



The Buzz

Newsletter of the Biodiversity and Ecosystem Services Network
Trinidad and Tobago (BES-Net TT) project

July 2022

Issue #3

**More
to come!**

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Welcome back to the Buzz

Dear readers we are happy to welcome you back to **The Buzz!**

In this issue, learn about plant-pollinator associations, as shared in our webinar series, and news on an upcoming workshop series, which starts in August. We give some insight on the development of learning resources for juniors, and an update on an ongoing knowledge, attitudes and practices survey.



Photo credit: Celeste Chariandy

As usual, we share some 'save the date' information on the back page, for some of our upcoming activities this quarter.

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.

Project support

The advancement of the BES-Net TT project is supported in no small part by regular interactions from BES-Net Global team. On 14th June 2022, the project team members, together with a few representatives of partner institutions were able to benefit from a workshop on communication.

At the session, some experiences and great ideas were shared by other country project teams as well as practical tips on photography, storytelling and social media from experts.

The TT representatives obtained a lot of food for thought and have begun to brainstorm on the use of these new techniques in improving our knowledge management and sharing as the BES-Net TT project continues!



Plant-pollinator associations

A checklist by Comeau et al., 2016 revealed that there are 3639 plant species in Trinidad and Tobago, of which 1222 are exotic. This is potentially a source of concern in a small island.

“Native plants” are those which have naturally originated and evolved in specific geographic location. However, sometimes some non-native plants are introduced by man to a location, and over time can reproduce and maintain themselves without human support and are considered to have become “naturalized”. On the other hand, invasive plants are those exotic/non-native plants which are not local in origin, but can quickly establish and may even displace native plants and in so doing, disrupt ecosystems.

As the BES-Net TT project has been encouraging persons to consider establishing pollinator gardens to attract and encourage pollinators for conservation, the use of native as opposed to exotic plants is recommended.

The project, through its monthly webinar series began sharing information on this topic beginning with the webinar of April 20 (plants and pollinators they attract), and continuing in webinars of June 15 (plants attracting bats) and July 27 (plants attracting birds).

Colour and shape of flowers and the presence or absence of scents and nectar guides often influence the type of pollinator which is attracted. In the webinar series, information about several native plant species has been shared, so that would-be pollinator garden developers have a good

choice of plants to attract the particular pollinators with little negative impact on the environment.

Here is a brief checklist of some plant species that have been covered so far in the series:

Plants that attract bats

Flowers large, pale or white usually, open at night, musky or sweet smell, produce large amounts of nectar.

Common name	Scientific name
Banana	<i>Musa sp</i>
Sandbox	<i>Hura crepitans</i>
Wild chataigne	<i>Pachria sp</i>
Bois flot	<i>Ochroma pyramidale</i>

Plants that attract birds

Flowers tend to be red, tubular shape, generally unscented.

Common name	Scientific name
Heliconias, Torch Ginger	Heliconia sp
Canna lily	Canna sp
Spiral ginger	Costus

Keep tuning in to our webinars for more information on plants that attract different pollinators! Also catch up on past webinars by visiting our Facebook page at <https://www.facebook.com/besnet.tt/> or visit our YouTube channel at <https://www.youtube.com/channel/UC1GTJNffu-JS00wXJKeCZHg>

Workshop series

Outcome 3 of the BES-Net TT project is stated as: *“Providing education, tools and support to improve the practice and application of pollinator and pollination science in multiple contexts”*. A workshop series was therefore conceptualized to impart knowledge and develop skills by engaging those with practical experience and/or interest to increase local capacity in pollinator management.

The workshop series is made up of six (6) half-day workshops and those hosted in Trinidad will take place at the Wa Samaki Ecosystems facility in Freeport during the period August to December 2022. A series of workshops will also be held later in the year in Tobago.

The topics for coverage are as follows:

Macrophotography
Introduction to Stingless bees
Splitting and harvesting of stingless beehives
Design of pollinator garden
Building pollinator habitats and bee boxes
Bats as pollinators

Participants in the workshop are not required to have skills in any of these areas, however some prior experience or exposure will be useful. Traditional keepers of honeybees may be particularly interested in learning about the management of stingless bees and their skills for hive management can be enhanced through exposure to the training sessions.

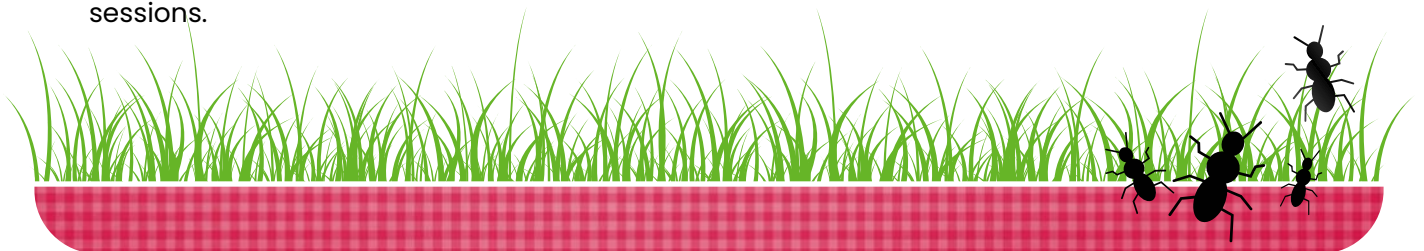
The first workshop session in macrophotography may be useful to beekeepers as a skill to assist in documentation of hives, but will also be an interesting opportunity for naturalists, researchers and students and those wishing to contribute to the iNaturalist platform.

