

# DPLR3\1027

Darwin Plus Local - Final Report (1)

Officer: Linzi Ogden

## Section 1 - Darwin Plus Local Project Information (Essential)

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### Project Reference Number

DPL00067

### Project Title

*No Response*

### Overseas Territory(ies)

☒ Anguilla

### Lead Organisation or Individual

Anguilla National Trust

### Partner Organisation(s)

N/A

### Value of Darwin Plus Local Grant Award

£42,477.00

### Project Start Date

01 April 2024

### Project End Date

31 March 2025

### Project Leader Name

Farah Mukhida

### Project Website/Twitter/Blog etc.

*No Response*

### Report Author(s)

Report Date

06 May 2025

Project Summary

No Response

Project Outcomes

Checked	<b>Biodiversity: improving and conserving biodiversity, and slowing or reversing biodiversity loss and degradation;</b>
Unchecked	<b>Climate Change: responding to, mitigating and adapting to climate change and its effects on the natural environment and local communities;</b>
Checked	<b>Environmental quality: improving the condition and protection of the natural environment;</b>
Checked	<b>Capability and capacity building: enhancing the capacity within OTs, including through community engagement and awareness, to support the environment in the short- and long-term.</b>

Section 2 - Project Outcomes (Essential)

On a scale of 1 (high – outcome substantially exceeded ) to 5 (low – outcome substantially did not meet expectation ), how successful do you think your project has been?

⦿ 3 - Outcome met expectation

Project outcomes and justification for rating above

In Anguilla, building upon the Royal Anguilla Police Force and Customs Department's successful use of scent detection dogs for contraband, the Anguilla National Trust (ANT) initiated a project to integrate this technology into their biosecurity and biodiversity monitoring systems across the mainland and offshore islands. Recognizing the time-bound nature of individual working dogs, the project prioritized training local handlers to ensure long-term capacity. To achieve this, ANT partnered with Guadeloupe-based Le Domaine Canin (DC), a leading regional expert in canine behavioral and scent detection training.

Over the project period, seven individuals—five from ANT, one from the Department of Natural Resources, and one volunteer—developed varying levels of expertise in scent detection dog training. The comprehensive program covered four key areas: identifying suitable dogs, establishing initial training foundations (linking dogs to rewards, specifically a ball), transitioning from ball searches to target scents, and ensuring the dog's health and safety in field operations.

Training progressed incrementally throughout the project, adapting to each dog's unique needs, temperament,


and learning pace. DC and ANT assessed over a dozen dogs, ultimately selecting two: Spark, belonging to an ANT staff member, and Willow, owned by an ANT affiliate. While both showed promise, Willow, a Belgian Shepherd, exhibited innate scent detection qualities, including intelligence, high energy, a strong search drive, and a relevant lineage. Spark also showed progress, but at a slower rate.


Initial training focused on locating hidden balls before advancing to specific target scents. For biosecurity monitoring within Fountain National Park, iguanas were chosen as the initial target scent due to timing and availability. Plans to train the dogs for sea turtle egg detection to support nesting monitoring were hampered by the inability to secure eggs during the February 2025 specific scent training phase, which fell outside the nesting season. By project completion, Willow was trained in iguana scent detection, while Spark excelled at ball detection. Despite this, however, because we focused our efforts on not only training dogs, but also ourselves, we now have the skill set continue to train Willow in sea turtle (or any other priority) scent detection and to progress Spark from detecting balls to target scents.


DC conducted three in-country training sessions. The first two focused on identifying potential dogs and building enthusiasm for finding balls. The third, most intensive session involved detecting hidden balls and target scents.


An unexpected but valuable outcome of the strong working relationship with DC is the donation of a fully trained Belgian Shepherd, Udyr, expected to arrive in Anguilla in October. With two trained dogs (and another to come), we recognise that ongoing training is essential. Continuous learning and skill refinement for both handler and dog are critical, especially during the off-seasons for iguana and sea turtle nesting. This ongoing training involves both controlled classroom exercises and field simulations where target scents are hidden. As the iguana and sea turtle nesting seasons commence, we are eager to deploy the dogs in real-world scenarios to locate nests, moving beyond curated training exercises.

## Supporting Evidence - file(s) upload

 [DPL00067 - Supporting Evidence - Link](#)

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## Supporting Evidence - links to published document/online materials

N/A - See attached file.

## Project Challenges

Dog training for scent detection presents unique challenges. Firstly, not all dogs possess the necessary traits like a strong search drive, playfulness, energy, and obedience, and these qualities may only become apparent around two years old. In Anguilla, many dogs are primarily guard dogs, not accustomed to playing, especially with balls, which complicated the initial search for suitable candidates. Fortunately, through our network, we found Willow, whose parents were also, coincidentally trained for scent detection in neighbouring St. Martin.

