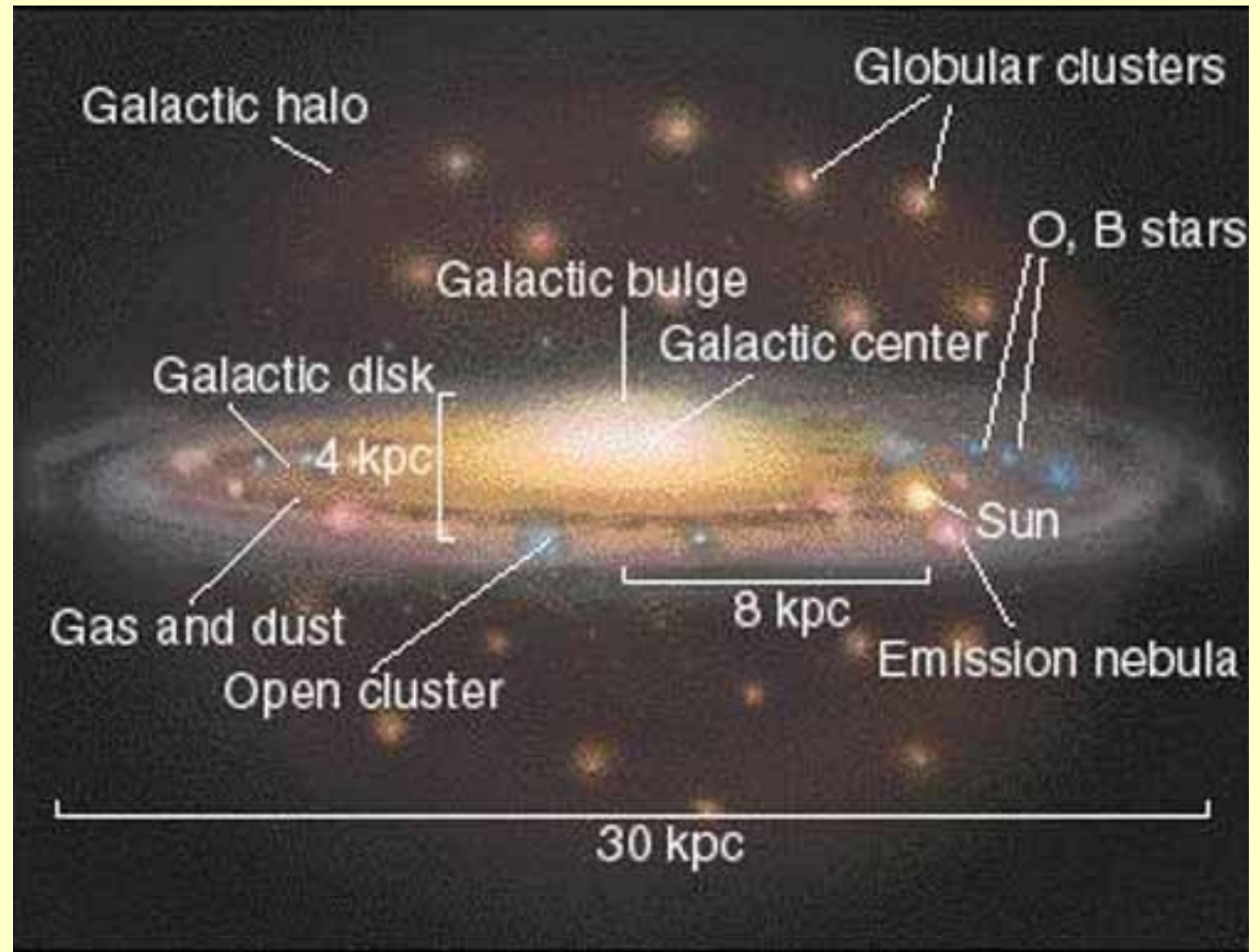


Galaxy:



Credit to <http://www.christinecorbettmoran.com/Probing-the-Reionization-Epoch>

Galaxy:

