

# Envirotalk



GOVERNMENT OF BERMUDA  
Department of Environment and Natural Resources

Summer 2026  
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TO PROTECT BERMUDA'S ENVIRONMENT AND RESPONSIBLY MANAGE ITS NATURAL RESOURCES

## WELCOME

to our summer edition of Envirotalk.

In this issue –

- Dan Dickinson publishes a user guide to the new Bermuda **feral bird reporting platform**
- Vicky Wilkins reveals some of Bermuda's rare endemic species reported via **iNaturalist**
- Dr Mark Outerbridge explains how to deal with **barotrauma when fishing**
- Dr Sarah Manuel provides **part 3 of carbon credits and the blue economy**
- Ronald Burchall shines the plant spotlight on **burr bush**

Also See:

- Our **News & Notices** section
  - Librarian's update
  - Curly tailed lizard captured
  - Spearfishing statistics reminder
  - Lobster diving reminder
  - Seasonal fisheries protected areas reminder
- The **Planting Calendar** to get a head start on what to plant this summer

Electronic copies of previously published editions and an online bibliography dating back to 2009 can be found by visiting <https://environment.bm/envirotalk> and, as always, please contact the Envirotalk mailing list [envirotalk@gov.bm](mailto:envirotalk@gov.bm) if you would like to be added to it or if you wish to make suggestions for a future article.

*Mark Outerbridge - Editor*

# TACKLING CHICKENS WITH TECH: BERMUDA'S NEW DIGITAL TOOLS FOR FERAL BIRD MANAGEMENT

The Department of Environment and Natural Resources (DENR) has launched a set of digital tools to modernize how Bermuda manages feral birds, primarily chickens and pigeons. At the heart of this initiative is Geographic Information Systems (GIS) technology, which allows staff to collect, map, and analyze information in real time. Every report is tied to a location, every staff visit is logged digitally, and residents can watch management efforts evolve over time.

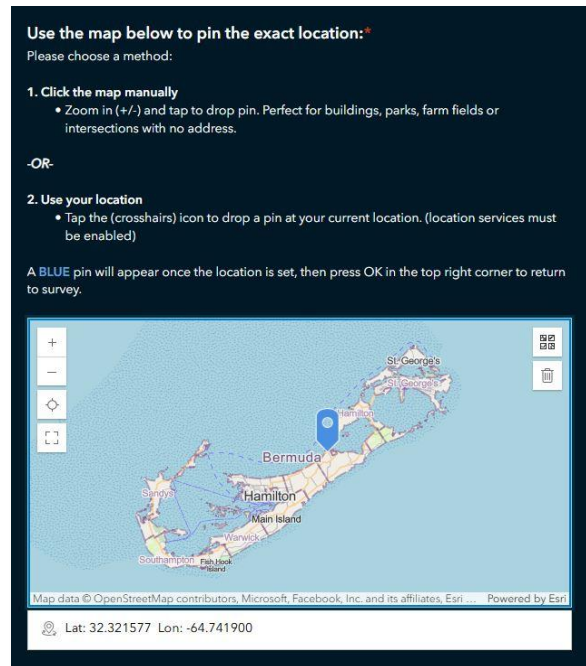
The program combines online reporting forms, mobile field apps, and a live dashboard accessible on both PCs and smartphones. Using modern GIS and cloud technology, this system centralizes information that was previously scattered across paper logs, spreadsheets, and phone calls. Staff can now view, map, and analyze data efficiently, supporting a data-driven approach that strengthens planning and improves the effectiveness of feral bird management across Bermuda.

## Online Reporting System

Visit: [Feral Bird Reporter](#)

Residents can report sightings and request service through a simple web-based form. It works on both smartphones and desktop computers, making it easy to submit requests from home or anywhere you have your phone. You'll be asked for details such as the location, type of bird, your contact information, and any notes that may help staff respond effectively.

A key part of the reporting form is the interactive map pin. Each report must include a location, which helps DENR identify the site accurately—whether it's a farm, home, commercial property, roadside, or nature reserve. Once you submit the form, you'll receive an email confirmation, and the report is added to DENR's tracking system for assessment and any necessary control actions.