Training dogs also means working on their schedule, not ours. Training follows their learning pace, giving us very little control as to how long it takes us to move through the training process, which may or may not coincide with when target scents are available – iguana and sea turtle eggs in our case. While we were able to substitute the iguana egg scent with that of an invasive green iguana individual, as we were training outside of the sea turtle nesting, we had no alternatives for sea turtle egg scents. At the same time, because staff and volunteers have been trained in the dog training process, we now have the skills necessary to train the dogs when the sea turtle nesting season starts.

## Lessons Learned

Dog training is a time-intensive process entirely dictated by the dog's learning speed, with no fixed endpoint. Continuous training is crucial to maintain and sharpen the dog's skills. Establishing a scent detection unit represents a long-term commitment for the Anguilla National Trust (ANT), aligning with our ongoing biosecurity and biodiversity monitoring efforts. While beneficial for us, this approach may not suit every organization.

In addition, while training ANT staff and others for additional support was important for the long-term capacity of our agency and a critical component of this project, we also recognise that it would have been far less time consuming to secure an already-trained dog, trained in priority target scents.

This project deepened our understanding of canine behaviour. Initially, we envisioned a single dog detecting various species. However, we learned that detection outcomes differ: hunting dogs trained for rats and iguanas will eliminate their finds, whereas nest detection requires pointing and potentially digging. A single dog cannot fulfil both roles effectively. In consultation with DC, and at this early stage of our programme, we prioritized training for pointing/digging to focus on nest detection rather than hunting rats and iguanas.

## Section 3 - Project Finance (Essential)

### Project Expenditure

Project Spend (indicative) since last Annual Report	2023/24 Grant (£)	2023/24 Total actual Darwin Plus Costs (£)	Variance %	Comments (please explain significant variances)
Staff Costs				
Consultancy Costs				
Overhead Costs				
Travel and Subsistence				
Operating Costs				
Capital Items				
Others				
Total	42,478.00	41,997.01	1.2	

### Please provide a short narrative summary on project finances.

The only major variance in expenditure was under the capital item expenditure line. We were expecting to have to purchase the dog kennels either on Anguilla or on-line. Fortunately, DC were able to procure the dog kennels in Guadeloupe, two of which they carried with them when they came to Anguilla for one of the early training

sessions and the other will be used to bring Udyr to Anguilla.

Co-financing was secured for the project, including ANT staff time, partial overheads, accommodation and vehicle for DC while conducting training in Anguilla.

## Section 4 - Contribution of Project to Darwin Plus Programme Objectives

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Please select up to **one** indicator that applies within **each group/indicator list (A, B, C, D)** and report your results for that indicator in the text box underneath. If you do not have relevant results to report for any of the indicators in a particular group, you can leave them blank.

Please also submit some form of evidence (above) to demonstrate any results you list below, where possible.

### Group A: Capability and Capacity - Core Darwin Plus Standard Indicators (select one)

Checked	<b>DPLUS-A01: Number of people from key national and local stakeholder groups completing structured and relevant training.</b>
Unchecked	<b>DPLUS-A02: Number of secondments or placements completed by individuals of key local and national stakeholders.</b>
Unchecked	<b>DPLUS-A03: Number of local/national organisations with improved capability and capacity as a result of project.</b>
Unchecked	<b>DPLUS-A04: Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training.</b>
Unchecked	<b>DPLUS-A05: Number of trainers trained reporting to have delivered further training by the end of the project.</b>

### Group A Indicator Results

DPLUS-A01 - 7 individuals from key national and local stakeholder groups completed structured and relevant training.

### Group B: Policies, Practices and Management- Core Darwin Plus Standard Indicators (select one)

Unchecked	<b>DPLUS-B01: Number of new/improved habitat management plans available and endorsed.</b>
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Unchecked	<b>DPLUS-B02: Number of new/improved species management plans available and endorsed.</b>
Unchecked	<b>DPLUS-B03: Number of new/improved community management plans available and endorsed.</b>
Unchecked	<b>DPLUS-B04: Number of new/improved sustainable enterprises/ community benefits management plans available and endorsed.</b>
Unchecked	<b>DPLUS-B05: Number of people with increased participation in local communities / local management organisations (i.e., participation in Governance/citizen engagement).</b>
Unchecked	<b>DPLUS-B06: Number of Local Stakeholders and Local Communities (people) with strengthened (recognised/clarified) tenure and/or rights.</b>

## Group B Indicator Results

N/A

## Group C: Evidence and Best Practices - Core Darwin Plus Standard Indicators (select one)

Unchecked	<b>DPLUS-C01: Number of best practice guides and knowledge products published and endorsed.</b>
Unchecked	<b>DPLUS-C02: Number of new conservation or species stock assessments published.</b>
Unchecked	<b>DPLUS-C03: New assessments of habitat conservation action needs published.</b>
Unchecked	<b>DPLUS-C04: New assessments of community use of biodiversity resources published.</b>
Unchecked	<b>DPLUS-C05: Number of projects contributing data, insights, and case studies to national Multilateral Environmental Agreements (MEAs) related reporting processes and calls for evidence.</b>