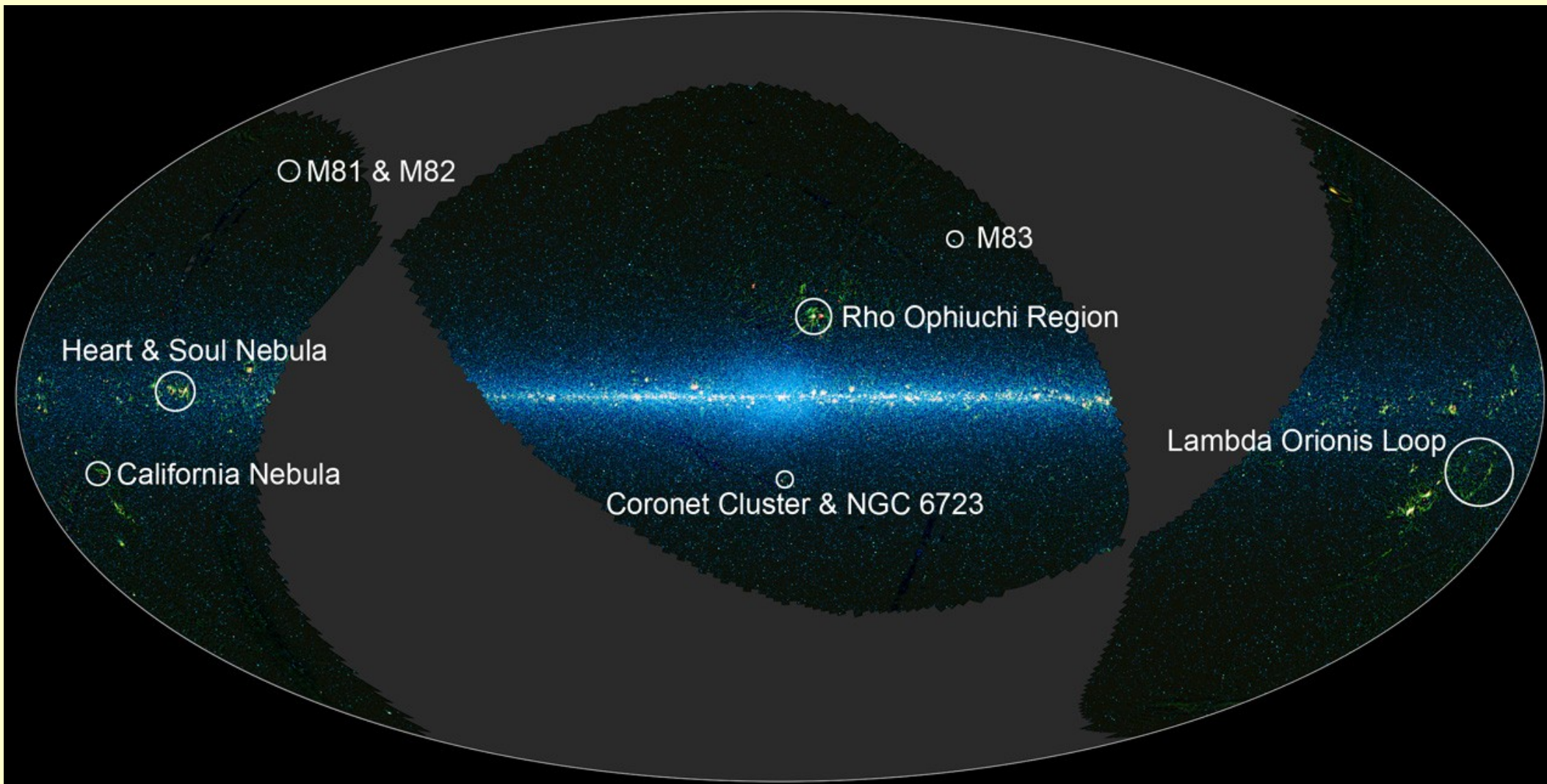


Image Credit: NASA/JPL-Caltech/WISE Team

ISM: Credit to <http://astronomy.swin.edu.au/cosmos/D/Dark+Nebula>



The Horsehead nebula silhouetted against a bright HII region, is the most famous example of a dark nebula. **Credit:** AAO/David Malin

Note HII regions are visible through their emission line, in particular one of HII in the red region.