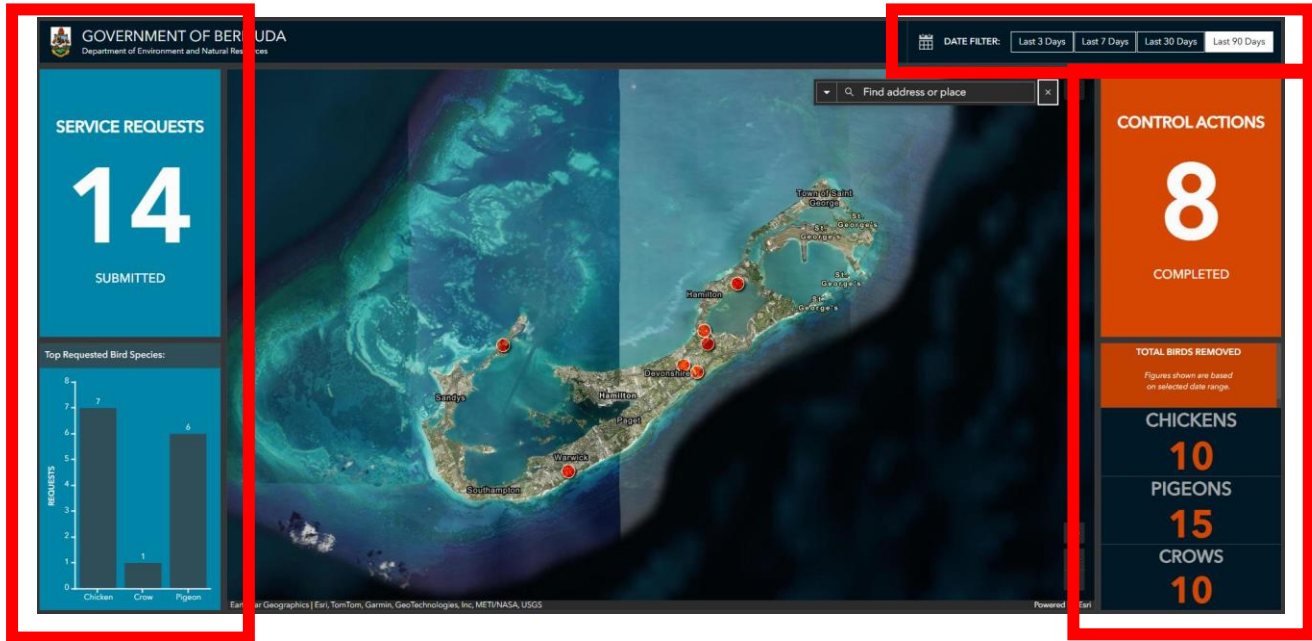


Screenshot of the reporting form showing the map pinning question.

## Management Dashboard

Visit: [Feral Bird Management Dashboard](#)

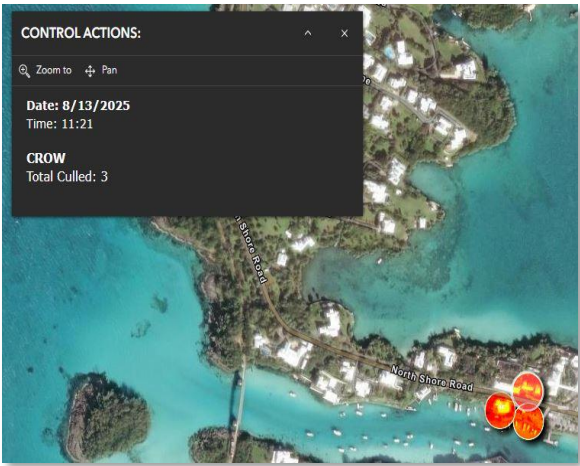
DENR has also launched a public-facing Feral Bird Management Dashboard. This interactive map shows where control activities have taken place across the island. Locations are displayed as large orange circles highlighting general areas of activity, giving residents an easy way to see where management is happening and how efforts are progressing.



Screenshot of the Feral Bird Management Dashboard highlighting the two main information channels and date filter. Together, they provide a clear overview of sightings and management activity across Bermuda.

The dashboard presents two main types of information: public service requests (see blue boxes above) and the control actions taken (see orange boxes above). Public requests show the reports submitted through the online form, highlighting the important role of community involvement. To protect privacy, these reports aren't displayed as points on the map. Instead, the dashboard presents totals and the species reported, offering a transparent view of public reporting and the scale of the feral bird issue across Bermuda.

Control actions show where staff have been managing feral birds. Large orange circles (see below) highlight general areas of activity, while indicator cards display the total birds removed, broken down by species. The date filter is the core feature—use it to explore activity from the past 3, 7, 30, or 90 days. With nightly updates, residents always have the most current snapshot of both reports and management efforts. You can also click on individual control actions to view more detailed information about each visit.

