

Ecological burns in Fleurieu swamps

Using fire to improve biodiversity in Fleurieu Peninsula swamps

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National Parks and Wildlife Service South Australia works with private landholders on the Fleurieu Peninsula to help restore swamps on their properties using targeted ecological burns.

Swamps on the Fleurieu Peninsula contain unique species including endangered plants and animals. Ecological burns are targeted to help these plants establish and improve habitat for the animals.

Most swamps on the Fleurieu are on private property. NPWSSA – experts in fire management for ecological outcomes – works with many landholders as part of the Burning on Private Land Program.

Choosing which swamps will benefit from a burn is based on how long since they were last burnt, if there are any species of conservation interest present, a prioritisation of which sites to work on first, and the landholder being able to accommodate a burn on their property.

The benefit of fire on swamps

Ecological burns have had a lot of success in restoring some of our precious plants and animals.

Fire is used because it benefits them by creating younger vegetation age classes which many species rely on. However, most swamps on the Fleurieu Peninsula haven't had a fire go through them for a long time, which leaves some of our native plants and animals struggling to survive.

Previously burnt swamps, on a private property in the Yundi area and at Stipiturus Conservation Park, are being monitored to ensure that fires provide the best results possible.

What's been shown so far, are enormous conservation gains; several threatened plants like the Yundi Guinea Flower (*Hibbertia tenuis*) have begun to flourish, which has saved them from possible extinction, and endangered animals such as Southern

Emu-wrens (*Stipiturus malachurus intermedius*) have recolonised previously unsuitable areas.

How burning benefits plants

After long periods without fire, swamps become dominated by just a few plant species along with lots of dead plant material. Burning temporarily reduces this dense plant cover giving new seedlings the light and space to establish. And heat and smoke also stimulates the germination of seeds, which helps increase the biodiversity of the area.

A carefully planned and executed fire helped bring a critically endangered plant back from the brink of extinction. Before a burn on the Fleurieu there were just 20 Yundi Guinea Flower (*Hibbertia tenuis*) plants, but in the months following the burn, hundreds of seeds germinated and are now thriving!

How burning benefits animals

Animals rely on the structure of their habitat, and habitat structure is heavily influenced by fire. Habitats start off quite open after fire but become increasingly dense as they regrow.

While some animals prefer foraging in open areas, others prefer habitat that is denser and provides more protection from predators. For example, the tiny Mount Lofty Ranges Southern Emu-wren (*Stipiturus malachurus intermedius*) is a poor flier and scrambles for insects and spiders. This endangered bird can't use swamps when the vegetation gets really tall, dense and is dominated by Coral Fern (*Gleichenia microphylla*).

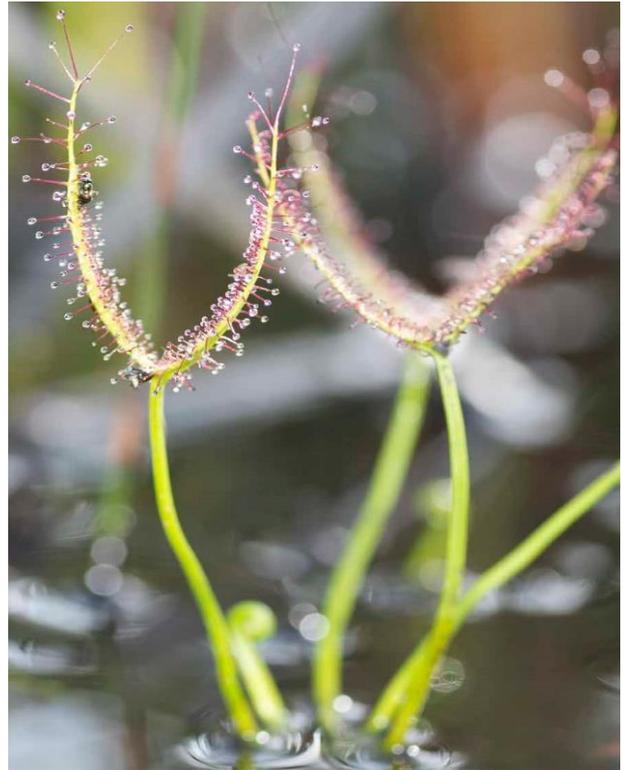
A balancing act

Fire is a natural phenomenon and is important for many habitats in South Australia. Prior to European colonisation, fires on the Fleurieu were started by lightning strikes or by Aboriginal people managing the landscape. To conserve the species that live in these swamps, we need to periodically burn a portion of this habitat to create a balance that caters for the diverse needs of our native plants and animals.

Information for landholders

Ecological burns conducted as part of the Burning on Private Land Program are carefully planned, prepared for and managed.

Before every burn, conditions are carefully assessed to manage any risks, and planning undertaken to ensure that the right firefighting resources and fall-back positions are available and in place.



Carnivorous *Drosera binata* emerge and flower prolifically after fire

Measures are also put in place to protect nearby assets like pumps and fences.

Expert staff wait for the right combination of fuel and weather conditions before going ahead with a prescribed burn. They also wait to have the right ignition pattern and appropriate control lines in place as part of a strategy to reduce risk.

If you would like to learn more, please get in touch. We hope we can help you to enjoy seeing the many ecological benefits from a burn in these swamps.

More information

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