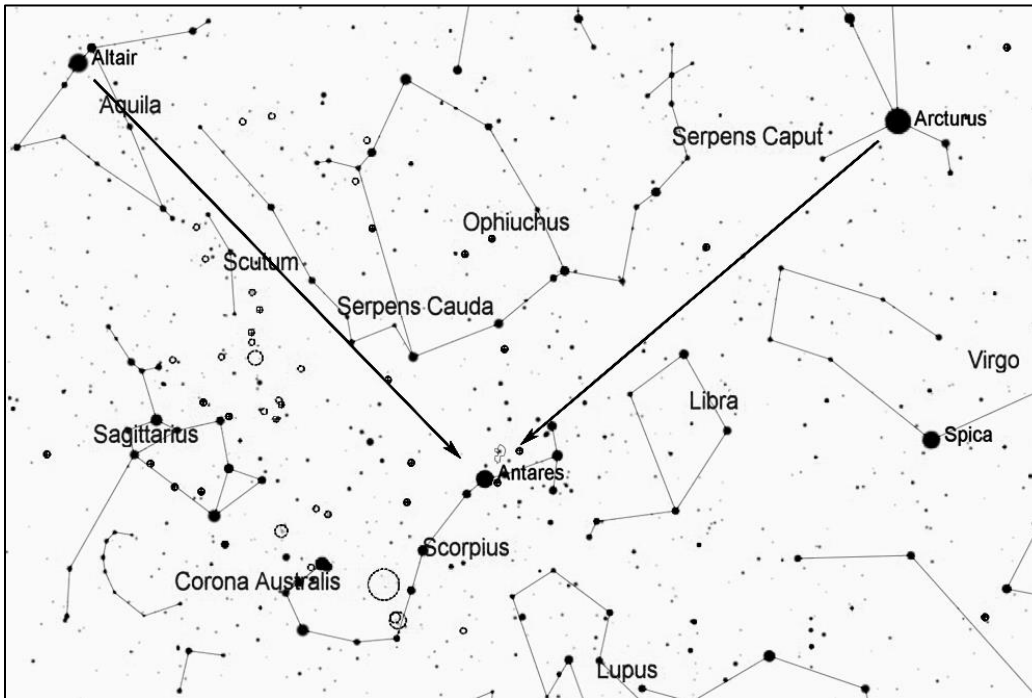


## Graffias ( $\beta$ Scorpii), Double Star

Graffias (beta Scorpii), also known as Acrab, is easy to see with the naked eye at magnitude 2.5. Though a telescope, it is an attractive double star. Its dimmer companion is magnitude 4.9, 14 arcseconds away. Both components are hot blue-white stars much larger and more luminous than our Sun. Spectral analyses show that there are a total of 6 stars in this star system. They are about 400 light years away.



Start by finding first magnitude Antares, the brightest and reddest star low in the southern sky on summer evenings. To get oriented, note that Antares is about 60 degrees southwest of Altair (part of the Summer Triangle) and a similar distance southeast of Arcturus (part of the Spring Triangle). Antares represents the eye of Scorpius, and on a clear night you should be able to see the curving shape of the scorpion if you have a good view of the southern horizon.

Once you locate Antares, look to its west for the vertical line of three bright stars that represent the claws of the scorpion.  $\beta$  (beta) Scorpii is the uppermost of these three stars. Just about any telescope with a medium-power eyepiece will show a pair of stars of uneven brightness.