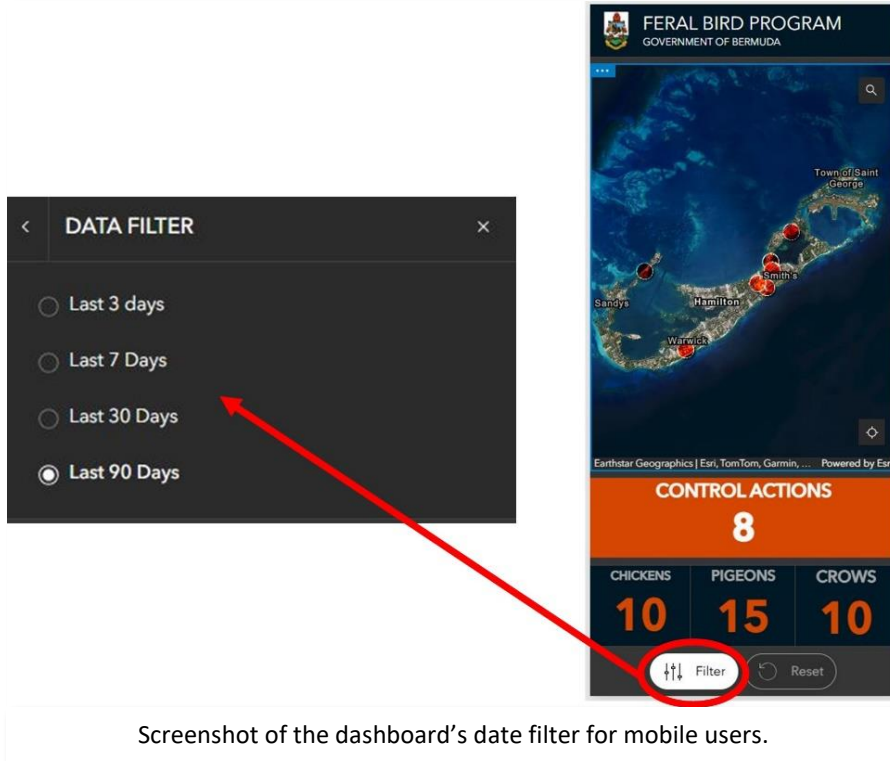


View of the Dashboard date filter (above) and table highlighting recent control actions (left) when action report is selected.

### Mobile Versions

Designed to fit smaller screens, the mobile dashboard keeps essential features within reach. Users can check recent management activity, explore data over different time periods, and

make use of the 'current location' feature to see nearby activity. Even with a streamlined layout, it remains an effective tool for staying up to date with ongoing management efforts.



Screenshot of the dashboard's date filter for mobile users.

### How You Can Help

Everyone can play a part in reducing the impact of feral chickens. Simple steps at home and in the community can make a big difference:

1. Stop feeding feral birds.
2. Bag household garbage and store it in a secure trash can when placing it out for collection.
3. Contact DENR through the portal to have problem birds collected.
4. Do not relocate or abandon unwanted chickens—DENR can collect them.
5. Do not interfere with traps you encounter.
6. Keep your own chickens on your property, especially if you live near agricultural fields.

### Live Links

Access the reporting form here: [Feral Bird Reporter](#)

See the dashboard and learn how to use it here: [Feral Bird Management Dashboard](#)

**Daniel Dickinson**  
**GIS Analyst, DENR**

# INATURALIST IN ACTION - DISCOVERING BERMUDA'S HIDDEN ENDEMIC INVERTEBRATES

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Bermuda is home to some extraordinary invertebrates—some of these natural treasures are endemic species meaning they are found nowhere else in the world. Bermuda is known to have approximately 70 endemic terrestrial invertebrate species. Bermuda's endemics include species such as the Lesser (*Poecilozonites circumfirmatus*) and Greater (*P. bermudensis*) Bermuda land snails, an array of insects, an endemic spider, and cave mites – which have all been known to science from Bermuda for a long time but have few recent records. For decades, these small but important species have remained understudied, with limited data available to enable their conservation. As highlighted in a previous article, an amazing citizen science platform called 'iNaturalist' is helping to change this, and anyone can get involved. We are using iNaturalist to help us to transform how Bermuda records, understands, and conserves its unique invertebrates.

A recent collaborative Darwin Plus project 'Supporting Atlantic Territories Invertebrate Conservation' between the Species Recovery Trust and Buglife – The Invertebrate Conservation Trust have teamed up with the Bermuda National Trust and the Bermuda Government Department of Environment & Natural Resources to encourage individuals to record local wildlife using iNaturalist. iNaturalist allows anyone with a camera or smartphone to photograph wildlife and upload their observations. Each record is automatically mapped and then identified by a global community of experts and enthusiasts. For Bermuda, this simple tool has enabled some fantastic invertebrate records.

