

HOWL-EEN FUN

by Philip Sacco (M. O. #11) and Bill Warren (M. O. #4)

(Note: I had a howl of a good time reading this article. I think you will, too. -Ron Kramer, Editor)

Astronomers aren't afraid of the dark. But maybe we should be, because Halloween is coming -- a time for witches, ghosts, goblins, banshees and things that go bump in the night. If you like scary things, this Halloween trick-or-treat list will be right up your alley. So fix yourself a hot cup of witches' brew, put on something to keep you warm when your blood runs cold, and take a trip with us on the Dark Side for a Howl-een good time!

Warmup Exercises. Since we're going to share this Fright Night with unearthly creatures and things that shriek and moan when the sun goes down, let's start with a few naked-eye creepy constellations to get us in the mood of the evening.

Delphinus, the Dolphin*, lies high overhead by mid-evening. It's located just northeast of Aquila, the Eagle. (We know, dolphins aren't scary -- but Delphinus was once called **Job's Coffin due to its old-timey coffin shape. It needs to be laid to rest.) Finding the Coffin will be an "undertaking" that won't let you down, heeheehee!

*Another warmup constellation lies just south of Pegasus, the Flying Horse: **Cetus, the Sea Monster**. (Okay, Cetus is a whale -- but since whales are found in the ocean, a whale in the sky certainly qualifies as a monster!) On Halloween, this monster whale is a real "killer."

***Draco, the Dragon** flies high in the northern sky. You'll be "Puff-ed" up with pride when you find this magic dragon -- if, that is, it doesn't eat you first! *Haa Haah!*

*Finally, there is **Cerberus**, the three-headed "hound of Hades." In Greek mythology, Cerberus guarded the gates of the underworld to keep the dead from leaving. Johann Hevelius created this short-lived constellation, depicting it as three stars in the hand of *Hercules, the Strong Man*. (What should you do when you encounter this flesh-eating dog? Run like Hades!)

The Howl-een Hunt: Thirteen Un-Lucky Objects for an Eerie October Evening. If you began this trek around 9 p.m., you should now be approaching the "witching hour," so let's get to the good stuff. We'll start with two spooky stars.

1. Located in the handle of the Big Dipper, *Mizar* and *Alcor* are the sky's most famous double star. Their names are Arabic for **the Horse** and **the Rider**, but on Halloween they double as the **Headless Horseman** -- and he's searching for you! *Bwah-Haa-Haah!*

2. Turn your attention to the constellation *Perseus, the Hero*, and find the **Demon Star**, commonly known as *Algol*. This dreadful little demon is a short-term variable star that brightens and dims in a few days' time.

You'll need a telescope to find the rest of these menaces and monsters; after all, they would rather you didn't see them until it's too late for you to get away. They can be seen only in the dead of night.

3-4. It wouldn't be Halloween without ghosts. Here are two boo!-tiful ghostly planetary nebulae: **Ghost of the Moon Nebula** (NGC 6781) and **The Phantom Streak** (NGC 6741), both of them in Aquila. These specters will give you nightmares long after you've seen them.

5. Want more? Try **Mirach's Ghost** (NGC 404, a dwarf lenticular galaxy in Andromeda). This splendid spook haunts the mag. 2 star Beta Andromedae (Mirach); thus its name.

6. Next, find **Cat's Eye Nebula** (NGC 6543, a planetary nebula in Draco). It's a black cat, naturally; it lies under the first curl of the dragon's tail.

7-8. Who doesn't like the eerie planetary nebula **Owl Nebula** (M97 in Ursa Major), or the **Owl Cluster** (NGC 457 in Cassiopeia)? These owls fly high on Halloween; don't let them get their talons in you!

9. Watch out for **Skull Nebula** (NGC 246, a planetary nebula in Cetus). Could it belong to the Headless Horseman?

10. Or how about **Veil Nebula** (NGCs 6960, 6992-95, a supernova remnant in Cygnus)? This slippery shroud slid off Job's Coffin and floated northward.

11. Then there is **The Blinking Planetary** (NGC 6826 in Cygnus): now you see it, now you don't. This wraith-like planetary nebula blinks on when you use averted vision and off when you look straight at it. Don't look away too long, though: it may be creeping up on you, heeheehee!

12. Now that the evening is winding down, you'll want to see **Medusa Nebula** (Abell 21, a planetary nebula in Gemini). But if you look at her, you'll turn to stone!

13. Finally, keep a wary eye out for **Witch Head Nebula** (IC 2118, a reflection nebula in Orion). This wicked witch casts her spells and stirs her bubbling brew during the pre-dawn hours near Rigel.

And there you have it: a haunted Howl-eeen Hunt that will have you singing "*Fangs for the memories...*" We hope you survived it; if not -- well, you can't say you weren't warned!

BWAH-HAA-HAAH!

P. S.: Our tour of the terrifying has taken us to seventeen creepy critters and unsettling objects that can be seen on Halloween night – but there are others that cannot be seen. Three of them – **The Ghost Ring** (IC 5148) in Grus, and **Tarantula Nebula** and **The Ghost Head Nebula** (NGC 2080), both of them in Dorado – are buried too deep to be seen at mid-northern to northern latitudes.

Other *Grus*-some grislies can be seen at other times of the year: **The Sickle** in Leo; **Hamlet's Ghost** (NGC 3628) in Leo; **Hydra, the Sea Serpent**; **The Ghost of Jupiter** (NGC 3242) in Hydra; **Hagrid's Dragon** (M48) in Hydra; **Markarian's Chain** of galaxies in Virgo and Coma Berenices; **The Flying Witch Cluster** (Melotte 111) in Coma Berenices; **Spider Galaxy** (NGC 5829) in Bootes; **The Little Ghost Nebula** (NGC 6369) in Ophiuchus; **The Red Spider Nebula** (NGC 6537) in Sagittarius; and **Dragon Nebula** (a.k.a. M8 or Lagoon Nebula) in Sagittarius.

These deadly delights offer you enough thrills, chills, shocks and screams throughout the year to curdle your blood -- if our Howl-eeen Hunt hasn't already done that!

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