

MU 51 NEWNES PLATEAU HANGING SWAMP

□ CORRESPONDING CLASSIFICATIONS

Regional: FRW30 Blue Mountains – Shoalhaven Hanging Swamps

State: Coastal Heath Swamp

Number of Sites: 2

Average number of identified native species per plot: 26.0

□ DESCRIPTION

Newnes Plateau Hanging Swamps share many species with the endangered community Newnes Plateau Hanging Swamp (MU50) however they occupy a different habitat niche. The Hanging Swamps occupy gully heads and ridgetop sites at points of water seepage where percolating groundwater travelling through the sandstone is forced outwards by impermeable shale layers. These form ephemeral wet peaty soils on which a range of swamp heath plants grows. The uppermost stratum, which may include mallees such as *E. gregsoniana* and tea tree (*Leptospermum juniperinum*) and *Banksias* are usually only a few metres above ground level and may only be sparse. By contrast the lowest stratum may be a metre off the ground or more, with coral fern (*Gleichenia*) and umbrella fern (*Sticherus*) combining with large saw-sedge (*Gahnia sieberiana*) to form a nearly impenetrable layer. Diversity is relatively low, but the species presenta are often restricted to wet habitats.



Soils are permanently saturated peat and humic loams, formed of the build up of the plants growing in the community. Occurring almost exclusively on the Triassic era Narrabeen sediments in the study area, the unit occurs between 900 and 1170 metres above sea level. Although not of primary importance for sustaining the unit (it being a groundwater dependant system), there is between 900 and 1070 millimetres of precipitation *per annum*.

The community is likely to form a component of the Blue Mountains – Shoalhaven Hanging Swamps of Tindall *et al.* (2004), and in Keith (2004) is comparable to the Coastal Heath Swamp despite the montane position. While there is considerable floristic overlap with the Endangered Ecological Community *Newnes Plateay Shrub Swamps* it has not been included on the basis of the habitat. It is however a component of the *Temperate Highland Peat Swamps on Sandstone* Endangered Ecological Community listed under the Commonwealth EPBC Act 1999.

□ STRUCTURAL SUMMARY

Stratum	Count	AvLowHt	AvHt	maxHt	AvCover	SDcover	minCover	maxCover
T	2	1	2.50	3	34	36.77	8	60
M1	1	1	1.50	1.5	5		5	5
L1	2		1	1	75	7.07	70	80

□ FLORISTIC SUMMARY

Low Trees and Shrubs

Babingtonia densifolia, *Baeckea linifolia*, *Banksia marginata*, *Epacris brevifolia*, *Epacris microphylla*, *Eucalyptus gregsoniana*, *Eucalyptus rossii*, *Grevillea acanthifolia*, *Hakea dactyloides* (includes *H. laevipes*), *Leptospermum continentale*, *Leptospermum lanigerum*, *Leptospermum parvifolium*, *Leptospermum sphaerocarpum*

Ground Covers

Drosera binata, *Drosera peltata*, *Drosera spathulata*, *Empodisma minus*, *Gahnia sieberiana*, *Gleichenia dicarpa*, *Lepidosperma limicola*, *Lepidosperma tortuosum*, *Leptocarpus tenax*, *Olearia quercifolia*, *Paterosonia longifolia*, *Xyris juncea*, *Xyris ustulata*