Through dated georeferenced records, the platform allows us to track where endemic species are found, and understand which habitats are most important. Even a single observation can be significant. These records are

now feeding into the current project and are building the most comprehensive, publicly accessible dataset ever assembled for the island's invertebrates.

One Bermudian, 19 year old Luke Foster, has recorded over 12,000 records on iNaturalist - the majority of which are from Bermuda. Only a couple of months ago Luke found a genus of fly at Spittal Pond that contains two endemic fly species, helping us to understand the current distribution of these endemics. He has also found new records of the tiny but beautiful sea snail *Triphora turtlebayensis*, an endemic pseudoscorpion *Pachyolpium atlanticum* and the endemic moth *Eudarcia haliplancta*.



Sea snail *Triphora turtlebayensis* a figure of the species generated by Luke Foster based on electron microscope photographs taken at the University of Leeds.

It is not just endemic records that are useful, for example increased records of the Milk snail *Octea lactea*, an invasive snail, are also important. Bermuda has around 14 species of endemic snail and the Milk snail competes for food and can alter the habitat it occupies, as well negatively affect plants.



Endemic pseudoscorpion *Pachyolpium atlanticum* photographed by Luke Foster



Endemic moth *Eudarcia haliplancta* photographed by Luke Foster

The records being supplied through iNaturalist are helping us to understand this threat and consider future management.

The data generated is also being used to highlight Important Invertebrate Areas (IIAs) produced by Buglife — places where endemic species are concentrated and need protection. Understanding these sites means the Bermuda National Trust and Bermuda Government can look at ways of improving management to secure the associated endemic species.

We still need more records, and anyone can get involved, so please help to conserve Bermuda's endemic invertebrates and start recording what you find. Use the QR code on the right to learn more about iNaturalist, create an account and share records with the project.

This project is funded by the UK Government through the Biodiversity Challenge Funds (DPLUS216) and is a collaboration between the Anguilla National Trust, Government of Anguilla, Ascension Island Government Conservation & Fisheries Directorate, The Bermuda National Trust, The Government of Bermuda, Falklands Conservation, Falkland Islands Government, The Species Recovery Trust, and Buglife – The Invertebrate Conservation Trust.

SCAN ME



**Vicky Wilkins, Programme Manager Species Recovery Trust**

## USING SIMPLE TOOLS TO IMPROVE THE SURVIVAL OF FISH SUFFERING FROM BAROTRAUMA

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If you have done any fishing on the Bermuda Platform, especially in water 50 feet and deeper, you have very likely been in the sad situation where you have caught a fish you don't want to (or can't) keep and after releasing it you watch as it helplessly flops around on the surface in a vain attempt to return to the bottom. Those fish were suffering from barotrauma; a pressure related injury which occurs when a fish is caught in deep water and brought too quickly to the surface. Bony fish have a specialized gas filled sac, called the swim bladder, which allows them to control buoyancy and maintain depth in the water column. Rapid ascent interferes with their ability to release expanding gases in this bladder which then displace the organs, leaving the fish severely bloated. Signs of barotrauma include the stomach protruding from the mouth (see photo below), a swollen belly, distended intestines, and bulging eyes. The severity of barotrauma injuries varies between species, depths, and the speed of ascent; however fish can be re-pressurized by returning them to the depth in which they were caught. By bringing the fish back down to depth, naturally occurring pressure will re-compress the enlarged organs causing the fish to become neutrally buoyant again.

The most common reasons for releasing a fish include catching a protected species<sup>1</sup>, catching under-sized individuals<sup>2</sup>, and catching undesired species. The table below summarizes the minimum legal sizes and bag limits for some of the more popularly sought after bottom-dwelling species commonly affected by barotrauma on the Bermuda Platform. The full Fisheries Protected Species Order and Fisheries Regulations for Bermuda can be read by visiting [www.bermudalaws.bm](http://www.bermudalaws.bm)

Anglers in Bermuda should adopt a personal conservation ethic and do all they can to ensure that Bermuda's fish stocks have a future. Reducing catch and release mortality is one



Red grouper suffering from barotrauma  
Credit: Return 'Em Right

important aspect of this. Studies have shown that survival is greatly increased when fish suffering from barotrauma are returned to depth as soon as possible using descending devices<sup>3,4,5</sup>.

There are three basic categories of descending devices:

1. Lip clamps
2. Inverted hooks
3. Fish elevators

Broadly speaking, these devices allow for non-invasive recompression by rapidly lowering fish from the surface using a line attached to a weight that securely holds the fish until it reaches a desired release depth. Commercially sold equipment, such as the Seaqualizer<sup>®</sup>, grips the fish by the lower lip using a clamp that will not release until reaching a preset depth. The entire rig easily attaches to a rod and reel allowing you to free-spool the fish down and easily retrieve the rig after release. The DIY version involves using a large inverted, or reversed, barbless hook. This device can be inexpensively made with gear readily found in your own tackle box. Simply file off the barb, turn the hook upside down, and tie the mainline to the hook's bend so the hook point and shank both point down. Tie a short dropline to the eye and add a robust snap swivel from which to hang the weight(s).

