



FREQUENTLY ASKED QUESTIONS (FAQS) SAFEGUARDING THE CAYMAN ISLANDS FROM INVASIVE SPECIES

2023



May 2023

Note: On the 3rd of November 2022, the National Conservation (Alien Species) Regulations, 2022 were published in the Cayman Islands Gazette.

These important regulations will help protect our endemic and native plants and animals from the potential negative impacts of alien species.

For more information FAQs relating to the Alien Species Regulations and to learn more about the threats of invasive species in the Cayman Islands please visit:

<https://conservation.ky/invasivespecies-faq/>

<https://conservation.ky/alien-species/>

<https://doe.ky/terrestrial/invasive-species/>

Q. What is the primary objective of the Darwin Plus project?

The Sister Islands of Little Cayman and Cayman Brac are Cayman's environmental flagships, home to some of the Cayman Islands' most internationally significant wildlife, such as the Sister Islands Rock Iguana, the Cayman Brac Parrot, and Brown and Red-footed boobies, but, invasive species such as feral cats, rodents and green iguanas pose a major, yet a largely unmanaged threat.

This project aims to strengthen biosecurity and implement invasive species management with local communities, building knowledge, capacity, and support for effective and sustainable action.

Q. What is Darwin Plus / How is the project funded?

Darwin Plus is a UK government grants scheme that funds projects that aim to protect the unique biodiversity and improve resilience to climate change within the UK Overseas Territories

Darwin Plus (also known as the Overseas Territories Environment and Climate Fund) provides funding for environmental projects in UK Overseas Territories, and fellowships for UK Overseas Territories (OT) Nationals to increase their knowledge and ability to meet long-term strategic outcomes for the natural environment in UK Overseas Territories.

Since 2012, Darwin Plus has awarded over £32m to more than 162 projects in the UK Overseas Territories.

To find out more about Darwin Plus go to: <https://darwinplus.org.uk/about-us/>

Q. Who is involved in the project?

The project is a partnership between the Cayman Islands Department of Environment, the Department of Agriculture, University of Aberdeen and is led by RSPB. In 2023, The National Trust for the Cayman Islands joined the project partnership.

To find out more about the

Department of Environment go to: www.doe.ky/about-us/about-us.

Department of Agriculture go to the www.doa.gov.ky/about-us

University of Aberdeen go to: www.abdn.ac.uk/about.

RSPB go to: www.rspb.org.uk/about-the-RSPB.

National Trust for the Cayman Islands go to: www.nationaltrust.org.ky/about-us/what-is-the-national-trust.

Q. How long does the project run for and what is the cost?

The project started in July 2021 and runs to 2024. The total funding from Darwin Plus is £484,277.

Q. What native species does the project focus on protecting?

Tackling invasive species can help protect several of our native species, but a 'flagship' focus of this project is the Sister Islands Rock Iguana. This species is endemic to the Sister Islands (i.e., found nowhere else in the world) with the most significant population on Little Cayman. In addition to the rock iguanas, this project will help support our nesting seabirds such as the Brown Boobies on Cayman Brac, and Red-footed Boobies and Magnificent Tropic Birds on Little Cayman. We're also improving our understanding of some of the other rather cryptic and elusive species like Curly tail Lizards and Anoles that we expect to benefit from the project as well.

The Sister Islands are home to 3 species of snake found nowhere else in the world – the Little Cayman Dwarf Boa, Cayman Brac Dwarf Boa, and the Cayman Brac Blind snake. We intend to find out as much as we can about these species through habitat and population surveys with the support of the University of Aberdeen to improve our conservation efforts. See www.darwininitiative.org.uk/project/DPLUS128/ on project partnership for more.

Q. What invasive species does this project focus on?

Green Iguanas are highly invasive and very adaptable to new habitats and situations. Their main impacts are due to competition for resources, possible hybridisation with the endemic Sister Islands Rock Iguana (SIRI) and the spread of disease. They are also able to produce many times the number of eggs per nest compared to SIRI which has an average clutch size of 12 eggs, compared to the Green Iguana which produces more than 100 (Lopez-Torres *et al.*, 2011).

SIRIs provide an ecosystem service by eating fruit and dispersing the seeds, whereas the Green Iguana eats the flower directly, giving the plant no chance to fruit, seed or reproduce.

Green Iguanas also compete with SIRI for precious breeding grounds, as well as sometimes eating birds and reptile eggs or preying on young.

In Little Cayman, the first record of hybridisation between a Green Iguana and SIRI was found which can increase the risk of genetic extinction for the SIRI.

Feral cats predate native species, in particular juvenile/hatchling SIRI, other reptiles and seabird chicks. SIRI were the largest land animal before humans arrived. They evolved without any predator pressure and juveniles/hatchlings are left vulnerable to predation as they do not have natural self-preservation instincts or defences.

