

International Day for Biological Diversity.



Invasive Non-native Species

Background

The Convention on Biological Diversity designated the 22nd May as International Day for Biodiversity, an annual event to raise awareness and understanding of biodiversity issues internationally. This year's focus was invasive non-native species.

An invasive non-native species is any non-native animal or plant that has the ability to spread causing damage to the environment, the economy, our health and the way we live.

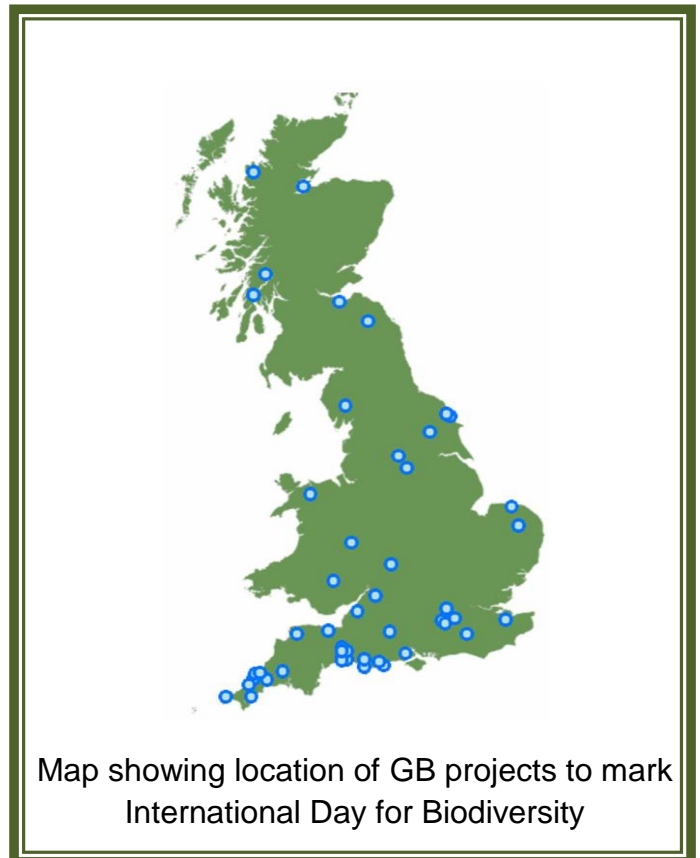
Case Study

Slipper limpet (*Crepidula fornicata*)



The slipper limpet is a native of the east coast of North America that was introduced accidentally as part of the oyster trade. It is known to compete with native bivalve molluscs for space and food. It can be a serious pest on oyster beds occurring in very high densities as it builds up a chain of individuals which piggy-back on one another. It can reproduce very rapidly and blanket whole areas of the sea floor.

International Day for Biodiversity, 2009



This year, to mark International Day for Biodiversity a number of government and non-government organisations carried out a range of activities to raise awareness of the issues associated with invasive non-native species. This included, for example, a national day of volunteer action to tackle invasive non-natives.

ACTION DAY

A range of both national and local conservation organisations carried out a weekend of action tackling invasive non-native species. There was a range of projects across Great Britain involving activities such as invasive plant management and surveying for invasive non-native species.

The National Trust

The National Trust estate carried out over 30 projects across England to highlight the real challenges of managing sites affected by invasive plant species.

Across the National Trust the five major invasive plant species are Japanese knotweed, *Rhododendron ponticum*, Himalayan balsam, New Zealand pygmyweed and laurel. In the last ten years there has been an increasing threat to rivers and lakes from invasive plants such as parrot's feather, where small pieces float downstream increasing its spread, and New Zealand pygmyweed, which can spread rapidly and cover waterbodies.

Hundreds of thousands of pounds and thousands of volunteer hours are spent each year to clear and control these plants and minimise the impact on wildlife.

“Controlling invasive plant species is a little bit like trying to put the genie back in the bottle. Once these plants have made it into the wild it's a long and complex process to control them which is vital to reduce the impact on wildlife.” – Simon Ford, Nature Conservation Advisor, National Trust.

Rhododendron control on Marsden Moor

A group of volunteers from Kirklees Adult Services and the National Trust took part in *Rhododendron* control on Marsden Moor. Smaller plants were pulled by hand while bigger ones had to be dug out. Plants were then bagged up and brought off the moor to prevent the sheep eating them. Everyone had a great day out despite the poor weather conditions.



Rhododendron ponticum is native to Asia, Spain, Portugal, Turkey and Bulgaria and was first introduced into the UK as an ornamental plant in 1793. It has become naturalised, particularly in woods, heath, upland acid grassland, scrub, peat land, sand dunes and roadside verges. *Rhododendron* reduces biodiversity by forming dense stands and deep leaf litter. This litter remains even after the plant is eradicated and can form a toxic humus layer, which is reported to retard new growth of other plant species for up to seven years.