Each workshop will be held on a Wednesday morning, however these will repeat the Saturday immediately following. Applications for the limited number of twenty-five (25) spots per workshop will be reviewed on a first come – first served basis.

The BES-Net TT project team anticipates good participation in the workshops and looks forward to the growth and use of skills in pollinator conservation actions.



Stingless bee hive box at Wa Samaki Ecosystems, Freeport



Developing hands-on learning tools

Building the public's knowledge of pollinators and pollination is critical in the valuing of these organisms and the important ecological role they play. The BES-Net TT project recognizes that a variety of tools and pathways are needed in building and disseminating information among diverse audiences. The project's communication plan includes the development and use of hands-on tools and techniques in reaching these audiences. In creating these tools, the gradation of "tell me, show me, let me" is incorporated in design, both to meet people at their varied Lexile levels and to facilitate deeper learning and uptake through the interactive method.

Designing tools

The design of learning materials follows a similar process as writing an article or building an exhibit. The concept has to be examined, the main message is defined, the precision of the content is secured to reduce ambiguity and then what attracts, holds attention and what leaves a lasting impression are incorporated in design and delivery. Pollinators and the role they perform are so significant, but often overlooked. It is therefore necessary to raise the profile of these two aspects through the use of the senses in what can be seen, touched, heard, tasted or smelled. Development of interactive learning tools also can enable learning by experience, getting away from 'chalk and talk' delivery which may not have universal ease of uptake.

Brainstorming for Better

Areas in which attitudes or practices need to be changed for the better, or where apparent knowledge gaps need to be filled and often the focus of material development, for instance, natural alternatives for pest control. Perhaps a display of pest-repellent plants can be mounted, or a how-to lesson to make insecticidal spray from low-cost materials can be shared in a workshop setting. Another interactive technique includes the use of interpretive walks—say in a garden that attracts pollinators—or interactive/immersive storytelling, in which the audience or audience members themselves play a role in the telling of the story.

Testing and Assessing

As good as the idea looks on paper, testing is the only way in which the developer can tell whether the learning envisioned actually is accomplished. Trials with the target audience, and even the non-target audience give feedback that can help improve and/or enhance the product. Sometimes the feedback precipitates unexpected results - giving rise to further discussion, debate and development. These are all good and useful results!

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A school student looks at a live pollinator during a BES-Net TT outreach activity at his school.

The BES-Net team has been using some of these tools and techniques, taking them out on a 'trial run'. Short animated videos that present a series of follow-up questions are useful for primary school students; a game which gives a broad idea of the connection between flower type and pollinator type has been used for general audiences, and displays of field sampling equipment are used as conservation starters in explaining the importance of pollinator research.

Sharing the How-To

As the BES-Net TT project progresses, the team will take the opportunity to share more of these experiential learning opportunities and in an upcoming webinar, we will also share the process of developing some of these tools. Follow our Facebook page - <https://www.facebook.com/besnet.tt/> - to get updates on these activities!



Photo credit: Celeste Chariandy

Match the plant and pollinator game

Surveying Pollinators

The Bes-Net TT team continues to track the diversity of pollinators at former quarried lands managed by CEMEX in Mayo, Trinidad, as reported in the [first issue](#) of The Buzz newsletter.

Working with company employees, a series of blue vane traps and a malaise net were deployed to sample pollinator fauna at the site.



Photo credit: Celeste Chariandy



Photo credit: Celeste Chariandy

Rehabilitation work has started at the site and with the introduction of pollinator attracting shrubs in due course, changes in pollinator diversity and numbers will be monitored.

Photo above: Malaise net being constructed
Photo at left: Collecting vessel for net is set up



Update on the KAP Survey

The BES-Net TT project conducted a Knowledge, Attitudes and Practices (KAP) Survey over the period September 2021–January 2022 using the online platform, Survey Monkey. Now with the lifting of pandemic restrictions, the project team has been administering the survey in face-to-face setting on its outreach exercises.

The survey activity has been conducted at farmers' Markets at Macoya, Chaguanas, Port of Spain and Debe, while partnering with the UWI Department of Food Production 'seed swap' initiative. An update on the results to January 2022 was delivered at July's monthly webinar.



Photo credit: UWI Dept of Food Production

Upcoming activities this quarter!

July 27th: "Preliminary Results of a KAP Survey on Pollinators and Pollination Management in T&T" and "Plants that Attract Birds as Pollinators"

August 3rd/6th—Workshop on Macrophotography

August 17th "Stingless bees in T and T" – Webinar on Zoom (details on Facebook)

August 24th/27th—Workshop on Managing Bats as Pollinators

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



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

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