Species	Fork length min. size	Bag limit
Black grouper ( <i>Mycteroperca bonaci</i> )	95 cm (37.5 inches)	1 fish per boat per day
Yellowmouth grouper ( <i>Mycteroperca interstitialis</i> )	50 cm (20 inches)	1 fish per boat per day
Red hind ( <i>Epinephelus guttatus</i> )	35 cm (14 inches)	10 fish per boat per day*
Lane snapper ( <i>Lutjanus synagris</i> )	25 cm (10 inches)	30 fish per boat per day
Coney ( <i>Cephalopholis fulva</i> )	No limit	No limit

\* Recreational fishing limit year-round as well as the commercial fishing limit during the months of May, June, July, and August. Commercial fishermen are allowed 50 red hinds per boat per day during the month of April and from September-March they have no bag limit.



Lip clamp  
Credit: Return 'Em Right

Push the hook point through the thin skin around the affected fish's lower jaw and lower the fish into the water. When the fish reaches the desired depth (which will be the sea floor in many cases) one quick yank upwards will pull the hook out of the mouth and release it.

Milk crate elevators work well for smaller fish like coneys, undersized red hinds, and juvenile groupers. Weights (i.e. 5 lb dive weights or old window sash weights) are attached to the crate handles and a line is secured to the center of the base. To use it simply place the fish in the crate, swiftly invert the crate at the surface of the water and lower it to the desired depth. The recompressed fish will swim out of it after attaining neutral buoyancy. The crate can serve double duty by being used to store and carry gear on and off the boat.



Inverted fishing hook  
Internet image



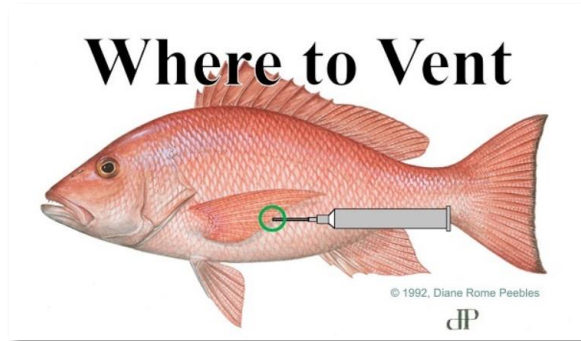
Milk crate fish elevator  
Internet image

Marketing research investigating the perceptions, opinions, and attitudes regarding the use of descending devices has shown that recreational anglers in the Gulf of Mexico and the US South Atlantic regions are very willing to use them as a conservation tool and believe in

their effectiveness<sup>6,7</sup>. There are many instructional videos on-line showing how to properly use different types of descending devices and an excellent source of information for best release practices can be found on the website of the Return 'Em Right coalition <https://returnemright.org/>

### Venting

Venting, or deflating, refers to releasing excess gas within the swim bladder by inserting a hypodermic needle (without the plunger) into it. Although this is a familiar practice among fishermen, it can do more harm than good if not done properly.



Credit: Florida Fish & Wildlife Conservation Commission

Items such as fillet knives, fishhooks, and gaffs are not venting tools and should never be used to vent a fish. Venting tools must be clean, sharp, and preferably hollow to effectively release expanded gas from the swim bladder. To properly vent, lay the fish on its side (on a cool,

wet surface) and insert your venting tool 1-2 inches behind the base of the pectoral fin, under a scale at a 45-degree angle, just deep enough to release trapped gases. Watch this [short video](#) to see how it is done. Never insert venting tools into a fish's back, belly, or stomach that may be protruding from the mouth as this causes damage and can lead to infection.

### References:

<sup>1</sup> [Fisheries \(Protected Species\) Order 1978](#) (see [www.bermudalaws.bm](http://www.bermudalaws.bm))

<sup>2</sup> [Fisheries Regulations 2010](#) (see [www.bermudalaws.bm](http://www.bermudalaws.bm))

<sup>3</sup> Bellquist et al. 2019. Effectiveness of descending devices to mitigate the effects of barotrauma among rockfishes (*Sebastes spp.*) in California recreational fisheries. [Fisheries Research 215:44-52.](#)

<sup>4</sup> Bohaboy et al. 2020. Application of three-dimensional acoustic telemetry to assess the effects of rapid recompression on reef fish discard mortality. [ICES Journal of Marine Science 77\(1\): 83–96.](#)

<sup>5</sup> Ayala, OE. 2020. Testing the efficacy of recompression tools to reduce the discard mortality of reef fishes in the Gulf of Mexico. MSc thesis. University of South Florida, Tampa.

