

Exploring the Universe Using Binoculars

Midcoast Senior College

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Unit 09

Planetary Nebulae



Planetary Nebulae

A planetary nebula is a glowing shell of gas that a dying star has blown off into space near the end of its life.

When a Sun-like star runs out of fuel, it becomes unstable and pushes its outer layers outward into space. The hot leftover core in the center shines on this gas, causing it to glow in colorful rings or bubbles.

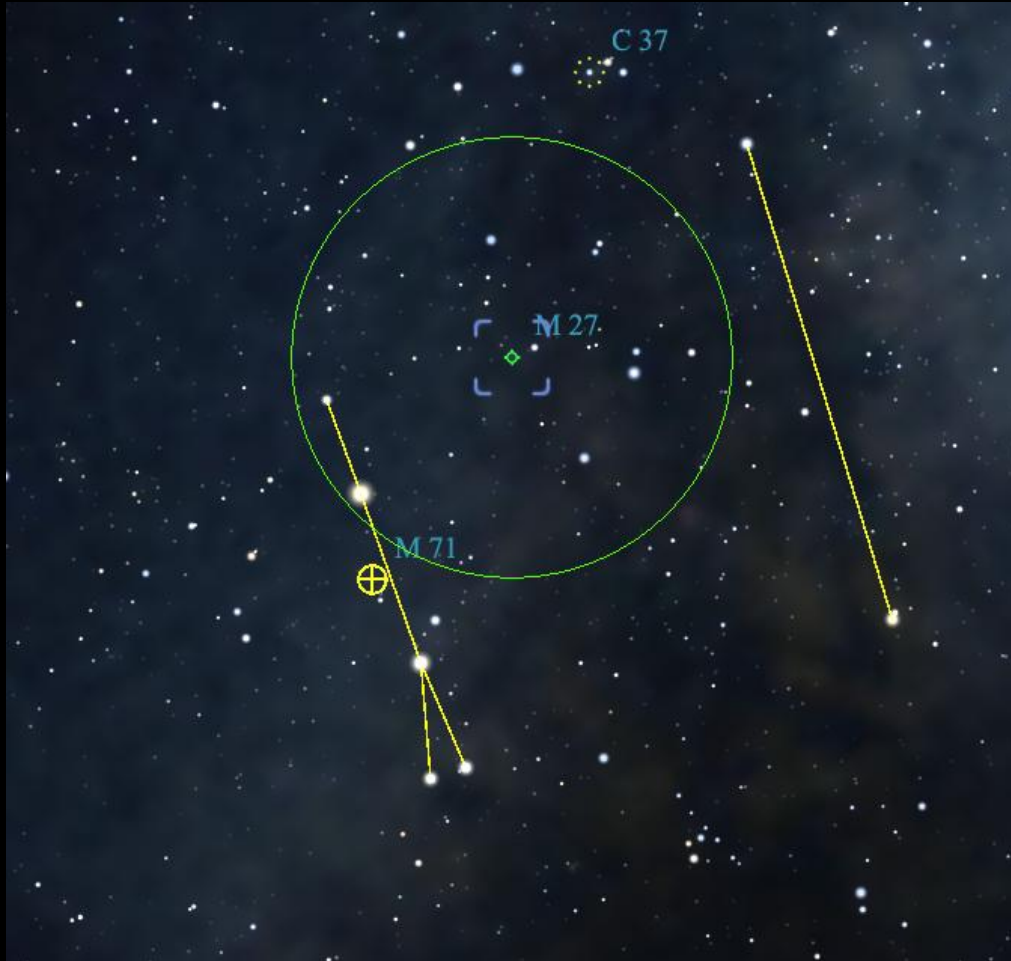
It has nothing to do with planets—early astronomers just thought the round shapes looked a bit like planets through small telescopes.

