

# Botanists unearth new 'vampire plant' in UK carpark

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The newly described variety of parasitic 'vampire plant' Credit: Oxford Science Blog

Scientists Dr. Chris Thorogood at the University of Oxford Botanic Garden, and Dr. Fred Rumsey at London's Natural History Museum have just described a new form of a strange parasitic "vampire" plant known as "common broomrape."

Broomrapes are sap-sucking "plant pilferers" that steal their food from the roots of other [plants](#), their so-called hosts. In this case, the new variety they name *Orobanche minor* var. *heliophila* has a peculiar affinity for Ikea and Tesco car parks.

The sinister looking vampire has no leaves, roots or green pigments of its own, and comprises a peculiar purplish flowering spike that juts out of the ground.

The reason the newly discovered variety has an affinity for this somewhat surprising habitat is linked to its penchant for a particular shrub called *Brachyglottis × jubar* "Sunshine" that is often planted in shop car parks—and the occasional service station too—enabling the parasite to thrive there.

It also grows in amenity plantings in parks, gardens and along sea fronts. The botanists named the new variety after its [host](#), *heliophila*, meaning "sun-loving." Although the plant is a parasite, it poses no threat to plants it feeds on and is not dangerous or harmful.

The scientists examined a range of features in great detail, for example the anatomy of the roots, floral parts, color, ability to regenerate (perennation)—and its ability to grow on different host plants.

Together, these data indicate that the newly described variety is a race that is distinct from other forms of the plant that are well known to science. The new variety occurs throughout Britain, especially in the south and southeast, but it is unknown when it evolved because its host

(*Brachyglottis*) was introduced to the UK after 1910 from New Zealand. It is possible that a shift in host has taken place from [native vegetation](#) to the cultivated shrub, following the widespread introduction of *Brachyglottis* for amenity planting in recent decades.

Parasitic plants, like broomrapes, have aroused curiosity for centuries yet they remain one of the most poorly understood groups of all the flowering plants. Indeed much of their [evolutionary biology](#) and life history remains a mystery.

There are over 4,000 species of parasitic plant and they occur in all major ecosystems from [tropical rainforests](#) to arctic tundra, and new species are discovered every year. Because they derive nutrition from their hosts, some have lost the features typical of most plants, for example green leaves, stems and even roots. Botanists previously relied on such features to classify plants, and so the evolutionary relationships among these parasites have long remained unclear.

The scientists' latest research featured here shows that broomrapes appear to be forming new species by switching hosts, but the process has gone largely unnoticed because they look so similar. It goes to show that you don't have to go to a remote tract of rainforest to discover new plant life—new species can be hiding in plain sight. Next time you do the shopping or refill the car, look carefully at the shrubbery and you may well spot a vegetable vampire at your feet.

**More information:** Chris Thorogood et al. An account of common broomrape *Orobanche minor* (Orobanchaceae) in the British Isles, *British & Irish Botany* (2020). [DOI: 10.33928/bib.2020.02.223](https://doi.org/10.33928/bib.2020.02.223)

Provided by University of Oxford

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