

Biodiversity in Colombia

Photographies by: Antonia Lutz Cruz





Index



3 - 24 Articles

6 - 8 How the climate affects the beetles reproduction

9 -11 The relationship between the nogal tree and the Torcaza

12 - 13 The spiders contribute in the balance of an ecosystem

14 - 15 The Weevil

16 - 18 The wonderful World of Bees

18- 19 Hummingbird: How do they Survive

20 - 22 Migrating Birds: Setophaga fuzca

25- 32 Poems

26- Nature Needs help!



27- Natures bright

28- Blossom is like life

29- In the Amazon.

30- the life of nature

31 Sustainability and Earth systems

32- The Nature

33 - 40 Descriptive Paragraph

33- A journey in the Amazon jungle

34-34 The Explorer's home

35-35 Habitat

36-36 The Explorer's Habitat

37-37 The explorers Amazon jungle





Articles

How the climate affects the beetles reproduction?

Juan Antonio Ramírez

The relationship between the Nogal tree and the Torcaza

Miranda Dominguez

The spiders contribute in the balance of an ecosystem.

Miguel Garcia

The Weevil

Simón González

The wonderful world of bees

Antonia Lutz Cruz

Hummingbird: How do they survive

María José Figueroa

Migrating birds: Setophaga Fuzca

Mariana Páez

Articles

Writing by : Tomas Abello



INTRODUCTION

In our LED class we followed some steps to write and finish our scientific articles. The first one was when, we started creating scientific questions about Zasqua and its organisms, this gave us an idea of what we are working with. We had the option to choose an animal, plant or insect. With our research question already elaborated we started investigating and creating a gathering grid divided into three subtopics. After this, we created a sentence outline to organize our ideas into sentences for our articles. Moreover, we started writing our texts with an Introduction, three body paragraphs and a conclusion. Finally, we had the editing, the peer responded with another classmate of our class and some High School students came to read and suggest our articles. Here we present our final drafts!



How the climate affects the beetles reproduction



Many people may think that the climate doesn't affect some animals, this is a false thing. Many animals could be affected by the climate or the climate change that can lead to the dead. This article is being written because in many parts of the world, and also in Bogota, the climate could change every second. This topic and also talking about this could help people know that the coprophagous beetles are animals that help society all the time. The beetles and this type of animal mostly work all the days fertilizing trees. This could sound very pathetic, but the trees are the most important source of breathing, and some stupid animals, like a beetle, could sustain our lives. Later on this would be an important topic, but these beetles, if they didn't exist, the trees and the floor would be infertile. Being the floor infertile could also have a very bad impact on the planet. These insects may be the people don't have rituals. That can sound stupid, but these beetles have many rituals, for example, for mating and having babies. These rituals also make them unique in many ways and can mean many things that people don't understand. Another thing that is also going to be a topic is the climate. How these beetles adapted to different climates. But mainly how the climate affects this type of beetle reproduction.

Foto: diario de madrid



The coprophagous beetles is one fundamental piece in the environment and its advance. Without knowing the coprophagous beetles have an essential role in the environments but many people never realize how does the climate here in bogota could affect this species but mostly their reproduction.



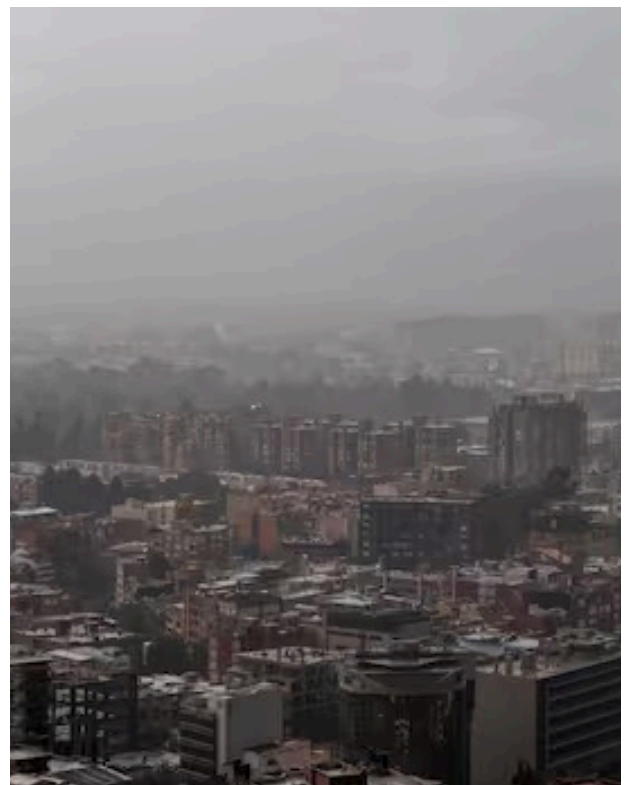
Foto de: WWF

The escarabajo coprofago it's one of the most known species but mostly the most useful. All the day this beetles principal work in the society is to recollect poop in balls to fertilized it(Joomag.com, N.D)This is when they help the plants. After they recollect the weight of 200 times there weight. This poop gives fertilizers to plants and trees to help their grownment and health(joomag.com, N.D). Also this poop that they recollect produce their own food. Most of these insects are adapted to most warmer climates but others to cold one. Many people most think that I'd they extinct nothing would happen but If this beetles would extinct would be very difficult to the environments and also for humans. This beetles give fertilizers and in the case that they would extinct it would let the plants would be infertile. Another effect is that the plants would need more and more nutrition each time more because is another of their principal function.



The life cycle now is another interesting thing about this beetles and that many people don't really know well how it works. The life cycle of this type of insects is known as a complete metamorphosis(terminix.com,N.D)People may not know what is a metamorphosis but the real fact is that most of the animals or mostly the insects have the life cycle known as metamorphosis. This means that this insects have stages of complete changes in form of habits during the immature stage. When the male beetle put the sperm into the women it could pass since 2 or 3 days to 30 days of complete desarollation process(terminix.com,N.D) This stage has four steps. This first step is the eggs. After the mom lay the eggs in a closer place from food it passes many days until the second stages come, the larva(BIOKIDS, N.D). The larva is when the eggs pass to be worms. The larva of this insects feed on cellulose structures of timber, eating the wood from the inside out(terminix.com,N.D)After this second stage it maybe come the stage of more changes is the pupa. This third stage is physically of many changes but mostly in the part of that it let of being a little worm to start looking more a like to the beetle. In this stage when the larva already eat the enough food it form the pupa in which the beetles eat and move very less than in the larva. In the fourth and last stage is when the beetle is know in their full desarollation. After one or two weeks the beetles go out of the pupa. At the start of this transformation the beetles are white but apt he first week is start being brown and later on black.

The climate in bogota has so much changes during the day and during the year but how this could have positive or negative effects in beetles. The climate in bogota most of the people know is very cold climate and that is true but also have hottest months. Bogota is located 4 degrees north altitude(weather spark.com,N.D). Bogota is also 2640 above the sea level. This means that bogota in not so hot all the year like other countries. Bogota and Colombia don't have stations during the year so it doesn't change the climate so drastically during some months. The nights bogota has few degrees higher that in the mid day because the urban heat island effect. Bogota has many changes as I already mentioned but what are the most colder month and the hottest one. March is the hottest month reaching 15C during the day(climatestotravel.com,N.D).



