



Invasive species threats

to the British Overseas Territories



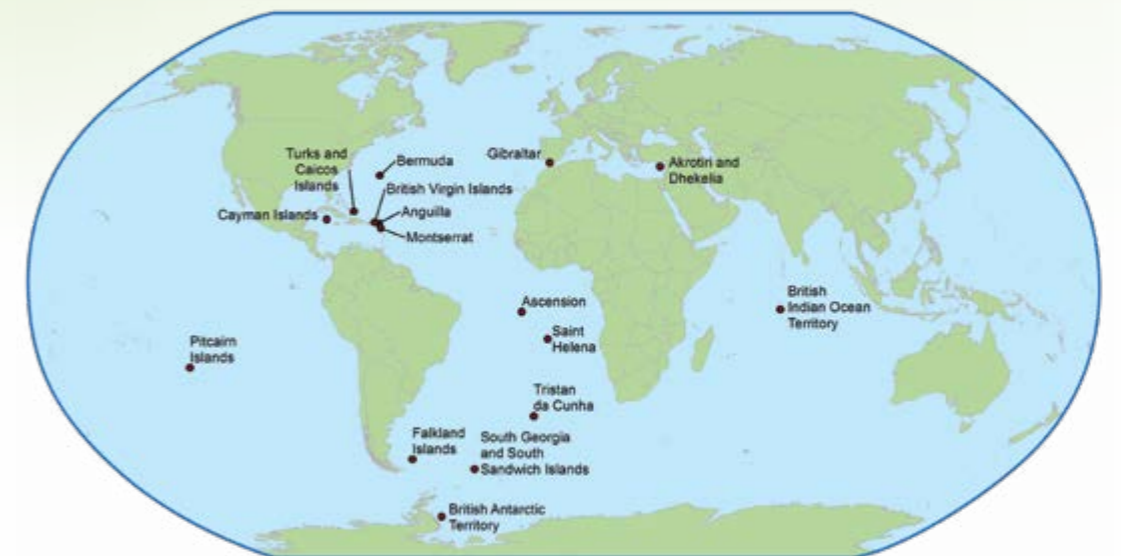
Image 01
Bia Komarova
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British Overseas Territories at risk

The 14 British Overseas Territories (OTs) account for 94% of the UK's endemic biodiversity and make a significant contribution to global biodiversity.

They are very vulnerable to the introduction of invasive non-native species which pose a huge threat to their biodiversity, economy and human health. Horizon scanning was carried out to predict which new invasive species are most likely to become established in each OT in the next 10 years.

Over 2,500 species were assessed, and 209 invasive species were identified as a significant threat in at least one OT. From this we have developed lists of the top threats. An overall top 50 list was also developed, consisting of 8 vertebrate, 22 invertebrate, 7 plant and 13 marine species.





Top 10 threats Overall:

These invasive species cause damage to all three sectors: biodiversity, the economy and human health.

Common name	Scientific name
Little fire ant	<i>Wasmannia auropunctata</i>
Giant African land snail	<i>Lissachatina fulica</i>
Brown rat	<i>Rattus norvegicus</i>
Rose-ringed parakeet	<i>Psittacula krameri</i>
Boa constrictor	<i>Boa constrictor imperator</i>
Mesquite	<i>Prosopis juliflora</i>
Asian green mussel	<i>Perna viridis</i>
Mediterranean mussel	<i>Mytilus galloprovincialis</i>
Pacific oyster	<i>Magallana gigas</i>
Devil firefish / lionfish	<i>Pterois miles / volitans</i>



Top 10 threats Biodiversity:

Invasive species prey on and displace native and endemic species, introduce and spread wildlife disease, and transform habitats.

Common name	Scientific name
Little fire ant	<i>Wasmannia auropunctata</i>
Giant African land snail	<i>Lissachatina fulica</i>
Agave snout weevil	<i>Scyphophorus acupunctatus</i>
Brown rat	<i>Rattus norvegicus</i>
Mesquite	<i>Prosopis juliflora</i>
Asian Green mussel	<i>Perna viridis</i>
Mediterranean mussel	<i>Mytilus galloprovincialis</i>
Blue mussel	<i>Mytilus edulis</i>
Devil firefish / lionfish	<i>Pterois miles / volitans</i>
European shore crab	<i>Carcinus maenas</i>



Top 10 threats Economy:

Invasive species damage agricultural and livestock production, fisheries, tourism, and infrastructure.

