

One Good Target

With Some Other Sights Worth Seeing
While You're in the Neighborhood

July

Treasures Along the Tail of the Serpent
with a side trip to eastern Ophiuchus

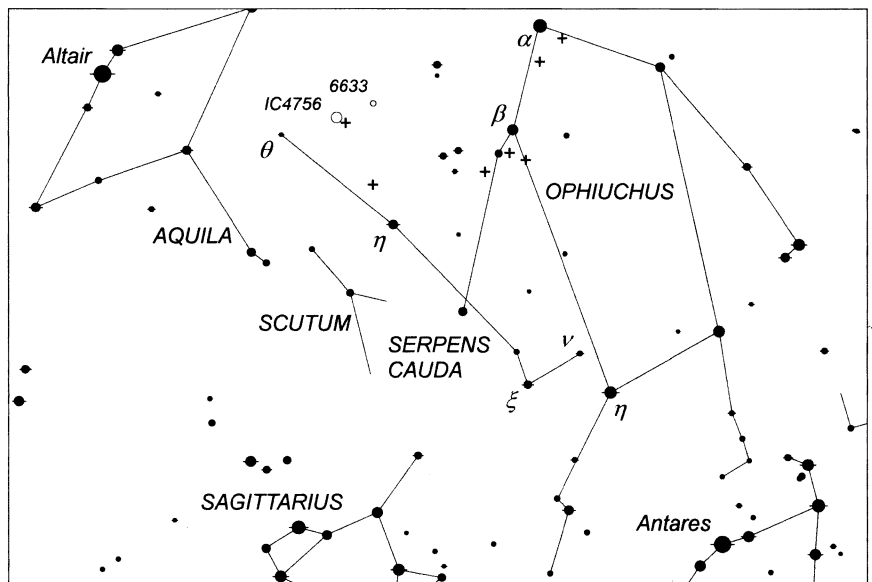
Maybe it's because it's surrounded by the royalty of summer observing, with Aquila, Ophiuchus and Sagittarius on its borders, and Scorpius just off to the south – but for whatever reason, the area known as Serpens Cauda (The Tail of the Serpent) is seldom visited by amateur observers. That's a shame, because there are some targets here that are well worth the effort to hunt down, and most of them are pretty easy to find.

Let's start with **Nu (ν) Serpentis**, at the south end of the Serpent's Tail asterism. It's an attractive pairing of a mag 4.3 yellow-white primary with a faint dusky rose secondary 46 arcseconds away, and should split nicely at 40x. The secondary looks brighter than its listed 9.4 magnitude. Still, there is a definite difference in brightness between the two stars: the primary seems to have been painted with gloss enamel, and the secondary with flat latex. Find the pair 3.8° NE of mag 2.4 Eta (η) Ophiuchi, the star marking the lower left corner of the torso of Ophiuchus.

**This month's target area,
showing stars to mag 4.6**

**Unlabeled targets
are shown by +**

**Finding charts follow
on page 3**



Moving north along the tail of The Snake, our next target is another double, **59 Serpentis**, located 3.4° NNE of mag 3.2 Eta Serpentis. This one's a closer pair, separated by only 4 arcseconds, so you'll need more power to pull them apart – try 150x. You'll be rewarded with a beautiful view of a yellowish mag 5.3 primary and its blue-

green mag 7.6 companion. Then move north again, to **Theta (θ) Serpentis**, at the tip of The Serpent's tail. This is an elegant double comprising a mag 4.6 primary 22 arcseconds away from a mag 4.9 secondary. The two stars appear evenly balanced, like a pair of gleaming earrings floating in the darkness of space. Most observers say they're pure white, but I see them as distinctly golden. They separate nicely anywhere from 30x to 50x.

If you pan one 5° field NW of Theta, as shown in the finding chart, you'll run into our next target, open cluster **IC 4756**. It's visible in binoculars or a finder as a ragged round haze, peppered with pinpoint stars and partially framed by a trapezoid of relatively bright stars. Covering an area 52 arcminutes wide, the cluster glows at integrated magnitude 5.4 and contains roughly 80 stars, the brightest of which reach mag 8. They're distributed loosely and may not look much like a gravitationally-related group – the four brighter stars forming the trapezoid can help identify it. A little farther west in the same 5° field is another open cluster, **NGC 6633**, at the SW corner of a mag 6 triangle. Like IC 4756, it's visible in finders and binoculars, but it's smaller, denser, and a little brighter, with 30 stars (mag 7.6 and fainter) spread across a 20 arcminute field, and an integrated magnitude of 4.6. The more compact and orderly NGC 6633 makes a nice contrasting binocular pair with the comparatively loose and haphazard arrangement of IC 4756. In small or medium scopes, both clusters are best viewed at low power: at 30x, IC 4756 will fill the field with graceful chains of stars, like scattered strands of pearls carelessly tossed across a velvety black background, while NGC 6633's brightest members form a short thick band curving up and away from a mag 5.7 star.

Before leaving the clusters, go back to IC 4756 and take a closer look at **FR Serpentis**, just off the SE corner of the trapezoid. Also known as **Struve (Σ) 2342**, it's a mag 6.5 yellow star with a dull yellowish mag 9.1 companion 31 arcseconds away. It splits easily around 40x. One of the trapezoid stars, a mag 6.7 orange giant 13 arcminutes to the east, helps to draw out the pair's colors.

When we visited NGC 6633, we crossed the border of Serpens Cauda and stepped into Ophiuchus (The Serpent Bearer). While we're in the neighborhood, let's go a little deeper into Ophiuchus, to examine a few of the double stars that grace the areas near his head and shoulder. We'll start at the head, marked by mag 2.1 Alpha [α] Ophiuchi, also called *Ras al hague* (an Arabic name meaning "the head of the snake charmer"). Our first quarry, **53 Ophiuchi**, is just 3° south of Alpha. It consists of a slightly yellowish mag 5.8 primary that is 12 times as bright as its mag 8.5 companion 41 arcseconds away. The secondary's color is ambiguous: some observers see blue, others see yellow, and still others see no specific color at all. Next, look just over 2° SW of Alpha for **Struve (Σ) 2166**, a pretty white + blue pair combining a mag 7.2 primary 27 arcseconds away from its mag 8.6 secondary. Both 53 Oph and Σ2166 split nicely at 35x.

Before calling it a night, point your finder just south of mag 2.8 Beta [β] Ophiuchi, where we'll find our final three targets. The first of them is **61 Ophiuchi**, a fairly well-matched silvery-white pair 2° south of Beta and just 50 arcminutes west of mag 3.8 Gamma [γ] Oph. The primary shines at mag 6.1 and sits 21 arcseconds away from the mag 6.5 secondary star. It splits cleanly at low power – 30x should be enough. A line from Beta through Gamma, extended one more step, will lead you to **S694**, from the double star catalog compiled by James South in 1826. It combines a golden orange mag 6.7 primary with an ambiguously-colored mag 7.2 companion separated by 82 arcseconds, making it a good challenge target for 7x or 10x binoculars, or very low power in a small scope. Finally, look towards the west side of the finder field 2.8° SW of Beta to locate **S,h 251**, from the double star catalog jointly compiled by South and John Herschel in 1824. It's a colorful orange and yellow pair, mags 6.3 and 7.4, separated by a whopping 111 arcseconds. An easy and attractive pair, it resolves in any scope and most binoculars, making it a fitting spot to wrap up our evening exploring the hidden gems of Serpens Cauda and eastern Ophiuchus.

Rick Gering / July 2026

Finder / binocular views: 5° fields – N at top – stars to mag 8 – selected magnitudes noted – decimals omitted

