

Scientists call for improved management of a weedy tree to protect owl habitat

June 11 2021



Powerful owl sitting in a blackwood tree holding a ringtail possum at one of the surveyed sites. Credit: Ian Rainbow

Sweet pittosporum (*Pittosporum undulatum*) was once a well-behaved tree growing in gullies from Gippsland in Victoria up to Brisbane in Queensland.

But it is now a major problem, leading to an almost complete

suppression of [native vegetation](#) where it has invaded. Programs to clear it have successfully allowed indigenous plants to return, and within 15 years, with moderate follow up, treated sites are well on the way to successful restoration.

However, there has been some debate on whether this is good or bad for [birds](#) such as the threatened Powerful Owl.

New research by Monash University scientists from the School of Biological Sciences published today in *Ecological Solutions and Evidence* shows that the richness and abundance of birds is much reduced in areas with dense *Pittosporum* canopies.

"The almost complete absence of any understory vegetation and no ground cover means there is very little for birds to eat in invaded sites," said lead study author Dr. Ben O'Leary, who conducted the surveys as part of his Ph.D.

"Most habitat components for birds exists within the Eucalyptus overstorey and mid canopy. The presence or removal of *Pittosporum* doesn't appear to greatly influence ground storey bird species, which have been in long-term decline."

The study found that there are also fewer carnivorous birds in *Pittosporum*-invaded sites, probably because there is less prey on the ground and the dense *Pittosporum* canopy makes it hard for these large birds to navigate through these areas.

"While invaded sites are not great habitat, restoration projects need to ensure that the full range of habitats continue to be available during the transition period," Dr. O'Leary said.

One difficulty in overseeing the removal of an invasive tree species is

that these trees, in certain circumstances, provide structural value to local flora and fauna. There is a lag time between the invaders' removal and its replacement by indigenous alternatives.

"The trick is balancing the progression of weed control with the retention of enough structure to support local plants and animals," Dr. O'Leary said.

Project leader and co-author Professor Ros Gleadow also from the School of Biological Sciences, has been studying *Pittosporum* for over 40 years.

"It is important to get rid of the *Pittosporum* now," Professor Gleadow said.

"Not only does it suppress the understorey, but in all these years, I have never seen a eucalypt seedling growing under a *Pittosporum* canopy," she said.

"Once the old eucalypts at a [site](#) die, that's it and it of both native vegetation and birds is impossible without major intervention".

Previous work by the group showed that areas can be restored to their original state if there are healthy remnant sites nearby.

"For areas where *Pittosporum* is native, like around Sydney, management is philosophically complicated but there is no doubt that clearing will to help preserve biodiversity," Professor Gleadow said.

Progressively clearing the *Pittosporum* over time, leaving some canopy in place in adjacent areas has the double benefit of providing potential roosting sites for the Powerful Owls, as well as increasing the number of prey.

Once the new shrubs and trees have grown, then clearing could progress to the next area.

More information: Bird community recovery following removal of an invasive tree, *Ecological Solutions and Evidence* (2021).

[besjournals.onlinelibrary.wiley ... 1002/2688-8319.12080](https://besjournals.onlinelibrary.wiley.com/doi/10.1002/2688-8319.12080)

Provided by Monash University

Citation: Scientists call for improved management of a weedy tree to protect owl habitat (2021, June 11) retrieved 25 April 2024 from <https://phys.org/news/2021-06-scientists-weedy-tree-owl-habitat.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.