The Cayman Islands' resident colonies of breeding seabirds are also at risk. Seabirds are in decline globally in part due to invasive mammal predation at nesting sites when the birds are particularly vulnerable. In Cayman Brac, the Brown Boobies are ground nesters and in Little Cayman, the Frigates and Red-footed Boobies nest in low-lying mangroves leaving them completely exposed.

Cats also predate other wildlife in Cayman, including snakes, anoles, curly-tail lizards, bats and small birds. Local studies show that the health status of feral cats is very poor. They suffer from constant parasites, signs of disease and poor body condition. Simply releasing cats after the trap-neuter-release programme does not provide the cat with a healthy quality of life (ASPCA, 2015).

More information on feral cats can be found in the DoE Feral Cat FAQ and Wildlife Impacts and Health of Cats in the Cayman Islands report. Both can be found below:

<https://doe.ky/wp-content/uploads/2021/09/Feral-Cat-FAQ.pdf> and the

<https://conservation.ky/wp-content/uploads/2023/02/DoE-Report-2023-Wildlife-impacts-and-Health-of-Cats-Felis-Catus-in-the-Cayman-Islands.pdf>

Rodents are known to prey on eggs and can destroy native habitats. They will even prey on live hatchlings. Rodent populations are dense across Little Cayman, which indicates that cats are not an effective method for population management of the invasive rodent population. Although this finding may seem counterintuitive, it is supported by international research done around the world. Rodents are a threat to native wildlife, especially fledgling birds, eggs, and plants and they need to be managed through a targeted population control program to be successful.

Q. Will controlling feral cats increase the number of rats?

Studies have shown that rodent populations generally follow a boom-and-bust growth trend. Their growth is typically driven by the availability of food, shelter and environmental factors which increase the number of young they can raise, rather than being driven by the abundance of predators in their environment.

Cats will certainly kill some rodents but are very unlikely to have much effect on rat numbers overall. Put simply, rats have many offspring – only a few need to survive to adulthood to keep the population high. Rat populations must plummet due to predation, disease, or lack of food before the overall population is affected.

Despite circumstantial beliefs, preying on rodents is a challenge for feral cats. Studies have shown that when there is an easier food source available, feral cats will typically opt for those, leaving the rodents in peace. In Cayman, this means that our native birds and iguanas are all too often the target of cats. Typically, birds and the native Sister Island Rock Iguana have relatively few offspring, meaning that the loss of small numbers of individuals can have a big impact on populations.

That said, the concerns of the community are extremely important in meeting the goals of this project. Therefore, there is an ongoing rodent control programme at key sites in both Little Cayman and Cayman Brac and we are closely monitoring the population of rodents in these areas.

The Department of Environmental Health has some very informative guidance on preventative measures that community members can take to lower the likelihood of rodents occurring in and around residential areas. The first – and most effective – thing we can all do to reduce the number of rats that our surroundings can support is to clear up food waste and cover garbage receptacles securely.

Q. How are invasive species introduced to the Sister Islands?

1. Accidental import, which means stowaways on boats, shipping containers, in person, on aircraft, food and household items, plants and so on. This can occur internationally and from Grand Cayman.
2. Intentional Illegal import (smuggling) via boats or suitcase luggage
3. Pet trades, irresponsible pet ownership, and plant imports. Some animals and plants are legally imported into the Cayman Islands and then intentionally or inadvertently released into the wild.

Q. What is Biosecurity and why is it important?

Biosecurity is about management and physical measures designed to reduce the risk of introduction, establishment and spread of animal diseases, infections, or infestations, from and within an animal population.

This is important because in practice it can prevent, reduce, and eliminate the introduction of invasive species and the spread of disease to our native species which are inherently at risk of extinction in small island locations.

Biosecurity is everyone's responsibility. This project will assess the current biosecurity risks and support Sister Islands residents and stakeholders to improve biosecurity on the Sister Islands. If you'd like to find out more about how you can help improve biosecurity, get in touch with Alex Flores on the Sister Islands at sisterislands@nationaltrust.org.ky

Q. What about domestic cats and dogs – do they impact native species too?

Feral cats and dogs are free-roaming animals without owners that very often have a very low quality of life and are not living in the conditions we would allow for our own pets. A study on wildlife impacts and the health of cats in the Cayman Islands found that many feral cats had preventable diseases that veterinary care and annual vaccinations could have prevented.

Domestic animals (e.g., pets) on the other hand are defined as an animal that is not wild and is kept as a pet or to produce food. However, domestic pets can still contribute to native species' declines if not cared for responsibly and allowed to roam free. They can also breed with feral populations and produce unwanted kittens/puppies that increase the populations of feral cats/dogs that attack and kill native species. Responsible pet ownership is at the heart of this issue and the keyway to resolving the issue. You can help by ensuring that pets are:

- spayed/neutered.
- properly vaccinated.
- Registered with DoA and microchipped. More information can be found here: <https://doa.gov.ky/faqs/>.

