

Floyd's grass

Alexfloydia repens

Endangered

Black grass-dart butterfly

Ocybadistes knightorum

Endangered



Target: control weeds to increase available habitat

Saving our Species (SoS) is conserving Floyd's grass (*Alexfloydia repens*) and the black grass-dart butterfly (*Ocybadistes knightorum*) by tracking species abundance and condition, monitoring weed invasion, reducing and maintaining weeds at low levels, identifying additional populations, and minimising the impacts of recreational activities through installing permanent signage.

Floyd's grass is endemic to the NSW North Coast and is the sole food plant for the caterpillar of the black grass-dart butterfly. The two species share the same distribution and are threatened by invading weeds (particularly lantana and broad-leaved paspalum), habitat disturbances, and rising sea-levels, fire and drought due to climate change. The risk of extinction caused by stochastic events is also high due to their restricted distribution. These SoS conservation projects have achieved the following outcomes:

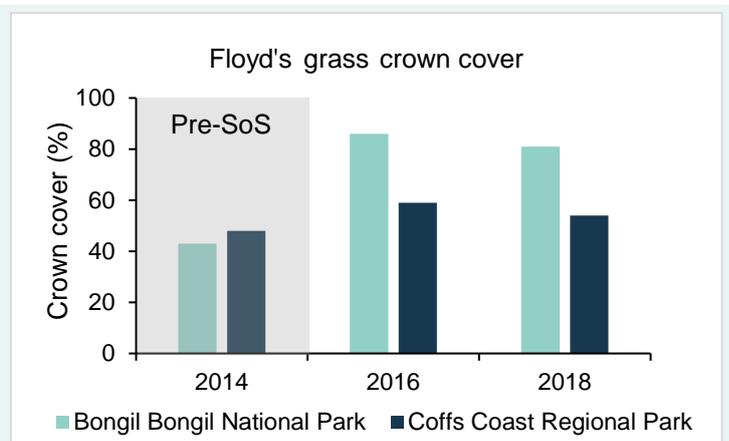
- 46 black grass-dart butterfly sites were monitored, representing over 60% of known habitat.
- Critical areas of Floyd's grass were restored to good condition following weed control.

Floyd's grass trajectory: increasing

Black grass-dart butterfly trajectory: decreasing

Management has resulted in an increase in crown cover of Floyd's grass across monitoring plots in two national parks near Coffs Harbour.

Drought is believed to have caused population decline of black grass-dart butterflies at some sites, with recovery not yet apparent. At other sites, an increasing population trajectory is expected for the butterfly as the area of suitable habitat expands.



Partners

The conservation projects for Floyd's grass and the black grass-dart butterfly are led by SoS in partnership with the NSW National Parks and Wildlife Service (NPWS), Coffs Harbour City Council and private landholders.

NPWS and Coffs Harbour City Council collaborated to design the weed control program and implement the program on their respective tenures. NPWS, Council and landholders provided in-kind support to these projects. SoS monitored the species and coordinated the project.

What did we find?

Monitoring has demonstrated that the weed control actions implemented under SoS have been highly effective. Weed control has re-established areas of high-quality habitat throughout the range of Floyd's grass. The distribution of the grass rapidly expanded, and its condition improved following weed control.

Quantitative data is not yet available for the black grass-dart butterfly. However, the 2019 drought is thought to have contributed to a decrease in the Warrell Creek population, with recovery not yet apparent. The population at Pine Creek, which occurs mostly in Bongil Bongil National Park, demonstrated resilience to the drought, possibly due to higher habitat quality at this site. The successful rehabilitation of Floyd's grass habitat is expected to lead to an increasing population trajectory for the butterfly.

Next steps for the project include continuing weed control across sites, as the low-lying riparian habitat is susceptible to reinvasion by weeds, and assessments once every five years using full floristic plots to monitor weed densities and Floyd's grass cover and condition.



The black grass-dart butterfly. Photo: Shane Ruming/DPIE

Surveying for Floyd's grass and black grass-dart butterfly

- The majority of habitat patches are most efficiently accessed via kayak at Pine Creek and Warrell Creek.
- Floyd's grass cover and condition are surveyed using 5 x 5 metre full floristic plots.
- The black grass-dart butterfly is surveyed three times annually, between October to March, to assess the occupancy of patches of habitat.



Floyd's grass; the only larval food for the black grass-dart butterfly. Photo: Paul Sheringham/DPIE

Saving our Species is a NSW Government flagship program delivered by the Environment, Energy and Science Group in the Department of Planning, Industry and Environment. To find out more about threatened species in New South Wales and the *Saving our Species* program, visit the [Saving our Species Program webpage](#).