

One Good Target

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

May

An Asterism in Draco (Kemble 2 "mini Cas")
with side trips to a bright carbon star, a far north double,
and an easy-to-find red dwarf

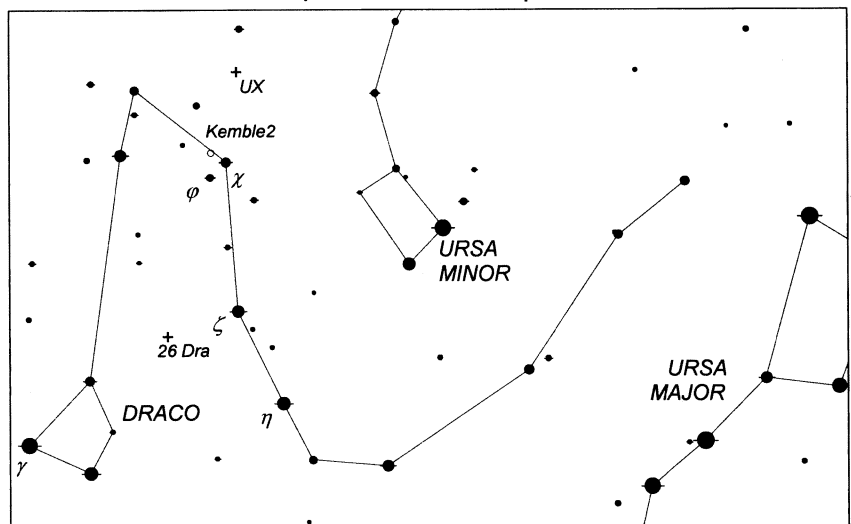
This month's quest brings us to the long, winding constellation **Draco (The Dragon)**. Its head, known as *The Lozenge* because of its shape, floats above the Keystone of Hercules while its sinuous body slithers past Cygnus and Cepheus before half-encircling the bowl of The Little Dipper, and ends in the space between the two dippers' bowls. Tonight's targets are found in the area between The Lozenge and The Little Dipper.

We'll start with a red dwarf star, **26C Draconis**. As its name implies, it's the third-brightest component of multiple star 26 Dra, whose primary and secondary stars are a yellow dwarf and an orange dwarf separated by only a half-arcsecond. Their combined magnitude of 5.3 serves as a marker for the faint mag 10.2 red dwarf component, which is located a full 10 arcminutes (*not arcseconds*) away from the primary pair. To find it, start at mag 3.2 Zeta (ζ) Dra, shown in the uppermost 5° chart on the next page. Shift your scope to find the triangle SW of Zeta as shown on the chart, then shift one field SE to bring the triangle containing 26 Dra into view. Center 26 Dra in a 1° eyepiece field and use the close-up charts to identify the red dwarf.

