

# Data and Information on Invasive Non Native Species

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National Forum for Biological Recording



# Data on Invasive Species

## GB Non-Native Species Secretariat Species Register:

**1,919** established non-native species in Britain

**1,788** species (**93%**) have records on the NBN Gateway

Over **5.4 million** records available

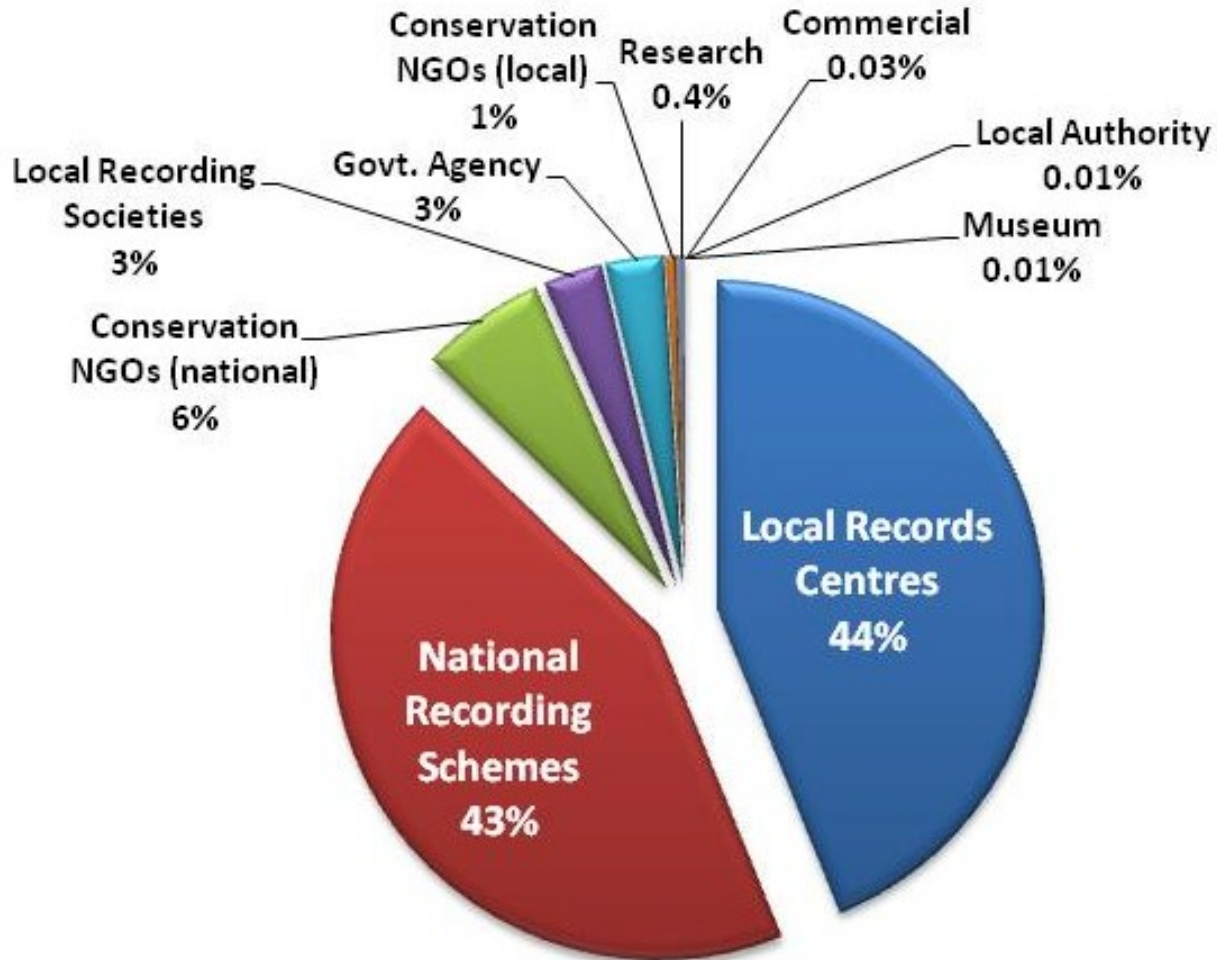
**234** species defined as having a negative ecological impact

