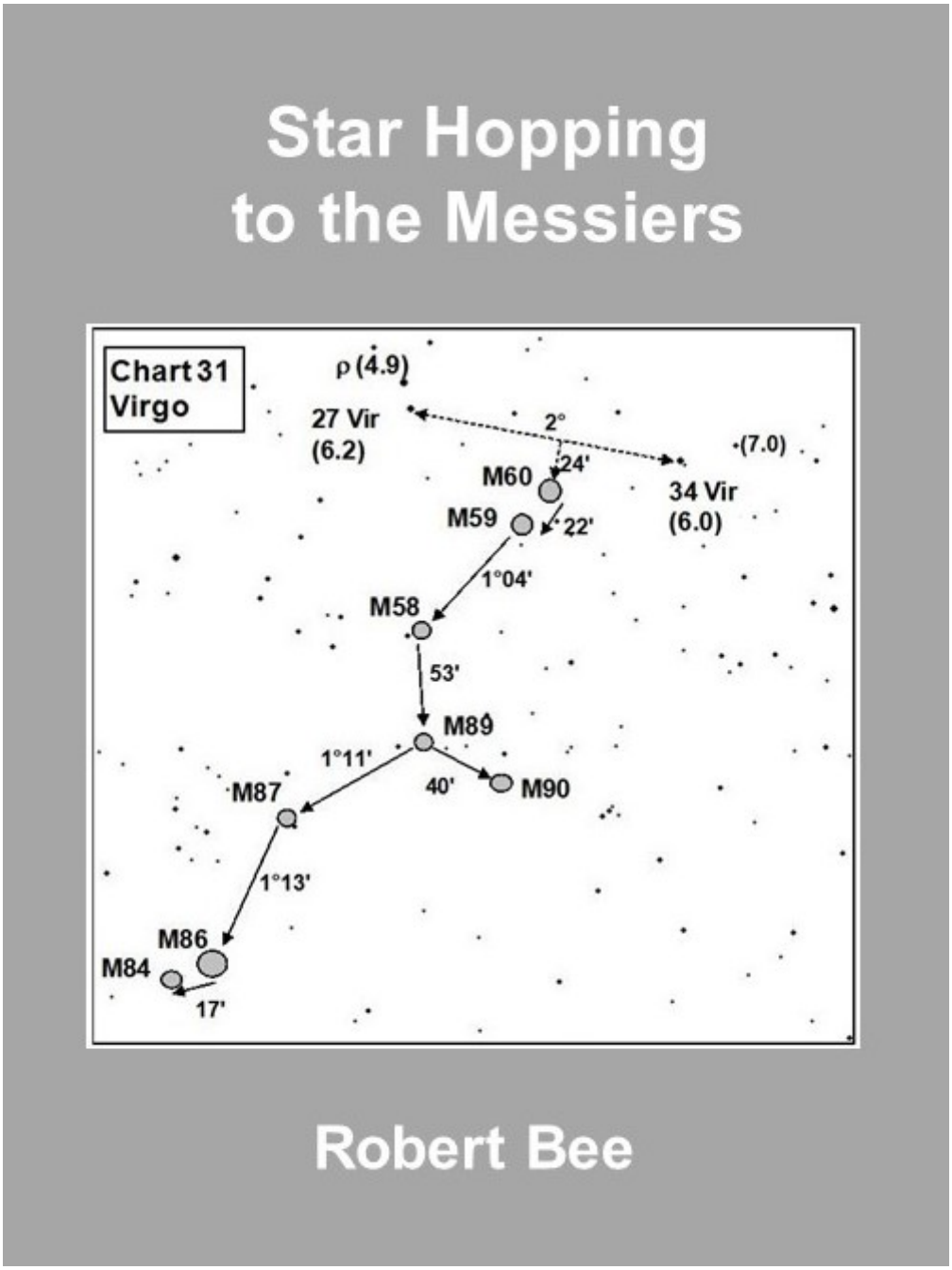
Star Hopping To The Messiers

A Book By Robert Bee



This book is a user-friendly guide to locating all the Messier Catalogue objects using the ‘star hopping’ method. It contains individual step by step descriptions for the Messiers in each constellation.

