



SCIENCE AND  
INDUSTRY  
ENDOWMENT  
FUND



# STEM Community Partnerships Program

## Camden local scenario

### Biodiversity

Camden displays biological diversity and is positioned at the intersection of three Aboriginal tribal boundaries: the Gundungurra, Tharawal and Dharug. There is a wide range of living organisms in the region, whose survival is dependent on the ability to adapt to the changing abiotic and biotic features of the ecosystem. The area is known for the diversity of its eucalypts and grasses, frogs, birds, mammals and reptiles.

Change in a number of these organisms may be due to many external influences including climate change, clearing for agricultural and urban development and the introduction of new species. There are other aspects which may lead to a change in the biodiversity.

Camden Council has reported that 64% of the existing flora (plant) species recorded in the area are native, with 36% being an exotic or introduced species.<sup>1</sup> Invasive species cause damage to the environment, can degrade culturally significant sites and pose a threat to agriculture, especially during droughts. It has been reported that there are native species that are regionally significant are inadequately conserved in Western Sydney.<sup>1</sup>

Cumberland Plain Woodland, located in Camden, is listed as a Critically Endangered Ecological Community at a state level under the NSW Threatened Species Conservation Act 1995 and at a national level under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. It has been suggested that approximately 90% of vegetation across the Camden area has been cleared and degraded since European settlement.<sup>2</sup> An indicator of a healthy ecosystem is the presence of the Cumberland Plain Land Snail which is currently endangered.<sup>2</sup>

Protected areas are crucial for conserving biodiversity and supporting ecological processes beneficial to human well-being. Council has commenced works to maintain or improve biodiversity including the removal of noxious and environmental weeds, rubbish removal, pest animal control, revegetation, bushland restoration, wetland rehabilitation and construction. The focus has been on Camden's parks and reserves. How your Council tackles the complexity of this issue now will impact you now and for future generations.



1. Camden City Council <https://www.camden.nsw.gov.au/environment/biodiversity/native-plants/>

2. <https://www.camden.nsw.gov.au/assets/Uploads/A4-Fact-Sheet-Biodiversity-FINAL.pdf>

## Your task

Your task is to use the information above and resources provided below as a start to identify a local problem and design a STEM-focused solution.

(Question, Design, Explore, Communicate)

## Resources

### CSIRO research

- Environment: <https://research.csiro.au/research/category/environment/>
- Ecosystems and biodiversity: <https://www.csiro.au/en/research/natural-environment/biodiversity>

### Reports

- Camden City Council: <https://www.camden.nsw.gov.au/environment/biodiversity/>
- Camden Council Local Biodiversity Strategy: <https://www.camden.nsw.gov.au/assets/pdfs/Council/Plans-and-Strategies/Camden-Council-Local-Biodiversity-Strategy.pdf>

### Articles

- Camden City Council fact sheet<sup>3</sup>:  
<https://www.camden.nsw.gov.au/assets/Uploads/A4-Fact-Sheet-Biodiversity-FINAL.pdf>
- Atlas of Living Specimens Search: [https://ozcam.ala.org.au/search#tab\\_simpleSearch](https://ozcam.ala.org.au/search#tab_simpleSearch)
- Department of the Environment and Energy, Species Profile and Threats Database:  
[http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\\_id=85104](http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=85104)
- Department of the Environment and Energy:  
<http://www.environment.gov.au/biodiversity/threatened/communities>
- Office of Environment & Heritage – Cumberland Plain Woodland:  
<https://www.environment.nsw.gov.au/threatenedSpeciesApp/profile.aspx?id=10191>
- Office of Environment & Heritage – About pest animals and weeds:  
<https://www.environment.nsw.gov.au/topics/animals-and-plants/pest-animals-and-weeds/about-pest-animals-and-weeds>