

Little penguins may benefit from new invasive weed solution

March 23 2022



Credit: Wikipedia | [JJ Harrison](#), [CC BY-SA 3.0](#)

CSIRO researchers have found that the fungus, *Venturia paralias*, specifically attacks the invasive coastal weed called sea spurge (*Euphorbia paralias*), which threatens nesting sites of native species

including little penguins (*Edyptula minor*), as well as impacting on the wider coastal ecosystem. Current control methods include removing the weed by hand or chemical sprays.

The fungus will be released by CSIRO and Parks Victoria at the world-renowned London Bridge, a natural offshore arch in Port Campbell National Park. The [park](#) is a popular tourist destination, with visitors coming to see the pristine coastline, Twelve Apostles and [little penguins](#) returning to their beach nests after fishing.

CSIRO scientist Dr. Gavin Hunter said sea spurge is problematic for nesting shorebirds, including penguins, as the weed can alter sand dune structure and displace vegetation which could negatively impact nesting sites of shorebirds.

"The weed also has a sap which can cause irritation to animals as well as humans," Dr. Hunter said.

"Sea spurge grows along Australia's southern coastline and is a concern for coastal ecosystems. We're hopeful the biocontrol agent will help reduce the dense weed from penguin nesting sites at Port Campbell, and many other beaches along the coastline where the weed occurs.

"There are many challenges with current methods for removing sea spurge so finding a biocontrol agent for the weed was important to complement existing management strategies of hand pulling and chemical sprays that are very labor intensive, costly, and cannot easily be deployed in difficult-to-access beaches."

CSIRO research technician Ms Caroline Delaisse will release the [biocontrol agent](#) at Port Campbell and said the fungus was originally found on the Atlantic and Mediterranean coast of France causing leaf and stem lesions on sea spurge plants.

"The fungus was isolated from these diseased plants and initial tests to explore its host range were performed in France. Following positive results from these tests, the fungus was imported to CSIRO's quarantine facility in Canberra and studied extensively," Ms Delaisse said.

"Our research found that the fungus is highly specific towards sea spurge. Based on our results, the fungus was approved by the regulator for release in Australia."

Parks Victoria manages around 70% of Victoria's coast and is helping CSIRO release the fungus at several sites, in addition to Port Campbell National Park.

Parks Victoria Program Leader for Marine and Coasts Mr Mark Rodrigue assisted in the first releases of the [fungus](#) in Victoria and said this was an exciting advancement in [weed control](#) that would help protect the health of Victoria's beautiful coast and native animals, such as little penguins and plants that depend on beach and dune habitats.

"If it successfully establishes, the biocontrol will be particularly important for managing this highly invasive weed in the more remote parts of the coast where access is very difficult for manual or chemical control," Mr Rodrigue said.

"CSIRO has paved the way for [land managers](#) like Parks Victoria and volunteers to safely target areas of sea spurge infestation, with solid science and comprehensive guidelines developed to support us."

A prolific seed producer, a mature sea spurge plant can produce up to 20,000 seeds per year and can grow anywhere on the beach above the high-water mark, taking over sand and dune vegetation.

This project has been financially supported by the NSW Government as

part of nearly \$500,000 in funding targeting four [weed](#) species including sea spurge.

Sea spurge is an introduced plant from Europe that has invaded coastal ecosystems from Geraldton north of Perth in Western Australia through to the mid north coast of New South Wales and around Tasmania's coastline.

Provided by CSIRO

Citation: Little penguins may benefit from new invasive weed solution (2022, March 23)
retrieved 24 April 2024 from
<https://phys.org/news/2022-03-penguins-benefit-invasive-weed-solution.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.