Binocular Planetary Nebulae					
Name	Const	R.A.	Dec.	Mag.	Comments
M27 - Dumbbell Nebula	Vul	19 59 35	+22 43 03	7.09	Relatively Easy
NGC 3242 - Ghost of Jupiter	Hyd	10 24 45	-18 38 35	7.30	
NGC 7293 - Helix Nebula	Aqr	22 29 38	-20 50 18	7.59	
NGC 7009 - Saturn Nebula	Aqr	21 04 10	-11 21 57	7.80	
M57 - Ring Nebula	Lyr	18 53 35	+33 01 45	8.80	
NGC 7662 - Blue Snowball	And	23 25 53	+42 32 02	8.30	
NGC 6826 - Blinking Planetary	Cyg	19 44 48	+50 31 33	8.89	
NGC 6543 - Cat's Eye Nebula	Dra	17 58 33	+66 38 04	8.10	
M76 - Little Dumbbell Nebula	Per	01 42 21	+51 33 59	10.10	
NGC 2392 - Eskimo Nebula	Gem	07 29 10	+20 54 34	9.19	
Challenging Planetaries					
IC 418 - Spirograph Nebula	Lep	05 27 28	-12 41 55	9.30	
NGC 40 - Bow-Tie Nebula	Cep	00 13 01	+72 31 14	10.60	
Abell 21 - Medusa Nebula	Gem	07 29 02	+13 14 27	10.19	
NGC 2452	Pup	07 47 26	-27 20 08	11.89	

