





The Buzz

Newsletter of the Biodiversity and Ecosystem Services Network Trinidad and Tobago (BES-Net TT) project October 2022
Issue #4
More
to come!

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Follow us on You Tube!

The Buzz is the quarterly produced newsletter of the Biodiversity and Ecosystem Services Network Trinidad and Tobago project (BES-Net TT).

This newsletter reports on progress made in the implementation of the BES-Net TT project over the period, 2021-2023.

The Buzz is produced by the BES-Net TT Project Management Unit.

Welcome back!

We are so happy to reconnect with you, our dear readers, in our FOURTH quarterly issue of The Buzz! Yes, that's right, number 4!

We hope that you have enjoyed reading about the project and also been following up with visits to our social media pages to learn more.



This issue of The Buzz includes updates on our workshop series which kicked off in Trinidad in August, a training session for the bee and pollinator survey which has started in East Trinidad, and two mobile phone applications ('apps') that the project is promoting to help build knowledge of local pollinators and improve their management in T&T.

So once again, we encourage you to enjoy reading this new issue of The Buzz and share within your networks!

Pollinator Gardens in T&T

In its second year, the BES-Net TT project will assist in developing two pollinator gardens in T&T under the project's Practice component. In the meantime, we acknowledge a few projects already undertaken in T&T in development of pollinator-friendly gardens – hummingbird garden @ Brazil secondary School; food garden @ Archbishop's House, pollinator garden @ Pointe-a-Pierre Wild Fowl Trust and butterfly garden @ the Royal Botanical Gardens. Great news for our pollinator species! Let's see more of this in T&T!

Bee/Pollinator Survey Gets Underway

During the last quarter, an exciting collaboration got started began between the BES-Net TT team and the Trinidad and Tobago Field Naturalists' Club for research on native bees.

Under the Science Component of the BES-Net TT project, field research is being undertaken on key pollinator groups. One area of research will gather information on pollinators found at farms, with special interest in native stingless bees.

This study will sample pollinators on farms located near the Matura National Park Environmentally Sensitive Area (ESA) and the Main Ridge Forest Reserve,. The field work will be undertaken by the Trinidad and Tobago Field Naturalists' Club (TTFNC)., which secured support for this activity through the Global Environment Facility Small Grants Programme (GEF SGP).

As a first step in the research activity, field assistants obtained guidance on sampling methods at a one-day training workshop. The BES-Net TT team facilitated the training workshop and brought together other stakeholders to build capacity in the field survey methodology.

Field work will soon begin in Trinidad and a training session will take place in Tobago in early November.

Bees collected in samples will be sent to experts for identification and genetic barcoding, to build a database of species of native bees. The research activity ends in 2023.



Cross section of participants at the training workshop



Linton Arneaud, Vice-President of the TTFNC demonstrating set up of blue vane traps



Workshop participants gather for a grop photograph with members of the BES-Net TT project team at the end of the training session.

Update on Workshop Series

As reported in the last issue of **The Buzz**, a 6-part workshop series focused on the theme of pollinator management got off the ground in August 2022. Hosted in the lush and cosy environment of Wa Samaki Ecosystems in Central Trinidad, the workshops have attracted a diverse group of participants, whose interests range from active information-seeking for practical action, to building knowledge that can be shared with others. Here is a recap of the four sessions hosted to date.

Workshop 1: Macrophotography, Aug 3 & 6

This workshop was facilitated by Dr. Floyd Homer and introduced participants to photography as a useful tool to document pollinator species. Dr. Homer provided tips on taking images which highlight the subject in its natural setting and which showcase unique features which aid identification. Dr. Lena Dempewolf gave a brief presentation on iNaturalist, an online platform which participants were encouraged to use to help build a database of local pollinator species.



Workshop 2: Bat Pollination, Aug 24 & 27

Mr. Darshan Narang introduced participants to the important role performed by bats, through their night-time visits to particular flowers. He provided insight on field research currently underway for the BES-Net TT project which identifies bat species involved in

pollination at a location in East Trinidad. Participants also examined field apparatus and posed questions to the research team.



