

Himalayan balsam

ALTHOUGH it hails from a remote region of the western Himalayas, this plant now looks entirely at home on the banks of English rivers. Brought to the UK in 1839, it quickly escaped from Victorian gardens and colonised river banks and damp woodlands. Now it is spreading across Europe, New Zealand, Canada and the US.

This is Himalayan balsam (*Impatiens glandulifera*), also known as policeman's helmet because of its resemblance to the British bobby's headgear. But don't be fooled by its prettiness – this is one of the most aggressive weeds in the world.

Why so prolific? In the Himalayas the plant is held in check by various pests, but take these away and it grows and reproduces unhindered. A single plant can reach 3 metres tall and produce 2500 seeds, which it discharges explosively over distances of up to 7 metres.

That alone doesn't explain its spread: humans have helped. The plant is a particular favourite of bee-keepers because it flowers for longer than most other plants and produces nectar higher in sugar than any native European flower. Other people just like its looks and take it with them on their travels.

That isn't good news for local plants. Once Himalayan balsam arrives, other plants don't get a look-in. There is a dramatic drop in native plant diversity, in some places by up to 25 per cent. And when it dies down each winter, its bulky stalks can clog streams, causing flooding. This leaves river banks bare and liable to erode.

So what can be done? The plant can be pulled up by hand or easily



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destroyed with weedkiller, but this is hard work and time-consuming, not to mention expensive. A whopping £300 million would be needed to tackle the UK alone.

Enter Rob Tanner, a biocontrol scientist at CABI, a non-profit agricultural organisation based near London. Tanner wants to combat the problem by introducing the plant's natural predators into the areas to which it has spread. Last year, he and colleague Harry Evans travelled to Pakistan to hunt them down. After scaling remote mountain faces, he found the killers he was looking for, including four insects and three fungal pathogens.

Releasing these organisms in the UK and elsewhere would kill the Himalayan balsam but they could also endanger other plants and animals. So Tanner is currently studying them in his lab. If they turn out only to attack the balsam, he hopes to release them into the wild within five years. Then the task of halting the spread of this alien invader can begin, and Himalayan balsam can return to obscurity.

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Tekst 2 Himalayan balsam

- 3p 2 Geef van elk van de onderstaande beweringen aan of deze wel of niet in overeenstemming is met de inhoud van de tekst "Himalayan balsam".
- 1 Himalayan balsam spread from the Himalayas across the continent of Europe to the UK.
 - 2 Himalayan balsam has become popular with bee-keepers because of its resistance to diseases and pests.
 - 3 Himalayan balsam poses a threat to the environment even after its growing season.
 - 4 It has been made illegal for Britons to bring back Himalayan balsam from their travels.
 - 5 If Himalayan balsam only grew in the wild in the UK it would not be such a nuisance.
 - 6 Himalayan balsam could be wiped out in the UK if its natural enemies were introduced there.

Noteer het nummer van elke bewering, gevolgd door "wel" of "niet".

Bronvermelding

Een opsomming van de in dit examen gebruikte bronnen, zoals teksten en afbeeldingen, is te vinden in het bij dit examen behorende correctievoorschrift, dat na afloop van het examen wordt gepubliceerd.