If people compare it bogota is the almost the half the hottest as the hottest countrie in all the world. December is the coldest month in bogota reaching 12C during the day(climatetstotravel.com,N,D). This is a template climate because is not so hot and is not so cold than many countries that can reach negative temperatures. The lowest temperatures that had been recorded are from 7 to 9 degrees Celsius([weather spark.com](http://weather.spark.com), N.D). The beetles adapt more easily to the warmer temperatures because they reproduce faster. This makes that not only the beetles but also the insects increase their number when it's hotter or warmer.



After we talked about this and this incredible animals we can get a conclusion. This beetles have an essential role for humanity and biodiversity, the complex temperature of bogota can affect them and their reproduction. As many things that help this animals are things that also could be dangerous for them. This findings in the future can indicate the less reproduction of the beetles. This is because Bogota doesn't have a warmer temperature and beetles each time the climate is warmer the faster they develop so this climate could affect them. Most of the people when we see a beetle they step on them. I invite you to don't do it because after reading this article you know what the essential roles are in the world.



The relationship between the Nogal tree and the Torcaza



By: Miranda Dominguez

In nature we can find many different types of animals and plants. Some of them can be such rare and exotic species while others can be so common that you can find it in many parts of the world . For example, the Torcaza or the Eared dove is a little bird that can be found in urban areas or open spaces. (Mauroossa, •. 2017). Commonly these birds can be found in South America, there are also little colonies in Trinidad and Tobago and in the Netherlands Antilles (Mauroossa, •. 2017). Another great evidence is the Walnut Tree or the Nogal tree. (Although) this species is not so common, it can be found in North and South America, southern Europe, Asia, and the West Indies. (The Editors of Encyclopedia Britannica. 2025). Despite the fact that these two living organisms might seem so different and without any relationship between them, they have some associations. A proof of these statements is that the Torcaza eats the fruits that the Walnut Tree produces, which means that these trees play a crucial role in helping the Torcaza survive. (ChatGPT). This article will explore the interaction between the Torcaza and the Walnut tree and how these trees contribute to the Eared Dove's survival. Finally it will also address the central question: How can the Walnut Tree help the Torcaza survive in their ecosystem?

The Walnut Tree is known in the scientific community as *Juglans Regia*. (Woodland Trust. n.d.). This biotic factor has a “genus of about 20 species of deciduous trees of the family Juglandaceae”. (The Editors of Encyclopedia Britannica. 2025). The Nogal Tree has such unique features that it is impossible to pass it without being impressed. Well is not a false statement because these trees grow up to 35 meters and they often have short trunks and a large crown. (Woodland Trust. n.d.). Another impressive characteristic the Walnut Tree has is that these trees possess two types of flowers, a female one and a male one, both equally important to its ecosystem. (Woodland Trust. n.d.)



<https://www.arbolapp.es/especies/ficha/juglans-regia/>

The male flowers can be 5-10 cm long and the female flower can measure 2-5 cm long. (Woodland Trust. n.d.). Both have an important role in their habitat. The female flower is the one who can produce the fruits this tree owns. Although the male flowers can't produce fruit; they are the only ones that can generate pollen that can be transported in an easy way for many animals such as bees or butterflies. (Woodland Trust. n.d.). Also the Walnut Tree has such spectacular leaves, that can be identified immediately because of its special appearance. An interesting fact is that the leaves of these trees have reproductive organs that are born in different bunches of flowers without petals known as “catkins” on the same tree. (The Editors of Encyclopedia Britannica. 2025) These trees also change with the seasons! In fall, the foliage of this tree changes to yellow. (Walnut. n.d.). In spring the new leaves start to grow with a light green color marking the beginning of the tree's active growth. (ChatGPT). In summer, the leaves reach maturity and its green color intensifies, as the tree produces more energy through the process of photosynthesis. (ChatGPT). Finally in winter the tree loses all its leaves. (ChatGPT).

Other physical characteristics of the leaves of these trees are that they are flat, thin and with no hairs. (*Walnut*. n.d.). “Also they have 5-9 paired oval leaflets and one terminal leaflet at the end”. (Woodland Trust. n.d.). The leaves of this tree provide food for the caterpillars of over 100 species of moths and butterflies. (Borge, M. A. 2013, November 22). For example the walnut caterpillars' only food are the leaves this tree has. (Borge, M. A. 2013, November 22). One awesome fact about these trees is that they produce a chemical called juglone which causes many species of plants can't survive. (*ChatGPT*). This phenomenon called allelopathy helps these trees reduce competition by obstructing the growth of certain species, helping the Walnut Tree get resources like water, nutrients or sun. (*ChatGPT*). It is liberated to the soil through the roots, fallen leaves and putrid fruits. (*ChatGPT*). Finally this tree has such good quality wood with a rich color that is used for making high quality furniture and some musical instruments such as guitars and violins. (*ChatGPT*).

The Torcaza, is also known in the scientific community as *Zenaida auriculata*. (Mauroossa, •. 2017, April 5). Is an incredible animal that can be seen in many different environments, including forests, woodlands, scrublands, agricultural areas and urban areas. (*White-winged Dove*. n.d.). They are also seen in areas with separate trees and water sources. (*White-winged Dove*. n.d.). However, the physical characteristics of this particular bird make them distinctive among the other birds. The Eared dove plumage is olive-brown on the upper parts, with black spots on his wings. (*Eared Dove*. n.d.). This bird also had a grey crown on his head and a black line behind his eyes. (*Eared Dove*. n.d.). The underparts of these birds exhibit vinous colors, while the tail is elegant and finished with cinnamon tones. (*Eared Dove*. n.d.). Often the males are more vibrant than the females with the latter presenting a monotonous appearance. (*Eared Dove*. n.d.). This bird is granivorous since its diet is based on different types of seed of grasses, crops and weeds. (Mauroossa, •. 2017) (*ChatGPT*). In agricultural areas they consume corn, wheat and sunflowers which cause a lot of problems to the farmers of the

zone. (*ChatGPT*). Because of its diet they are excellent in finding seeds, causing them to sometimes be called “ nature’s vacuum cleaners”. (*ChatGPT*). The Torcaza is a medium- size bird that can measure about 22 to 28 cm in length. .(Mauroossa, •. 2017). Depending on the diet and the habitat of the Eared Dove, weight can range from 112 to 145 grams. (*ChatGPT*). The Torcaza uses vocalization for its daily life. They use vocalization to interact with the other birds of his species, they can pass information about location, individual identity and “intention to other doves in their vicinity”. (*White-winged Dove*. n.d.). During the breeding season, the dove’s vocalizations become more frequent and marked this is because it starts to play a pivotal role in mate attraction, courtship and marking territory. (*ChatGPT*) (*White-winged Dove*. n.d.). Finally, fun facts about these birds are that their name is for the dark spot they have on the side of their neck which looks like ears, but there are just marks! (*ChatGPT*).