To some amateurs, the Messier list is old hat, passé, been there – done that. To others it is a new adventure. This book is aimed at the latter, and possibly some ‘old hands’ who had some trouble finding that odd elusive M object. It will provide simple directions,

with supporting charts, of how to star hop to each Messier object, get it in your finder scope or at least aimed at it and then find it in your scope's eyepiece. At the risk of telling old hands how to 'suck eggs', I will be going back to the most basic directions and moving on from there.

The reality of moving a highly magnifying telescope through the starry sky, especially a manually controlled Dob or equatorially mounted telescope, is that it's not always easy to keep track of where you are in the sky. You can see where you want to end up but you are at the mercy of your finder scope (which with less light gathering power and lower magnification won't always reveal the target object) and your ability to move the telescope in a straight line in the direction you want to go. That's where star hopping comes in. You 'hop' in short steps to intermediate targets, all within reach of your finder scope field of view, until you reach your main target. It is those sets of hops that this book sets out to provide for each individual Messier object. Naturally, many of the Messiers don't need that much detail but it's in here, all the same.

This 98 A4 page book has detailed charts for each set of hops, plus detailed descriptions of those hops. The book is coil bound for easy opening and is printed on 100g satin paper.

Purchasing

Copies of the book may be purchased at any MAS meeting for AU$22.00. $2 of this goes to the Society.

Alternatively, copies may be ordered by email at robertbee46@gmail.com for mailing out by the author. This will incur an additional $5.00 P&H cost.

About The Author

Robert Bee lives at Mount Annan on the south-west outskirts of Sydney, NSW.

His passion for astronomy began in his teens and has deepened over the ensuing years. With degrees in Electrical Engineering and Science, he enjoys both observing the starry

sky and understanding the physical laws behind what he sees.

Robert is a foundation member of the Macarthur Astronomical Society (MAS) and edited and contributed to the Society's monthly journal "Prime Focus" since it commenced in 1996 up to 2006. He had carried several positions within the Society during that time.

He shared his passion for astronomy with the people of the Macarthur Region through a fortnightly column called "Heavens Above!" in the Macarthur Chronicle newspaper. This column commenced in 1998 and ran until 2011.The column was aimed at those with no background in science or astronomy, just a sense of curiosity and a willingness to step outside the back door and have a look at the sky.

Before buying his first telescope in 2000, Robert observed the night sky with his 12x50 binoculars. This experience led him to research and write his 160 page book "Heavens Above – A Binocular Guide to the Southern Skies." The book, which explained in great detail all the southern sky celestial objects that could be enjoyed just with binoculars sold 1500 copies across Australia. It is currently out of print.

Robert also enjoys writing fiction, with a preference for science fiction and fantasy. He has had a number of short stories published in periodical magazines and successes in short story literary competitions. He has written one Young Adult novel "Kelvin Kepler and the Second Third Planet" (as yet unpublished) and one Junior children's science fiction novel "Moon Charlie Shoots For Goal" which is published and for sale. Both have an astronomy theme of course.

Robert enjoys talking to the public about astronomy and guiding them around the sky, both at public nights run by MAS and also at clubs, societies and schools.

Sample Extract From Star Hopping Book

As an example of the methodology of the star hopping, see the following extract for the Auriga Messiers:

