

Fact sheet Pages Pinnacle



Protecting important habitats

Pages Pinnacle is a rocky outcrop on the Gold Coast Hinterland, which was formed approximately 23 million years ago when Mount Warning erupted as a volcano. Pages Pinnacle is part of the ancient volcano caldera, or the rim that surrounds the main volcano.

Pages Pinnacle was formed as an elongate plug of rhyolite lava, filling a subsidiary vent on the northern side of the Tweed Volcano.

Why are rocky outcrops important?

Rocky outcrops are important landscape features with high biodiversity. They are home to many unique plants and animals. They are critical breeding sites for many top order mammal and bird species, including nesting sites for large birds of prey, bats, swifts and ecological refuges for ancient lineages.

To Indigenous Australians, they are sacred places and provide valuable resources, such as providing resources for tool making.

What Flora and Fauna are found at Pages Pinnacle?

Flora

Rocky outcrops such as Pages Pinnacle contain a variety of niche species that have adapted to a very specific and fragile environment. Many of these species are restricted to incredibly specific ecosystems and only need small changes to threaten a local population.

Gyrostemon osmus is a critically endangered herbaceous species that grows on Pages Pinnacle. It is the only place in the world this plant is known to grow. Disturbance from recreation on this site poses severe risk to the extinction of this species.

Another plant, *Westringia rupicola* is only found on peaks, cliffs and rocky outcrops of the Northern Mt Warning Caldera. There are a variety of other species that are only adapted to locations such as Pages Pinnacle and need us all to help protect them.

Fauna

Pages Pinnacle provides important refuge for a variety of native fauna, including several species of gecko, skink, snake, butterfly and birds.

Pages Pinnacle is also a classic high point, which is often used for the phenomena of *hilltopping*. This phenomenon is a mating behavior seen in many flying insects such as dragonflies, butterflies, wasps, bees and flies. A male butterfly may be seen flying around a hilltop for days seeking a mating partner.

Peregrine Falcons (*Falcon peregrinus*) often use Pages Pinnacle for breeding between the months of August to November. They are known to dig a scrape on a high cliff ledge, where they will lay up to two to three eggs, and will be incubated by both adults for 33 days. If birds are persistently disturbed during nesting season, it is possible that eggs may not hatch and they will fail to raise young that year.

Adult birds are known to display aggressive behavior such as swooping towards climbers encroaching on their habitat. People must not use areas where breeding birds are present.



Gyrostemon osmus plant is only known to grow at Pages Pinnacle.

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Environmental threats on Pages Pinnacle

Despite their ecological and cultural significance, many rocky outcrops and associated flora and fauna are threatened by agricultural and recreational activities, forestry and mining operations, invasive weeds, altered fire regimes and climate change.

Some of the threats to Pages Pinnacle include:

- introduction of weeds and other plants, by visitors bringing in seeds on clothes, equipment and shoes.
- increased erosion of rock face, compaction and displacement of soil, through the trampling and disturbance of ground cover.
- disturbance and damage to native wildlife, including flora and fauna.
- introduced rubbish in the area left by users, increasing the risk of ingestion by animals, providing an ignition source for fire and contaminating the environment.
- domestic and invasive animals, which can prey on native species, introduce disease and cause other adverse impacts to the area.

Protecting Queensland's native wildlife and their habitats is important to conserve biodiversity and everybody has a role to play. There are simple things you can do to prevent the loss of native species.

How can you help?

- Treat the area with respect.
- Ensure footwear and clothing is clean prior to coming to Pages Pinnacle to prevent the introduction of pathogens or weed species to the area
- Do not leave any rubbish, including any food scraps.
- Do not create new routes/walking paths and avoid trampling any flora.
- Please exhibit best practice toileting.
- Do not mark or carve trees, rocks or graffiti surfaces.
- As you are in a drinking water supply catchment, report trail mis-use and or damages to Seqwater.

Remember – these cliffs and ecosystems were created 23 million years ago. Let's not destroy them in the very few years we have been recreating on them!

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