Avon Invasive Weeds Forum: Halt the Invasion!

A group of 35 volunteers from the Environment Agency, Defra and the local community spent the day clearing Himalayan balsam from the banks of the river Frome, Frampton Cotterell, South Gloucestershire.



Himalayan balsam, *Impatiens glandulifera*, was introduced to the UK from Asia in 1839 as an ornamental plant.

Himalayan balsam is commonly found on riverbanks across the UK, although it has only a sparse distribution in Scotland. Himalayan balsam germinates earlier and faster than native species and forms tall

dense stands which can cause a reduction in native biodiversity. Himalayan balsam dies back completely in the winter which exposes riverbanks to erosion and increases flood risk.

On Sunday 24th May a separate event was held with 43 volunteers from the local community. Vicky Freke from the Environment Agency gave a talk on invasive weeds found along Colliters Brook. The talk was followed by a survey of the watercourse from its source to the river Avon.

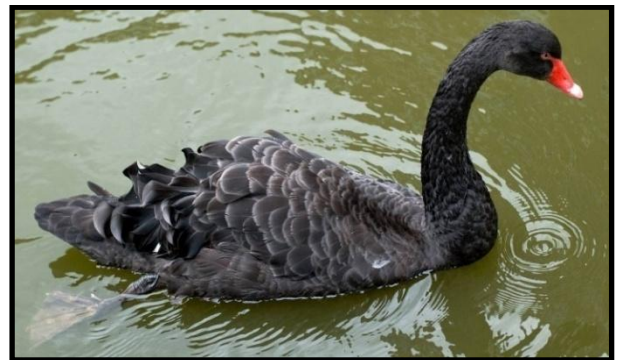
Lake District National Park

As part of an ongoing management programme local volunteers cleared Himalayan balsam at Windermere's Calgarth Park.

With help from local volunteers and funding from the Environment Agency, the Windermere Invasive Species Group has had significant success clearing Himalayan balsam and Japanese knotweed. Of the 27,000 square metres of Himalayan balsam in Rothay valley, 70 per cent has been pulled and 60 per cent of 4,422 square metres of knotweed has been sprayed.

British Trust for Ornithology

The British Trust for Ornithology asked members to report sightings of the black swan, *Cygnus atratus*, in the wild. This aggressive species, introduced from Australia, can outcompete native wildfowl and has the potential to become an agricultural pest.



Plantlife: Against the flow

Plantlife launched a public awareness campaign and survey of invasive aquatic plants. This was achieved with support from Angling Trust, Esmée Fairbairn Foundation, Garden Centre Association, Royal Horticultural Society, Ornamental Aquatic Trade Association, Non-native Species Secretariat, The John Ellerman Foundation and The National Trust.

The survey asked members of the public to report sightings of the five most invasive pond plants, on sale at their local garden centre, thriving in a nearby waterbody, or even growing in their own garden pond.

The five species people were asked to report were: parrot's feather; New Zealand pygmyweed; creeping water primrose; floating pennywort; and water fern.

The campaign will run throughout the summer.



Hampshire and Isle of Wight Wildlife Trust

A new project to tackle invasive non-native plants which threaten important wildlife-rich sites in the New Forest was launched at Lepe Country Park.

The New Forest Non-Native Plants Project is a joint initiative between the Hampshire and Isle of Wight Wildlife Trust, Environment Agency, Forestry Commission, Defra, Natural England and New Forest National Park Authority. The Project will focus on five particularly invasive non-native plant species, namely Japanese knotweed, Himalayan balsam, giant hogweed, American skunk cabbage and New Zealand pygmyweed.

“It is vitally important that action is taken to prevent the spread of these aggressive plant species. They are such thugs that

they can elbow-out the beautiful and special native plants of the New Forest which is one of the most important areas for wildlife in western Europe”- Catherine Chatters, New Forest Non-Native Plants Officer

Case Study

Floating pennywort (*Hydrocotyle ranunculoides*)



Floating pennywort is a native of New Zealand which has been brought to Britain to stock aquaria and garden ponds. In common with several other aquatic plants it has become established in the wild, mainly as a result of inappropriate disposal of excess plants. It is now established mainly in southern England in slow flowing or still waters. This species is highly invasive and can spread rapidly forming dense mats on the surface of the water and into the water column. The effect of this is to choke waterways, prevent oxygen and light penetration into the water column impacting negatively on fish life, plants and invertebrates.



