

endangered

by Mia Podesta



Tumulus Spring Ecological Community

Special wetlands called tumulus (Latin for 'little mound') springs occur on the Swan Coastal Plain between Muchea and Ellenbrook. Here, groundwater flowing from the porous grey sands towards the heavy clay soils is forced to the surface as a series of springs. Continuous vegetation growth over these springs has caused peat (formed from decaying plant material), combined with silt, to build up into the mounds that give the springs their name.

The peat provides a humid area for many different invertebrates and unique groups of plants to survive, including some species that can only exist there because the springs provide a permanently wet refuge. Some of the plants found in these springs are very uncommon on the Swan Coastal Plain, and are only otherwise found in the far

south-west corner of Western Australia, or in similar springs in the Kimberley.

Together the springs and their inhabitants make up a threatened ecological community that is listed as critically endangered in WA and is also listed under Commonwealth legislation.

When originally identified in 1994, the community was only known from two sites. However, after reading an 'Endangered' article about the springs in *LANDSCOPE*, a landholder contacted the then Department of Conservation and Land Management about another spring on a neighbour's property. Then, amazingly, in 2007 another two tumulus springs were discovered by WWF-Australia staff who were working with local landowners to manage important wetlands.

Many more springs would have occurred before European settlement but it is thought they were excavated to form dams or

filled with limestone to create pasture. The biggest threat to the remaining tumulus springs is falling groundwater levels. If the groundwater levels drop too much, the springs are likely to stop flowing and many plants and invertebrates dependent on a continuous supply of water for survival will disappear from them.

With funding assistance from the Commonwealth Government, the Department of Environment and Conservation (DEC) has already purchased two areas that contain the springs for conservation, and has fenced the sites and removed weeds from them. DEC and WWF-Australia are also working with local landholders to help guide management of the springs on private land. Further biological survey work is under way at the newly located springs. Who knows what other unique plants and animals may be discovered in them.

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