**192** species (**82%**) have records on the NBN Gateway

Over **1.8 million** records available

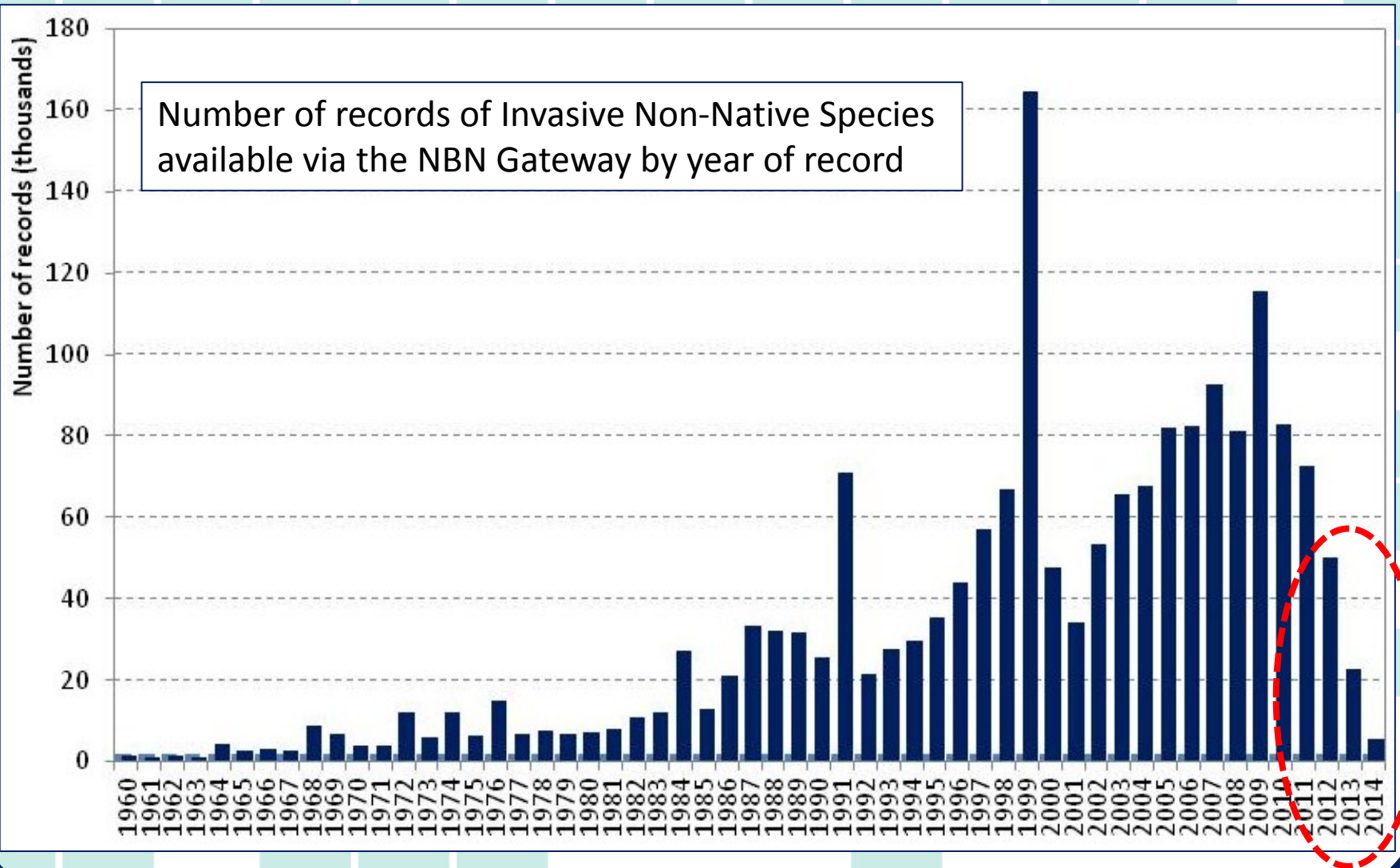


# Data Providers

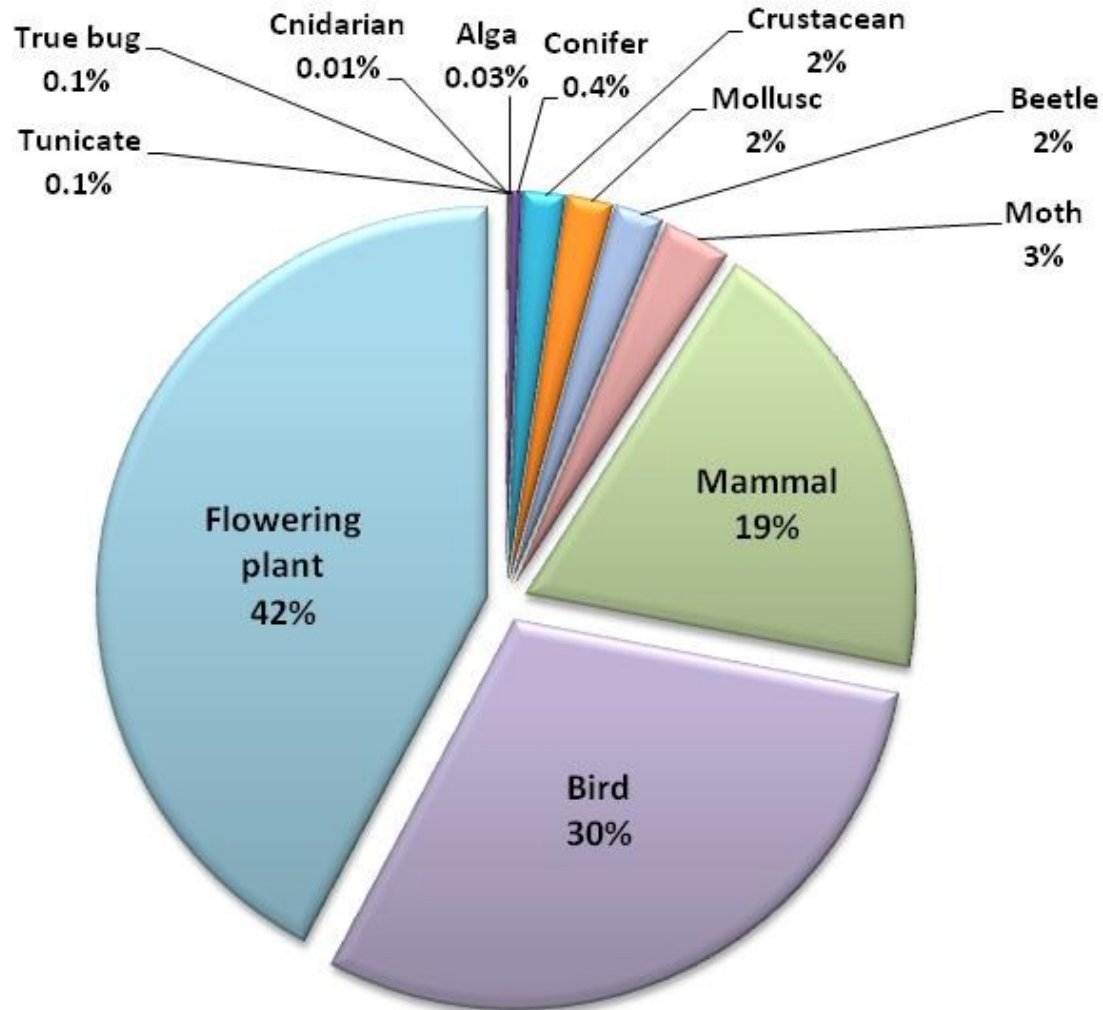


Records of Invasive Non-Native Species available via the NBN Gateway by data provider type (1.8m records of 192 species)