#18 – Auriga: M36, M37 and M38

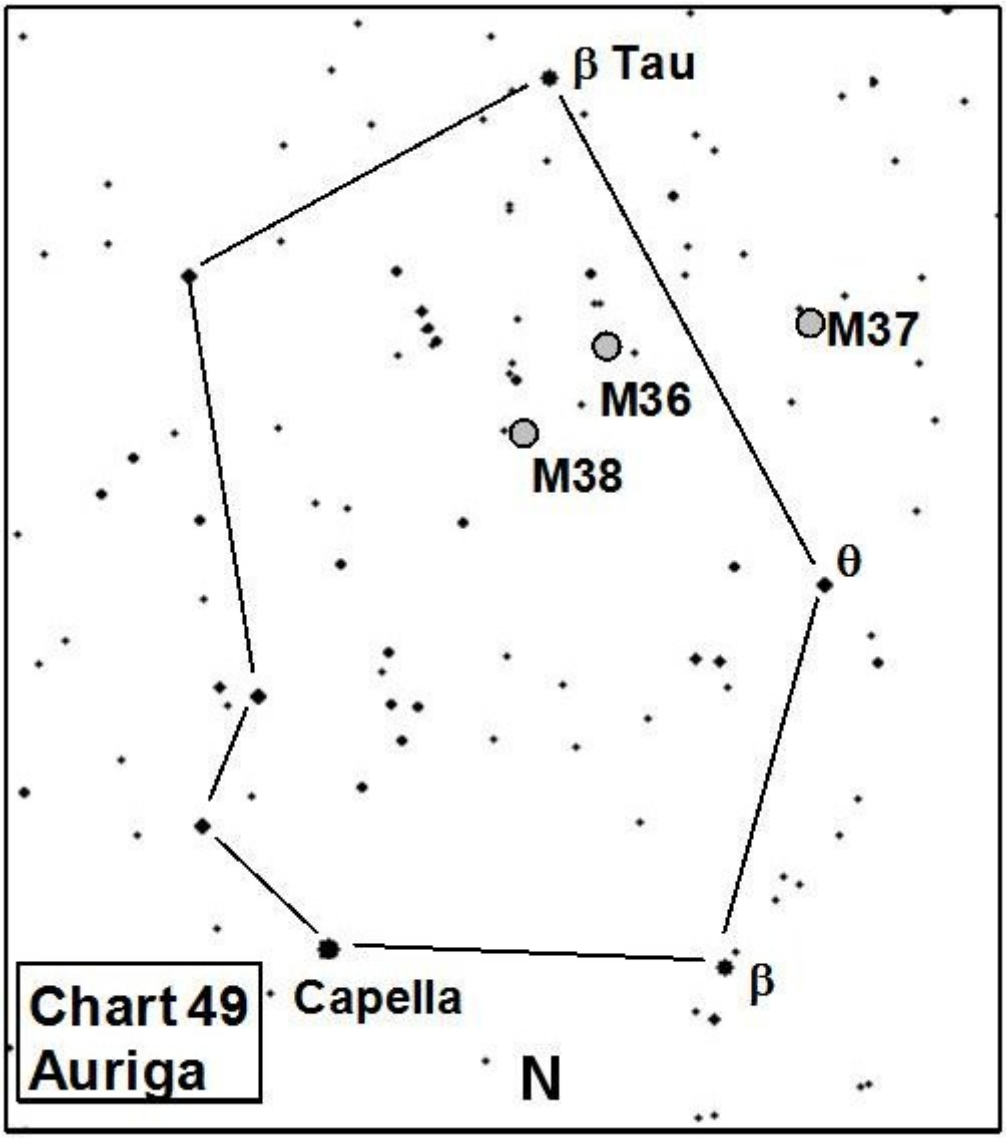
MESSIER	M36	M37	M38
Type	OC	OC	OC
Size (')	12	24	21

Mag.	**6**	**5.6**	**6.4**

This constellation, with its bright star Capella, is very close to the northern horizon from Sydney at 9pm in January (EST).