<https://www.fcv.unl.edu.ar/aves/categorias/familia-columbidae/torcaza/>

The Walnut Tree has many ways in which it helps the Torcaza survive. One of them is that these trees provide dense foliage and strong branches that are perfect for nesting and resting. (ChatGPT). Eared Doves often prefer trees with massive cover to protect them from predators. (ChatGPT). Additionally the Eared Doves sometimes use materials the Nogal Tree produces to make their nest, these resources can be: small sticks and leaves. (ChatGPT). This converts the Walnut Tree into a source in which these birds can find crucial resources. These trees reduce the ground temperature helping the Eared Dove to rest, cover and escape from heat. (ChatGPT). The Nogal tree serves as a central part in an ecosystem attracting other species of mammals, insects or birds helping the Torcaza coexist with other animals, these can create a prosperous community. (ChatGPT). Eared doves, like many other birds adapt themselves in seasons, the Walnut Tree is also affected with the climate changes. (ChatGPT). For instance when the tree loses its leaves or when the tree's foliage starts to become yellow, this will give signals to the doves that they need to find food or the need to migrate. (ChatGPT).

But the Walnut Tree not only helps the Torcaza it also provides support for other animals. Many animals eat the Walnut tree seeds, this is because the seed of the Walnut Tree contains as much protein as an equal weight beef. (Borge, M. A. 2013, November 22). The squirrels are one of the animals that uses the nuts of this tree as a food. (Hassani, N. 2021, septiembre 15). "The eastern fox squirrel gets 10% of its food from black walnuts". (Hassani, N. 2021, septiembre 15). Although the seeds of these trees are pulpy and are covered by a hard shell around, they are useful food for many different animals that share habitat with them. (Dreisbach, L. n.d.). The reason for this is that "these nuts provide protein, carbohydrate and fat, necessary for storing energy for those animals that hibernate". (Dreisbach, L. n.d.). These animals are squirrels, raccoons, turkeys and bears. (Dreisbach, L. n.d.). In fact, walnut nuts contain many nutrients and properties that help the human body. These nuts have a sweet flavor and contain many nutrients. (Borge, M. A. 2013, November 22). Many studies have shown that eating these nuts helps prevent cardiovascular diseases, diabetes and cancer. (Borge, M. A. 2013, November 22). These seeds also have essential acids that are necessary for healthy brain development and function. (Borge, M. A. 2013, November 22). The



<https://the-natural-web.org/2013/11/22/in-praise-of-black-walnut-trees/>

is an impressive and important tree that makes part of our ecosystem. Although these trees are not so easy to know about, when you start to learn more about the Walnut Tree you will see how gorgeous they are. They are large and strong which help them protect other animals that need shelter. One of the animals that the Walnut Tree assists are the Torcaza. A little bird that can be found in so many places! His physical characteristics are so unique that you cannot pass through them. They are also so beautiful and interesting because these creatures have many great abilities like vocalization. By addressing the central question, how can the Walnut Tree help the Torcaza survive in their ecosystem? This article teaches about some of the important facts about these two living organisms. It is important to learn about it because with these the people will start to understand the importance of every single biotic factor that exists on this planet. Finally, by understanding the vital relationship between the Walnut Tree and the Torcaza, we can better see the balance of nature and the crucial role each organism plays in an ecosystem.

The spiders contribute in the balance of the ecosystem



By: Miguel Garcia

The spiders are very common insects, but they have an important role in the ecosystem. In this report, I am going to tell you about the role of the spiders. This is very important because without them there would be a big problem in the balance of the ecosystem. This is because there are different trophic levels in the food chain, but that I am going to tell you in another moment. My goal that I want to achieve with this report is to inform you all about the spiders and their role in the ecosystem. The ecosystem in this case is Zasqua. A little bio reserve located in the Nogales Colombian school. The spiders help to balance in the food web because they are in different parts of the trophic levels. How do spiders contribute to the balance in the food web of insects in Zasqua?



(<https://www.livescience.com/41467-wolf-spider.html#>)

Spiders characteristics

Spiders have different characteristics that are very interesting, either by their anatomy or by their adaptation. The Spider's scientific name is (araneae). Spiders have an adaptation that makes them live in most of the places of the world like deserts or jungle. Also they can live anywhere minus the antártica. The spiders don't have a good balance so they use hydraulics to move. These have 4 eyes and 8 legs but they use them as 4 pairs. The spiders have a very simple life cycle(Spidersworld,nd).Their life cycle is: They start being eggs that it takes to hatch weeks or months. The second stage is the uspiderlings, this is when they are already hatched and they are like baby spiders. Last one is the adult that is when the spider reaches maturity and lays eggs. The largest part of their body is the abdomen that is the part of his body that produces his silk. Spider style of hunting is very interesting. Spiders use venom to immobilize their prey so they can then eat them(Culin, J., Levi, L. R., & Levi, H. W,nd). This venom is expelled from their teeth. They also use spider webs for trapping insects that fly. These webs are from silk and they make it from there abdominal part. When the prey is immobilized they cover them in the spider web so the spider can kill him faster(National Geographic,2013, December, 21).

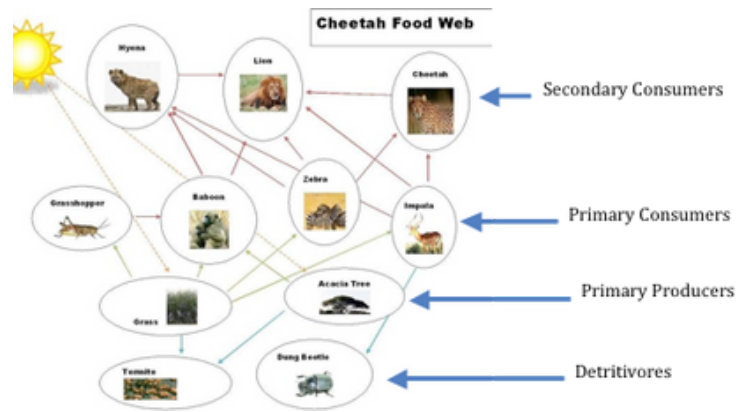


(<https://www.sciencenews.org/article/spiders-poisonous-webs-neuro-toxins-genes>)

The insects food web

1. In the food web there are different types of insects in each level. In the food web the insects are the largest source of food. Also insects are very significantly more linked with plants and animals, because they help each other in the food web. There are different types of predators of insects like birds, reptiles and some humans. Usually food webs have trophic levels; the first ones the primary producers that are organisms that make their own food by using the energy of the sunlight. The second one are the primary consumers that are organisms that eat plants or primary producers. The third one are the secondary producers that are carnivores like frogs, spiders or fishes that eat meat organisms. The fourth one is the predators, these are organisms that no matter what animal is will always be the ones that eat and are not being eaten. Finally detritivores are organisms that consume energy from the animals or the organisms that are decomposing, they only can eat the organisms that are decomposing(Sienceparnerths,nd).The insects are very important because they are in many levels of the food chain. Also they help by controlling the pests. Without them there would be an over population that would have serious consequences. They are found in almost all the parts of the world, this makes them have a predetermined position on the base of the food chain(primary consumers). They reproduce faster than the other animals that they feed(Espacepourlavie,nd). These are insect examples in the different trophic levels.