Eden Rivers Trust

Eden Rivers Trust organised a Himalayan balsam management day where volunteers cleared this plant from the woodland along the Old Petteril, a tributary of the River Petteril, near Calthwaite, Penrith in Cumbria. The groups had already carried out balsam control on this site last year and were delighted to find that one area of woodland had been cleared completely. They group will be returning in June to continue the work.

Norfolk Non-native Species Initiative



The spaceship was part of a special display organised by the Norfolk Non-native Species Initiative to raise awareness of invasive ‘alien’ species on International Day for Biodiversity. The display included live examples of some of the most damaging invasive non-native species in the county, including signal crayfish, floating pennywort, Japanese knotweed and Australian swamp stonecrop. Set against the stunning glass and steel backdrop of The Forum, Norwich, the display received a large amount of public interest and a steady stream of curious visitors. The exhibition was organised in collaboration with the British Wild Flower Plants, which promotes the use of native garden plants.

Cornwall Knotweed Forum

Trevor Renals, co-founder of the Cornwall Knotweed Forum and Environment Agency non-native species advisor, gave a talk at Cornwall college titled ‘Invasive non-native species and their conquest of Cornwall’. The talk focused on the impacts invasive non-native species have had on the county and looked at the significant successes the network of ecologists, land managers and volunteer organisations have had in controlling these species in Cornwall.

Sea Life Centres

In collaboration with the Marine Biological Association, Sea Life Centres held an activity day for primary school children. The children received special training at 12 Sea Life centres and marine sanctuaries to enable them to search out, identify and record some of the estimated 65 non-native marine species that have colonised our coastline and coastal waters.

Wiltshire Avon Invasive Plant Forum

The Forum was launched at Salisbury Play House. At their first meeting members began to draft a Strategic Invasive Plant Manual for the Avon river catchment.

On Saturday 23rd May a public awareness day was held on a water meadow near Salisbury. Talks were given during the day on invasive species such as signal crayfish, mink and invasive non-native plants.

Argyll and Bute Council

The council launched their **‘WHAT’S FOR THE GARDEN STAYS IN THE GARDEN’** campaign. The campaign encourages gardeners to be more cautious about allowing invasive non- native species to establish in the wider countryside.

City & County of Swansea

The countryside team lead a walk up to Mumbles Hill to look at the impacts of invasive cotoneaster and holm oak.

Pembrokeshire Coastal forum

The Pembrokeshire coastal forum organised an event to tackle wireweed, and invasive seaweed.

Wireweed (*Sargassum muticum*)



Originating in south-east Asia and Japan, this species is believed to be an unintentional introduction with commercial oysters. Wireweed is a fast growing species that can self-fertilise. It competes with native sea grasses for space and light and can become a nuisance in harbours, beaches and shallow waters.

Bridgend County Borough Council

This event involved a walk around Bryngarw Country Park, highlighting the extent of the problem of invasive non-native species, impacts of these on our natural flora and fauna, benefits and methods of eradication. The walk also passed two wild honey-bee colonies providing an opportunity to talk about the indirect impact of dense stands of Himalayan balsam on our native wildflowers. This non-native species is more attractive to bees on which they gorge in preference to native wildflowers, reducing their reproductive

success. Following the walk, volunteers carried out some Himalayan balsam control.

GB Non-native Species Secretariat

Members of the Secretariat undertook Rhododendron clearance in the woodland on the Fera site, Sand Hutton, York.

“Invasive non-native species, are one of the greatest threats to biodiversity and have a significant financial impact on the national economy. Pivotal to reducing the impact of invasive non-native species is coordinated action by everybody working in partnership.” – Niall Moore, Head of the Non-native Species Secretariat.

Other Initiatives

Non-native Species Information Portal

The GB Non-native Species Secretariat launched the Non-native Species Information Portal replacing the old non-native species fact files and promising more for the future. While still under development at the moment, the portal will eventually be the source of distribution data on non-native species, as well as providing profiles for 300 different species. Each fact sheet will have details on the species ecology, introduction pathways, management, relevant legislation.

Public Attitudes Research

Amongst a variety of other actions, the Invasive Non-native Species Framework Strategy for Great Britain tasked the GB administrations to:

Undertake action to assess public attitudes and collect baseline

information on public awareness and understanding of invasive non-native species issues.

To fulfil this Defra commissioned a survey to establish public attitudes, awareness and behaviour towards non-native species among the general public and two key stakeholder groups in England. This formed part of a wider research project looking at attitudes and awareness toward wildlife management. The report, which was published on 22nd May, can be accessed on the Defra and GB Non-native Species Secretariat websites.

Non-native species image library

The GB Non-native Species Secretariat launched a web gallery containing over 1000 images. The images are freely available for all to use to help communicate non-native species issues.