Workshop 3: Introduction to Stingless Bees, Sept 28 & Oct 1 Workshop 4: Splitting and Harvesting of Stingless Bee Hives, Oct 12 & 15

Workshop 3 was facilitated by Mr. David Rostant and Prof. Christopher Starr (ret.). Mr. Rostant, an experienced keeper of stingless bees, facilitated Workshop 4. Prof. Starr shared on bee biology while Mr. Rostant gave practical information on stingless bee habits, foraging preferences, hive development and honey. There was much discussion with questions posed from farmers, university students, agricultural officers and home gardeners in the diverse audience.



Two remaining workshop sessions take place before year's end and the series repeats in Tobago later in the project.

There is an App for that!

Advances in technology are happening everyday and facilitate the work we do. The BES-Net TT project has been promoting the use of two Apps (applications) which help those who are helping to manage our pollinator species (hopefully, that includes all our readers of The Buzz!). Learn about these two apps in this article.

Management tool for Beekeepers

Beekeepers can add a new tool to their portfolio of management of hives, through the use of the relatively new app called *Hive Keep in Caribbean*. The app which was developed by Leopard Tech Labs was 'birthed' through a biodiversity project based in Saint Lucia that was funded by the Global Environment Facility. This app allows beekeepers to collect data on the status and health of their beehives, by providing a series of fields to document hive events, brood activity, honey harvesting and several other records right onto a mobile phone.



On first login, a user can add information on the location of their apiary which is then georeferenced and registered. A QR code is then assigned to the apiary to identify it. "Events" captured by the record management software fit under the themes of examination, treatments, honey harvesting, feeding, queen replacement and colony reset.

App promotion

The BES-Net TT team has been promoting the app among beekeepers in Trinidad and Tobago and handed out information cards at a local Agri-Investment Forum held in Trinidad in August and introduced it to a beekeeper group in Tobago earlier this year. The app is available from Google Play for download and an instructional video on its use is provided on You Tube - https://www.youtube.com/watch?v=v=vNVL7fngoMs



A tool for naturalists and pollinator documentation

A second app being used and promoted by the project is the **iNaturalist** app and platform (https://www.inaturalist.org/). iNaturalist is an initiative of the California Academy of Sciences and the National Geographic Society; the genesis of which was a project of a graduate student of the UC Berkley School of Information in the USA. In short, the iNaturalist allows users to identify plants and animals when they post images of these flower-visiting organisms onto the platform.



How iNaturalist works is through the contributions of expert biologists that advise on the possible identity of an organism by examination of the visible anatomical features. At least three experts must agree on an identity before this is offered to the observer. The mobile app for the platform allows a user to post images directly to the platform from the field through the use of a smart phone.



The BES-Net TT project is encouraging users to post images of organisms visiting flowers to the platform and then tag the project "Pollinators and Pests of Trinidad and Tobago". This will help build a database of our pollinator species. The team hosted a webinar on the use of iNaturalist and generated a short animated video on the benefits of its use to promote the platform among schools, environmental groups and the general public.

After the first six months of the project, the pollinator and pests project page had 711 species identified and the figure has now grown to 3183 observations of 730 species, posted by 245 persons.

The iNaturalist app is available for download from Google Play and the Ap Store.

Outreach Gallery

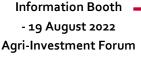


Camp session

 4 August 2022

 Cipriani Labour College

 Children's Camp





Information Booth
- 29 October 2022
Franciscan Institute
"Season of Creation" event







Follow us on YouTube!

The BES-Net TT team invites you to visit our <u>You Tube channel</u> to access some of our audio-visual materials that are posted as quickly as they are created (Search for: BES-Net TT).

The You Tube channel is one of our more recent platforms for sharing informative content including the recordings of our one-hour webinar series.

Educators can access the component sections of webinars which run for about 20-30 minutes and can therefore fit into a classroom session as an introduction to a topic, or can be used as homework resources to initiate research on a pollination-related topic.

Also included on the platform are short animated clips such as "Tips and Takeaways for Creating Pollinator Gardens" (1 min 34 s) and "A story about Very Important Pollinators" (3 min 40 s).

So stop by and tune in while surfing the web, we are constantly building more content just for you!

Upcoming activities this quarter!

November 16th/19th: Workshop - Building Pollinator Habitats and Bee Boxes

November 30th "Stingless bees in T and T" - Webinar on Zoom (Registration details on Facebook)

December 14th/17th: Workshop - Design of Pollinator Gardens

The Biodiversity and Ecosystem Services Network (BES-Net) is jointly implemented by:







We would love to hear from you and get your feedback on this issue of The Buzz! Contact us at:

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