- Primary Producers: no one.
- Primary consumers: Caterpillars and grasshoppers
- Secondary consumers: Ladybug, dragonflies and spiders
- Tertiary Consumers: Wasps and ants (not all ants)
- Decomposers: Termites



<https://www.sciencepartners.info/module-8-macroinvertebrates/insect-feeding-food-webs/food-webs-trophic-levels/>

Savanna of Bogota

The savannah of Bogota is a very interesting place because it has a variety of species and flora, but also has environmental problems due to urbanization. The Bogotá Savannah is a very large place, over 400,000 hectares. It is home to many people, almost six million of humans. Most of them, around 90 percent, live in Bogotá, which is the capital. In the Bogotá Savannah, two important things are happening: urbanization and modernization. Urbanization means that cities are not just growing with more buildings, but also that our way of life and how we interact with each other is changing. For example, when more people move to a city, customs and lifestyles can shift (Montañez, G., Arcila, O., & Pacheco, J. C, nd). However, not all places and people change in the same way; some have more opportunities than others. By the other side modernization is about how new ideas and technologies, which come from a system called capitalism, influence our daily decisions. This means that both individuals and institutions start to think and act differently, using more technology and looking for ways to be more efficient. In summary, the Bogotá Savannah is changing a lot, and this affects everyone who lives there. The Eastern Mountains (Cerros Orientales) are one of the most visually striking features of Bogotá. They create a prominent boundary that influences how city maps are oriented, with most maps facing east rather than north, highlighting the green belt as a defining limit of the urban area (SOMOS CUNDINAMARCA, nd). These slopes are part of the Eastern Cordillera and are ecologically classified as the Andean zone of cloud forests and páramos. The páramos, which are unique and protected Andean moorlands located above the tree line at approximately 3,300 meters above sea level, play a crucial role in water regulation. Their exceptional vegetation cover and soil moisture contribute to their designation as a "water factory," underscoring their importance in the region's hydrology (Environment & Society Portal, 2014, December 22).

Conclusion

In conclusion the spiders are very important to the environment and without them they wouldn't be a balanced ecosystem. These findings mean to the future that in a few years the savannah of bogota would be a city in less than 100 years. Also it means that the food chain would be the same if any of the species are extinct. For the spiders this means that if the food chain and the savannah stills in this way the spiders would be the same because the spiders can leave anywhere. The people that see this text should take action by helping the animals and helping the urbanization for being friendly with the insects or spiders. Also they should reduce the amount of urbanization. So the arguments that are important for the text. The spiders are interesting animals and have extraordinary abilities. The insects have a great Importance in the food web. The Savannah of Bogota has different places were its present like Zasqua.



(<http://www.colombiaactiva.com/es/active-adventure/a-day-out-in-the-savanna/>)



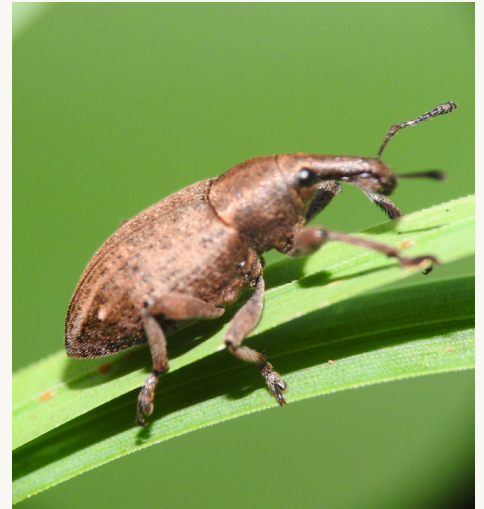
The weevil



Introduction:

By: Simon G

Have you ever noticed those tiny white insects that appear on your sweater when you're in the forest? Have you ever wondered what they are or what they feed on? How does Zasqua provide food for the insect weevil? Well, this text explores these insects and provides insight into their behavior. Understanding this insect is particularly important today for several reasons. These weevils are not just a curiosity; they are a significant threat to your plants and vegetation. They can invade your home and garden, causing big damage to your plants. They are also known to enter your houses through cracks, gaps, or spaces under doors. This means that even if you're not in direct contact with the forest, you could still be at risk from these pests. Furthermore, weevils are not only harmful to plants but can also damage stored food. Grains and other dried products in your house are often targeted and an infestation can ruin your supplies. By understanding how these insects operate and how they are sustained by Zasqua, a restored ecosystem has become ecological connectivity on the northern edge of Bogotá. You can take steps to protect your home, garden, and food sources, ensuring your vegetation and seeds remain safe. Like ensuring the crops are treated properly, having pesticides for insects, and having sealed the food.



Picture from canva

what do weevils eat?

Starting with the first topic, what do weevils eat? Well some weevils have preferences, and like to eat diverse food.(terminix,(n/d)The weevil primarily feeds on seeds and grains, consuming them as part of its diet. It also eats the roots of plants, making it a threat to crops.They are particularly drawn to seeds and grains. In addition to their preference for plant matter. (Weevils,(n/d) they are known to enjoy dry food products like flour, rice, pasta, and cereal. On the other hand they also like plant-based foods such as wood, leaves, roots, fruit, and plants. Weevils are particularly attracted to crops, making them a nuisance in agricultural settings.(orkin canada 2018,September/18)Their diet typically consists of stems, roots, fruits, grains, and leaves, essentially the parts of plants. Fruits such as apples, pears, and peaches are also part of its diet. This insect is commonly found in gardens or other areas that are typically green and lush, where these types of food sources are abundant. In addition to seeds and roots, the weevil feeds on flowers and leaves, much like the snail. One of the ways these pests infiltrate homes is by finding cracks. They are so small that they can enter through the gap door. Sometimes the weevil can't be noticed but they can get to the food and lay eggs in it. Then the eggs hatch and infestate other food. Crops are the most affected as well as plants. They can be damaged and rot dead.



picture from canva

Weevil infiltration

Understanding more about the weevil involves shifting the focus from what they consume to how they find their food. (what to know(n/d)Weevils are known to infiltrate homes through cracks in the walls, gaps under doors, and other openings.. Once inside, they are particularly attracted to kitchens, pantries, and food storage areas, where they can easily access dry goods like grains, flour, and cereals. These pests thrive in warm, dry environments, making homes with such conditions an ideal habitat. This is why weevils are more commonly found in residences during the warmer months or in areas with low humidity. In addition to invading homes, weevils can be introduced into living spaces through store-bought food, often unknowingly carried inside within infested packaging. (Berry e(2024, September 23).Weevils typically infest food products by laying their eggs inside them. (yapest.com(n/d)weevils that may already be inside them will begin to infest other grains and foods in your pantry. The most common culprits are grains, rice, pasta, and other pantry staples that are already contaminated. The spread of weevils is facilitated by their ability to fly, which allows them to cover large distances and infiltrate multiple food sources in a short time. Their small size and ability to hide in tiny cracks and crevices further contribute to their ability to rapidly infest a home. Once inside, the weevils will often lay eggs in stored food, where their larvae will develop and continue the infestation, creating an ongoing cycle that can be difficult to stop without proper intervention. This ability to spread easily from one area to another is a key factor in why they can become such a persistent problem. If not controlled, a weevil infestation can result in significant damage to stored food and create a frustrating situation for homeowners trying to maintain clean, safe food supplies.