Identification sheets

Defra and the GB Non-native Species Secretariat have commissioned a series of identification sheets to help members of the

public recognise and understand the issues associated with certain non-native species, such as American mink, Japanese knotweed and hottentot fig. Twenty-eight sheets have already been published on the GB Non-native Species Secretariat website. A further thirty-five are currently under development.

Biodiversity indicators in your pocket



A suite of biodiversity indicators for the UK was first published in June 2007. The indicators show changes in aspects of biodiversity such as the population size of important species or the area

of land managed for wildlife. They provide part of the evidence to assess whether international biodiversity targets have been achieved. On International Day for Biodiversity an updated version of these indicators was published, which for the first time included an indicator on the impact of invasive non-native species.

Natural England policy on non-native species

Natural England announced its new invasive non-native species policy on International Day for Biodiversity. In keeping with the GB Strategy, the new policy sets out a hierarchical approach of prevention, detection/rapid reaction and control/eradication in addition to seeking to restore those priority habitats and species adversely affected. Calling on a co-ordinated approach to tackle the significant impacts of invasive non-native species, Natural England is actively supporting the delivery of the GB Strategy.

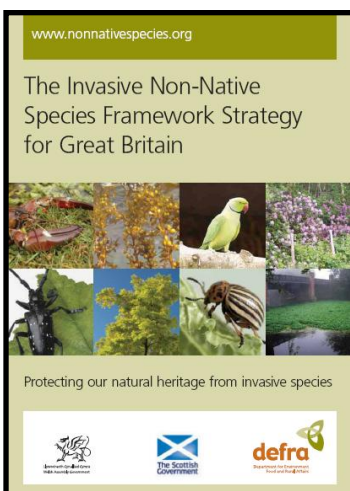
Report into potential new invasive non-native species

To support the delivery of its new invasive non-native species policy, Natural England

published a report on International Day for Biodiversity to identify potential new invasive non-native animal species in England. The report will contribute towards ensuring that appropriate preventative measures and rapid reaction is planned to respond to any incursions of potentially new invasive animal species. The Natural England commissioned report ('Horizon scanning for new invasive non-native animal species in England' ref NECR009) is available on the Natural England website.

Further Information

Invasive Non-native Species Framework Strategy for Great Britain



The Invasive Non-Native Species Framework Strategy for Great Britain was published on 28th May 2008 jointly by Defra, the Scottish Government and the Welsh Assembly Government. The

Strategy is intended to provide a strategic framework within which the actions of government departments, their related bodies and all stakeholders can be better co-ordinated. Its overall aim is to minimise the risks posed, and reduce the negative impacts caused, by invasive non-native species in Great Britain. This strategy was produced by a working group of key stakeholders from industry, Non Governmental Organisations and government.

The strategy can be accessed on the GB non-native species secretariat website.

Web links

GB Non-native Secretariat

www.nonnativespecies.org

Defra, non-native species policy

www.defra.gov.uk/wildlife-countryside/wildlife-manage/non-native/index.htm

Scottish Government, non-native species policy

www.scotland.gov.uk/Topics/Environment/Wildli-Habitats/InvasiveSpecies

Biodiversity indicators in your pocket

<http://www.jncc.gov.uk/page-4229>

Natural England

www.naturalengland.org.uk

National Trust

www.nationaltrust.org.uk

Avon Invasive Weeds Forum

www.aiwf.org.uk

Lake District National Park

www.lake-district.gov.uk

British Trust for Ornithology

www.bto.org

Plantlife

www.plantlife.org.uk

Against the flow!

www.plantlife.org.uk/uk/plantlife-get-involved-againsttheflow-surveyform.html

Hampshire and Isle of Wight Wildlife Trust

www.hwt.org.uk

Eden Rivers Trust

www.edenriverstrust.org.uk

Norfolk Non-native Species Initiative

www.norfolkbiodiversity.org/nonnativespecies

Cornwall Knotweed Forum

www.cornwall.gov.uk/default.aspx?page=13824

Wiltshire Wildlife Trust

www.wiltshirewildlife.org

Pembrokeshire Coastal Forum

www.pembrokeshirecoastalforum.org.uk

City & County of Swansea

www.swansea.gov.uk

Bridgend County Borough Council

www.bridgend.gov.uk

Convention on Biological Diversity

www.cbd.int

Daisie

www.europe-aliens.org

Acknowledgements

All photographs are taken from the GBNNSS gallery except where indicated.

Page 2 - Volunteers on Marsden Moor, Rob Henry, National Trust

Page 3 – Volunteers on the river Frome, Huw Thomas, Defra

Page 4 – Catherine Chatters, Peter Hutchings, Hampshire and Isle of Wight Wildlife Trust

Page 5 – Alien Spaceship, Ian Forster