

GALAXY GAZING

BY KARLIE NOON

WARAMBUL, THE MILKY WAY, IS A FLOWING RIVER TO THE GAMILARAAY AND EUAHLAYI NATIONS

THE DARK PATCHES ARE WATER, THE STARS ARE SMALL FIRES AND CAMPS

ON A DARK, MOONLESS NIGHT - BEHIND ALL THE LIGHT POLLUTION, CLOUDS, AND STREAKING STARLINK SATELLITES - WARAMBUL GLOWS FOR ALL TO SEE.

Warambul, or the Milky Way galaxy, is known as a flowing river to the Gamilaraay and Euahlayi Aboriginal nations of north-west New South Wales. The dark patches of Warambul are the flowing water, while the surrounding stars form small fires and camps.

WHAT IS ON THE LAND IS REFLECTED IN THE SKY

Different Aboriginal and Torres Strait Islander people see many different things in the sky. But one commonly held belief is that what is on the land is reflected in the sky, and vice versa.

For us Gamilaraay mob, Warambul helps us navigate time, space and seasons. It's like a library of all things, connecting sky to Earth. Warambul's position in the sky can tell us when to conduct ceremonies, when to harvest a particular resource, or when not to.

Early in the year, around April to May, we see the beautiful dark constellation, Gawarrgay, the Celestial Emu, emerge from the dark, dusty lanes of Warambul. Seeing Gawarrgay signals the collection of dhinawan (emu) eggs here on Earth.

Some people also see the creator being, the Rainbow Serpent, in the same dark patches of Warambul. The Rainbow Serpent is believed to be the architect of exceptional features in the landscape, both on the land and in the sky.

GAWARRGAY, THE CELESTIAL EMU



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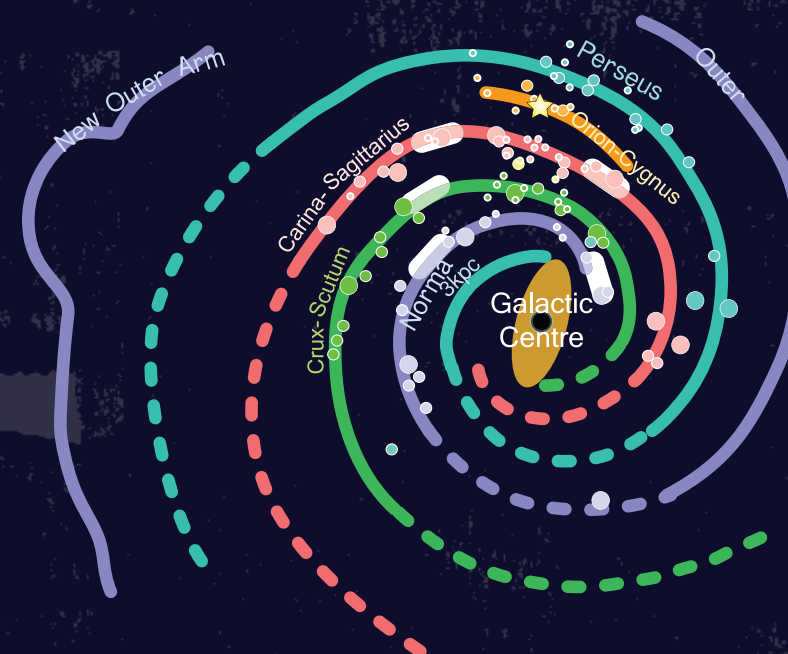
OUR PLACE IN SPACE

Just like First Nations people have many different ways of viewing the sky, so do astronomers. Viewing Warambul from the inside looking up, optical and radio telescopes have shown us a great deal about our neighborhood.

Our home planet is situated 27 000 light years away from our galaxy's centre, situated on a concentration of gas and stars called the Orion spiral arm. This stunning, thin disk reveals itself in our night skies every night, oscillating between the inner and outer reaches of our galaxy as the year progresses.

If we could have a bird's eye view, we would see the true extent of our 100 000-light-year-wide spiral pancake, with its major and minor arms spiraling into the black hole at the centre of it all.

A MAP OF THE ARMS OF THE MILKY WAY



THE YELLOW STAR SHAPE REPRESENTS THE SUN

WARAMBUL'S GALACTIC SNACKS

If we could see an even bigger view of our galaxy, we would see the enormous halo enveloping our galaxy. The halo extends millions of light years beyond the disk itself, and consists of cold gas and old stars that were flung out of the spiraling disk eons ago.

With this view, we can see some of the processes of our ancient galaxy – its past, its evolution, and a hint of its future. What our galaxy eats for food tells us what it will look like in the future. Will the galaxy still be forming stars in millions of years? Will it still be spiraling?

Analysing the data, astronomers have found that the Milky Way has a healthy diet of dwarf and irregular galaxies, tendrils of flowing gas, and tiny clumps of dense clouds. Warambul pulls all of these tasty galactic snacks from the halo onto its disk over hundreds of millions of years, replenishing its gas levels. Eventually, this healthy reservoir of gas on the galactic disk produces stars, just like our Sun. As above, so below – even the galaxy needs to eat!

THE MILKY WAY IS SURROUNDED BY AN ENORMOUS HALO