Continued:

Zasqua

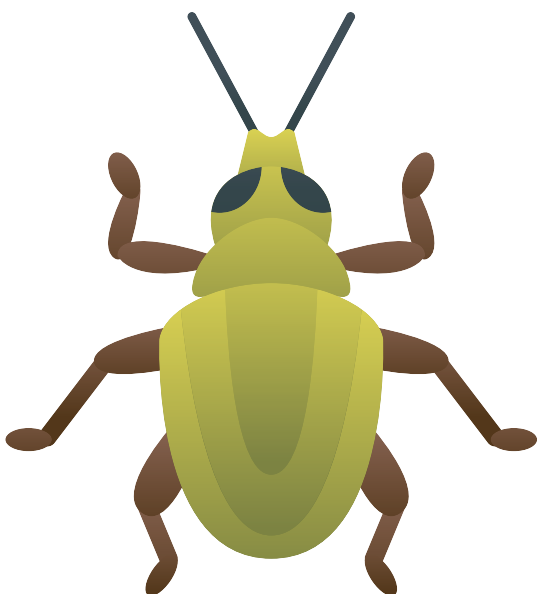
Now, let's dive deeper into understanding how Zasqua provides food for the weevil. To begin with, Zasqua is home to an incredibly rich biodiversity. The region boasts over 4,500 meters of lush vegetation, filled with a variety of trees, plants, and flowers. This expanse of green creates a thriving ecosystem, providing ample food sources for all the species of animals that live there. If you've ever had the chance to visit Zasqua, you'll notice its dense, vibrant greenery and the big lake in the center. The lake, surrounded by abundant plant life, becomes a focal point for animals who frequently come to refill their water supply or find food. Zasqua is truly overflowing with nature, with no area devoid of lush, green growth. It's a paradise for various species, where they can find everything they need to survive. Many of the animals in this ecosystem, particularly insects, sustain themselves by feeding on plants, trees, leaves, and fruits. (Colegio los nogales(2020, July 30) Zasqua provides the food through all space in the specific ecosystem where all animals have enough resources to eat and survive Rather than relying on human interaction for their food, these creatures forage independently, drawing sustenance directly from the environment around them. It's a natural sustaining cycle that keeps the entire ecosystem in balance.



picture from: <https://humedalesbogota.com/2016/03/15/humedal-biorefugio-zasqua-colegio-los-nogales/>

Conclusion

The weevil is a type of pest that feeds on a variety of materials, including both plants and food. These insects can cause significant damage to crops and stored food, making them a danger for gardeners and homeowners alike. The presence of weevils in your garden should not be ignored, as they can quickly multiply and spread. By feeding on plants, they weaken the plants of your garden, while also contaminating food sources. It's important to recognize the potential risks they can cause to your environment and take action to control their population. While taking right away steps to eliminate them is not mandatory, it is highly advisable. Regularly inspect your garden and food storage areas to detect any signs of infestation. If you spot weevils, removing them promptly can prevent further damage. There are various methods available for getting rid of them, such as natural remedies or chemical treatments. Ultimately, by staying vigilant and addressing the issue early, you can protect both your plants and food from these harmful pests, ensuring a safer and healthier living space.



Picture from canva



The wonderful world of bees

Photographs and writing by: Antonia Lutz Cruz



We are familiar with bees, but how much do we know about them? Well, we know they are pollinators and they sting when they feel attacked. However, did you know that the queen bee can sting various times and not die? Or that their scientific name is *Apis mellifera*. Most of us don't know these facts, this is because when we believe that something is simple we don't need to know more, but knowing more is better because bees live in their complex universe. These wonderful beings can help humans understand concepts that we are familiar with, and help us improve them. Bees are a clear example of the concept of teamwork. A good way to understand the concept of teamwork on bees is that they care for each other to survive. Inside the hive, they live together as a colony dividing the tasks to get the resources they need. Some of the jobs they have are: foragers, drones, janitors, and working bees. In this report you will learn how the teamwork of bees ensures their survival, this is why this report can help you learn about these topics in a simple way and understandably so that an early age can read it due to its explanations about the topics. Apart from this the article can help Zasca because due to it being a "safe place for different species" located in Colegio Los Nogales and having all kinds of bees they can help them survive and maintain their lifeline. Now in the following article, you will discover the wonderful world of bees!



Like we mentioned in a hive there are different roles that bees have. These roles are important to understand teamwork. Well, this is because of all the work and tasks that need to be done (Uyeno, 2020). 85% of the colony are worker bees, they are in charge of collecting the resources the hive needs, such as water, food, and pollen. Another kind of bees are called drones; they help the reproductive system of the colony by having mating flights with the queen, all of the drones participate in this so that the line of bees is more diverse and by doing this they have a greater chance of

survival. The janitors clean the hive, this includes the cells and all of the areas of it. The queen bee varies the mood of the hive and helps with the drones in the reproductive process, but the difference is that she is the one that lays the eggs and carries them. This is why after 21 days of the egg being laid the bee comes out and due to all of the other bees doing the jobs they were assigned she cleans her cell from where she was born, this way no one has to spend time cleaning hers. After 20 days the bee becomes a forager, when she becomes this she collects resources so that the hive can work. These resources include collecting pollen, feeding the brood, water, and collecting nectar. This bee will continue bringing these resources to her community until she dies. This occupation as foragers or as drones is not decided by the bees they are born in their occupation. The jobs are determined by sex, the male bees are the ones that are going to be with the queen being the fathers of more eggs and the female bees are the foragers, nurses and janitors. The female bees do the majority of the work this is why the male bees are only the 10% of the hive. While there are millions of working bees there is one only queen. Inside of this occupation, there is another division of jobs. This is by age, if they are older they do a different job than the young bees. She is not the one that rules, she affects the mood of the hive and can be taken down with easy time. As you can see bees know very well how to divide the occupations so that the hive can work better and so that the balance is maintained (PerfectBee,n.d).

