

Heritage Matters

My TAG 206 column outlined the criteria for the first 100 sites of global geoheritage significance published by the International Union of Geological Sciences (IUCN 2022). It noted the listing of the Uluru Inselberg as one of the globally significant sites. Further to this, the outcrop of the Ediacaran fossil site in South Australia was also recognised and listed.

The Ediacara Hills is an iconic and internationally significant fossil locality preserving early multicellular life, and is the namesake of the Ediacaran period. The area contains a Global Boundary Stratotype Section and Point (GSSP). The GSSP is defined by the IUGS International Commission on Stratigraphy (ICS) as an internationally agreed upon reference point on a stratigraphic section that defines the lower boundary of a stage on the geologic time scale. The boundary is marked by a 'Golden Spike'.

The GSSP in the Flinders Ranges, located in Enorama Creek within the Flinders Ranges National Park, was ratified by the ICS in 2004. It pinpoints the lower boundary of the then newly recognised Ediacaran Period. The base of the Ediacaran Period is defined by a Golden Spike at the base of the Nuccaleena Formation cap carbonate, which is composed of laminated to well-bedded dolomicrite (Dalgarno & Johnson 1964), directly above glacial diamictites and associated facies.

The new Ediacaran Period encompasses a distinctive interval of Earth history that is bounded both above and below by equally distinctive intervals. The history of this site, fossil studies, and the GSSP selection process for the site are outlined in more detail by Preiss (2005) and Knoll *et al.* (2006). Precambrian fossils in the region include the iconic *Dickinsonia*, *Spriggina* and *Tribrachidium*.

MARGARET BROCX

National Convenor

Standing Committee for Geological Heritage

REFERENCES

Dalgarno CR & Johnson JE 1964. Precambrian rock groups in the Adelaide Geosyncline; a new subdivision – Wilpena Group. *Geological Survey of South Australia Quarterly Geological Notes* 9, 12–19.

IUCN 2022. The First 100 IUGS Geological Heritage Sites. tinyurl.com/IUCN-2022

Knoll AH, Walter MR, Narbonne GM & Christie-Blick N 2006. The Ediacaran Period: a new addition to the geologic time scale. *Lethaia* 39, 13–30.

Preiss W 2005. Global stratotype for the Ediacaran System and Period – the Golden Spike has been placed in South Australia. *MESA Journal* 37, 20–25.



Location of the 'Golden Spike' in lower part of photograph showing the lower boundary of newly recognised Ediacaran Period. Image courtesy Peter Neaum and Geological Survey of SA



A member-driven and volunteer-run network. Free to join. All welcome. Some of our initiatives include:

- Formal **workshops** and informal **social events**
- Monthly **Shut Up And Write (#SUAW)** online sessions
- Monthly **WOMEESA Seminars** and **YouTube Channel**
- **Database of women** in Earth, Atmospheric and Environmental Sciences
- A peer-reviewed, **international journal publication** on the status of gender equity in geosciences in Australasia
- Online **Blog** and **Member Spotlight** features
- **Wikipedia Edit-a-thon** to increase the visibility of women

Creating a unified Australasian network of women working in Earth and Environmental Sciences in academia, industry and government

Website



Join



Database



Publication



@WOMEESA

@womeesa.net

www.womeesa.net

WOMEESA.network@gmail.com