



Linnean Society of NSW Symposium
'NE Sydney Basin'
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The KGR and the National Geotourism Strategy - Potential as an Aspiring UNESCO Global Geopark

**Ku-ring-gai
GeoRegion**

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Today's Agenda

- The rationale of AGC engagement
- The National Geotourism Strategy and key strategic goals
- What is a GeoRegion?
- Salient features of the KGR
- Meeting UNESCO requirements
- Geoscientific features of the KGR
- Relevant outstanding features of the KGR
- UNESCO focus areas of the KGR
- Take-Aways

AGC National Geotourism Strategy

- Aimed at **raising public awareness** of the role of geosciences in national development.
- **Working closely with government agencies** at all levels to gain their support and endorsement.
- Reaching out to other **natural and cultural heritage specialists**.
- Engaging with **local communities**.

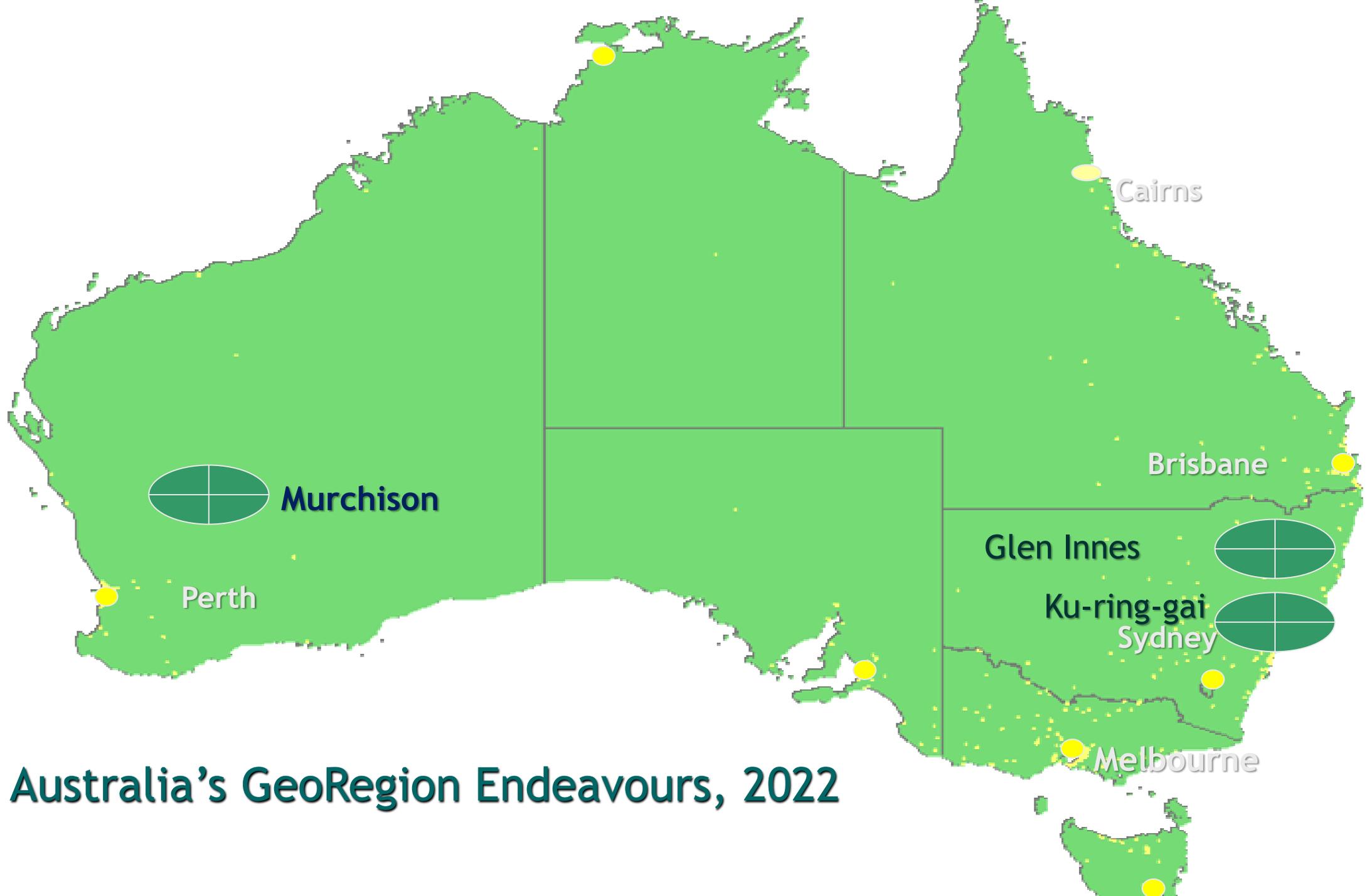
National Geotourism Strategic (NGS) Goals

1. Consideration of new digital technologies.
2. To define an approval pathway for major geotourism projects.
3. To establish a framework for creating high quality, sustainable geotrails.
4. To establish a national listing for geoheritage sites suitable for geotourism.
5. To develop geotourism in regional mining and Aboriginal communities.
6. To strengthen Australia's international geoscience standing.
7. To develop and enhance geoscience interpretation and communication skills.