When we are told of the queen, what is the first thing that pops into your mind, a bee with a crown, a bee more important than the other, well the actual role of this bee is not ruling over everyone or having a crown, she has diverse jobs. Before we get more into what her job is, let me explain the physical characteristics of a queen it's birth. The queen can be easily distinguished from the others, her wings only reach up to half of her abdomen, and she can grow up to 20 mm in length, making her larger than the workers it takes about 16 days for her to hatch. The queen's a bee with a crown, a bee more important than the other, well the actual role of this bee is not ruling over everyone or having a crown, she has diverse jobs. Before we get more into what her job is, let me explain the physical characteristics of a queen it's birth. The queen can be easily distinguished from the others, her wings only reach up to half of her abdomen, and she can grow up to 20mm in

length, making her larger than the workers it takes about 16 days for her to hatch. The queen's cell is larger and in a vertical form so it can grow. She is fed royal jelly while she is in the larva state. Now that you know about the anatomy and birth characteristics of the queen bee it is time to learn about her roles. The queen doesn't make decisions in the hive, all of the bees participate giving their opinion, she also carries the future bees and makes sure that the mating flights continue so that reproduction can continue its course (PerfectBee,n.d)(Hertzberg R, 2019). But why are there mating flights every day and so many if there are lots of bees in the hive? Well, this is because bees only have a lifetime of 6 weeks except for the queen that can live up to 5 years (National Geographic, 2021) (McGregor, 2024). These mating flights maintain the balance of the population of bees. In a hive there can be only one queen, if two are born they will fight each other until one of them dies. If a queen sees that another queen is going to be born, it will kill it. As you can see bees have an evolved way of having one individual that doesn't rule over them but does represent them.(PerfectBee,n.d)

The beehive works like a puzzle that needs all of the pieces to work and to be complete. When one bee is not doing its job the balance of the beehive crumbles. Bees maintain this balance by supporting each other so that one doesn't have more work than the other and they all have equal work. An example of this is when bumblebees, also known as *Bombus*, learn to solve problems by seeing their teammates do them. Bees understand the issues better when they face them every day by watching their teammates and copying them (Howard B C, 2016). Additionally, another way of balancing work inside of the beehive is being born in their occupation, and also having a job according to their age. Having a job according to their age has states this includes being a nurse, taking care of the new born. After this, the bee becomes a worker collecting water. At last, the bee becomes a forager that is a more advanced working bee, she stays this way until she dies. Apart from this, the jobs are divided according to age because this way the older bees can do jobs that they have learned through the weeks, while the younger bees get simpler jobs and start to get harder and more demanding jobs as time goes on. When jobs are divided by sex, work is more effectively done, this is due to there being more female bees than male, the male bees are only 10% of the population.

(Hertzberg R, 2019). Bees maintain a safe environment in which they all take care of each other. This helps them always stay on time and helps them perform the tasks more easily. Bees are wonderful beings that manage their lives to ensure the well-being of others. Even if they show it through organizing tasks or dividing the work they are always looking out for ways to help each other, this shows how much they care about their hive.

Bees are extraordinary beings that are always a clear example of values and teamwork. When we care about them and study them we can learn that they are always finding strategies to make their work better. They are always searching for ways to help each other. Their constant teamwork helps them: succeed in their daily tasks, stay safe from predators and also helps them take care of each other. way they assure a longer survival and they maintain their life line of each group of bees. These teamwork strategies can also be applied by humans, If we learn from their team work we will have better ways to survive as humans, working as a group. It also can help us decide better leaders that can make us feel more represented. If we care more about the role bees have in our community we can improve the way we look at them and the way we treat them. We also need to realize that they help us in our daily lives and know that they have a lifestyle similar to ours. Bees are wonderful, we just need to research more about them so we can understand their ways. Bees can help us become a better community with their strategies and their acts of care for each other, even if we don't realize it.

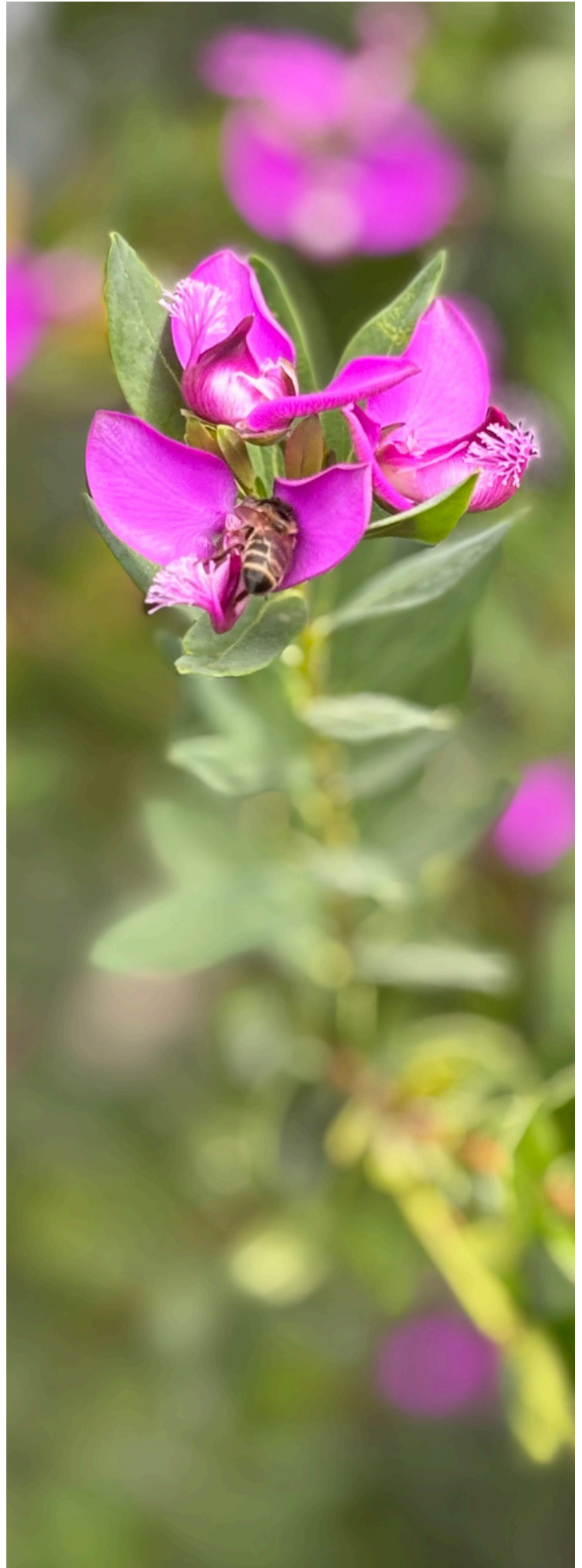


Photo by :Brennan Moore



<https://media.ebird.org/catalog?taxonCode=sabhum1&mediaType=photo>

HUMMINGBIRDS: HOW DO THEY SURVIVE



By : María José Figueroa

Trochilidae, commonly known as Hummingbirds, are extraordinary birds that play a vital role in maintaining ecological balance. Renowned for their vibrant colors, rapid flight, and remarkable pollination abilities, these birds are particularly significant in Colombia, a country with diverse landscapes such as Santa Marta and the Sierra Nevada. Despite their ecological importance, Trochilidae faces increasing threats from climate change, including heavy rainfall and prolonged droughts, which jeopardize their food sources and habitats (The Hummingbirds of Nariño, Colombia., n.d.). This article explores the question: How are Trochilidae affected by rain?