# Data Currency



# Taxonomic Coverage



Taxonomic breakdown of records of Invasive Non-Native Species available via the NBN Gateway (1.8m records of 192 species)



# Taxonomic Coverage

## Beetles and bugs:

25% of the INNS species list

2% of the records



## Birds and mammals:

11% of the INNS species list

49% of the records.

# Absence Records

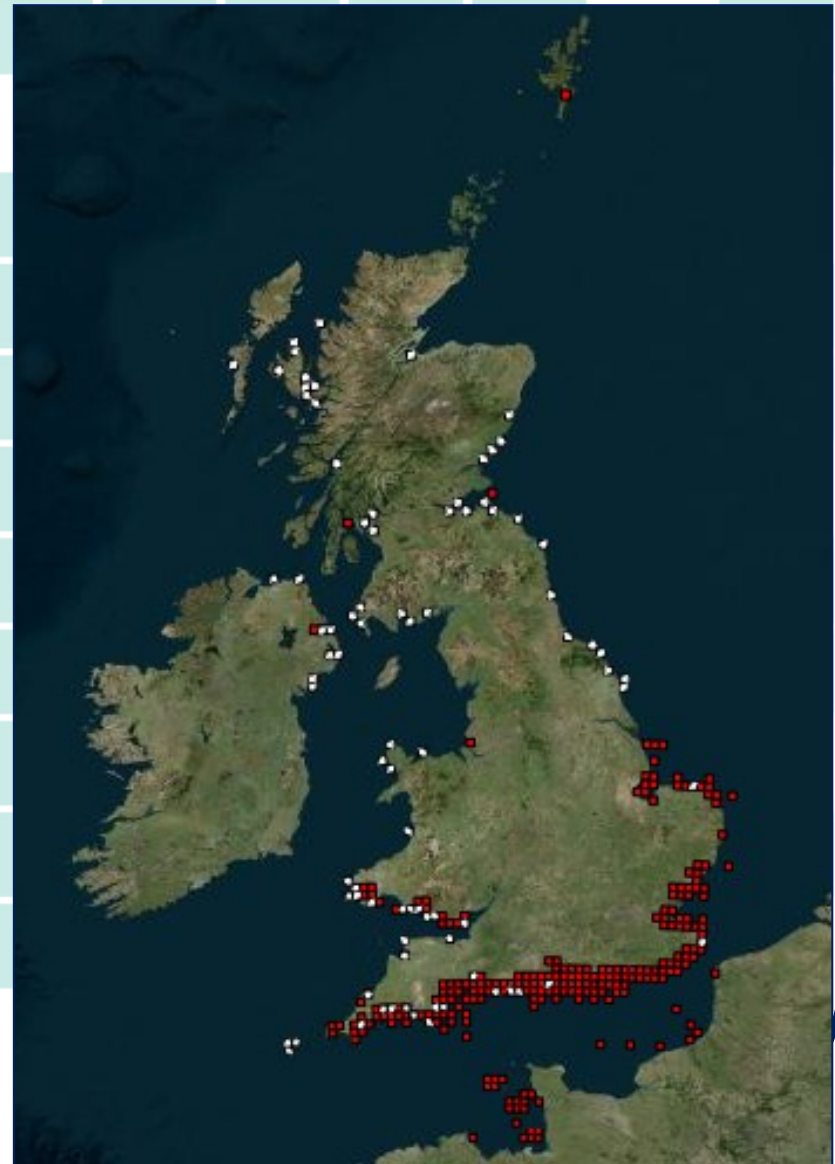
**2,238** absence records for Invasive  
Non Native Species (0.1% of records)