ISM:



A group of Bok globules

Credit: AAO/David Malin

ISM:

The **Witch Head reflection nebula**
Associated with Rigel in Orion

Credit to Wikipedia Website



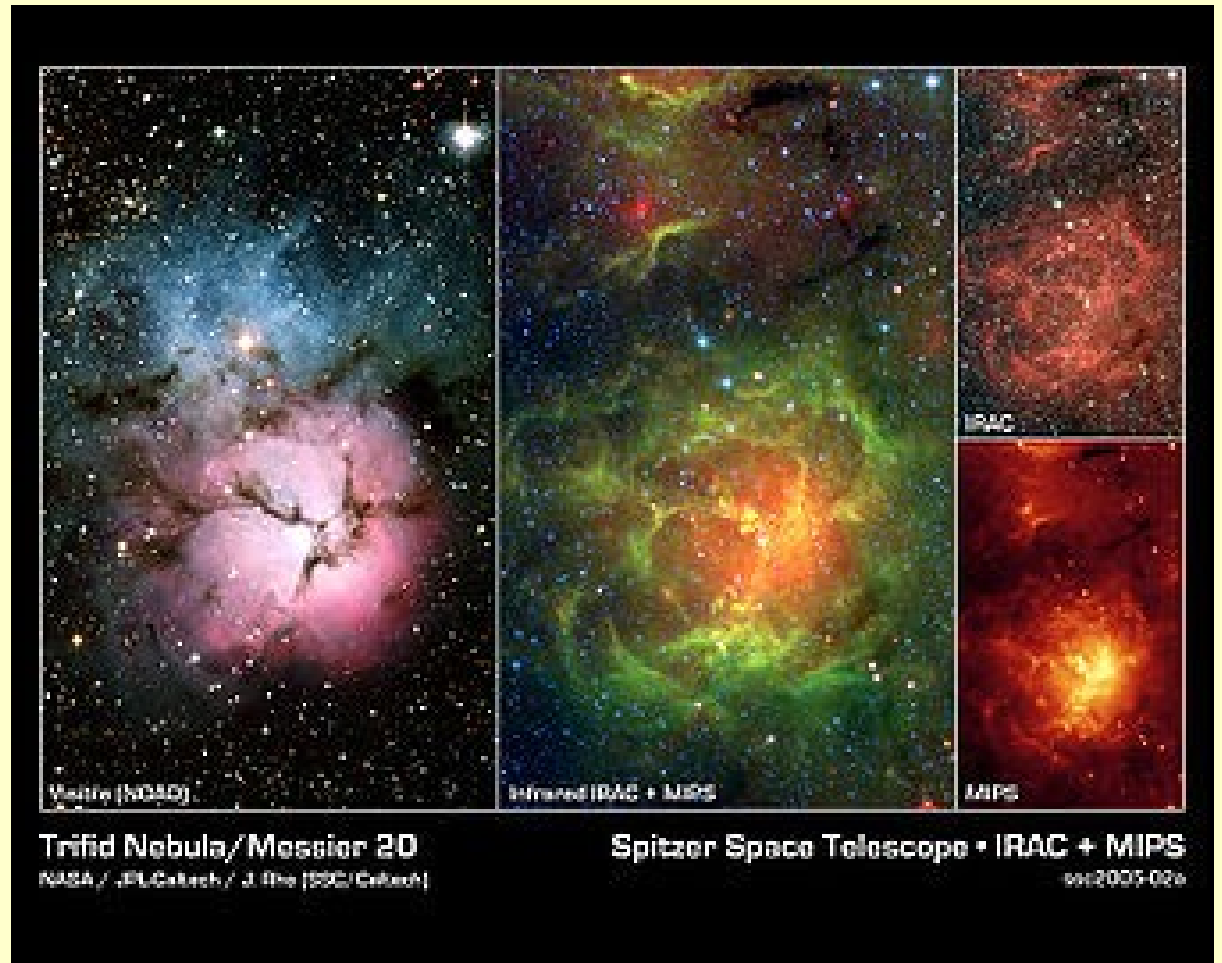
ISM

Trifid Nebula

Credit: NASA/HST/Spitzer

Open cluster

- +emission nebula (lower red part)
- +reflection nebula (upper blue part)
- + dark nebula (parts in the middle)

