

Flora survey

Topic: Mining and Rehabilitation

Background Information

In Western Australia bauxite mining occurs in the Jarrah Forest. The Jarrah Forest is a biodiversity hot spot and some plant species can vary between locations. As part of the mine planning and approval process, flora surveys are conducted to map vegetation types and identify rare and priority species in the areas proposed for mining.

Once rehabilitation has taken place flora monitoring is conducted to measure the success of mine rehabilitation and it's similarity to unmined forest.

You will need

- Tape measure
- String
- Writing/sketching materials,
- Camera (not essential).

What you need to do

- Pick a large vegetated area and estimate the size
- Use the string to create a quadrat that is a minimum of one metre square
- Record the number and species of flora within the quadrat.

Extension / Alternatives

- Graph the results

- Survey multiple quadrats and calculate the average to estimate species richness (i.e. number of species)
- Calculate the number and variety of plant species within the larger area, based on an analysis of the quadrat information
- Choose some samples to sketch. You may even like to collect some samples to press in a book and write descriptions of
- Create a transect 5-10 metres in length, apply markers each metre. Sketch plant the profile of the transect showing the different heights and species of plants
- How do your results compare to: (a) Those of another quadrat? (b) The results of the transect?
- Research the categories of Priority Flora
- Select a plant species that falls into one of the Priority Flora categories.

Curriculum Links

Society & Environment: Investigation, Communication & Participation, Natural and Social Systems, Resources, Active Citizenship - Ecological Sustainability

Science: Life and Living

Mathematics: Chance and Data, Space

Values

5. Environmental Responsibility

Links

<http://florabase.calm.wa.gov.au>