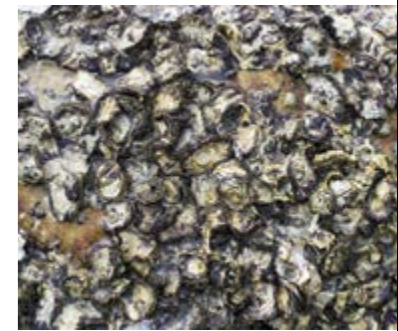
Common name	Scientific name
Little fire ant	<i>Wasmannia auropunctata</i>
Tomato leaf miner	<i>Tuta absoluta</i>
Yellow fever mosquito	<i>Aedes aegypti</i>
Mediterranean fruit fly	<i>Ceratitis capitata</i>
Asiatic citrus psyllid	<i>Diaphorina citri</i>
Formosan subterranean termite	<i>Coptotermes formosanus</i>
Asian subterranean termite	<i>Coptotermes gestroi</i>
Varroa mite	<i>Varroa destructor</i>
Rose-ringed parakeet	<i>Psittacula krameri</i>
Red-masked conure	<i>Aratinga erythrogenys</i>



Top 10 threats Our health:

Invasive species pose severe threats to human health, as vectors of diseases such as malaria, dengue, zika and chikungunya, through nuisance of stings and bites, and bioaccumulation of toxins in the food chain.

Common name	Scientific name
Tiger mosquito	<i>Aedes albopictus</i>
Yellow fever mosquito	<i>Aedes aegypti</i>
Mosquito	<i>Anopheles gambiae</i>
Little fire ant	<i>Wasmannia auropunctata</i>
Giant African land snail	<i>Lissachatina fulica</i>
Cayenne tick	<i>Amblyomma cajennense</i>
Brown rat	<i>Rattus norvegicus</i>
Asian green mussel	<i>Perna viridis</i>
Pacific oyster	<i>Magallana gigas</i>
Devil firefish / lionfish	<i>Pterois miles / volitans</i>





Top 10 threats Caribbean:

The Caribbean territories are a relatively unified group in terms of geographic proximity and shared pathways.

Common name	Scientific name
Giant African land snail	<i>Lissachatina fulica</i>
Tomato leaf miner	<i>Tuta absoluta</i>
Mediterranean fruit fly	<i>Ceratitis capitata</i>
Cayenne tick	<i>Amblyomma cajennense</i>
Formosan subterranean termite	<i>Coptotermes formosanus</i>
Asian subterranean termite	<i>Coptotermes gestroi</i>
Common boa constrictor	<i>Boa constrictor imperator</i>
Rose-ringed parakeet	<i>Psittacula krameri</i>
Red-masked conure	<i>Aratinga erythrogenys</i>
Asian Green mussel	<i>Perna viridis</i>



Top 50 threats The vertebrates

The overall top 50 threats consist of 8 vertebrate, 22 invertebrate, 7 plant and 13 marine species.

Common name	Scientific name
Rose-ringed parakeet	<i>Psittacula krameri</i>
Red-masked conure	<i>Aratinga erythrogenys</i>
House crow	<i>Corvus splendens</i>
Common myna	<i>Acridotheres tristis</i>
Brown rat	<i>Rattus norvegicus</i>
Common boa constrictor	<i>Boa constrictor imperator</i>
Knight anole	<i>Anolis equestris</i>
Tropical house gecko	<i>Hemidactylus mabouia</i>

Geckos compete with native reptiles for food and also can spread parasites to native species.



Rats have caused the extinction of numerous endemic island birds around the world.



Ants are aggressive predators of other invertebrates, reptiles, birds and mammals. They can also have very painful stings.