Trochilidae are an integral part of Colombia's ecosystems, contributing significantly to biodiversity and environmental health. With 165 species, these birds exhibit remarkable variation in color and patterns, though their small, lightweight bodies and unique flight capabilities set them apart (Hummingbirds of Colombia, n.d.). For instance, Trochilidae are the only birds capable of flying in all directions, including backward, thanks to their distinctive figure-eight wing movement (The hummingbirds of Nariño, Colombia. n.d.). This adaptation, along with their small size, enables them to maneuver effortlessly and evade predators such as herons. Additionally, their long, slender beaks allow them to access nectar deep within flowers, making them essential pollinators, similar to bees. Beyond their role as pollinators, Trochilidae helps control insect populations by feeding on small insects and spiders, further enhancing their ecological importance (Birds of Colombia, n.d.). These birds thrive in Colombia's rich environments, such as Santa Marta and the Sierra Nevada de Santa Marta, and while some species migrate within North America, it remains uncertain if Colombian species exhibit similar behavior. Hummingbirds are vital for Colombia's environment including Zasca here at our school.

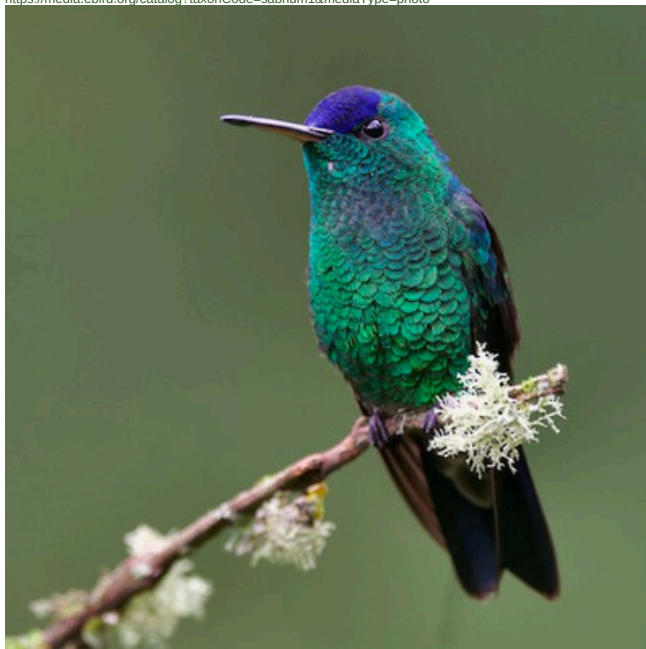


Photo by: Ken Rosenberg

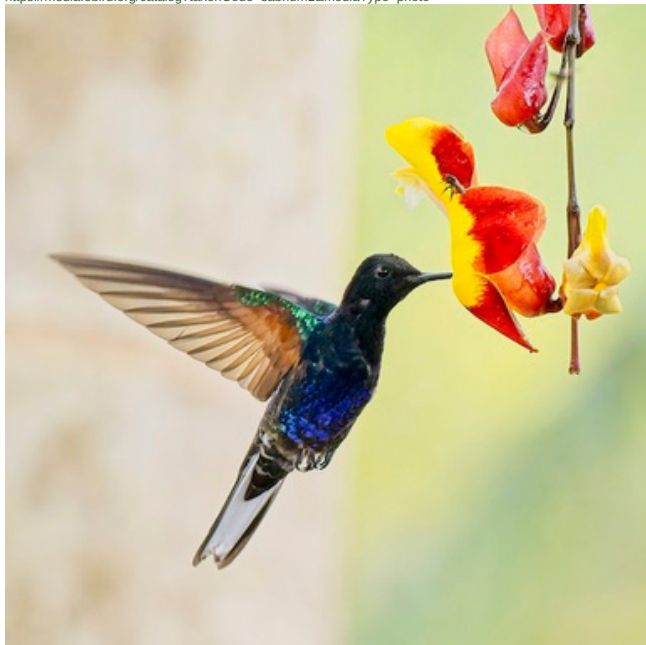


Photo by: Chris Allen



Photo by: Silvia Faustino Linhares

Colombia's climate is unpredictable, with a mix of dry and rainy seasons that significantly shape its ecosystems. The dry season usually occurs from December to March and June to August, providing a relatively stable period for many species, including plants and animals. In contrast, the rainy season, which spans from April to May and September to November (When is the best time to visit Colombia?, 2024), brings heavy rainfall and increased humidity. These downpours can lead to flooding, especially in low-lying areas, which causes significant disruption to the environment (Get ready for the arrival of the rainy season in Colombia, 2024). The rainy season's intensity varies, but in some years, it can be particularly harsh, damaging vegetation and other natural resources. Such weather extremes are a defining feature of Colombia's diverse and dynamic climate, directly impacting its flora and fauna. For hummingbirds, Colombia's weather poses unique challenges, particularly during the rainy season. Heavy rains can damage or destroy delicate flowers that provide nectar, their primary food source. Without access to nectar, hummingbirds struggle to sustain their high-energy lifestyle, which relies on continuous feeding (UW researcher studies why hummingbird numbers are declining, n.d.). Flooding exacerbates this issue by damaging plants and reducing the availability of other food sources like small insects and spiders. Moreover, prolonged rainfall can make it difficult for hummingbirds to find safe nesting spots, exposing them to predators and other threats. The cumulative effect of these factors disrupts the balance of their ecosystems, making survival increasingly difficult. By understanding the effects of Colombia's unpredictable climate, we can better appreciate the challenges faced by species like Trochilidae and the importance of preserving their habitats.

Trochilidae face significant challenges as a result of changes in climate patterns, which affect their food sources and habitats. Climate change has drastically altered weather patterns, causing extreme variations between heavy rainfall and extended droughts. For Trochilidae, excessive rainfall can drown flowering plants, effectively ruining access to their nectar source. This loss not only leaves pollination incomplete but also endangers their lifestyle, which depends on constant feeding. Also, heavy rains can destroy plants before they bloom, leaving Trochilidae with fewer options for nourishment (Tiny Wings, Big Threat: The Impact of Pesticides on Hummingbirds. ,2023). On the other hand, less rainfall can lead to droughts, drying up plants and reducing nectar production. Without enough water, flowers struggle to survive, directly impacting the Trochilidae that rely on them. Droughts also limit the availability of small insects and spiders, secondary food sources for these birds, further complicating their survival. These extreme weather conditions harm the balance of ecosystems, which climate change continues to disturb. Trochilidae, as essential pollinators, face harmful effects when plants suffer, making their survival increasingly difficult. Despite these challenges, understanding the role of climate change and taking proactive measures to protect their habitats can make a difference.

