

THE COMPLETE BOTANIST

Chris Thorogood goes to the ends of the Earth to study unusual plants – and records his finds in beautiful paintings. He tells Ciar Byrne about his lifelong obsession



In pursuit of plants Chris Thorogood has dangled off cliffs, trekked deep into the jungle and braved desert heat, but his journey began in the rather more mundane setting of an Ikea car park.

The botanist, artist and deputy director and head of science at Oxford Botanic Garden and Arboretum was fascinated as a teenager by the common broomrape (*Orobanche minor*), a ghostly parasite completely devoid of the chlorophyll that gives plants their green colour. It grows on the roots of other plants, including brachyglottis, an ornamental shrub favoured by the designers of retail parks. In his new book, *Chasing Plants*, Thorogood recalls how on a family shopping trip in Essex he insisted on stopping the car and getting out to examine an entire forest of broomrape growing by the side of the tarmac as his family chorused: 'Not again!'

Thorogood doesn't just like tracking down new species. An essential part of his work is documenting his finds in meticulous botanical paintings, which he creates from the dozens of photos and copious notes he makes during his expeditions. 'For me it was a burning desire that was innate,' he says. 'I think that I see plants differently to other people. I'm an artist but also a scientist. I look at something and I want to understand beyond what I can see.'

He is fortunate that his career enables him to travel to parts of the world that are inaccessible to most people. In the book he describes trips to the Cretan mountains where he finds starry white asphodels, rare orchids and a huge variety of arum lilies. In Israel he follows goat tracks to find the Nazareth iris (*Iris bismarckiana*), a wildflower with gossamer-thin white petals on the outside and 'three fall petals the colour of champagne shot lightly with gunmetal grey'. His descriptions are as exquisite as his paintings.

In South Africa he sniffs out the rare vampiric parasite hydnora, a plant that looks like a fleshy red mouth with white fangs which emits an evil breath as bait to attract dung beetles. In the rainforests of Borneo around Mount Kinabalu, where there is a profusion of rare pitcher plants, he stumbles across the huge brown corpse flower *Rafflesia keithii*.



Opposite page: The Aroids of Crete. This page, above: Broomrape in an Essex Car Park. Below: Giant Butterbur in Hokkaido, Japan

Thorogood calls himself a 'plant chaser' rather than the rather more Victorian sounding 'plant hunter'.

'Plant hunting evokes Western explorers going into the unknown, finding plants and bringing them to the attention of science and the rest of the world,' he says. 'I do go to the world's wildest wildernesses and the heart of a jungle, but the fundamental difference now is that we do it collaboratively. I hope that we've moved on from that legacy of Western discovery. I always like to make clear that it's about working together.'

An example of this is how he recently worked with local botanists in Malaysia to describe a new species called *Thismia sitimeriamiae*, which grows along a popular tourist track through a mountain forest but had previously been overlooked.

'There's an extraordinary guy called Dome Nikong who lives with indigenous communities in the rainforest of Terengganu in Malaysia. He found this plant and brought it to our attention, then together with other foresters and botanists we



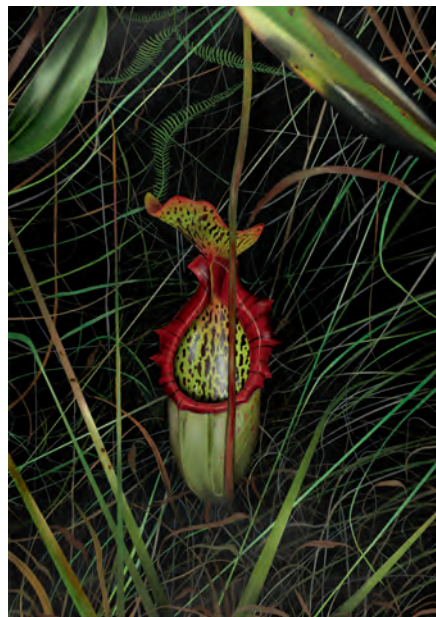
PICTURES: CHRIS THOROGOOD/ROYAL BOTANIC GARDENS, KEW

described it in 2021 as a species new to science. But it wasn't my discovery, it was his, and it's something that collectively we're all proud of.'

Thorogood describes in the book how in the forests of Hokkaido, Japan, a colleague from the University of Tokyo, Kimura-San, leads him to the exact spot where a dozen specimens of the rare *Phacellanthus tubiflorus* grow. 'We drove for mile upon mile into nothingness, and the forest all looked the same. Then we stopped the car and trekked into the abyss. In the green half-light he pointed to his feet and there was this plant. There's no way I could have found it myself. It's very much about working with other botanists around the world.'

Some of his finds are closer to home but still require a good head for heights. Thorogood has never lost his teenage fascination for broomrapes and the start of his book finds him dangling from a Kentish clifftop looking for picris broomrape, a predominantly Mediterranean species which in Britain is found only on the White Cliffs of Dover and the Isle of Wight.