M57 – Ring Nebula in Lyra



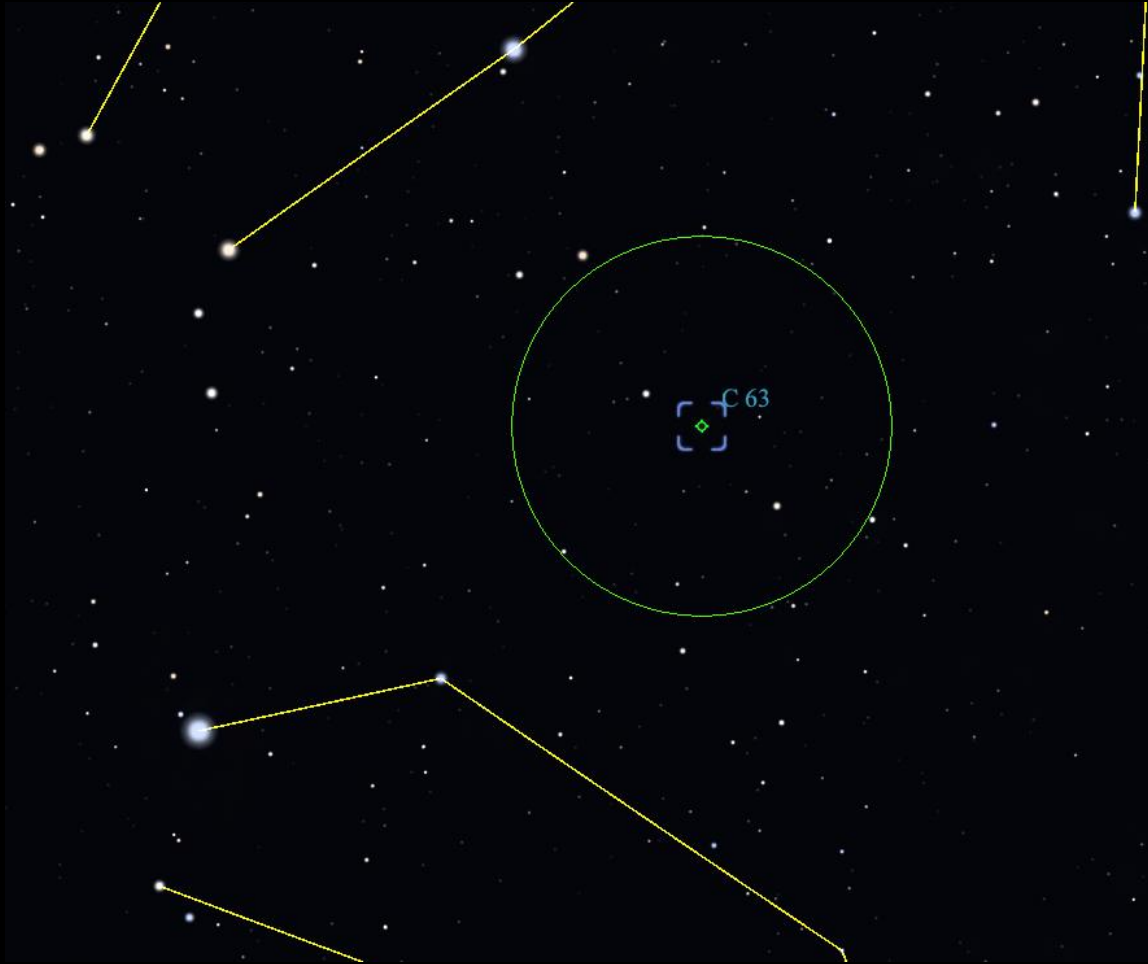
M27 – Dumbbell Nebula



10x50

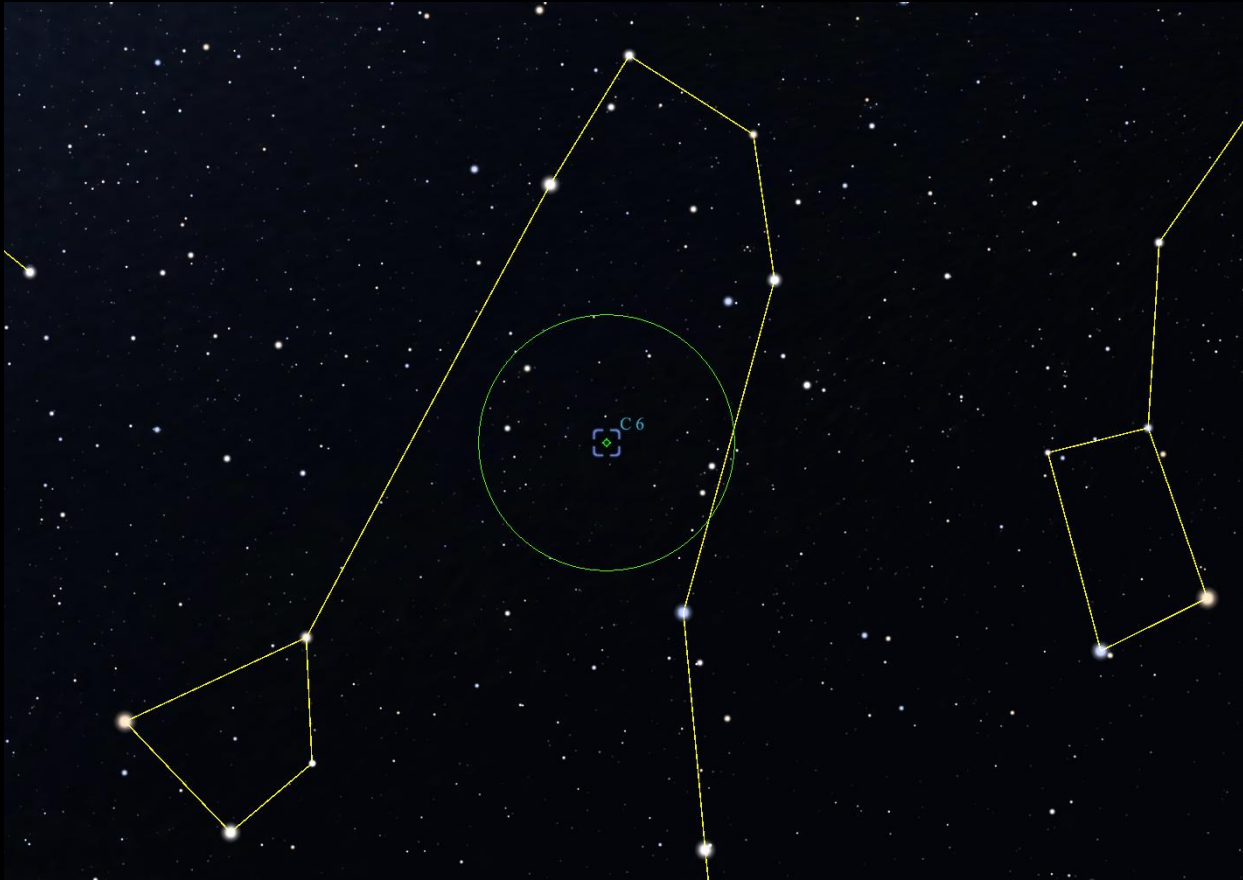
<https://binocularsky.com>

NGC 7293 – Helix Nebula



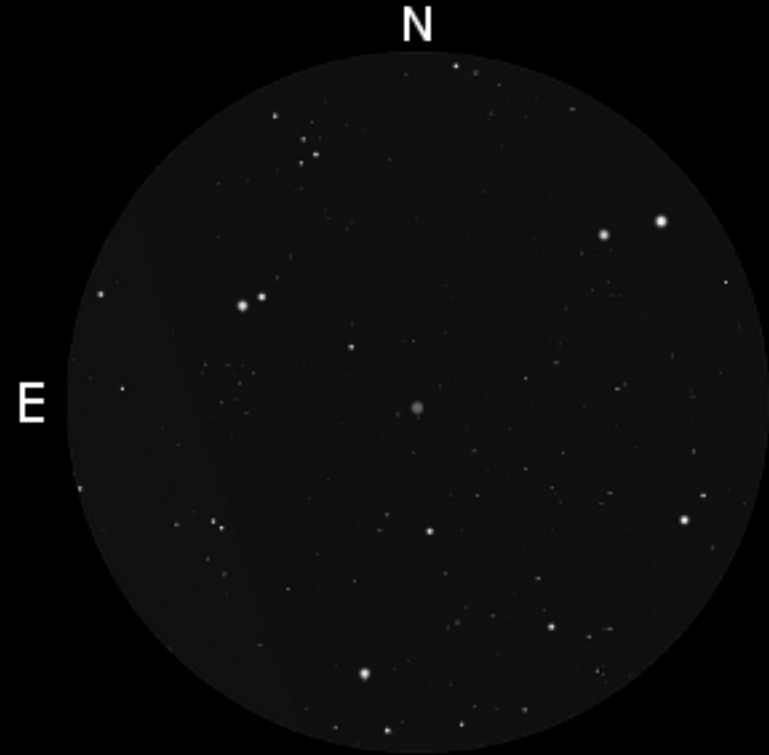
