Mallacoota U3A and the Gippsland Stargazing Project

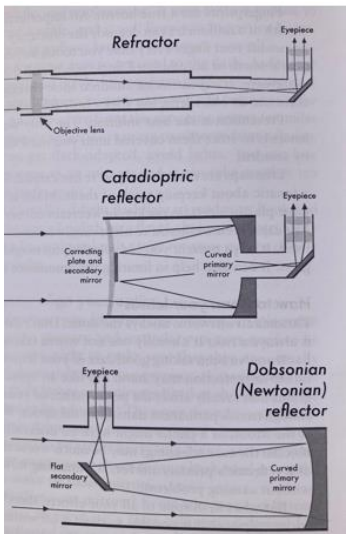
George and Fiona Raitt

The session began by introducing the Gippsland Stargazing Project. George and Fiona were introduced to this project by Mark Tregellas who was attempting to get the area recognised as a Dark Sky Area. The current project is an initiative of Destination Gippsland (DG) aimed to encourage astrotourism to the Gippsland area. The project is also active at Loch Sport, with some other areas showing interest.

U3A Mallacoota has kept in touch with Destination Gippsland about raising community interest in astronomy while accumulating several telescopes for use by members and public stargazing events The DG project has also included a loan of equipment to U3A Mallacoota including 2 telescopes – both in the room for the presentation – some binoculars and torches (with red filters to assist in maintaining good night vision and avoiding the 20 minute reset needed to recover from exposure to white light).

In Mallacoota a physical presence of the DG Project is a signboard at Betka Beach, introducing the Stargazing Project and offering some tips for people wishing to learn about the stars. This includes a QR code linking to a tourism website. Some sample screens from that website were shown including images of the aurora Australia and the Milky Way. (Although not part of the DG Gallery U3A Caroline Jones and some other members of U3A have also included pictures of these phenomena and other astronomical events, such as comets, on the U3A website and Facebook pages.)

Indigenous star knowledge is a key part of DG's project: the website includes a video retelling of Gunaikurnai creation stories. George and Fiona note that they were not qualified to discuss this topic but for those interested there are published works by a number of astronomers who have studied indigenous star knowledge[1](including the connection between seasonal constellations and movements of whales along our coast) and the Black Duck songline[2] starting in Mallacoota.



The presentation then moved on to the equipment available to U3A Mallacoota, focusing (sic) on the devices provided by DG. The equipment is geared towards visual astronomy with some ability to produce photographs to share and take away. The compact Dwarf 2 telescope takes images of deep sky objects. Also adapters allow amateur 'smartphone' photography of the night sky through a telescope lens. This equipment is not comparable to gear used by skilled astrophotographers, but enables visitors to take away a souvenir of the observing session.

From DG **U**3A Mallacoota has an 8 inch GOTO (ie driven by computers which follow an object) Catadioptric telescope, called a Schmidt Cassegrain telescope. The design is comparatively easily portable**.**

[1] Duane Hamacher, *How Indigenous Elders Read the Stars* (2022) (Torres Strait peoples)

[2] Robert Fuller, 'Reawakening the Black Duck Songline' (2021) (Yuin/South Coast peoples)

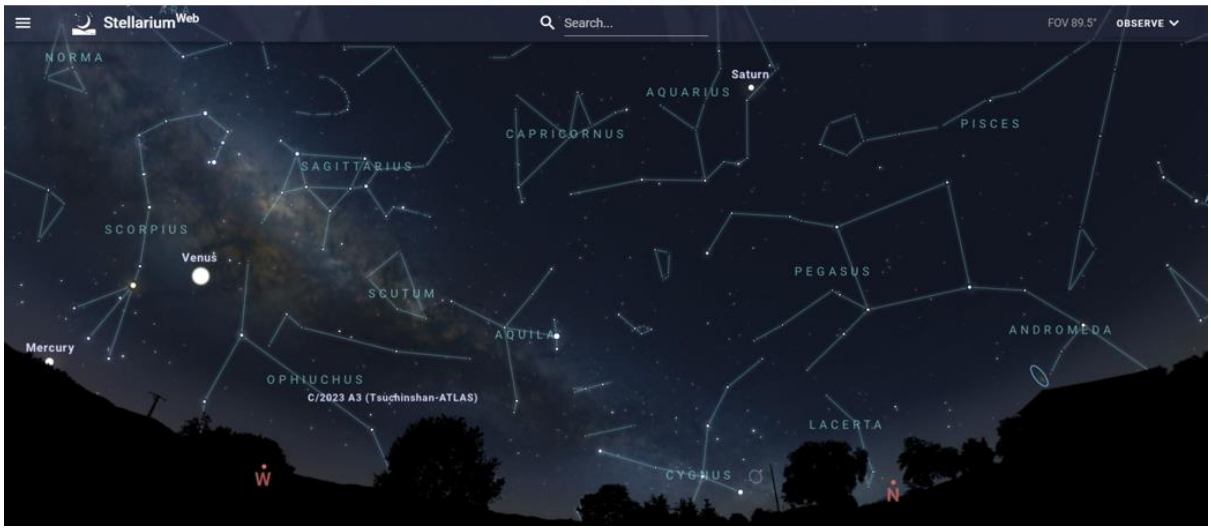
U3A Mallacoota also has 1 collapsible 12 inch diameter GOTO Dobsonian (funded by the East Gippsland Foundation); and 2 manual Dobsonians one donated by Wonthaggi U3A; and a 4-inch Dobsonian donated by the Mallacoota P-12 college. The 12 inch telescopes require a bit of handling to move and setup, but they have been used successfully at different places around Mallacoota.

Individual members of U3A Mallacoota also own their own Dobsonians (of various sizes) which they have brought along.to events.

To allow use of smartphones it is necessary to have an adapter which tits over the eyepiece of the telescope and holds the smartphone firmly in position. The group has several types of adapter which can fit various models of smartphone.

A key aspect of astronomy is the ecliptic, which is the plane of the solar system where all the planets are found.. Its position varies through the year as the earth orbits the sun, but you can find it by observing the path of the sun and moon across the sky. The constellations of the zodiac form the background of the ecliptic, the planets appear to move through these constellations. For instance, you may hear “Jupiter is in the constellation Taurus this month”. The ecliptic and the South Celestial Pole are key reference points for locating other objects in the night sky. These references can be used with the free Stellarium app (suitable for most smartphones) to locate constellations. An example

1 November, about 9pm



George and Fiona’s aim is to share with the community as much of the equipment as possible, through a pool of experienced users. This follows the U3A movement being based around shared learning. George and Fiona are amateurs, inspired by attending various star gazing events (especially in Coober Pedy and Broome) and have joined the Astronomical Society of Victoria to learn more from other enthusiasts. They plan to hold more public events to show off the new equipment and would also like to train interested people on the setup and use of the equipment. Contact them through info@u3amallacoota.org.au to arrange a viewing night near you.