Launched: April 2021

National Geotourism Strategy (NGS) Goal 2

- Hence the absolute need to **define an approval pathway** for major geotourism projects, recommended by the AGC in consultation with Australian governments), **WITH**
- Three Pilot GeoRegion Projects supported by the NGS.
 - ❖ **Ku-ring-gai, Sydney, NSW.**
 - ❖ Murchison, Mid West, WA.
 - ❖ Glen Innes, New England Highlands, NSW driven by a LGA approved **Tourism DMP**



Australia's GeoRegion Endeavours, 2022

Societal Benefits of Geotourism

Defining a GeoRegion

- By celebrating the **geological heritage of an identified GeoRegion**, and in connection with all other aspects of the area's natural and cultural heritage (and most significantly, **Aboriginal cultural heritage**), geotourism enhances awareness and understanding of key issues facing society.
- **Geotourism** gives local people a sense of pride and **strengthens their identification with a GeoRegion**.

Defining a
GeoRegion - the
first step
in evaluating its
potential
development for
geotourism

- An area defined by a proponent (in this case **FOKE**).
- And having sought the agreement from the State/Territory Geological Survey (in this case the **GSNSW**) to designate a **defined** area of particular natural and cultural heritage which highlights outstanding **geoheritage** features.
- Aspiring to establish a **defacto** **geopark**.

Salient Features of the KGR

- Conceived in 2018 by a **community group - FOKE** and now supported by other community groups.
- Supported by the NPWS, three Councils, and State Govt local MPs.
- Approved by the Geological Survey of NSW.
- **Major natural and cultural heritage peer-reviewed, journal review** has just been published by the Linnean Society of NSW.



UNESCO Global Geoparks Fundamental Features

- **Geological heritage of international value** - the area must meet this requirement. This is assessed by scientific professionals of the UNESCO Global Geopark Evaluation Team.
- **Management** - UNESCO Global Geoparks are managed by a body having legal existence recognised under national legislation. Management body should include all relevant local & regional actors/authorities.
- **Visibility:** UNESCO Global Geoparks promote sustainable local economic development mainly through **geotourism**.

Fundamental Geoscientific Features of the KGR

Criterion (viii) for
evaluating geological
world heritage

Theme 1: History of Earth and Life, depositional position of the Permo-Triassic Sydney Basin, the **end-Permian global extinction event**, the classic geology of the Narrabeen Formation along the Northern Beaches, and the Jurassic volcanic diatremes/dykes.

Theme 2: Tectonic Systems, evolution of the Sydney Basin abutting the New England Fold Belt.

Theme 3: Erosional Systems, throughout and along the drowned valley coastline, and the evolution of **soil landscapes** across the Holocene geology.

OUTSTANDING SCENIC VALUES

OVERVIEW

Main holistic relationships of the KGR

- A. **Geology and Geomorphology**, mantled by the soil profiles, provides the foundation for vegetation communities (**flora**) that are also in part controlled by proximity to fresh and saltwater and microclimatic conditions.
- B. **Fauna** is dependent on the vegetation for protection, habitat, and food resources.
- C. **Original Aboriginal inhabitants** of the land utilised its abiotic and biotic elements in their daily lives as recorded in the wealth of sites identified.

* Supported by a substantive, **co-authored journal manuscript** & the **KGR report by Dr J E Martyn ***

Geological
influence (A) on
flora & fauna
species distribution
(B), and Aboriginal
sites (C)

Flora (B), northern warm temperate rainforests and North Coast wet sclerophyll forests, coastal headland heaths, maritime grasslands, estuarine mangroves, saltmarsh, and sea grass meadows.

Fauna (B), rich diversity related to vegetation having regard to geomorphology, soils and geology, rivalling the likes of Kakadu National Park, both land-based and marine vertebrates species including over 300 bird species.

Aboriginal site types (C), influenced by geology, aspect, elevation and slope and associated landforms.

**UNESCO
Global
Geoparks -
Main focus
areas deemed
applicable to
the KGR**

1. **Science** - continuing abiotic and biotic research activities.
2. **Education** - developing and operating educational activities for all ages to spread awareness of the geological heritage and its links to other aspects of our natural, cultural and intangible heritages.
3. **Local and indigenous knowledge** - local and Aboriginal peoples, by preserving and celebrating their culture.
4. **Geoconservation** - promoting the concept of sustainability, valuing the heritage of 'Mother Earth' and recognising the need to protect it.
5. **Climate Change** - effects of current climate change thus giving the opportunity to show visitors how climate change can affect our environment.

Significant focus areas for the KGR

Climate Change

1. As evidenced by the use of drone technology (Goal 1 of the NGS) **real time impact of climate change along the Northern Beaches coastline** is being closely monitored.
2. Climate change is accelerating physical and chemical weathering, as well as **the inundation of low elevation Aboriginal sites.**
3. The potential for the nomination of an Aspiring UNESCO Global Geopark will provide an **opportunity to study the effects of past and present climate change on natural /cultural heritage.**

Take-Aways for a Potential Global Geopark Nomination

1. Continuation of community consultation, particularly with Aboriginal communities.
2. Support of NPWS for the KCNP management plan.
3. Establishment of a Management Board/Trust with Aboriginal Representation.
4. Detailed assessment of 50+ key geosites and further geotrail development.
5. Further engagement with government agencies at all levels to gain support and approval for a potential UNESCO Global Geopark nomination.



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<https://www.slideshare.net/leisuresolutions>

<http://linneansocietynsw.org.au/symposia/Ku-ring-gai%20GeoRegion/Conroy%20et%20al..pdf>

The Natural & Cultural History of the Ku-ring-gai GeoRegion

Information about the National Geotourism Strategy

<https://www.agc.org.au/geoscience-in-australia/geotourism/>