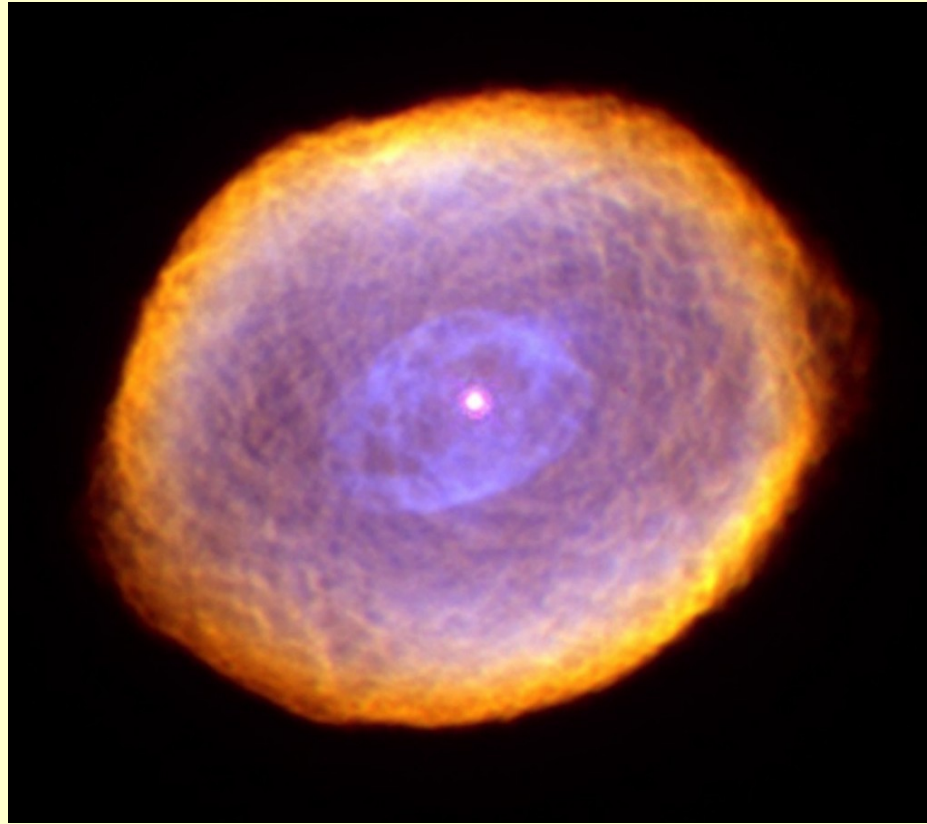


Hubble Space Telescope in 1997, using filters that isolate emission from **hydrogen atoms**, **ionized sulfur** atoms, and doubly ionized **oxygen** atom. The images were combined into a false-color composite picture to suggest how the nebula might look to the eye.

HII regions are visible through their emission line, in particular one of HII in the red region.

ISM: Planetary nebula PN

Emission nebula – expanding shell of ionized gas from an old red giant star



Red shows emission from ionized nitrogen (the coolest gas in the nebula, located furthest from the hot nucleus), green shows emission from hydrogen, and blue traces the emission from ionized oxygen (the hottest gas, closest to the central star).

Image Credit: NASA and The Hubble Heritage Team (STScI/AURA). Acknowledgement: R. Sahai (JPL) et al.

ISM: SNR

The Crab nebula,
Remnant of a SN

Credit to
Hubble Space
Telescope

