

The stars of the forest

Discover The Biology Behind Fireflies' Glow

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On a warm summer evening, Aryan was playing in his backyard when a tiny flicker of light caught his eye. It was a firefly, alone and blinking on and off, as if calling to him. Entranced, Aryan followed the firefly as it drifted towards the dark woods nearby - a soft glow in the dusk. Deeper into the forest, the firefly led him to a hidden clearing where hundreds - no, thousands of fireflies floated like stars, lighting up the trees, bushes, and even the air itself. Aryan stared in awe at the shimmering lights for what felt like hours. Suddenly, the fireflies began to speak, their voices small but bright, like the lights they carried. "Do you know how we glow?" asked one that landed on a leaf next to him. Aryan shook his head, wide-eyed. "Inside our bellies," the firefly continued, "we have a special chemical called luciferin. When it meets oxygen, it lights up - just like magic!" "But it's more

The science of it
Bioluminescence is the ability of living organisms to produce their own light through a chemical reaction. Besides fireflies, it is also found in jellyfish, deep-sea fish, squid, and even some fungi.

than magic," added another, zooming past Aryan's head. "It's called bioluminescence. Our light doesn't make us hot, like a lightbulb. It's what humans call 'cold light'. Neat, huh?" "Whoa!" Aryan whispered, amazed. "Why do you glow, though?" The fireflies chuckled, their tiny lights flashing in patterns. "For us, the glow is our language," explained the first firefly. "Each of us has a special way of blinking to talk to others like us. It is like morse code but for cool people. We use it to find friends, keep away from danger, and sometimes to say hello to curious children like you." Aryan laughed, watching as the lights danced around him. "So, it's like your secret signal?" "Exactly!" piped another fire-

fly. "Different kinds of fireflies blink in different rhythmic symphonies. Some in short bursts, some display longer glows. And guess what? Some even glow in different colours!" As Aryan marvelled at the light show, he noticed that his little firefly guide was pulsing in a slow, steady rhythm. "Do you ever stop glowing?" he asked. "Sometimes," the firefly replied, "but not for long. Our light helps protect us as well! When predators see our glow, they find that we may not be particularly appetising and leave us alone." He explained that fireflies produce a toxic chemical called lucibufagin, which luckily tastes terrible to frogs and birds. Aryan felt a warm sense of wonder, surrounded by his new friends. "Thank you for enlightening me about your magical glow," he whispered. The fireflies blinked back in unison, their glow filling the forest with a soft, magical light. As Aryan headed home, he couldn't help but feel like he had uncovered a beautiful, hidden world, shining brightly just for him.

Illustration: Vandita Sharma, XII E & Amayra Gupta, XI D, AIS Saket



STAGE1

HP 200+

The swamp king

Pokémon trainer: Aditri Sharma, AIS Gurugram 46, VII A



The Shoebill Stork is a living fossil that has glided over the planet for 30-40 million years.



ABILITY



An ambush predator, it freezes motionless for hours before striking with explosive speed. Using its large 9-inch beak, it pins down the prey, swings its head back and forth to tip out mud and weeds before swallowing it whole.



An almost twin to Sabrina Carpenter. Nearly the same height, this species too can drop variant local tracks - a machine gun, a hiccup chirp, and a cow's moo!



Silence is its greatest weapon.

POKÉDEX



Type: Water/flying



Height: 152 cm



Weight: 4-7 kilograms



Wingspan: 8 feet



Habitat: Freshwater swamps and wetlands of central tropical and east Africa.



Weakness: Humans who do not return their graceful bows.



GT **READ • PLAY • WIN**

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1

Write answers of all the questions below

2

Click Photograph

3

Mail: editor@theglobaltimes.in or Visit: <http://theglobaltimes.in/readplaywin/>

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Name: Class: School:

Q.1 What is Maulik Sharma's favourite book, as shared on page 9?

Q.2 Who is being interviewed on page 3?

Q.3 Who is the silent companion talked about on page 6?

Q.4 Which school won the 'Best Headline' Award?

Q.5 What is the height of the bird discussed on page 4?

Q.6 Which school secured the first position in GT Awards?

Winners 114

Result of Read Play & Win: Abeer Jain, AIS Mayur Vihar, V C; Viraj, AIS Pushp Vihar, VIII B; Kisha Aggarwal, AIS Gurugram 46, VIII A