The New Forest Non-Native Plants Project

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The New Forest Non-Native Plants Project (NFNNPP) is a partnership project, hosted by Hampshire & Isle of Wight Wildlife Trust, to help stop the spread of invasive non-native plants in the New Forest area.

'Non-native' species have been introduced to areas outside their natural range as a result of human activity. They are sometimes referred to as 'alien' species.

An 'invasive non-native species' is defined by the Great Britain Invasive Non-Native Species Strategy 2023-2030 (February 2023) as 'any non-native animal or plant that has the ability to spread, causing damage to the environment, the economy, our health or the way we live'. Today about 10-15% of non-native species established in Great Britain cause significant adverse impacts.

The NFNNPP aims to find out where invasive non-native plants occur, offer advice to landowners and land managers, provide help with control, undertake/commission research and raise awareness about invasive non-native plants and the problems they cause. These aims relate closely to the principles enshrined in the GB Invasive Non-Native Species Strategy. Successful partnership working at the catchment scale is key to the success of the Project.

The NFNNPP works with a wide range of people and organisations and is extremely grateful for the help given by volunteers with surveying/monitoring and practical control.

Five examples are given of volunteer involvement:

- surveying and controlling Himalayan Balsam *Impatiens glandulifera*
- monitoring Cotoneaster mainly *Cotoneaster horizontalis* and *C. simonsii*
- surveying and monitoring Gaultheria *Gaultheria shallon*
- surveying Parrot's Feather *Myriophyllum aquaticum*
- monitoring and controlling Purple Pitcher Plant *Sarracenia purpurea*

Additional commentary to accompany presentation on the New Forest Non-Native Plants Project by Catherine Chatters

Slide 1
The New Forest Non-Native Plants Project was set up in 2009 to help stop the spread of invasive non-native plants in the New Forest area.

Slide 2

What are invasive non-native species? Non-native species have been introduced to areas outside their natural range by human activity. They are sometimes referred to as 'alien' species.

Slide 3
Some non-native species have been deliberately, for example conifers introduced for forestry plantations or ornamental plants introduced for horticulture. Other non-native species have been introduced accidentally.

Slide 4
Some non-native species become invasive as they spread and cause environmental, economic, or social damage….

Slide 5
…but only 10-15% of the non-native species established in Great Britain are considered to be invasive (species such as the Horse Chestnut or the Little Owl, shown in the photos on this slide, are non-native but have not become 'invasive'.)

Slide 6
Here's a selection of just some of the invasive non-native plants that have been recorded in the New Forest. Some invasive non-native plants spread as they produce lots of seed, some spread via rhizomes, others spread when fragments of plant break off and are carried downstream to form new colonies.

Some of these invasive non-native plants are subject to legal provisions and it's the landowner's responsibility to stop them spreading; however, effective control needs to be undertaken at the catchment scale, so the New Forest Non-Native Plants Project was set up as a partnership project, hosted by Hampshire & Isle of Wight Wildlife Trust.

Slide 7
The New Forest Non-Native Plants Project aims to:

- find out where invasive non-native plants occur;
- offer advice to landowners and land managers;
- provide practical help with control - either by volunteers or by professional contractors;
- undertake and commission research (for example, research into the impacts caused by invasive non-native plants, or research into methods of control);
- raise awareness about invasive non-native plants and the problems they cause.

The Project's work accords with the principles enshrined in the Great Britain Invasive Non-Native Species Strategy (February 2023).

Slide 8
The success of the Project depends on effective partnership working with a wide range of organisations and people including landowners, local naturalists, contractors, and volunteers.

I've been asked to give some examples of the role of volunteers in helping the Project with surveys, monitoring, and control. Although the Project undertakes a lot of work on

privately-owned land in the New Forest area, the five examples I've chosen all relate to the Crown Land.

Slide 9
The first example is Himalayan Balsam. Himalayan Balsam was introduced as an ornamental garden plant. It thrives near water and spreads rapidly as its seed pods 'explode' and the seeds are carried downstream and then germinate in suitable locations.

Slide 10
Himalayan Balsam can form dense colonies, outcompeting the native vegetation.

Slide 11
During 2009, volunteers Simon Kain and Phil Latto from Southampton University surveyed watercourses in the New Forest to find out where Himalayan Balsam occurred.

Slide 12
Their research revealed that Himalayan Balsam occurs in relatively few places on the Open Forest as, in most places, the balsam plants are kept in check by the grazing by commoners' animals.

Slide 13
However, the students discovered that Himalayan Balsam did occur in some situations on the Open Forest; for example, on parts of some steep-sided stream banks where the animals didn't reach, or where a tree had fallen down and a tangle of brambles and scrub had grown up, protecting the Balsam plants from the grazing, allow them to flower and shed seed.

