

## Academic Poster Guidance

[https://xerte.uwe.ac.uk/play\\_5141#page1](https://xerte.uwe.ac.uk/play_5141#page1)

Posters can vary considerably in design and content. However, you may wish to consider the following recommendations:

- Posters should have a clear and short title readable from 1.5 metres away
- Provide a short and engaging introduction
- Use no more than 600 words and use graphics, images and pictures to explain your ideas
- Use good examples as models for your poster- consider using existing templates from the web
- Have a logical layout of five or six sections
- Use a good size font, don't use block capitals and avoid elaborate fonts and dark backgrounds
- Keep a simple colour palate
- Use a standard sans-serif font such as Arial or Trebuchet
- Include the list of references used (this can be in a smaller font)

**Examples (although not on the same topic as you will be researching)**

# How is the destruction of the Great Barrier Reef affecting the national identity of Australia?

## How important is the Great Barrier Reef to Australia?

The Great Barrier Reef forms a significant part of the Australian and coastal identity with 64% of coastal residents believing that 'The Great Barrier Reef is part of my identity'. People value its aesthetic appeal above all other values - even economic values making it the most iconic coral reef system.<sup>5</sup>

The reef represents ongoing geological processes and biological evolution with the interactions of communities of plants, animals, landforms and marine and fresh-water bodies.<sup>6</sup>

Vivid images of the reef enter lives through films, TV and books. They are readily accepted as representing an important aesthetic experience. These scenic visuals contribute to the heritage values.<sup>6</sup>

The reef provides a large cultural service to Australia's identity. It is described as having recreational opportunities for tourism, cultural inspiration and heritage.<sup>4</sup>

## Shipping Industry<sup>2</sup>

- Australia is the 5th largest producer of coal, generating \$16.7 billion in thermal coal export earnings from 194.59 million tons of product in the 2013-2014 financial year.
- Potential risks include grounding, spillages, dredging and disposal.
- Approximately 6,000 ship movements of large vessels in excess of 50m in length occur in the GBR and Torres Strait every year. Since 1987, over 700 shipping or marine pollution incidents have been recorded by the GBRMPA.
- In 2012, UNESCO found that the number and extent of new port developments presented 'a significant risk to the conservation' of the World Heritage Area.

## Tourism

### Souvenirs from the sea

Harvesting of coral and ocean life such as starfish for tourism can cause species to be at risk of extinction. Furthermore, it can create an imbalance in the food chain which impacts on other species within the reef. This can encourage activities like reef walking from tourist further breaking up the fragile coral.

### Invasive Species

Introduction of invasive species such as the lionfish can cause detrimental impacts to the reef as they outcompete local species for food. These species can be introduced from cruise ship ballast tanks when they are emptied in the port of Queensland.<sup>7</sup>

### Changes in Species Behaviour

Species abundance can be impacted by recreational tourism activities such as scuba diving and fish feeding. This can cause harassment of species at popular sites causing species to relocate, making them more at risk from predation.

### Water Pollution

Tour vessels regularly release grey water and sewage into the sea. This becomes a problem in high use sites where sewage and grey water can build up potentially creating algae bloom on the surface, blocking out the sun for the photosynthesising polyps living within the coral.<sup>3</sup>

## Ecology<sup>5</sup>

Increasing CO<sub>2</sub> emissions in the atmosphere leads to high levels of dissolved CO<sub>2</sub> in the water forming Carbonic acid. This lowers pH resulting in ocean acidification. It can have a profound effect on ecological diversity such as the dugong which is endangered.

Coral bleaching is viewed as the largest threat towards coral reefs by the IPCC, of which 60% of current reefs are in immediate danger.

## Reef 2050 Plan<sup>1</sup>:

- Created in 2015 with updates after the mass coral bleaching in 2016 and 2017
- Has eliminated dredging dumping into the Marine Park area and banned future dumping
- Reversed the decline in water quality due to agriculture (pesticide, sediments, nitrogen)
- Introduced new poaching laws to protect turtles and dugongs
- Appointed a new minister in Queensland for the GBR
- The Australian Government has contributed \$A40 million to improve water quality through a Reef Trust
- The Queensland Government maintains \$A35 million expenditure for improving water quality, and has committed \$A100 million over five years for water quality, scientific research and helping business be more eco-friendly, including fishing

## References

<sup>1</sup>Australian Government (2019). Department of the Environment and Energy. [online] Department of the Environment and Energy. Available at: <https://www.environment.gov.au/indigenous/indigenous-heritage>

<sup>2</sup>Geck, A., Pruess, R.L. and Day, J.C. (2019). Coal: Cumulative Impacts, and the Great Barrier Reef. *Conservation Letters*, 9(3), pp.200-207.

<sup>3</sup>GreenTumble (2018). How Does Tourism Affect Coral Reefs? | GreenTumble. [online] GreenTumble. Available at: <https://www.tumble.com/see-how-tourism-affects-coral-reefs>

<sup>4</sup>Jarvis, D., Stoeckl, N. and Lu, H.-B. (2017). New methods for valuing, and for identifying spatial variations, in cultural services: A case study of the Great Barrier Reef. *Ecosystem Services*, 24, pp.58-67.

<sup>5</sup>Phery, M., Carstini, O., Polubek, J. and van der Linden, P. (2008). *Climate change 2007: impacts, adaptation and vulnerability. Working Group II contribution to the Fourth Assessment Report of the IPCC Intergovernmental Panel on Climate Change*. Geneva: IPCC Secretariat.

<sup>6</sup>Prosser, C. (2002). *Sensu Meters: aesthetic values of the Great Barrier Reef*. *International Journal of Heritage Studies*, 8(4), pp.385-381.

<sup>7</sup>Reef Resilience Network (2017). *Tourism and Recreational Impacts | Reef Resilience*. [online] ReefResilience. Available at: <http://www.reefresilience.org.au/sites/default/files/tourism-and-recreational-impacts>

<sup>8</sup>UNESCO and Authority, G.B.R.M.P.A. (1981). *Nomination of the Great Barrier Reef by the Commonwealth of Australia for Inclusion in the World Heritage List*. United Nations Educational, Scientific and Cultural Organization. [online] <http://unesco-prod.groonga.gov.au/path/entry/1017125>