Top 50 threats

The invertebrates

Common name	Scientific name
Tiger mosquito	<i>Aedes albopictus</i>
Yellow fever mosquito	<i>Aedes aegypti</i>
House mosquito	<i>Anopheles gambiae</i>
Little fire ant	<i>Wasmannia auropunctata</i>
Singapore ant	<i>Monomorium destructor</i>
Red imported fire ant	<i>Solenopsis invicta</i>
Argentine ant	<i>Linepithema humile</i>
Yellow crazy ant	<i>Anoplolepis gracilipes</i>
Tomato leaf miner	<i>Tuta absoluta</i>
Fall armyworm	<i>Spodoptera frugiperda</i>
Giant African Land Snail	<i>Lissachatina fulica</i>
Mediterranean fruit fly	<i>Ceratitis capitata</i>
Carambola fruit fly	<i>Bactrocera carambolae</i>
Agave snout weevil	<i>Scyphophorus acupunctatus</i>
Asiatic citrus psyllid	<i>Diaphorina citri</i>
Formosan subterranean termite	<i>Coptotermes formosanus</i>
Asian subterranean termite	<i>Coptotermes gestroi</i>
Harlequin ladybird	<i>Harmonia axyridis</i>
German wasp	<i>Vespula germanica</i>
Asian hornet	<i>Vespa velutina</i>
Cayenne tick	<i>Amblyomma cajennense</i>
Varroa mite	<i>Varroa destructor</i>



The Giant African land snail is a serious crop and plant pest, and also carries rat lung worm which can affect people.



Tuta absoluta is a serious crop pest, rapidly spreading around the world.





Mesquite has a deep taproot and thrives in very dry areas, transforming the habitat.



Lionfish are venomous, and also prey on juvenile fish, affecting fisheries, tourism and biodiversity.

Top 50 threats

The plants

Common name	Scientific name
Mesquite	<i>Prosopis juliflora</i>
Asian snakewood	<i>Colubrina asiatica</i>
Pampas grass	<i>Cortaderia selloana</i>
Cogon grass	<i>Imperata cylindrica</i>
Feather leaf	<i>Leptinella plumosa</i>
Cat's claw mimosa	<i>Mimosa pigra</i>
Burma reed	<i>Neyraudia reynaudiana</i>



Car's claw mimosa is a prickly shrub that infests gardens, pastures and crops to become a noxious weed.



Burma reed is an aggressive weed which forms dense, monospecific stands, outcompeting native species. It alters fire behaviour, increases organic litter accumulation and alters succession patterns.

Image .01
Leptinella plumosa
© John Barakla
Image .02
Neyraudia
© Keith A. Bradley, 2015



Asian snakewood is highly aggressive, forming very dense, monospecific thickets up to several metres thick.



Mussels cause problems with hull fouling of vessels, smother underwater structures, harbour toxins hazardous to human health and block intake pipes in desalination plants.



Carcinus maenas is a voracious predator, impacting fisheries, aquaculture, and the ecosystem.

Top 50 threats

Marine species

Common name	Scientific name
Devil Firefish / Lionfish	<i>Pterois miles / volitans</i>
Asian Green Mussel	<i>Perna viridis</i>
Mediterranean Mussel	<i>Mytilus galloprovincialis</i>
Blue mussel	<i>Mytilus edulis</i>
Chilean mussel	<i>Mytilus chilensis</i>
Pacific Oyster	<i>Magallana gigas</i>
Bivalve	<i>Semimytilus algosus</i>
European sea squirt	<i>Ascidella aspersa</i>
European shore crab	<i>Carcinus maenas</i>
Ascidian	<i>Botryllus schlosseri</i>
Ascidian	<i>Ciona intestinalis</i>
Alga	<i>Undaria pinnatifida</i>
Seagrass	<i>Halophila stipulacea</i>



Pathways of entry

Invasive species arrive in the OTs through a wide range of pathways. These pathways can be deliberate (such as the planned introduction of a pet or garden plant) or unintentional (contaminant and hitchhiker species).

Pathway analysis of existing invasive species in the OTs found the most risky pathway for introducing new plant and invertebrate species was the intentional importation of live plants: the plant itself as a potential weed, and as a vector for invertebrate pests. Associated materials such as soil and plant pots increase the risk of the horticulture pathway.

For vertebrates, the pet trade is the most risky pathway of introduction.

Image 01

Snakes are often smuggled in illegally as pets.

Image 02

The bollworm is often intercepted in imported fresh produce.



Further information

A 3.5-year project run by the GB Non-native Species Secretariat (NNS) and funded by the FCO's Conflict, Stability and Security Fund (CSSF) was carried out between 2016 and 2020 to improve biosecurity in the OTs against invasive species. For more information go to <http://www.nonnativespecies.org/home/index.cfm>

Acknowledgements

We gratefully acknowledge the invaluable input and participation of everyone in the OTs, the Steering Group and all the visiting experts to the projects achievements.



Find out more about invasive plants and animals
and how you can help to stop the spread at:

www.nonnativespecies.org/home/index.cfm