



# Making waves

Many of the once exotic plant species now common in our back gardens were first introduced to our shores following long and perilous sea voyages. An eye-opening exhibit in the Floral Marquee explores the recently uncovered role played by the steamship *SS Great Britain* in transoceanic plant hunting. Dr James Boyd, Head of Research at Brunel's *SS Great Britain* in Bristol, sheds light on how a chance discovery revealed a fascinating botanical history



**The discovery of *SS Great Britain*'s role in the story of plant migration came completely by chance.** I was looking at the ship's manifests for the first time in Liverpool Archives and saw that

suddenly, from 1859, Britain's fastest steamship became something of a floating garden, ferrying forests of ferns, including now-familiar tree ferns, from Australia to the UK to satisfy the 'fern fever' gripping Victorian Britain. By cross-referencing the names of plant traders in the manifests with plant catalogues at the RHS Lindley Library, I was able to track down the plants carried on board. Among these were *Dendrobium* orchids – alongside ferns, Australian orchids were hugely popular, and could be sold for tens of thousands of pounds in today's money.

**This extraordinary discovery of 'botany on board' forms our exhibit at the Festival.** At the heart of the display lie two Wardian Cases: the 'inbound' filled with the 'fascinating but fussy' finds typical of the Victorian age; the outbound laden with specimens typical in British landscapes at the time, such as roses, rhododendrons and even invasive brambles, to recreate English gardens and landscapes for Brits making a new life after the Australian gold rush.

**Before the Wardian Case, keeping plants alive on long voyages was very difficult.** On some trips – it took five to eight months to sail to Australia – an astonishing 90 percent of plants perished. Ships tried to erect greenhouses on their decks, but these were smashed to pieces in rough weather. Precious specimens were often stored in the captain's quarters, who

**FERN FEVER**  
Hardy ferns including *Dicksonia antarctica* AGM (soft tree fern) were heavily imported to satisfy the fern craze of the Victorian age

**A THORNY ISSUE**  
Homesick Britons arriving in Australia brought with them roses and other ornamental plants, in an attempt to recreate English landscapes Down Under

**SPINY STOWAWAYS**  
Introduced by Britons to mark out land for crops, brambles soon became invasive in Australia, where they remain a major issue today

**PRECIOUS BOUNTY**  
Rare orchids commanded high prices: in the 1850s, an Australian orchid could sell for up to £300 – that's £25,000 in today's money

might charge £5 – the equivalent of several hundred pounds – for the inconvenience.

**Dr Nathaniel Ward had been trying to hatch the cocoon of a sphinx moth in a sealed jar** – that's when he realised ferns and mosses were growing happily in soil at the bottom. It sparked the idea for his Wardian Case, which changed the face of plant migration almost overnight. Essentially a travelling terrarium, it was resistant to salt spray, able to better maintain temperatures, sustainable without additional water, and easily manoeuvrable by one to two crew.

**The plant survival rate jumped to 90 percent after the introduction of Wardian Cases,** and by the end of the 19th century, Dr Ward's invention had evolved into an economic and scientific agent of empire. Hundreds were in

circulation, used by botanical institutions to relocate and cultivate plants on an industrial scale for commercial and medical use, and they remained in use right up until the 1960s.

**Thanks to her steam power, the *SS Great Britain* cut transport time to Australia by more than half.** As the first steamship working a sustained route with Australia, she was an attractive option for British nurseries and plant collectors in the business of botanical imports. During her 16-year tenure before she changed usage, she carried no fewer than 53 cases of plants from Australia to the UK, and certainly many more on her return leg, playing a huge part in the way our parklands and gardens look today.  
[ssgreatbritain.org](http://ssgreatbritain.org)

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