

# Bumbelita The Pollinator - A Fascinating Creature Contributing to Our Ecosystem

Eukaryote Evolution 23

Figure 27. The factors that cause the differentiation between bee castes.  
*The Biology of the Honey Bee* by Winston, Mark, 1991, Cambridge: Harvard University Press

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graph TD; Egg --> Fertilized; Egg --> Unfertilized; Fertilized --> Normal[Normal feeding]; Fertilized --> Heavy[Heavy feeding plus royal jelly]; Normal --> Worker; Heavy --> Queen; Unfertilized --> Drone;
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**ROLES OF THE CASTES**  
**Queen bee**  
When the young virgin queen bee flies out to mate, she usually mates with an average of 12 but can mate with up to 32 drones. Sperm from each drone she mated with is stored in the **spermatheca** in her abdomen; it is nourished there until it is required to fertilise an egg.

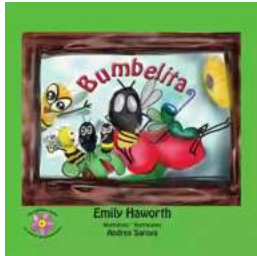
**Genetic material.** The queen bee is the mother of all the bees in the hive, therefore her genetic material contributes to one half of all the genetic material in each worker bee produced from her eggs, and it contributes to all the genetic material in drone bees produced from her eggs. The worker bees all have the same mother but the variety of their fathers contributes to a mixture of relationships within the colony. However, the genetic material from the queen bee is the one major factor that contributes to the success or failure of the colony.

Figure 28. The queen surrounded by attendant worker bees.

When we think of pollinators, butterflies and bees often come to mind. However, there is a lesser-known yet incredibly important pollinator that deserves our admiration and attention - Bumbelita, the pollinator.

## What is Bumbelita?

Bumbelita, scientifically known as *Bumbelitus pollinatus*, is a unique species of insect native to the lush forests of South America. It resembles a mix of a butterfly, a hummingbird, and a bee, making it an exceptional creature to observe in nature.



### Bumbelita (The Pollinator Series Book 4)

by Dino Esposito(Kindle Edition)

★★★★☆ 4 out of 5

Language : English

File size : 11083 KB

Screen Reader : Supported

Print length : 16 pages

Lending : Enabled



With its vibrant iridescent wings, Bumbelita is a sight to behold. Its body, covered in velvety fur, allows it to easily collect and transfer pollen from one flower to another. These distinct features enable Bumbelita to be an efficient and effective pollinator, playing a crucial role in the survival of numerous plant species.

## The Pollination Process

Bumbelita's contribution to the ecosystem lies in its exceptional pollination abilities. As it hovers gracefully from flower to flower, it collects pollen grains on its furry body. When it moves to the next flower, the pollen rubs off, aiding in cross-pollination.

Unlike most pollinators, Bumbelita possesses a unique ability to remember the exact location of each flower it visits. It creates a mental map, allowing it to

optimize its pollination route and minimize unnecessary energy expenditure.

This remarkable intelligence, combined with its exceptional speed and agility, makes Bumbelita a highly effective pollinator, ensuring the propagation and diversity of plant species in its ecosystem.

## **The Role of Bumbelita in Our Ecosystem**

The reliance of numerous plant species on pollinators like Bumbelita cannot be overstated. As Bumbelita collects and transports pollen, it facilitates plant reproduction, resulting in the growth of fruits, seeds, and ultimately, new generations of plants.

Without the active role of pollinators, ecosystems would suffer from a lack of biodiversity, leading to severe consequences such as reduced food availability and habitat degradation.

Bumbelita's extraordinary presence helps maintain the delicate balance of coexistence between plants and other species in its ecosystem. By ensuring successful pollination, Bumbelita supports an intricate web of life, from insects to birds and even mammals that rely on the fruits and seeds produced from pollinated plants.

## **Threats to Bumbelita**

Unfortunately, like many pollinators, Bumbelita faces numerous threats that endanger its survival. Habitat loss, caused by deforestation and urbanization, disrupts Bumbelita's foraging patterns and reduces the availability of suitable plants for pollination.

Additionally, the use of chemical pesticides directly affects Bumbelita's health and well-being. Pesticides not only kill pests but also harm beneficial insects like

Bumbelita, jeopardizing their ability to fulfill their vital pollination role.

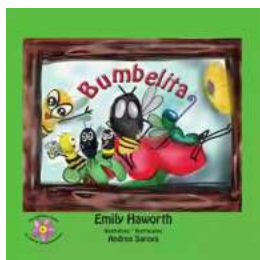
## How Can We Help?

There are several ways we can contribute to the protection and conservation of Bumbelita:

- Planting native flowers and creating pollinator-friendly gardens can provide Bumbelita with ample food sources and nesting areas.
- Reducing pesticide use or opting for organic alternatives helps maintain a healthier environment for Bumbelita and other pollinators.
- Supporting initiatives that promote biodiversity conservation and habitat restoration is crucial in safeguarding the habitats of pollinators like Bumbelita.

Bumbelita, the pollinator, is undeniably one of nature's extraordinary creatures. Its unique appearance, remarkable pollination skills, and significant role in our ecosystem make it a creature worthy of our attention and protection.

By understanding the importance of Bumbelita's contributions and taking action to preserve its habitats, we can ensure the continuation of its vital pollination role and safeguard the delicate balance of our ecosystems for future generations to appreciate and cherish.



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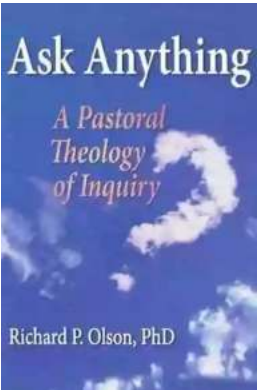
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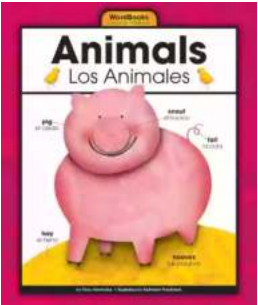


Meet the bees! Buzz along with Bumbelita as she introduces some of her cousins. Be a pollinator pal and help keep the flowers blooming. Bilingual story in English and Spanish that promotes environmental responsibility. No. 4 in The Pollinator Series.



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