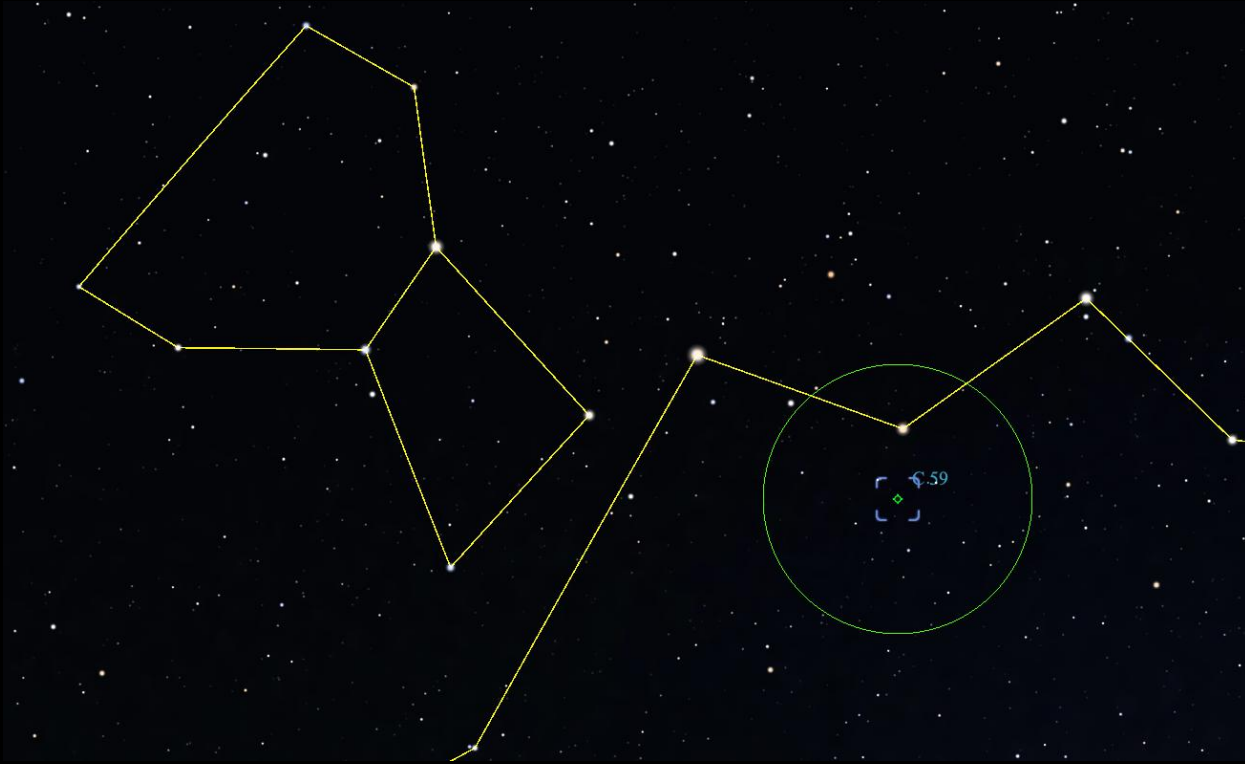
<https://binocularsky.com>

NGC 6543 – Cat's Eye Nebula



<https://binocularsky.com>

NGC 3242 – Ghost of Jupiter



37x100

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