**3,084** absence records for established  
Non-Native Species (0.06% of records)

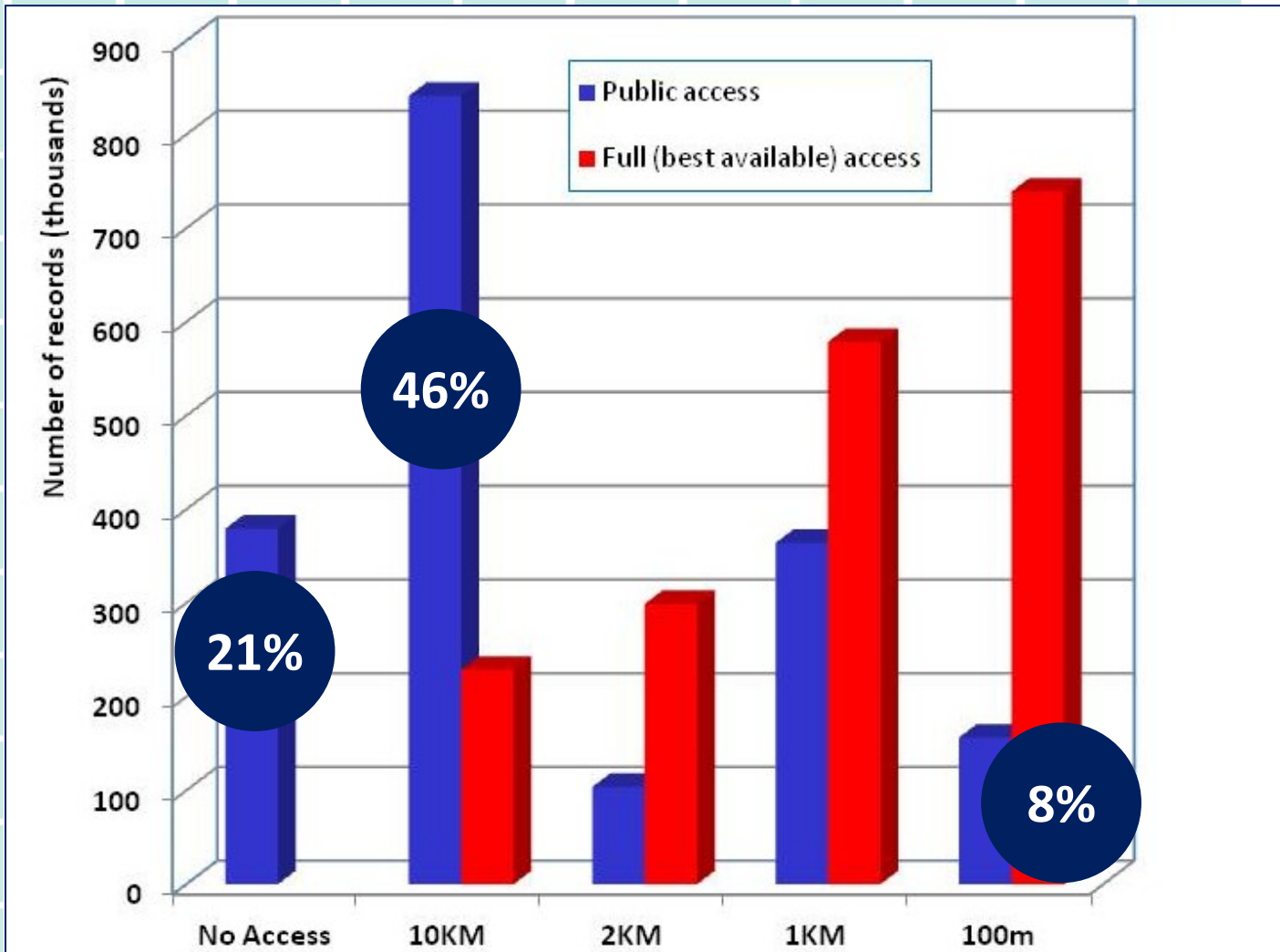
The NBN Database has just over  
30,000 absence records in total.



Presence (red) and absence (white) records of  
American Slipper Limpet, *Crepidula fornicata*



# Data Accessibility



Resolution of records of Invasive Non-Native Species Records available via the NBN Gateway

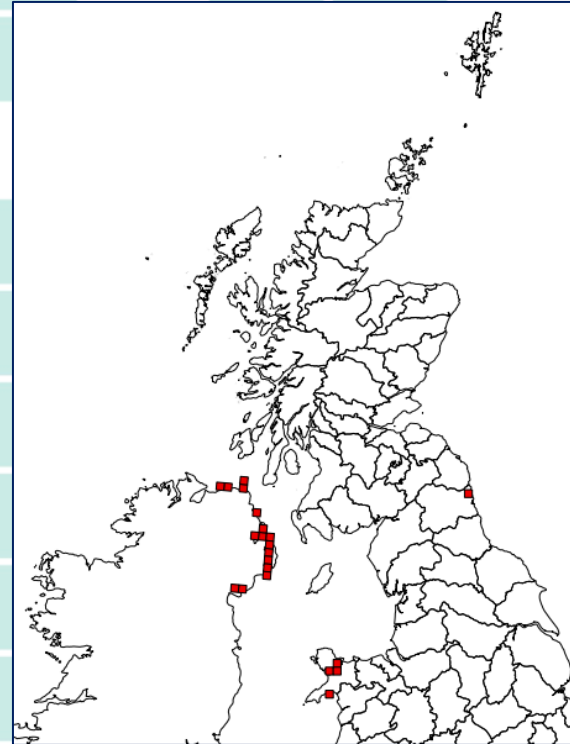


# Public access to data: does it matter?



*Corella eumyota*

© Becky Hitchin



According to NBN, the first record from Scotland, but somehow I doubt that's the case.



I think data flow is so important for recorders' morale, and for keeping everyone up to date with the new records that we are continuously finding.

# Public access to data: does it matter?



*Heterosiphonia japonica*

© Sarah Bowen



I did flirt with that as an ID but discounted it, partly to do with distribution. Any reason there aren't any records on NBN, Paula? Is it because it's an introduced species?