<sup>6</sup> Curtis et al. 2019. Recreational angler attitudes and perceptions regarding the use of descending devices in Southeast reef fish fisheries. Marine and Coastal Fisheries Dynamics, Management, and Ecosystem Science. <https://doi.org/10.1002/mcf2.10102>

<sup>7</sup> Fact or Fiction: [dispelling myths about barotrauma, venting, & descending.](#) Sea Grant Florida.

**Dr Mark Outerbridge**  
**Senior Biodiversity Officer, DENR**

### **What area of mangroves or seagrass would need to be restored in Bermuda to generate enough carbon credits to recover set up and monitoring costs?**

It is also important to note that, in most carbon standards, credits are issued only for additional carbon sequestration that occurs as a direct result of the project, rather than for carbon that is already stored unless it is demonstrably at risk of release. This distinction is important for the calculations below.

Using available information and current voluntary carbon market prices, we can make very rough, back-of-the-envelope calculations. These illustrative figures are not predictions or forecasts but are intended only to provide a general sense of scale of the restoration. They are simplified scenario calculations designed to explore feasibility under stated assumptions, not to represent actual project budgets or financial projections.

**Mangroves:** If we make the following assumptions:

- A voluntary carbon price of \$10 per tonne of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e). This is a simplified assumption based on typical carbon market values. In reality, carbon credit prices vary widely depending on project type, quality, certification standards and market conditions. Some credits sell for less than \$10 per tonne, while higher-quality credits with strong verification and co-benefits may sell for more.
- \$100,000 to cover the restoration implementation, project development, carbon accounting, independent verification, registry fees, administration, and long-term monitoring over 10 years. This figure is used only to explore feasibility and should not be interpreted as an estimate of actual restoration costs in Bermuda.

It represents combined restoration and carbon-credit development costs under the stated assumptions and is likely an underestimate for Bermuda given the high local labour, material, and compliance costs.

- A soil carbon sequestration rate of 2 tonnes carbon per hectare per year. There are no published carbon sequestration rates for Bermuda's mangroves, but studies elsewhere suggest soil carbon accumulation in young to moderately restored mangroves ranges from 0.87 to 2.46 tonnes C/ha/yr. Since Bermuda's mangroves are subtropical, 2 tonnes C/ha/yr may be an overestimate.

Under these assumptions, approximately 137 hectares\* would need to be restored to generate enough carbon credits to recover costs over 10 years. If actual project costs were higher than \$100,000, the required restoration area would increase proportionally. Bermuda currently has 20 ha of mangroves and cost recovery would require the creation of nearly seven times more mangrove area than presently found on the Island. Given the limited space available, it is unlikely that restoration efforts could generate enough carbon revenue to recover full project costs.

However, if more realistic restoration and verification costs were used (which could exceed several hundred thousand dollars), the required restoration area would increase substantially. Given Bermuda's limited mangrove extent (approx. 20 ha total), large-scale expansion sufficient to rely on carbon revenue alone is unlikely to be physically feasible.

**Seagrass:** For seagrass, we use

- the same cost and carbon price assumptions, but
- the global median 100-year burial rate for seagrass meadows of 0.26 tonnes

C/ha/yr (Arias-Ortiz et al. 2026), rather than the estimated 0.06 C/ha/yr from The Lagoon (see Envirotalk 90.1). Seagrass accumulates carbon much more slowly than mangroves; therefore, the required restoration area for seagrass will be larger.

Under these assumptions approximately 1,052 hectares\* of seagrass would need to be restored to recover the costs over 10 years. If Bermuda’s carbon sequestration rate is lower than the global average then an even larger area will need to be restored. Under higher cost scenarios, the required restoration area would be substantially larger.

