

# Monitoring Priorities for Invasive Non-native species on Montserrat

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## Page 1

Globally, there are major gaps in baseline knowledge on invasive non-native species. This survey is part of a Darwin Plus-funded project that aims to assess and begin to fill this knowledge gap collaboratively with communities on the UK overseas territories. We hope to better understand the availability of data, as well as the priorities and needs for data, and the potential to expand monitoring on invasive non-native species.

We hope this survey will be completed by a broad range of stakeholders – those involved in biodiversity monitoring or working in a conservation or environmental management, as well as interested parties from other organisations.

Throughout the survey, we define invasive non-native species as species introduced to a new region beyond their natural distribution by human activities and that are considered to have a negative impact on native biodiversity and ecosystems.

### **Confidentiality and consent**

Your participation in this survey is completely voluntary, and it is possible to withdraw at any time or skip any questions. No statement will be directly attributed to a specific individual in reports or publications from this project. The data will be stored anonymously in the [Environmental Information Data Centre database](#). Any use of personal data will adhere to the principles expressed in the UK Centre for Ecology & Hydrology [privacy notice](#).

Thank you for your cooperation!

Helen Roy (UK Centre for Ecology & Hydrology)

Project team: Diana Bowler, Siobhan Edney, Stephanie Rorke, David Roy, Meg Williams (UK Centre for Ecology & Hydrology)

## Page 2: Your details

1. I understand that my consent to participate in this research project is voluntary and that I am free to withdraw this consent at any time without giving any reason. I agree to participate:

- Yes
- No

You can withdraw consent at any time by emailing [hele@ceh.ac.uk](mailto:hele@ceh.ac.uk) but understand that withdrawing consent may not affect the material that has already been provided.

If you agree to participate, please complete the following details below:

2. What is the sector where you carry out your professional activity? If you belong to multiple, please select the main sector.

- Governmental
- Industry or business
- Non-governmental organizations (NGOs)
- Academic (University, Research Centres, etc.)
- Independent worker
- Other

2.a. If you selected Other, please specify:

## Page 3: Existing knowledge and data

### Existing knowledge and data

We have begun compiling information on the presence of invasive non-native species on Montserrat. So far, we have identified these as our main resources:

*Pagad S, Wong L J (2020). Global Register of Introduced and Invasive Species - Montserrat. Version 1.2. Invasive Species Specialist Group ISSG. Checklist dataset <https://doi.org/10.15468/ex7uxv> accessed via GBIF.org on 2022-08-22.*

*Berry, M. Victoria. "Geographic origins of medicinal plants in Montserrat, West Indies, pre-1632 to present." Southeastern Geographer 43.1 (2003): 75-88.*

<http://www.mvmnh.org/>

*Young, R. P. (ed.) (2008). A biodiversity assessment of the Centre Hills, Montserrat. Durrell Conservation Monograph No. 1. Durrell Wildlife Conservation Trust, Jersey, Channel Islands.* from Chris Malumphy

<http://www.issg.org/database/welcome>

from Chris Malumphy: *Annotated list of invertebrates observed in Montserrat, West Indies, November 2019*

from Stephen Mendes: *Multiple sources compiled on invasive species on Montserrat, List of invasive species in Caribbean (Forestry, wildlife & Parks Division), Description of invasive species on Montserrat (Dept. of Environment)*

*Live document - Invasive Species List Aug23 (Vicky Wilkins)*

### 3. Can you identify any additional sources of information about non-native species on Montserrat?

	Please specify:
Databases:	<div style="border: 1px solid black; height: 150px; width: 100%;"></div>

Books:

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On-line  
websites:

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Other:

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## Page 4: Priorities

### Species priorities for monitoring non-native species

4. Which non-native species that have already arrived in Montserrat do you think should be prioritized for further monitoring? Please identify the top three most important non-native species that should be monitoring priorities. Use the scientific name if possible, or a common name if not.

	Please specify:
Most important non-native species:	<input type="text"/>
Second most important non-native species:	<input type="text"/>
Third most important non-native species:	<input type="text"/>

### Site priorities for the monitoring of non-native species

5. Which sites do you think should be prioritized for further monitoring of invasive non-native species on Montserrat? Please identify the top three most important sites.

	Please specify:
Most important site	<input type="text"/>
Second most important site:	<input type="text"/>
Third most important site:	<input type="text"/>

### Introduction pathway monitoring priorities

6. Which arrival or introduction pathways do you think should be monitored on Montserrat to intercept species when they first arrive? Please identify the top three most important introduction pathways e.g., arrival on ship container or transport via storms.

	Please specify
Most important introduction pathway:	
Second most important introduction pathway:	
Third most important introduction pathway:	

### Spread pathway monitoring priorities

7. After a species arrives into Montserrat, which spread pathways across the territory do you think should be monitored? Please identify the top three most important spread pathways e.g., escape from hotel gardens, unintentional transport by contaminated equipment or human movement.

Most important spread pathway:	
Second most important spread pathway:	
Third most important spread pathway:	

## Page 5: Data needs and uses

8. What are, or could be, the most important uses of information on invasive non-native species on Montserrat?

	Not sure	Not important	Slightly important	Moderately important	Important	Very important	Notes:
Raising awareness of the impact of non-native species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Official reporting towards targets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Research on trends and state of nature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Land use decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Conservation action, including control of invasive species or habitat restoration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Understanding impacts of climate change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other (please specify):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## Page 6: Data collection methods and activities

9. Which of the following data collection methods or activities do you think should be prioritized to help monitor invasive non-native species on Montserrat? Please rate the following on a scale from lowest to highest priority:

	Not sure	Lowest	Low	Medium	High	Highest	Notes:
Promote iNaturalist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Use other online citizen science recording tools (apart from iNaturalist)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Extend current professional monitoring schemes to include non-native species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Develop new schemes with new technologies (e.g., eDNA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improve mobilization of existing data of non-native species data e.g., using databases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Compile information on on-going management of non-native invasives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Collate environmental data that might affect spread or invasion e.g., habitat condition or weather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improve documentation of species impacts, including their interactions with native species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Other (please specify):

9.a. Are any of these currently in use or under development?

## Page 7: Challenges for monitoring

Based on your own experiences, what do you think are the most important challenges for monitoring of invasive non-native species on Montserrat?

### 10. Challenge 1:

Your answer should be no more than 1000 characters long.

### 11. Challenge 2:

Your answer should be no more than 1000 characters long.

### 12. Challenge 3:

Your answer should be no more than 1000 characters long.

## Page 8: Final comments or thoughts

13. If you wish, please use this box to mention any other thoughts or comments you would like to make on this survey or on monitoring on Montserrat:

## Page 9: Final page

### **Thank you for your contribution to this survey**

After compiling the responses, we will send a summary of the overall results to all participants who supply us with an email address. These data will be anonymous. All participants can freely use the information received. Any use of your personal data will adhere to the principles expressed in the CEH privacy notice.

Helen Roy, Diana Bowler, Siobhan Edney, Stephanie Rorke, David Roy, Meg Williams (UK Center for Ecology & Hydrology)

Any concerns, comments or just to keep in touch, please contact Helen Roy at [hele@ceh.ac.uk](mailto:hele@ceh.ac.uk)

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