Restricting the uninhibited movement of pets is important too. Ensure your pets remain within your property or, when you are out and about (e.g., on a dog walk), your pets remain on a lead and under control. Please stick to designated trails to avoid disturbing native wildlife. These measures work to reduce the risk of increasing the feral populations but also protect the health and safety of our own pets.

Pet cats and dogs are **not** the targets of any control operations on the Sister Islands. If you're concerned about the well-being of your pet during operations and would like further advice or to be notified of control activities, please contact DoA at 948-0522 / 948-1411 or DoE at 926-2584.

Q. How is the project controlling feral cats, Green Iguanas, and rodents?

Since June 2022, the Cayman Islands Department of Environment has been trapping feral cats and rats in areas that are environmentally sensitive, such as around the Brown Booby nests on Cayman Brac. Cats are trapped in simple cages that do not harm them. The cages are regularly checked, and the cats are scanned for microchips. Any microchipped pet cats are returned to their owners unharmed.

In the past, there have been organised green iguana culls and training events, which proved successful in controlling the invasive species and this helped gain public understanding.

Q. What will happen if my pet is trapped?

If pet cats are trapped in cages and identified, they will be returned to their owners unharmed. To help avoid your pet being mistaken as a feral animal, it is highly advised to microchip your pet and mark it with identification like a collar and tag. Microchipping helps identify you as the

owner of your pet so that it could be returned to you. As its owner, you are responsible for your pet's health and for the control of its movements. If an animal is found roaming off its owner's property on a regular basis, it can be considered feral even if microchipped. So please ensure you are fully responsible for your pet's health and its whereabouts to protect it and our native species.

Q. How can I get involved with the project?

Community support is important for the prevention and management of invasive species.

- Familiarise yourself with the Alien Species Regulation and Prohibited Species List.
- Do not introduce any exotic animals or plants into the country without first contacting the DoE and filing the appropriate paperwork.
- Be a responsible pet owner. Don't let your pet roam free and unsupervised (they can hurt other animals while also being at risk of danger from traffic and disease).
- Do not feed or enable feral animals and do not release invasive species (including pets) into the wild.
- Dispose of your trash responsibly. Litter and trash piles can encourage and support invasive species such as rats and mice.
- Do not bring vacation souvenirs such as animals, plants, shells, seeds, soil, rocks, or untreated food that can carry pests that you might not see with the naked eye. Seeds, pests, or other organisms can hide and quickly spread over the island without you being aware of it.
- When travelling by air or boat between the islands, make sure there are no stowaways on you, your vessel, or your luggage.
- Clean your boots before you hike in a new area, especially after coming back from vacation to avoid spreading the seeds of invasive plants.
- Report Green Iguana sightings in the Sister Islands DoE hotline (925-7625) or use the E-guana app.
- Report to the DoE and DoA if you see any invasives or suspicious animals, plants, or agricultural pests.
- Volunteer for Green Iguana training and culling events to improve biosecurity.
- Be a responsible pet owner and keep cats and dogs indoors. Do not allow roaming and ensure your pet is healthy.
- Do not trap-neuter and release animals.
- If you have a litter of cats or dogs and they are too much to maintain, give them over to DoA or the humane society, rather than releasing them into the wild.

There are several ways that volunteers can support this project.

- Green Iguana culls are ongoing throughout the year by volunteers and DoE. In Cayman Brac, there is a volunteer group that occasionally meets to cull. In Little Cayman, join the volunteer group Green Iguana B'gonna. For information on how to help, please see the contact numbers below.
- Biosecurity volunteers – we look to train individuals on the islands to focus on biosecurity and support efforts to improve measures.

- Seabird surveys (Brown Booby bird) rely on volunteers on Cayman Brac and people can contact DoE Jane Haakonsson (Research Officer, Terrestrial Resources Unit) directly at jane.haakonsson@gov.ky if interested.
- Cryptic reptile surveys. In 2023, there will be an opportunity to support cryptic reptile surveys alongside DoE and University of Aberdeen researchers. These opportunities will be posted via social media channels.

Q. I've seen a Green Iguana, who can I contact?

If you've seen a Green Iguana, or even if you're not sure, then please contact the DoE Green Iguana hotline at 925-7625 on Cayman Brac or Little Cayman.

If you are interested in registering to become a licensed culler or would like to report an iguana for removal, please call:

Cayman Brac
DoE Operations – Martin Van Der Wouf
926-2584

DoA Brac Office
BracAgriculture@gov.ky
948-0522 / 948-1411

Little Cayman
DoE Conservation Officer – Ronnie Dougall
916-5849

There are two volunteer groups on the Sister Islands that support the removal of Green Iguanas and undertake regular culls. If you are interested in signing up, please contact.

Green Iguana B'Gonna Little Cayman:
DoE Conservation Officer – Ronnie Dougall
916-5849

Green Iguana Group Cayman Brac:
DoE Operations – Martin Van Der Wouf
926-2584

Or reach out to Alex Flores SisterIslands@nationaltrust.org the Community Engagement Officer for the Sister Islands for more information.