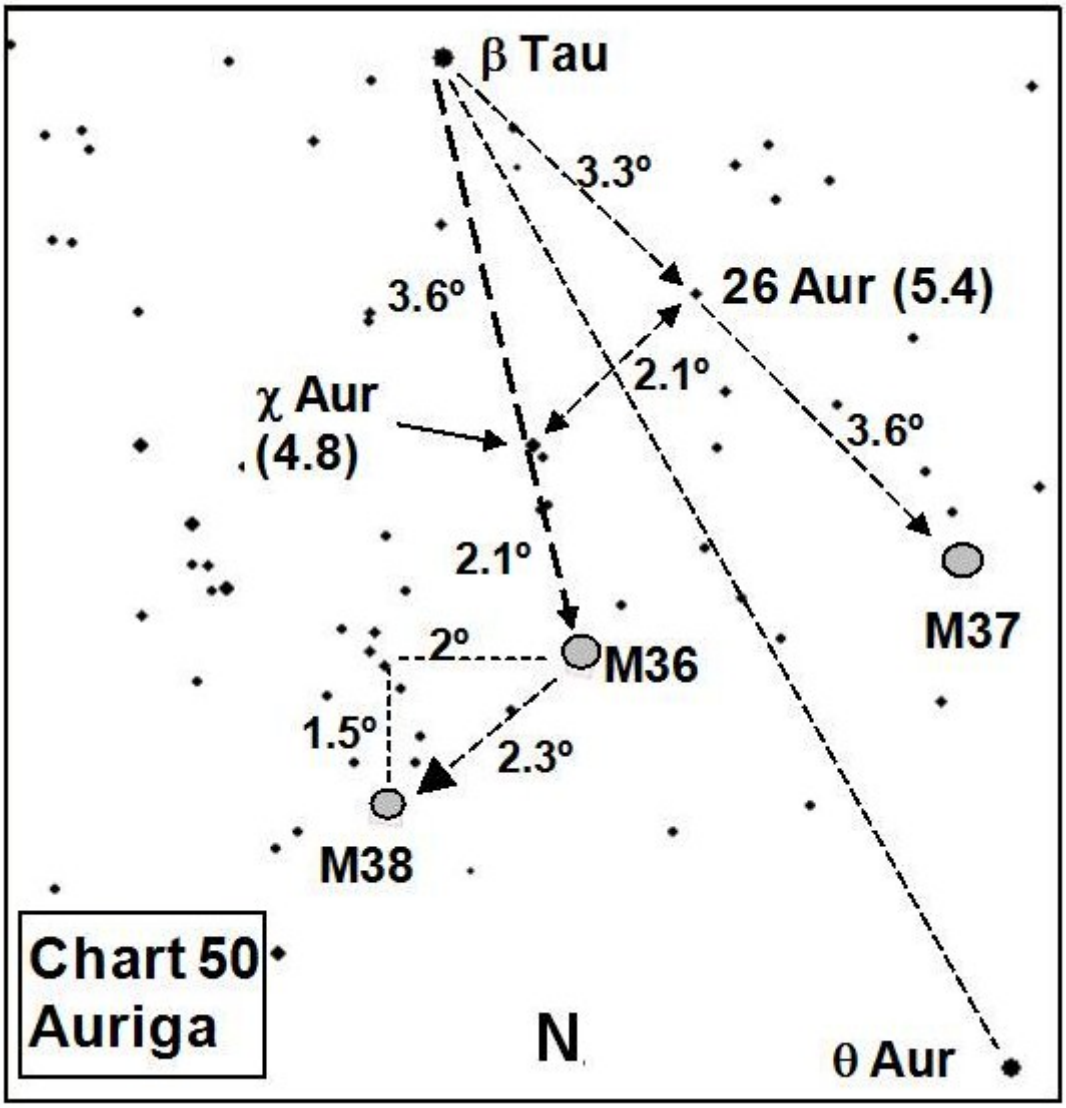
The three Ms are fairly close together as shown on Chart 49 below. The first step to finding them is to identify the stars θ Aur and β Tauri (Alnath, the northern horn tip).

The Messiers fall on either side of their connecting line, roughly half way. They are all scattered open clusters, visible (to varying degrees) in binoculars and small telescopes.



Now the line connecting β Tau and θ Aur is fairly devoid of bright guide stars. There's nothing brighter than mag 7. It's easier to use other guide stars to the east and west of the line to find M37 and M36 respectively.

Refer to Chart 50 below.



Start with finding M37. Put your f/s centre on β Tau and move down towards θ Aur but sightly east (i.e. right) of the line to find a mag 5.4 star 26 Aur. (26 Aur is the brightest star in that part of the FoV, so it's fairly easy to identify.) It's only 3.3º from β so it and 26 are in the same f/s FoV. Once you've got 26 Aur, continue in that line for another 3.6º and you should land right on M37. As a further guide, when you reach a 1° long triangle of mag. 6 and 7 stars, M37 will be about 30' immediately below it.

Now we'll go left (west) of the β – θ line. Starting at β Tau again, move downwards 3.6º till you find the mag 4.8 star χ Aur. Again, it is the brightest star in that part of the sky. In fact, β Tau, 26 Aur and χ Aur should all be visible in the same f/s FoV as a triangle, with 26 and χ only 2.1º apart. χ is the lower one. Keep moving down along the line from β to χ for another 2.1º to arrive on M36.

To find M38, rotate the line from χ to M36 by 120º about M36 (see the chart) and move 2.3º down and westwards along it. You should land on M38. Another trick is to move west approx 2° from M36 to a tight group of mag 5 and 6 stars, then drop down at right angles by approx 1.5° to M38. Both will work.