*How the calculations were made	
<b>1. Convert carbon to CO<sub>2</sub>e</b>	<ul style="list-style-type: none"> <li>CO<sub>2</sub>e = carbon/ha/yr x 3.667</li> <li>Mangroves: 2 tonnes C/ha/yr x 3.667 ≈ 7.33 tCO<sub>2</sub>e/ha/yr</li> <li>Seagrass: 0.26 tonnes C/ha/yr x 3.667 ≈ 0.95 tCO<sub>2</sub>e/ha/yr</li> </ul>
<b>2. Calculate annual revenue per hectare</b>	<ul style="list-style-type: none"> <li>Revenue = tCO<sub>2</sub>e/ha/yr x carbon price.</li> <li>Mangroves: 7.33 tCO<sub>2</sub>e/ha/yr x \$10 ≈ \$73/ha/yr</li> <li>Seagrass: 0.95 tCO<sub>2</sub>e/ha/yr x \$10 ≈ \$9.50/ha/yr</li> </ul>
<b>3. Revenue over 10 years per hectare</b>	<ul style="list-style-type: none"> <li>revenue over 10 years per hectare = annual revenue x 10 years</li> <li>Mangroves: \$73 x 10 ≈ \$730/ha</li> <li>Seagrasses: \$9.50 x 10 ≈ \$95/ha</li> </ul>
<b>4. Hectares needed =</b>	<ul style="list-style-type: none"> <li>\$100,000 ÷ revenue per hectare over 10 years.</li> <li>Mangroves: \$100,000 ÷ \$730/ha ≈ 137 hectares</li> <li>Seagrass: \$100,000 ÷ \$95/ha ≈ 1,052 hectares</li> </ul>

Since it was estimated that Bermuda previously had 2,100 ha of seagrass (Murdoch et al. 2007) and there is roughly 31,200 ha on the Bermuda Platform with sufficient light levels and suitable substrate for seagrass growth, in theory, there is

enough area for seagrass restoration to generate carbon credits at this scale. However, a figure of \$100,000 would not realistically cover the full costs of seagrass restoration in Bermuda, let alone the additional costs associated with carbon-credit development and verification. Given local labour, materials, logistics and long-term management requirements, actual restoration costs are expected to be substantially higher. In addition, any carbon-credit project would require expenditures for carbon accounting, independent verification, registry fees and ongoing monitoring. These combined costs would far exceed the \$100,000 assumption used in this scenario.

If restoration costs in line with real-world projects (which can range from tens of thousands of dollars per hectare) were applied, the total investment required could reach millions of dollars. Under these conditions, carbon revenue alone would be highly unlikely to offset full implementation and monitoring costs.

If increases in seagrass-derived carbon in other areas on the Bermuda Platform can be included, this may generate additional carbon credits. However, even though there may theoretically be sufficient space on the Bermuda Platform for large-scale restoration, the very slow rate of carbon sequestration combined with high restoration costs makes carbon credits alone an uncertain and potentially marginal funding source. Co-benefits such as habitat enhancement, shoreline stabilization, biodiversity protection and increasing fisheries yield are likely essential to justify restoration.

In practical terms, the scale of restoration required to rely primarily on carbon revenue would likely exceed what is financially or logistically feasible in Bermuda.

Restoration projects in Bermuda need to emphasize co-benefits such as habitat protection, biodiversity enhancement, increasing fisheries yields, coastal protection and water quality regulation, rather than relying on carbon credits as the main funding source.

Although the scale of mangrove and seagrass restoration projects in Bermuda, and other small islands, is typically too small to meet the minimum area and cost thresholds for most blue carbon credit schemes, these projects remain extremely valuable. They provide critical ecosystem services that benefit the environment and communities alike.

For Bermuda, focusing on these broader benefits, rather than carbon credits alone, is likely the most effective approach.

From a climate perspective, conserving existing mangroves and seagrass meadows is especially

important because preventing habitat loss avoids the rapid release of long-stored carbon. In many cases, the near-term climate benefit of protection can exceed the benefit achieved through restoration over the same period. This does not mean restoration is unimportant, rather it means that preventing habitat loss is often the fastest way to protect stored carbon while restoration works to rebuild ecosystems over time.

Restoration remains important for rebuilding ecosystems, enhancing biodiversity, and increasing long-term resilience, even if carbon finance alone is insufficient to fund it.

***Dr Sarah Manual***  
***Senior Marine Conservation Officer, DENR***



Red mangroves in Hungry Bay  
Credit: M. Outerbridge

## INDIGENOUS PLANT SPOTLIGHT: BURR BUSH (*TRIUMFETTA SEMITRILOBA*)

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When it comes to gardening most of our attention is directed towards general maintenance and manicuring of beds, shrubs and hedge lines. However, at times we face additional challenges from sudden weather changes to seasonal pests. Just like children, gardens require time and patience. Much of our time, sweat and effort can be easily consumed within the garden trying to achieve what may ultimately seem impossible.

There is hope! Through collaboration, experimentation, and research gardening can be customized based on your personal preferences and geographic location. Some may desire beautiful flower beds while others a garden of mixed fruit trees, but this comes with a cost and responsibilities. Furthermore, for those of us that live near the ocean our chance of success diminishes because coastal gardens tend to have thin soil and are constantly exposed to salt and wind.