This month's targets:
North at top,
stars to mag 5

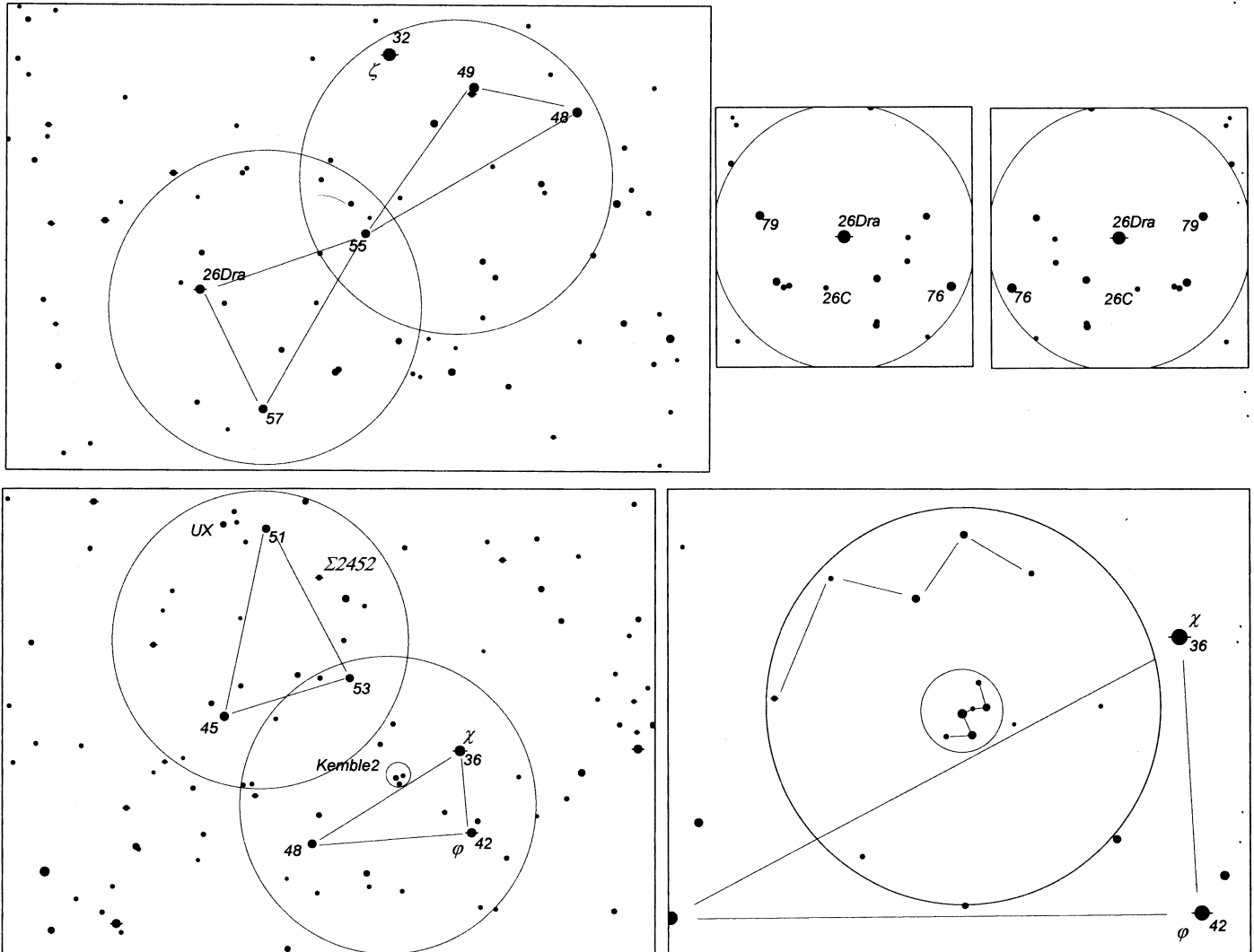
Zeta (ζ) Dra is midway between
Gamma (γ) Dra and
The Little Dipper's bowl

Chi (χ) Dra is midway between
Gamma Dra and Polaris



Now slew north to the next bright star in Draco's pattern, mag 3.6 Chi (χ) Dra. Use the triangle shown in the lower 5° chart to locate our next target, an asterism known as **Kemble 2** after Friar Lucien Kemble (1922-1999), a Franciscan monk and amateur astronomer from Alberta who also coined the famous asterism known as Kemble's Cascade in Camelopardalis. Kemble 2 is a surprisingly accurate rendition of the pattern stars of

Cassiopeia in miniature, which led binocular guru Phil Harrington to dub it *The Little Queen*. It's 20 arcminutes across and consists of six stars, mag 6.8 to 8.8. Just north of it, as shown in the 2° chart below, is a larger and less elegant but still unmistakable echo of Cassiopeia, made from five stars (mag 7.4 to 8.4) and oriented like a magnified mirror-image of Kemble 2. I think of it as *The Little Queen's Big Reflection*.



Top – 26 Dra: 5° fields (stars to mag 8); 1° fields (stars to mag 11): erect image (L), mirror reversed (R)
Bottom – Kemble 2, Σ2452, UX Dra: 5° fields (stars to mag 8); Kemble 2: 2° field (stars to mag 9)
All – North at top; selected magnitudes shown; decimals omitted

For our final pair of targets, slew your finder one field NNE of Kemble 2 and use the triangle of mag 5 stars shown on the 5° chart to locate **Struve (Σ) 2452**, a pretty pair with a yellowish mag 6.7 primary and a bluish mag 7.4 companion 6 arcseconds away. Try 125-150x to split them. Then pan over to **UX Dra**, in the same finder field. It's a fairly bright carbon star, ranging from mag 5.9 to 7.1 over a 175 day period. Like all carbon stars, it's doubly red: once from being a cool red giant that has used up most or all of its hydrogen and is burning less-potent helium as fuel; and second, because one of the products of helium fusion is carbon, which precipitates out in the star's outer atmosphere as tiny particles of soot, scattering the star's light at the blue end of the spectrum while allowing the red light to pass through. It's an eye-catching attribute, and a fitting finale to our evening exploring some of The Dragon's many treasures.