# Public access to data

**34,807** records available via the NBN Gateway

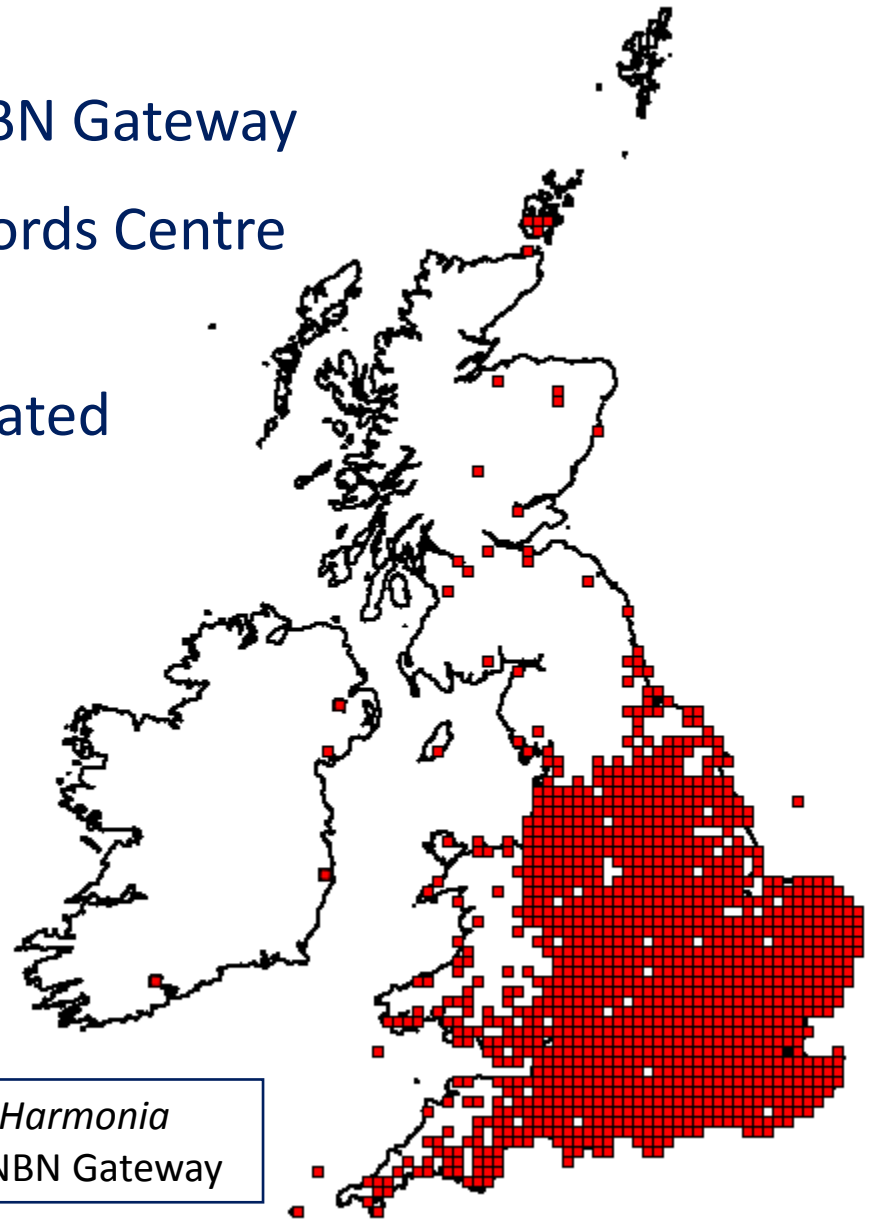
**89%** come from the Biological Records Centre (including **16%** via iRecord).

**48** datasets, of which 30 were updated in 2014.



© Mike Majerus

10km grid map of Harlequin Ladybird (*Harmonia axyridis*) records 2004-2014 from the NBN Gateway





# Species Factsheets

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GB non-native species secretariat

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Home > Species Information > Asian shore crab, *Hemigrapsus sanguineus*

## Asian shore crab, *Hemigrapsus sanguineus*

Search for another factsheet

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- Overview
- Invasion history
- Ecology & Habitat
- Distribution
- Impacts
- References and Links

### Overview

**Short description of *Hemigrapsus sanguineus*, Asian shore crab**

A small crab with a square carapace (shell) up to 4.5 cm, variable in colour from orange-brown to greenish-black. Three distinct 'teeth' on each side of the carapace and banding on the walking legs are distinguishing features, as is a fleshy bulb at the pincer base of larger males. The teeth on the carapace are more acute than those of *H. takanoi* a closely related species.

**Description of *Hemigrapsus sanguineus*, Asian shore crab status in GB**

First recorded in South Wales and Kent in spring 2014. Specimens have been reported from Jersey and Guernsey since 2009.

**Impacts summary: *Hemigrapsus sanguineus*, Asian shore crab**

A voracious, opportunistic omnivore, this crab may significantly affect native crab, fish and shellfish populations by disrupting the food web. Where it has established the crab competes with native crabs for food and space. It could be potentially damaging to shellfish production as it may prey on commercially important species.

**Habitat summary: *Hemigrapsus sanguineus*, Asian shore crab**

The Asian shore crab inhabits estuarine and marine habitats and occurs within the intertidal or subtidal zones. It is typically found on more exposed rocky shores but also occurs in soft sediments under the shelter of rocks or shells, artificial structures, mussel beds and oyster reefs.

### Overview table

Environment:	Marine
Species status:	Non-Native
Native range:	Japan, Russian Federation
Invasion pathway:	Stowaway - marine
Functional type:	Predator
Status in GB:	Absent
Status in England:	Absent
Status in Scotland:	Absent
Status in Wales:	Absent



# Species Factsheets

## Asian shore crab *Hemigrapsus sanguineus*

### Species Summary

**Scientific name:** *Hemigrapsus sanguineus*

**Native to:** Western Pacific Ocean from Russia, along the Korean and Chinese coasts, to Hong Kong, and the Japanese archipelago

**Habitat:** Inhabits shallow hard-bottom intertidal or sometimes subtidal habitat. They tend to aggregate at high densities under rocks where they overlap habitats with native crab species. The Asian crab can tolerate a wide range of salinity and temperature as well as damp conditions in the upper intertidal regions.



### Key ID Features

- 3 lateral spines on each side of a square-shaped carapace.
- Light and dark bands on legs with red spots on the claws.
- Colour variable: commonly orange-brown, also green and maroon.
- Larger males have fleshy bulb at base of pincers.
- Small with adults ranging from 35 mm (1.5 inches) to 42 mm (1.65 inches) in carapace width.
- Maximum size reported for the carapace width is 43.9 mm.
- Males have a fleshy swelling (vesicle) at the base of the moveable finger on the claws.