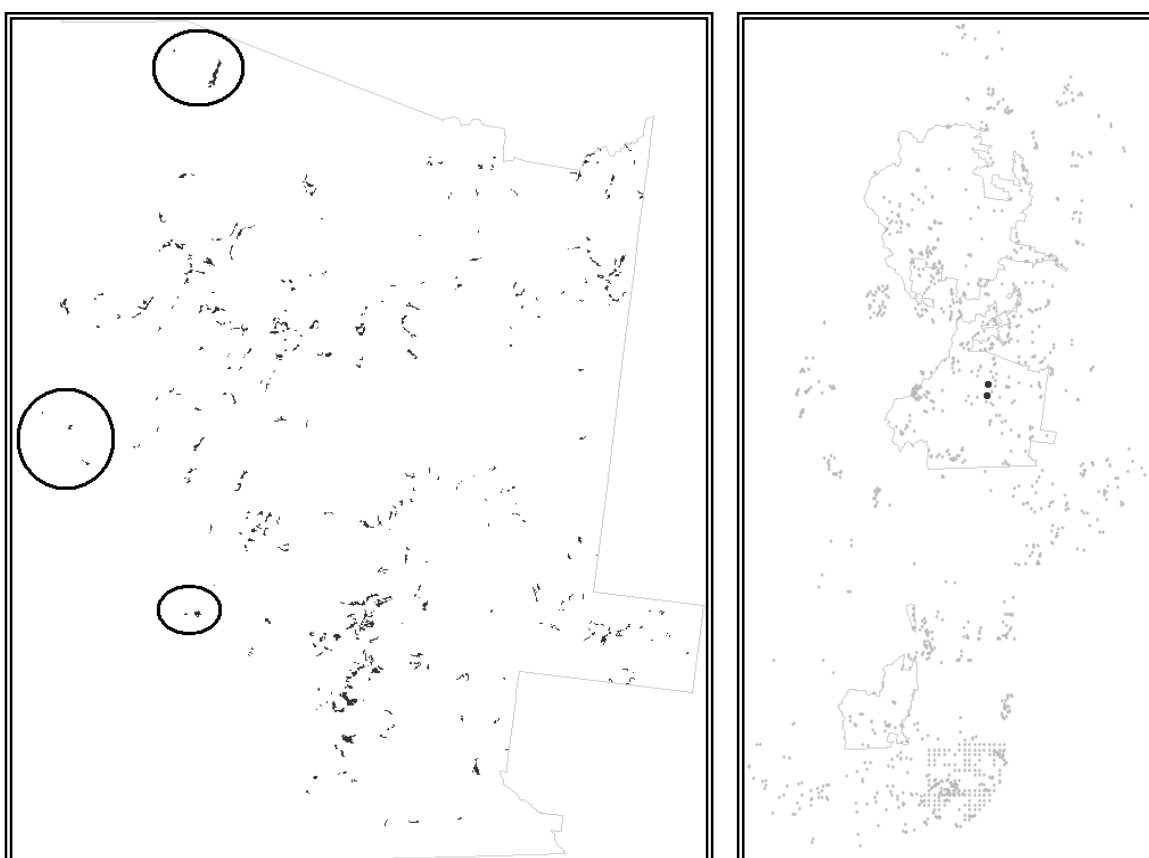
□ KEY IDENTIFYING FEATURES

Easily recognisable features to assist in identifying this map unit are:

- A low, dense, fern-dominated community usually perched on a hillside, often with a small drop immediately below the community.
- Few trees, with those present often stunted.
- Groundwater dependent – needs to have continuous seep of water from the rock to sustain the community.

□ EXAMPLE LOCATIONS

For this study it is considered to be restricted to the Newnes Plateau. Small areas may occur on Mount Airly – Genowlan but were not mapped as part of this project.



□ CONDITION ASSESSMENT

Disturbance Class	Area (ha)	Proportion Extant (%)
A Low	235.94	86.67
B Medium	22.77	8.36
C High	13.53	4.97
Total	272.24	100

□ THREATENED PLANT SPECIES

None noted, but possible species include *Baloskion longipes*, *Boronia deanei*, *Derwentia blakelyi*, *Euphrasia bowdeniae* and *Grammitis stenophylla*

It is included within the *Temperate Highland Peat Swamps on Sandstone* Endangered Ecological Community listed under the Commonwealth EPBC Act 1999.

□ **DIAGNOSTIC SPECIES**

Species Name	Group Score	Group Freq (%)	Non Group Score	Non Group Freq (%)	Fidelity Class
<i>Allocasuarina nana</i>	2	50.00	3	3.98	positive
<i>Babingtonia densifolia</i>	2	50.00	2	1.99	positive
<i>Baekkea linifolia</i>	3	50.00	2	1.03	positive
<i>Banksia marginata</i>	2	50.00	2	2.31	positive
<i>Boronia microphylla</i>	2	50.00	2	5.17	positive
<i>Conospermum taxifolium</i>	2	50.00	1	0.79	positive
<i>Dampiera stricta</i>	2	50.00	2	8.44	positive
<i>Drosera peltata</i>	2	50.00	2	1.35	positive
<i>Drosera spatulata</i>	2	100.00	2	0.39	positive
<i>Empodisma minus</i>	3	50.00	3	1.43	positive
<i>Epacris breviflora</i>	2	50.00	2	0.07	positive
<i>Epacris microphylla</i>	2	50.00	2	4.30	positive
<i>Eucalyptus gregsoniana</i>	2	50.00	3	0.31	positive
<i>Eucalyptus rossii</i>	2	50.00	3	13.23	positive
<i>Gahnia sieberiana</i>	3	100.00	1	2.54	positive
<i>Galium liratum</i>	2	50.00	2	0.87	positive
<i>Gleichenia dicarpa</i>	5	100.00	2	1.27	positive
<i>Gonocarpus micranthus</i>	2	50.00	2	0.87	positive
<i>Goodenia bellidifolia</i>	2	50.00	2	10.84	positive
<i>Grevillea acanthifolia</i>	3	50.00	2	0.79	positive
<i>Grevillea laurifolia</i>	2	50.00	2	1.51	positive
<i>Hakea dactyloides</i>	3	50.00	2	11.08	positive
<i>Hibbertia empetrifolia</i> subsp. <i>empetrifolia</i>	2	50.00	1	1.11	positive
<i>Hybanthus monopetalus</i>	2	50.00	1	2.47	positive
<i>Joycea pallida</i>	2	50.00	2	14.26	positive
<i>Lepidosperma limicola</i>	4	100.00	3	1.43	positive
<i>Lepidosperma tortuosum</i>	3	50.00	2	0.79	positive
<i>Leptocarpus tenax</i>	2	50.00	2	0.39	positive
<i>Leptospermum continentale</i>	2	50.00	2	1.51	positive
<i>Leptospermum lanigerum</i>	3	50.00	2	0.39	positive
<i>Leptospermum parvifolium</i>	3	50.00	3	2.62	positive
<i>Leptospermum sphaerocarpum</i>	4	50.00	2	3.74	positive
<i>Mitrasacme polymorpha</i>	2	50.00	2	1.75	positive
<i>Olearia quercifolia</i>	2	50.00	2	0.31	positive
<i>Patersonia longifolia</i>	2	50.00	2	4.78	positive
<i>Platysace linearifolia</i>	2	50.00	2	8.36	positive
<i>Thelionema caespitosum</i>	2	50.00	1	0.95	positive
<i>Xyris juncea</i>	2	50.00	0	0.00	positive
<i>Xyris ustulata</i>	2	50.00	3	0.79	positive
<i>Lomandra filiformis</i>	0	0.00	2	36.25	negative
<i>Lomandra longifolia</i>	0	0.00	2	39.60	negative
<i>Poa sieberiana</i>	0	0.00	2	40.00	negative