

# ***Gunnera manicata* → *Gunnera x cryptica***

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The UK Government is banning the sale and cultivation of giant rhubarb, or *Gunnera*, following the discovery of a vigorous new hybrid that has been growing undetected in gardens for many years.

Until now, it has been believed that the large *Gunnera* plants growing in the UK were either *Gunnera manicata* or *Gunnera tinctoria*.



*Gunnera tinctoria* was listed as a species of special concern in 2017 and a species of special concern under the Invasive Alien Species (Enforcement and Permitting) Order 2019, which makes an offence of planting or otherwise causing *Gunnera tinctoria* to grow in the wild.

However, recent research by the RHS has found that plants thought to be *Gunnera manicata* are actually a hybrid of *Gunnera tinctoria*, which has been named *Gunnera x cryptica*. Offences that apply to a listed invasive plant also apply to its hybrids. A spokesperson from Defra (the Department for Environment, Food and Rural Affairs) told us: “*Gunnera tinctoria* is an invasive species that can impact native biodiversity. The species is banned under the Invasive Alien Species (Enforcement and Permitting) Order 2019 – this ban includes all hybrids of *Gunnera tinctoria*.”

Gunneras are much loved for their huge, exotic-looking leaves that can measure up to 4m in height in summer. Introduced by the Victorians, these moisture-loving bog plants are a familiar sight in many historic gardens, parks and botanical collections, and are often found growing alongside lakes, ponds and streams. Their ban will have implications for historic gardens, nurseries and gardeners.

Defra’s public guidance states that no offence is committed if a listed plant is growing in your garden or on your land. So you’re not committing an offence if you have a large-leafed *Gunnera* on your property. However, you cannot intentionally plant listed species on your land or intentionally cause existing listed plants to spread, or sell, use or exchange any listed species.

[Read more about Defra's advice on invasive plants](#)

Guy Barter, chief horticulturalist at the RHS, explains: "It is not illegal to grow *Gunnera* and if it poses no risk of spread, it can remain. Where it poses a risk of spread, near streams, say, or in areas of boggy ground, it would be best to eliminate it, taking care to destroy it by burning or composting all plant material in the garden, or less environmentally soundly by adding to landfill waste. Where this not feasible, removing seedheads before seed matures would be a good practice."

Until now, it has been believed that the large *Gunnera* plants growing in the UK were either *Gunnera manicata* or *Gunnera tinctoria*. Both plants were introduced in the 1800s. *Gunnera tinctoria* was listed as an invasive non-native plant in 2017 as it has become a serious problem in wetter areas such as the west coast of Ireland and Scotland, but *Gunnera manicata*, which hails from Brazil, was not considered problematic - until now.

Recent studies by the RHS, which involved molecular and morphological analyses, as well as a historical investigation, revealed that *Gunnera manicata* appears to have been lost from cultivation not long after it was introduced in the 1860s. In its place, the researchers found a hybrid between *Gunnera manicata* and *Gunnera tinctoria*, which has been named as *Gunnera* × *cryptica*. The researchers concluded that all large-leaved *Gunnera* species in Britain and Ireland today are either *Gunnera tinctoria* or *Gunnera* × *cryptica*, the previously overlooked hybrid plant.



*Gunnera in flower, pictured at Wisley 2010*

The two parent species and the hybrid look very similar, which may explain how the hybrid went undetected for so long. As *Gunnera manicata* disappeared from cultivation, gardeners were unknowingly selecting the hybrid plant as it was hardier and more vigorous. DNA research conducted by scientists at the RHS has now uncovered the

true identity of the plants. The RHS will now be changing its advice to gardeners concerning *Gunnera manicata*, which may either be the hybrid or *Gunnera tinctoria*.

## What does the *Gunnera* ban mean for historic gardens and plant nurseries?

Currently the law prohibits the importation, selling and cultivation of any hybrids of a listed invasive species and therefore the discovery of *Gunnera* × *cryptica* means that there will be significant implications for the horticultural industry and plant collections in the UK.

The RHS is in the process of identifying any *Gunnera* × *cryptica* plants within its five gardens and where it feels there is a strong case to retain the plants, will be positioning appropriate information nearby to explain the status of the plants and advise gardeners not to plant it in their gardens. It is also removing any plants labelled as *Gunnera manicata* from its garden centres.

At Logan Botanic Garden, one of the four sites of the Royal Botanic Garden Edinburgh (RBGE), a magnificent, giant canopy of *Gunnera* delights visitors. The garden provided data and samples, including *Gunnera tinctoria* wild-collected in Chile, to support the recent RHS research, which was published in RBGE's own *Sibbaldia* journal.

"While *Gunnera* has been grown at Logan since 1959 and we have not found it to be invasive, we will continue to carefully monitor UK guidelines on the management of *Gunnera tinctoria* and *Gunnera* × *cryptica*, acting where necessary," says Curator Richard Baines. "Forming part of the National Collection, *Gunnera* × *cryptica* at Logan is one of the largest stands of this species in the UK and is hugely popular with visitors. As such, it provides us with opportunities to engage visitors in conversations around invasives of all kinds."

## Relevance to RHS Level 3 theory and practical courses:

1. Plant introductions and problems with invasive non-native plant species, legacy of Victorian plant hunters
2. Scientific research work carried out by RHS
3. Wild-collected samples of plants used to do genetic research
4. Research published in a reliable authoritative journal, the RBGE's *Sibbaldia*
5. Implications for a National Plant Collection (held by RBGE)