### Species Characteristics

An opportunistic omnivore, tolerates a wide salinity range, feeds on macroalgae, saltmarsh grass, larval and juvenile fish and small invertebrates such as amphipods and gastropods. In New Jersey, they are found in the mid and upper shore. Highly reproductive with a breeding season from May to September. Females are capable of producing 50,000 eggs per clutch with 3-4 clutches per season. Larvae are suspended in the water for up to one month before developing into juvenile crabs (Benson 2005). Because of this, the larvae have the ability to be transported over great distances, a possible means of new introductions. Thought to move into the subtidal zone during winter, accumulating barnacles and bryozoans on the carapace in the process. The carapace of the Asian shore crab can be confused with that of the European green / shore crab:



### Distribution

#### Worldwide distribution

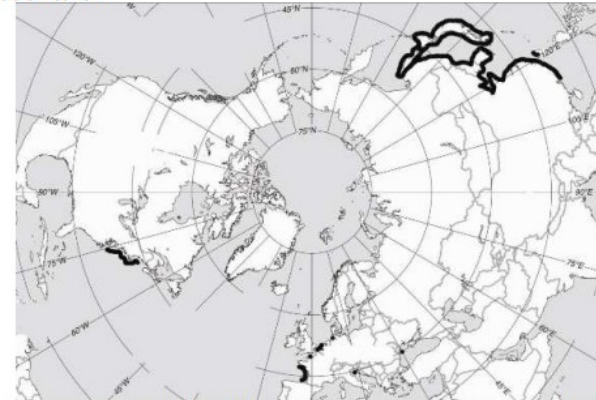


Figure taken from Klassen G (2012). Worldwide distribution of *Hemigrapsus sanguineus* before the record in Wales was found.

The Asian shore crab is native to the western Pacific Ocean from Russia, along the Korean and Chinese coasts to Hong Kong and the Japanese archipelago. Latitudinal native range in north-west Pacific is approx. 22° N to 50° N. Reproducing populations have been established on the Atlantic Ocean fringe in North America (New Jersey 1988) and Europe (France 2002). Inoculations (but no evidence of establishment) have also been reported for the Black Sea and the northern Adriatic Sea. Previous introductions are suspected to be from transfer in ballast water.



### Distribution in Wales – First UK record

The first recorded sighting on mainland UK was on the shore at Aberthaw, Vale of Glamorgan on 2<sup>nd</sup> May 2014.



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# Species Factsheets

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European Summary



## Species Factsheet

### *Hemigrapsus sanguineus*

Description

Distribution

Contributors and Experts

References and Links

### Distribution Map




### Countries

Country	Status	Contributor
Croatia - Mediterranean Sea	Alien/Established	
Tunisia - Mediterranean Sea	Alien/Established	



# Species Factsheets



Other CABI sites | Home | Overview | About | Help | Contact | Mobile

## Invasive Species Compendium

Datasheets, maps, images, abstracts and full text on invasive species of the world


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Enter keyword or phrase | Filter by type | Search

Advanced Datasheet Search

Picture	Title	Caption	Copyright
	Adult male	Adult male <i>Hemigrapsus sanguineus</i> (dorsal view)	Andrew M. Lohrer
	Adult male	Adult male <i>Hemigrapsus sanguineus</i> (front view from above, with USA 5c coin for scale = 21mm)	Andrew M. Lohrer

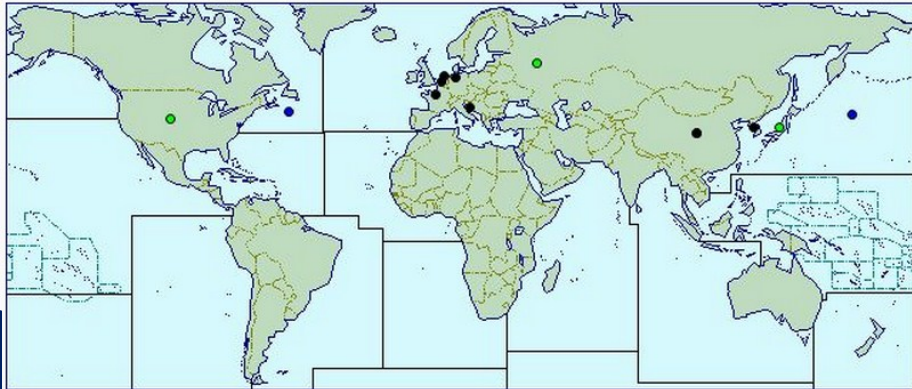
**Identity** [Top of page](#)

**Preferred Scientific Name**  
*Hemigrapsus sanguineus* (De Haan, 1853)

**Preferred Common Name**  
 isogani

**International Common Names**  
 English: Asian shore crab


### Distribution Maps



- = Present, no further details
- = Widespread
- = Localised
- = Confined and subject to quarantine
- = Occasional or few reports
- = Evidence of pathogen
- = Last reported
- = Presence unconfirmed
- = See regional map for distribution within the country

EUROPE						
Belgium	Present	Introduced				Dauvin et al., 2009
Croatia	Present	Introduced				Schubert, 2003
France	Present	Introduced				Bretton et al., 2002
Germany	Present	Introduced				Dauvin et al., 2009
Netherlands	Present	Introduced				Bretton et al., 2002
Russian Federation						
-Russian Far East	Present	Native		Not invasive		Sakai, 1976

# Species Factsheets

NBN Gateway 

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You are here: [Taxa](#) > [Hemigrapsus sanguineus](#) >

## *Hemigrapsus sanguineus* (De Haan, 1835)

Taxonomy	
Species	Hemigrapsus sanguineus (De Haan, 1835)