Gardeners often face issues with managing hedge rows and pockets of woodland which often compels residents and landscapers to install fast growing shrubs and ground cover plants to combat these challenges. Additionally, some native plants may not appear as attractive or produce edible fruits, thereby further diminishing their presence on our properties.

Today, most of Bermuda's landscape is dominated by fast growing non-native plants that out compete our native species. Burr Bush, a native shrub, is often mistaken as an invasive because of its fast-growing nature and hardy capabilities. It averages 3-5 ft in height, has fuzzy animal paw-shaped leaves, a soft woody stem, and produces copious burrs. It is an ideal candidate for filling in stark woodland pockets and to aid in woodland restoration.



This species most likely would have been naturally dispersed across Bermuda by birds. The flowers form into small yellow clusters and, once mature, they form hairy circular burrs. Easily able to attract most pollinators and birds that forage for seed, especially the European House Sparrow.

Commonly found thriving within grasslands, meadows and along the edges or exposed pockets of mixed woodland, Burr Bush can grow in both heavy shade and full sun. Burr Bush is also ideal for locations that may receive unwanted pedestrian traffic!

The rarity of this species is a clear example of how important it is for us to foster places that serve as a sanctuary as well as a place to safeguard personal mental health and well-being.

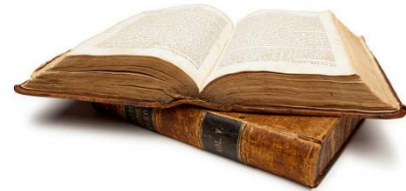
**Ronald Burchall**  
**Conservation Officer, Bermuda National Trust**

## NEWS & NOTICES

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### Librarian's Update

- Thermal refugia indicates physiological evolution in Atlantic reef corals published in [Biological Journal of the Linnean Society](#), September 2025



### Curly tailed lizard captured

DENR received a phone call on April 27<sup>th</sup> from a Customs Officer to report the sighting of an unusual looking lizard in the parking lot of a local shipping agent. A DENR officer responded immediately and promptly captured it before the animal was able to disappear into the neighbourhood. It proved to be a northern curly tailed lizard (*Leiocephalus carinatus*), likely a stowaway in a container imported from Florida. This species is native to the Bahamas, the Cayman Islands, and Cuba (but introduced to Florida) where it feeds on vegetation, insects, and the occasional frog or small lizard - something our endemic skinks would not appreciate if the species was to become established here. DENR thanks Bermuda Customs for reporting this and for their continued vigilance at these border locations.



*Internet image*

### Spearfishing statistics reminder

Recreational spear fishers are reminded that spearfishing statistics should be submitted monthly using the Shellcatch e-reporting platform / app. There should be an entry for each date / location that you fished, and a "No fishing" entry for the final day of any month in which you did not fish. Your catch statistics must be up to date through at least the end of July if you are applying for a spearfishing licence for the upcoming season, which starts on September 1<sup>st</sup>. Applications can be submitted to DENR starting in August. Please call 293-5600 or email [fisheries@gov.bm](mailto:fisheries@gov.bm) if you are having difficulties accessing the reporting platform.

### Recreational lobster diving licences

The 2026 lobster season will begin on September 1<sup>st</sup>. The Marine Resources Section will publicise instructions on how to apply in July.

### Seasonally closed 'no fishing' areas

The Northeastern and Southwestern Seasonally Protected Areas, also known as 'the hind grounds,' are currently closed to fishing, and will remain closed through the 14<sup>th</sup> of August (the first day they can be fished is August 15<sup>th</sup>). The extended closure areas within the seasonally protected areas, also known as the 'grouper boxes', are currently closed to fishing, and will remain closed through the 30<sup>th</sup> of November. The coordinates for these areas can be found at [www.gov.bm/bermudas-no-fishing-areas](http://www.gov.bm/bermudas-no-fishing-areas)

# PLANTING CALENDAR – WHAT TO PLANT IN THE SUMMER

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## VEGETABLES

### July

Beans, carrots, tomato

### August

Beans, broccoli, Brussel sprouts, cabbage, carrots, kale, leeks, mustard greens, sweet & hot peppers, radish, rutabaga, tomato

### September

Beans, broccoli, Brussel sprouts, cabbage, carrots, cauliflower, celery, chard, cucumber, eggplant, kale, leeks, mustard greens, parsley, sweet & hot peppers, potatoes, radish, rutabaga, tomato, turnip



## FLOWERS

### July, August, & September

Celosia, cosmos, gazania, globe amaranth, impatiens, marigold, salvia, snow-on-the-mountain, vinca and zinnia