'I do have a head for heights. I find it exhilarating more than scary,' he says. 'It makes my palms sweat and tingle and gives me a little thrust of anxiety – I think that's par for the course if you're dangling off a cliff. I should caution that I'm not advocating that we all go and climb over a cliff edge recklessly. But, fundamentally, for me it's about seeing the plants.'



Cliffs and gorges are unique environments because they are places humans can't inhabit, which has made them a refuge for plants. 'Plants have soldiered on through the centuries and millennia on cliffs, so they're an ideal place for a botanist to see unchanged plant communities.'

Thorogood's work is not all about chasing plants, though, but also about documenting them. From an early age he has done this through his paintings. His work has been compared to that of the 19th-century botanical artist Marianne North (1830-90), but unlike North, who would paint plants in situ, he makes watercolour sketches, takes photographs and makes notes which he draws on later to create detailed oil paintings.

Thorogood wants to use both words and pictures to share the beauty of plants and to get across the message that two in five of the world's plant species are threatened with extinction – and that we must do everything we

can to protect them. 'People think of plants as a beautiful backdrop against which animals exist, and they become a bit of a green blur,' he says. 'It can be difficult to persuade people that plants are worthy of conservation as much as animals. That, for me, is a message that is growing ever more urgent because as we're losing more and more plant species we're also losing interest in botanical sciences.'

He hopes his work will inspire more young people to consider plant science as a career. As well as being a rollicking adventure story, his book explains some of the ways in which botany can have practical uses. For instance, it used to be thought that insects tumbled off the slippery surface of pitcher plants to land in their traps randomly, but his work with physicists has shown that a series of parallel ridges on the surface of the plants drive insects into the traps in a way that is very precise, guided and controlled.



PICTURES: CHRIS THOROGOOD/ROYAL BOTANIC GARDENS, KEW

'These plants have a certain beautiful and conniving intelligence to them,' he says. 'We can learn from the evolutionary adaptations of plant and animal species how to solve human technical and engineering problems – so-called "biomimetics". By studying pitcher plants we have learned how to move liquids around more efficiently, which has applications in technology from refrigeration devices through to inkjet printers.'

Another practical application of plant science which he is working on is using the rare desert hyacinth to tackle the increasing global problem of desertification. These fleshy blooms lack chlorophyll and live as parasites on the roots of other desert plants, and burst from the ground after winter rainfall.

Botanists first became interested in them because it is still not clear where one species ends and another begins. Then they realised that the Chinese, who use them in food and herbal

Pitcher plants have a beautiful and conniving intelligence'

medicine, had learned how to cultivate them and were growing them in strips to stop deserts spreading.

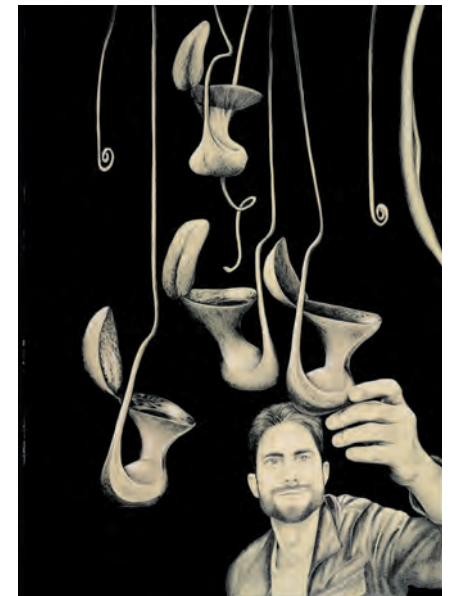
'This could be a potentially useful future crop as the climate changes,' says Thorogood. 'Having started looking at these plants with a taxonomic question in mind, it's ended up being something quite different and potentially exciting.'

In the future, Thorogood dreams of being able to spend more time with indigenous communities, particularly in South-east Asia, who rely on plants in a way that Westerners have lost sight of. 'There are people out there who are very much attuned to the land

Fabulous flowers



Opposite page: (bottom) *Nepenthes x alisaputrana* and *Nepenthes villosa* from Mount Kinabalu, Borneo. This page, clockwise from left: Desert Hyacinth in the Arava Valley; Chris on one of his expeditions; Self-portrait with Pitcher Plants



and the plants that grow there. We buy things in shops and forget that they even come from plants, and have only vague knowledge about where they grow. But there are people in many parts of the world whose lives are much more closely intertwined with plants, and what I would really like is to spend more time in their communities and learn from them.' ■

◆ *Chasing Plants: Journeys with a Botanist through Rainforests, Swamps and Mountains* by Chris Thorogood is published by Kew Publishing, price £25. His art can be seen on Instagram and Facebook at @illustratingbotanist and on Twitter at @thorogoodchris1