Taxon	
Name:	Hemigrapsus sanguineus
Authority:	(De Haan, 1835)
Taxon Version Key:	NHMSYS0020955056
Rank:	Species
Name Form:	Well-formed
Output Group:	crustacean
Taxon Reference:	<i>Hemigrapsus sanguineus</i> (De Haan, 1835), NHMSYS0020955056


Synonyms	
	None


Designations	
	None


External Links	
	None

### Explore and Download Records


 [Grid Map](#)

 [Interactive Map](#)

 [List of sites](#)

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### Map



<https://data.nbn.org.uk/Taxa/NHMSYS0020955056>



# Species Factsheets

## Hemigrapsus sanguineus (De Haan, 1835)

Species in GBIF Backbone Taxonomy

Animalia › Arthropoda › Malacostraca › Decapoda › Varunidae › Hemigrapsus

931

Occurrences

0

Infraspecies

[View occurrences](#)

Information

### Overview

#### FULL NAME

Hemigrapsus sanguineus (De Haan, 1835)

#### TAXONOMIC STATUS

Accepted species

#### COMMON NAMES

- Asian shore crab eng
- Japanese shore crab eng
- Pacific crab eng

[more >](#)

#### ACCORDING TO

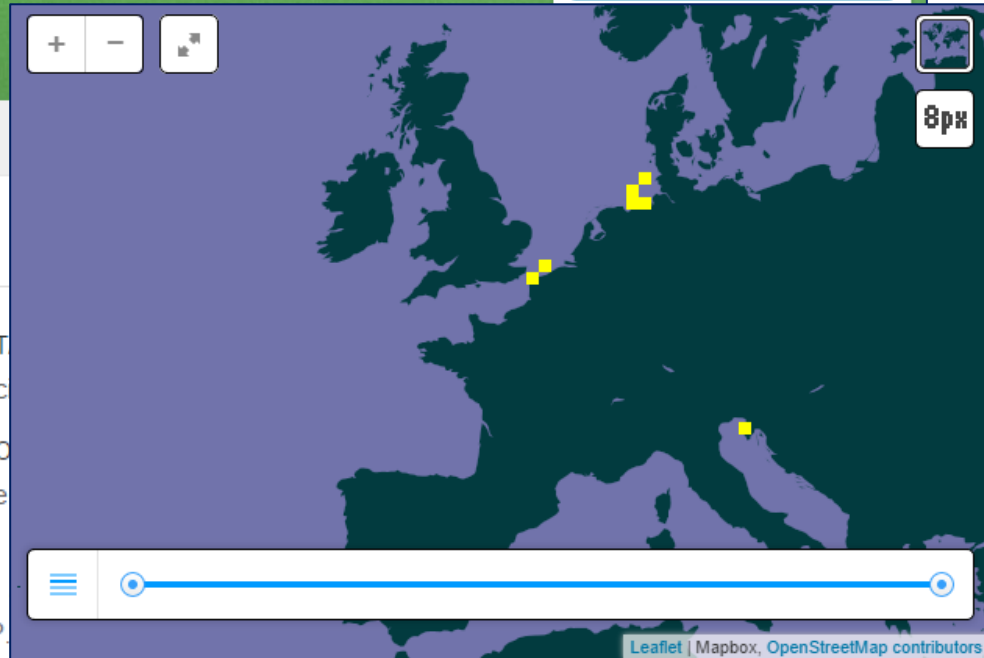
The Catalogue of Life

#### PUBLISHED IN

De Haan, W. , von Siebold, P. Description Animalium, quae in itinere per Japoniam, Jussu et Auspiciis Superiorum, qui Summum in India Batava Imperium Tenent, Suspecto, Annis 1823-1830 Collegit, Notis, Observationibus et Adumbrationibus Illustravit: i-xxxi, ix-xvi, 1-243, Plates A-J, L-Q, 1-55. Lugduni-Batavorum.

#### SYNONYMS

- [Grapsus sanguineus De Haan, 1835](#)
- [Heterograpsus maculatus H. Milne Edwards, 1853](#)



#### EXTERNAL LINKS

- [Encyclopedia of Life](#)
- [Catalogue of Life](#)
- [Biodiversity Heritage Library](#)

GBIF ID [2225772](#)

# Information on Action

UKEOF HOME CATALOGUE HOME ABOUT TERMS & CONDITIONS HELP Login

The UKEOF Catalogue lists environmental observations undertaken and funded by UK public and third sector organisations. [More...](#)

**UKEOF**  
ENVIRONMENTAL OBSERVATION FRAMEWORK

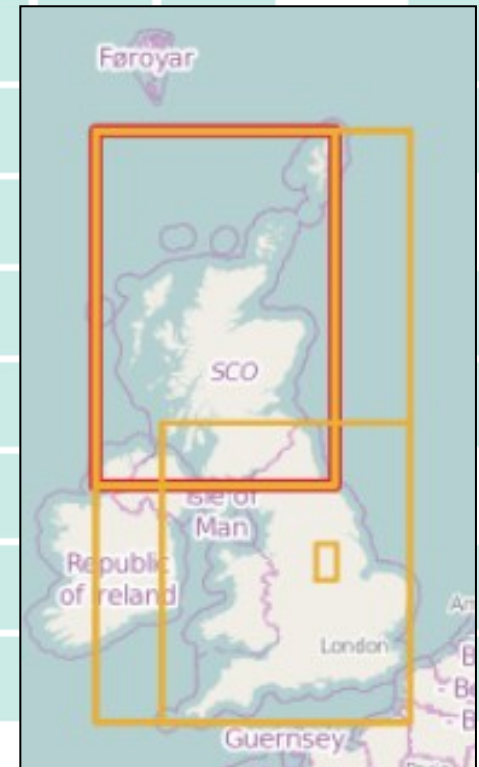
invasive

Use AND, OR, NOT & other methods to refine your search. [Learn more...](#)