## Group C Indicator Results

N/A

## Group D: Sustainable Benefits to People, Biodiversity and Climate - Core Darwin Plus Standard Indicators (select one)

Unchecked	<b>DPLUS-D01 Hectares of habitat under sustainable management practices.</b>
Unchecked	<b>DPLUS-D02: Number of people whose disaster/climate resilience has been improved.</b>

Unchecked	<b>DPLUS-D03: Number of policies with biodiversity provisions that have been enacted or amended.</b>
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## Group D Indicator Results

N/A

## Section 5 - Project Partnerships, Wider Impacts and Contributions

### Project Partnerships

We have established a strong partnership with Le Domaine Canin in Guadeloupe, highlighting the value of collaboration across the Caribbean. This connection demonstrates how Caribbean UKOTs can benefit from sharing experiences, exchanging knowledge, and learning from one another's successes and challenges.

Although just outside of the project period, due to scheduling conflicts, we held an on-line webinar open to any agency/individual interested in adopting this approach to biosecurity and biodiversity monitoring. We shared webinar details through our UKOT Caribbean Conservation Network as well as BirdsCaribbean Invasive Species working group. Held on 8 April 2025, seven different regional agencies attended the webinar, jointly facilitated by the ANT and Le Domaine Canin.

### Wider Impacts and Decision Making

Not applicable for this project.

### Sustainability and Legacy

The continued benefits of this project are built into the continued application of knowledge and skills, and the continued practical training and engagement of our scent detection dogs. With this training, we are now in a position to both train additional dogs (should we choose/require) and to build on the scent detection skills of already-trained dogs, introducing them to new scents to support our biodiversity and biosecurity work.

With what started as a contract with DC, has grown into a much stronger relationship with their team, with members continuing to provide on-going training and support both in person and virtually. For example, even though the project has come to end and the contract is complete, DC will be travelling to Anguilla in May to both bring Udyr and to provide additional on-going support/training.

## Section 6 - Communications & Publicity


### Exceptional Outcomes and Achievements


Supported by the UK Government's Biodiversity Challenge Funds' Darwin Plus Local Initiative, we are expanding our biodiversity conservation and biosecurity monitoring capabilities. A key element of this expansion involves a collaborative partnership with Guadeloupe-based Le Domaine Canin, through which we have established an in-house canine scent detection unit. This initiative has involved the comprehensive training of two locally-sourced dogs, Spark and Willow, to distinguish specific scents and accurately locate the nests of target animal species. Our immediate focus is on the conservation of endangered sea turtles and the control of invasive common green iguanas, both critical priorities for Anguilla's ecological health. Recognising the long-term potential of this programme, we have also invested in training our staff as skilled dog handlers, providing the capacity to further


expand the unit's capabilities by training Spark and Willow - or even additional dogs - to detect additional target scents as future needs arise.


## Photo, video or graphic to be used for publicity and communications.


**Please upload at least one relevant and engaging image, video or graphic that you consent to be used alongside the above text in Defra, JNCC or NIRAS communications material.**


 [DPLR3\\_00067 - Spark - Anguilla - Farah Mukhida-Anguilla National Trust](#)


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 [DPLR3\\_00067 - Willow - Anguilla - Farah Mukhida-Anguilla National Trust](#)

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## Photo, video, and/or graphic captions and credits.

DPLR3\_00067 - Spark - Anguilla - Farah Mukhida-Anguilla National Trust.jpg: Spark is one of the Anguilla National Trust's newest members, joining the organisation's newly established scent detection unit.

DPLR3\_00067 - Willow - Anguilla - Farah Mukhida-Anguilla National Trust .jpg: Willow, a Belgium Shepherd, is being trained in scent detection to enhance the Anguilla National Trust's biodiversity conservation and biosecurity monitoring programmes.

**I agree for the Biodiversity Challenge Funds Secretariat, Administrator, and/or JNCC to publish the content of this section.**

☒ Yes, I agree for the BCFs Secretariat and/or JNCC to publish the content of this section.

**Please list any accounts that you would like tagged in online posts here. This can include project pages, partners' pages or individuals' accounts for any of the following platforms: LinkedIn, Facebook, Twitter, or Instagram.**

Anguilla National Trust (Facebook, Instagram: @axatrust)

Le Domaine Canin (Facebook: @ledomainecanin)

## Section 7 - Darwin Plus Contacts

**Please tick here to confirm that you have read and acknowledge the BCF's Privacy Notice on how contact details will be used and stored and that you have sought agreement from anyone that you are sharing personal details with us on their behalf.**

☒ I confirm I have read the Privacy Notice and have consent to share the following contact details

## Project Contact Details

Project Contact Name

Farah Mukhida

Role within Darwin Plus Project

Project Lead



Email

[REDACTED]

Phone

[REDACTED]

**Do you need further sections to provide additional contact details?**

☒ No