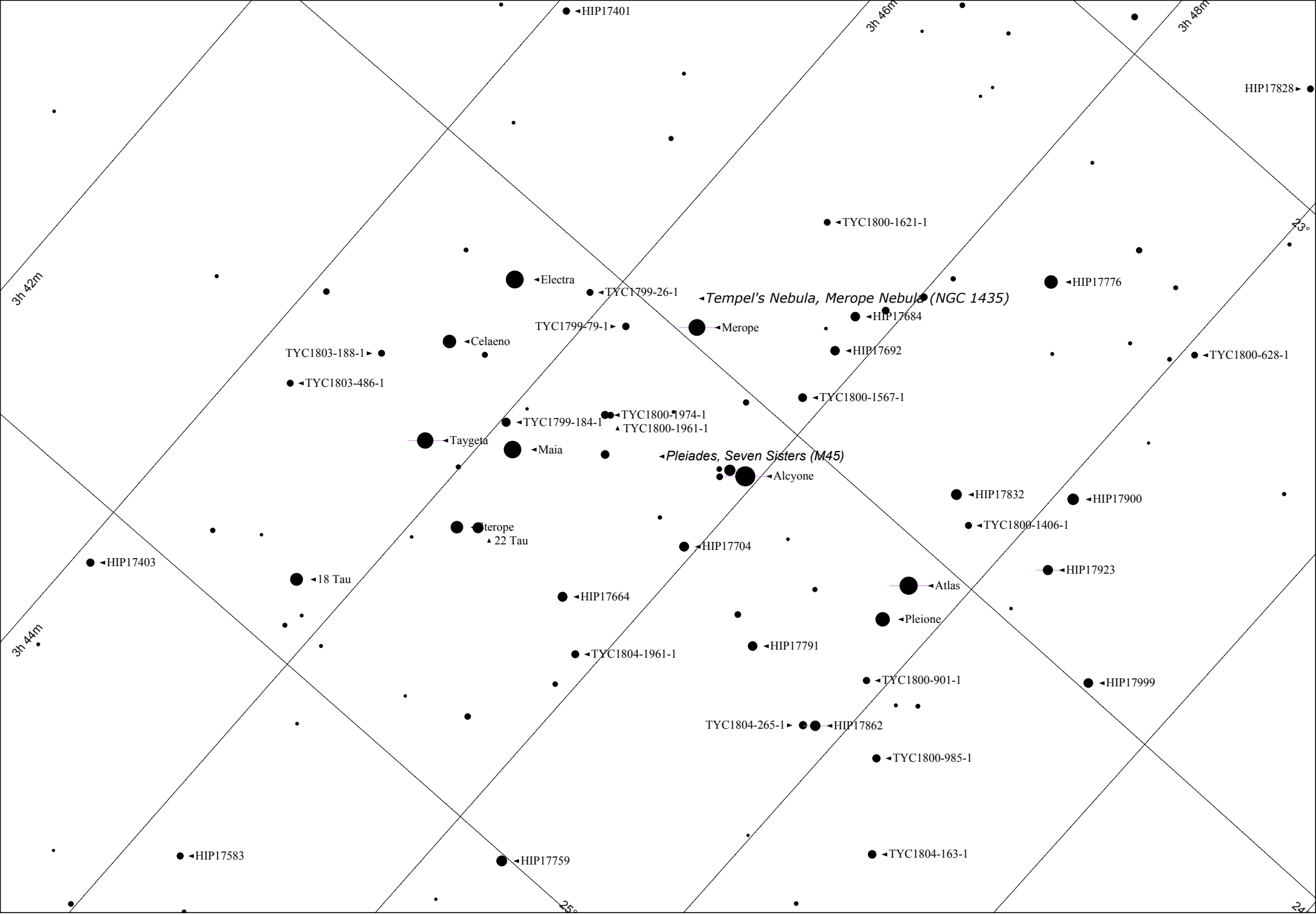
Happy hunting!

Andrie


Pleiades
Hyades
NE
East



Viewing from Pretoria, South Africa Long: 28° 13' 24" Lat: -25° 43' 29"
2006/12/11 08:34:29 PM (Local)
Chart centre (J2000): RA: 4h 38.641m Dec: 25° 57.938'
Looking: north east (23° above horizon)
FOV: 35°
Limiting Magnitude: 7.1



Viewing from Pretoria, South Africa Long: 28° 13' 24" Lat: -25° 43' 29"
2006/12/08 08:00:00 PM (Local)
Chart centre (J2000): RA: 3h 46.807m Dec: 24° 11.355'
Looking: north east (26° above horizon)
FOV: 2.6°
Limiting Magnitude: 12.8


Crab Nebula (M1)
Zeta Tauri