Map search Advanced search

15 records found Export

- Activity** **Flora Guardian invasive plant monitoring**  
Volunteers monitor a local site potentially under threat from early colonisation by an *invasive*...
- Activity** **Invasive Species Monitoring (Plants)**  
cies. Survey method is designed to provide information on growth stage of the *invasive* plants to assist lan...
- Activity** **Royal Horticultural Society Entomology Section Invasive Insect Surveys**  
Currently monitoring the distribution and spread of four alien insect species that have become est...
- Activity** **Survey of invasive riparian non-native plant species in the Don River catchment within the Cairngorms National Park RIVER CATCHMENT WITHIN THE CNPA**  
uired for key *invasive* riparian non-native plant species within the Don River catchment area of the CNPA. Spe...
- Activity** **Marine turtle research and recording programme**  
trolling or eradicating *invasive* alien species, managing species conflicts and studying species for sus...
- Programme** **Scottish SAF Biodiversity monitoring**  
trolling or eradicating *invasive* alien species, managing species conflicts and studying species for sus...
- Activity** **Developing a woodland birds index for breeding birds in Scotland**  
trolling or eradicating *invasive* alien species, managing species conflicts and studying species for sus...
- Activity** **Monitoring of breeding hen harriers on Glen App and Galloway Moors SPA**  
trolling or eradicating *invasive* alien species, managing species conflicts and studying species for sus...
- Activity** **Modelling and mapping the extent and bryophyte diversity of Atlantic bryophyte-rich dwarf-shrub heaths in the uplands**  
trolling or eradicating *invasive* alien species, managing species conflicts and studying species for sus...
- Activity** **A Survey of Native Breeding Greylag Geese (*Anser anser*)**  
trolling or eradicating *invasive* alien species, managing species conflicts and studying species for sus...



# Information on Action

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GB non-native species secretariat

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Home > Projects > Non-native species projects in GB

### Database of non-native species projects in GB

The GB Non-native Species Projects Database covers non-native species projects of all sizes in Great Britain, from local action group projects to nationwide surveys. To aid communication between people working on non-native species, you can find out the lead organisation and main contact as well as an email address for each project. You can search for a project by selecting an area or a species or leave the fields free and click search to list all projects in the database so far. You can also click on a coloured dot on the map to find projects in that location.

- [Add New Project](#)
- [Export Projects database to Excel document](#)

### Find projects & events near you

Town or Postcode

Within **10 Miles** ▼

Lead Organisation

Type of project **All Types** ▼

Show only current projects

Show only finished projects

Show all projects

Species

Search by keywords

**175 Results**

### River Flit Himalayan Balsam Erradication

**Lead Organisation:** The Wildlife Trust for Bedfordshire, Cambridgeshire, Northamptonshire & Peterborough

**Contact Name:** Katharine Banham

**Contact Email:** Katharine.Banham@wildlifebcn.org

**Other organisations involved:**

**Start Date:** 29/01/2010

**End Date:** Ongoing

**Location:** Flitwick

**Type of project:** management / eradication, monitoring / survey,

**What species are involved:** Himalayan Balsam, Impatiens glandulifera

**Budget (GBP):** 3250

**Website:**

**Project Description:** A survey during the summer of 2009 which asked local people to report where they had seen Himalayan Balsam along the River Flit enabled us to make a distribution map that was used to guide this project. The removal work during 2010 focuses on sections of Flitwick Moor Site of Special Scientific Interest (SSSI) and on some other important wetlands upstream. It aims to aid the restoration of sections of the SSSI, which are currently in an unfavourable condition, as well as reducing the amount of seed arriving by clearing some of the wetland sites upstream. In addition to the survey work which was carried out in 2009 some more detailed surveys were conducted in crucial areas to monitor the spread of Himalayan Balsam during 2010 towards other sections of the River Flit, particularly towards another SSSI.

**Project Documents:** [Summary Poster](#)

<http://www.nonnativespecies.org/maps/index.cfm>

# Information on Action

**BARS** Biodiversity Action Reporting System

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Filter by... Boundaries...

**Data Sets**

- BARS Actions
- England HLS Biodiversity Management
- Environment Agency

**Filters**

**Action Type:**

**Biodiversity Objective:** To control invasive or other non-native species

**Number of Actions Colour**

<5 Actions	Lightest Blue
5-19 Actions	Light Blue
20-49 Actions	Medium Blue
50-70 Actions	Dark Blue
>70 Actions	Very Dark Blue

Base Layer Opacity

249 mapped actions displayed  
28 unmappable actions

**Mapped Actions**

**Action Title:** [INNS Work: Flit Valley non-native invasive species control project](#)

**Owning Organisation:** Environment Agency

**Description:** Removal of Himalayan balsam will allow recovery of native fauna and prevent bank...

**Action Status:** Completed

**Date:** 01/04/2013 - 31/03/2014

**Action Type:** Species management

**Biodiversity Objective:** To control invasive or other non-native species

**Biodiversity Feature:** Indian Balsam

**Amount:** 7.8 Linear Kilometres (km)

**Data Source Name:** Environment Agency

**Unmapped Actions**

None



# Acknowledgements

- Paul Brazier (NRW)
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- Dave Chambers (JNCC)
- Graham French and Lynn Heeley (JNCC and NBN Trust)
- Chris Raper (NHM UK Species Inventory)
- Helen Roy and Steph Rorke (CEH)
- Becky Seeley (NBN)

Thank You!



NFBFR

# Q&A: Future Needs and Aspirations

How can we improve the availability and accessibility of data and information on invasive species?

Which organisation(s) should take the lead?

- Maintenance and dissemination of species lists
- Data capture and data flow
- Verification and ID support
- Dissemination of data and information
- Data analysis to inform manager

