



A voice for the environment

Threatened Species Strategy
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Gladstone Conservation Council (GCC) and Capricorn Conservation Council (CCC) submit that the Mt Etna based population of the ghost bat (*Macroderma gigas*) be included as one of the priority species for inclusion in the Threatened Species Action Plan 2021-2026.

The Gladstone Conservation Council Inc. was formed in February 2012 by a group of locals working towards a positive outcome for the Central Queensland environment and community. Capricorn Conservation Council (CCC) is the leading non-government, environmental organisation in Central Queensland. CCC has been advocating for the environment since 1973 and has particular interests in ensuring that all land use is sustainable and does not significantly impact on the environment, and that our environment is well managed and ecosystems and wildlife populations are protected. The Mt Etna ghost bat community, 27km north of Rockhampton Queensland, is within the CCC focused geographic area.

CCC has had a long and complex history with the ghost bat starting from the 1970s when CCC supported lobbying efforts by the Central Queensland Speleological Society in endeavouring to get proper research, listing, and management of the ghost bat and little bent-wing bat.

The ghost bat is the largest carnivorous bat in Australia, the sole extant representative of its genus and is the largest microbat in Australia. Its vulnerable status has been recognised through its listing under the *Environment Protection and Biodiversity Conservation Act 1999*. For convenience, please find enclosed a copy of the Conservation Advice for the ghost bat (Threatened Species Scientific Committee, 2016).

Specific to the Mount Etna ghost bat population, the attached published paper (Augusteyn *et al*, 2017), suggests that the local population at Mount Etna has declined by 79% since the late 1990's and may not survive without urgent intervention. More recent surveys suggest that the population may be as low as 28 animals (Simmons pers. comm.).

The Mt Etna based ghost bat population is notable as:

- it is at the southern end of the species' distribution,
- the colony has existed in area since the mid-Pleistocene (500-280 thousand years ago),
- it was once one of the largest colonies in Australia,
- the population was considered stable around 1980 but has markedly declined since then, and
- it has been at the centre of one of Australia's longest running conservation campaigns when two birthing caves were destroyed due to mining of limestone (Speaking Tube and Elephant Hole).

Current threats to the Mt Etna population include:

- The destruction and fragmentation of foraging habitat with associated reduced prey abundance as a result of clearing of land within the foraging zone outside the Mt Etna Caves National Park. Adjacent land uses including grazing, quarrying, urban development, cropping, transport infrastructure development (road and rail) and utility corridors.
- A significant loss of habitat within the foraging zone in the past decade due to natural events including cyclone, drought and fire. These disturbances have also resulted in a significant weed invasion including the spread and dominance of guinea grass, *Megathyrsus maximus var. maximus*, Johnson grass, *Sorghum halepense*, thatch grass, *Hyparrhenia rufa subsp. rufa*, and *Leucaena leucocephala*.
- Elevated ongoing threat to habitat within the foraging zone due to increased fire intensity and frequency related to climate change (higher temperatures, increased wind velocity, lower humidity), invasion of high fuel load grasses (guinea grass, Johnson grass, thatch grass). The latest catastrophic bushfire which burnt out a large area of Mt Etna and surrounds was in 2019.
- The presence of barbed wire fences within the foraging zone (up to 11km from roosts).

Current activities and community involvement include:

- Mt Etna Caves National Park has received Commonwealth funding to restore semi-evergreen vine thicket (SEVT) which is within the foraging zone of the small and declining population of ghost bats.
- The habitat restoration at Mt Etna Caves National Park is ongoing with the support of a small community volunteer group backed by Queensland Parks and Wildlife Service (QPWS) and Fitzroy Basin Association.
- QPWS has an ongoing program to control foxes.
- The nearby Capricorn Caves has been restoring SEVT following damage by the 2019 severe bushfire.
- A nearby neighbour is currently working to restore SEVT along a drainage line that was severely damaged by the 2019 bushfire.
- There is an urgent need to restore and improve foraging habitat for ghost bat prey within a 10km radius of the known roost caves, both within and outside the national park.
- A coordinated funded project could seek to gain landholder acceptance to remove barbed wire from fences (at least the top strand) within the 10km foraging radius.

We trust that you will consider inclusion of the ghost bat in the 2021-2026 Action Plan to enable a concerted effort towards recovery of this special population of ghost bats.

Kind regards



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