Slide 14
Himalayan Balsam also occurred in very wet, muddy areas along the Beaulieu River where cattle and pones were unlikely to graze if they could access other vegetation more easily. The red dots on the map produced by the students indicate the relative size of the patches of Himalayan Balsam that they recorded along this stretch of the Beaulieu River between Ipley and Northgate. For example, they recorded patches of 3,000+ Himalayan Balsam plants, 2,500+ Himalayan Balsam plants, 1,000+ Himalayan Balsam plants.

Slide 15
The results of their research were really useful as they demonstrated the important role of grazing in the control of invasive non-native plants such as Himalayan Balsam.

Slide 16
Their research also enabled me to direct volunteer effort to areas where Himalayan Balsam plants needed to be controlled by hand-pulling.

Slide 17
The practical work by the volunteers has made a huge difference. By 2020 only 5 Himalayan Balsam plants were found in the section between Ipley and Northgate that had been surveyed by the students in 2009.

Slide 18
The second example is Cotoneaster. A number of invasive non-native Cotoneaster species have colonised the New Forest.

Slide 19
Cotoneaster plants typically grow in calcareous soils so they are often associated with the former wartime airfields in the New Forest. This slide shows volunteer Cynthia Swann standing next to Cotoneaster growing by the perimeter road of the former WWII airfield at Beaulieu Heath. The photo on the right shows a cross-section through the road - you can see where the calcium has leached out into the surrounding acidic soils.

Slide 20
Volunteers have helped to record the presence of Cotoneaster – mainly *Cotoneaster horizontalis* and *Cotoneaster simonsii*.

Slide 21
Their records enable maps to be created by colleagues in Hampshire & Isle of Wight Wildlife Trust. The map on this slide shows how the presence of Cotoneaster is closely associated with the perimeter road and the 'ghosts' of the former runways of the former wartime airfield at Beaulieu Heath. The maps help the contractors to find the Cotoneaster plants that need to be treated with herbicide.

Slide 22
The third example is Gaultheria. *Gaultheria shallon* was introduced from North American and has colonised the Open Forest and Inclosures.

Slide 23
Extensive areas of the Open Forest south of the Rhinefield House Hotel had become invaded by Gaultheria, including the area shown in this slide. Here a volunteer helped me undertake a baseline survey during November 2018 and a map was drawn up to help the contractors find the plants that needed to be treated.

Slide 24
Each autumn volunteers have helped to monitor this area where the Gaultheria had been treated with herbicide; by 2021 we were finding only occasional, small plants and by autumn 2023 the Gaultheria appeared to have been eradicated from this particular area.

Slide 25
Volunteer David Smart has helped me survey the Gaultheria growing in other areas, for example the area on the Open Forest shown in the photo on the left of this slide and Fletcher's Hill Inclosure as shown on the map on the right of this slide.

Slide 26
The fourth example is Parrot's Feather which was introduced from South America as a plant for garden ponds.

Slide 27
The photo on the right of this slide shows extensive growth of Parrot's Feather at Hincheslea Bog between Brockenhurst and Sway. This was of particular concern as Hincheslea Bog supports an aquatic fern called Pillwort *Pilularia globulifera*; Pillwort

has declined nationally and, although the New Forest is now a stronghold for this species, it was likely to be outcompeted by the Parrot's Feather at Hincheslea Bog.

Slide 28
The New Forest Non-Native Plants Project commissioned contractors to control the Parrot's Feather at four sites on the Open Forest and these sites were monitored by volunteers Sam and Ben.

Slide 29
Their monitoring helped the contractors to find the Parrot's Feather plants that needed to be treated. This slide shows the contractors treating Parrot's Feather in the pond at East End.

Slide 30
The last example is Purple Pitcher Plant, a carnivorous species from North America which had been planted deliberately and unlawfully into ecologically sensitive, species-rich valley mires.

Slide 31
The Purple Pitcher Plants flower, produce seed and spread.

Slide 32
As well as causing damage to the vegetation of the valley mires, being carnivorous they have an impact on the invertebrate fauna. One of their main prey species is the Sexton Beetle - thanks to Paul Brock for allowing me to use his excellent photograph.

Slide 33
Volunteers have helped to record and dig up Purple Pitcher Plants from a number of locations on the Open Forest.

Slide 34
We are now mainly finding young, immature Purple Pitcher Plants and very few seedlings and we appear to have eradicated the Purple Pitcher Plant populations at some of the sites.

Slide 35
Thank you to all our wonderful volunteers….

Slide 36
…and I'd like to thank the Project partners for their funding and support.