Trochilidae, with their unique flight abilities and essential role as pollinators, are facing increasing challenges due to the impacts of climate change. Colombia's unpredictable weather patterns, characterized by heavy rainfall and prolonged droughts, have disrupted their food sources and habitats, harming their survival. As climate change intensifies, the 165 species of Trochilidae found in Colombia, including the 21 already endangered, may experience a decline in population if no action is taken (Birds of Colombia, n.d.). This highlights the importance of addressing these environmental issues to protect both Trochilidae and the ecosystems they support. By understanding how climate change affects these birds, we can take meaningful steps to decrease its impact. Planting nectar-rich flowers can help provide Trochilidae with a steady food source, even during harsh weather conditions. Additionally, reducing plastic usage and minimizing contamination can contribute to preserving their natural habitats. The survival of Trochilidae depends not only on individual actions but also on collective efforts to combat climate change. Protecting these extraordinary birds is crucial for maintaining the delicate balance of ecosystems in Colombia and beyond. By taking useful measures, we can help ensure a brighter future for Trochilidae and the environment they thrive.

MIGRATING BIRDS: SETOPHAGA FUZCA



By : Mariana Páez



flickr.com

It is fascinating to know that animal migration began as an evolutionary adaptation to survive and for the reproductive process, but over time migration has helped animals adapt and behave. Here in Colegio LosNogales, we have a variety of migrating animals: ducks, homing birds, monarch butterflies, and more. But it is important to focus on a specific type of bird this time, the Setophaga fusca, an interesting bird that migrates all through North America to here in Colombia, and in winter we can find him in Zasqua. You can easily recognize him by their vivid orange face and their facial triangular patterns made of gray and black plumage.(cornellLab all about birds, N.d.)They are mainly insectivorous, eating caterpillars, moths, flies, mosquitoes, and spiders; they can also eat a few plants. That is why they come to Zasqua, where they can find this and more animals to resume their cycle. It is important to know the importance of different migratory species, like Setophaga fusca, that migrate to Zasqua to reproduce, hibernate, or because of weather circumstances. Because it is part of our school ecosystem and Zasqua is home to many different species, we need to be sure that these species don't affect our ecosystem's food web and that they don't affect specific species of animals or plants. But before thinking or searching about the difficulty that Zasqua could face, we need to investigate and know about our Zasqua ecosystem. The species of plants and animals and how they affect our Zasqua ecosystem—that's why this is a topic to search and care about, as a community everyone have to help

It is important to know about the small ecosystem in the school named, Zasqua ecosystem, their animals and species, and even more so focusing on the *Setophaga fusca*. The *Setophaga fusca* is considered interesting in Zasqua because of their impressive look, their behavior, and how they interact with human presence. In their reproductive process, they have habits in mature forests and almost every part that has trees and food that they can consume. While migrating The migrants could feel attracted to similar habitats like cemeteries with tall conifers that help them feel more comfortable. (cornellLab all about birds, N.d.) To recognize them in Zasqua, you would have to put a lot of effort into it; they measure between 11 and 13 cm long and have a wingspan of 20-22 cm, but their vivid colors would make it easier. (birds Colombia, n.d.)The vivid orange on their faces and their triangular facial pattern make this bird one of the most beautiful birds in all of Zasqua. Here in the Zasqua ecosystem, they can continue with their food web easily. Since they are mostly insectivorous, their diet is based on moths, caterpillars, flies, mosquitoes, and spiders, but during winter they can eat a few berries. The cause of their migration is their reproductive process in the United States or in Canada, where they reproduce and find with the male. (American Bird Conservancy, 2017) Normally the male arrives before to adapt and prepare. This allows them to stabilize and defend their territories, establish and claim their nesting areas, prepare everything to attract males, and start singing to demonstrate and give a signal of their readiness to attract males. (American Bird Conservancy, 2017)



colombia.inaturalist.org

The migratory journey begins in late summer or early fall; after the reproductive stage season in North America, they go through the south until almost Central America. (Audubon, n.d.)They prepare for migration by building fat reserves and by leaving their feathers. Then in fall to winter, the *Setophaga fusca* is maintained in a very specific way for a long time. This is because during this period they prioritize food and surviving with the different types of mixed bird species. During this process, they pass through the Peruvian tropics, the Andes mountains, from Colombia and Venezuela to Ecuador (Munroer, n.d.) After this, during spring, is like the stage to prepare for breeding; this journey, compared to the other, is often quick. As they try to reach areas to reproduce and establish their territories. Lastly, during the summer is the reproductive season, where, after females arrive, they pair up, build a nest for their babies, and raise their pups. (American Bird Conservancy, 2017). During this journey they take breaks to get food, water, and shelter; the key stops are New York West Branch Preserve, Georgia Coast, and Virginia Highlands. It is important to know that the *Setophaga fusca* are nocturnal flyers; this creates a lot of challenges for them and makes the process slower. This means disorientation because artificial lights help them distract from the route, difficult too. (Munroer, n.d.)



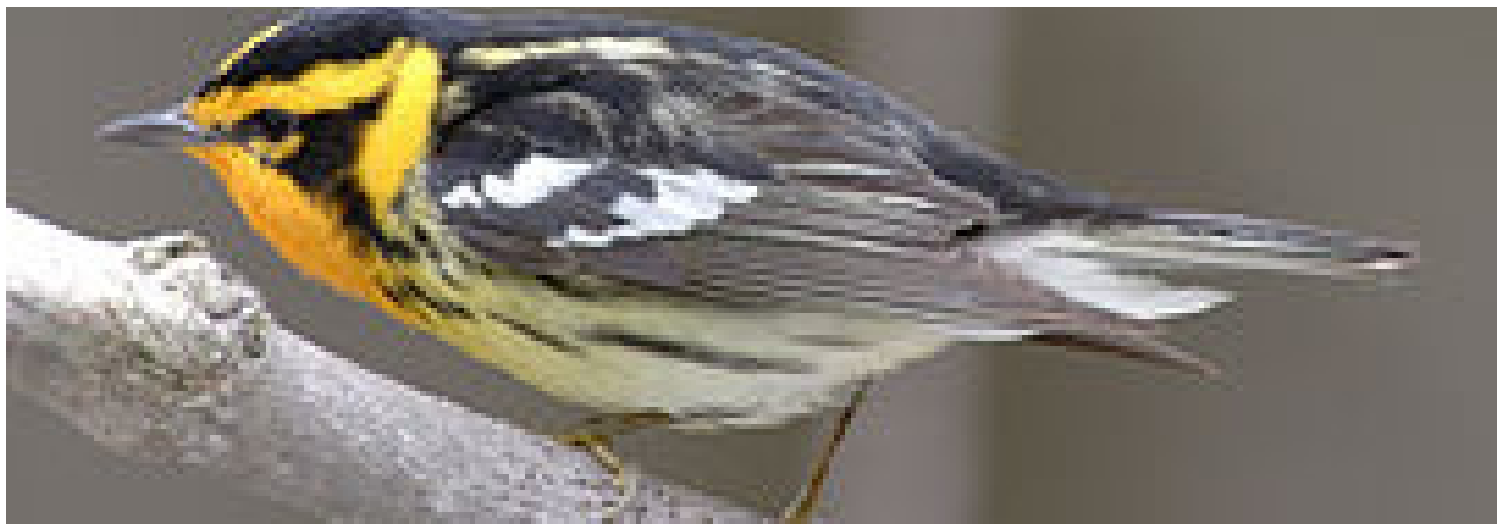
Leesonphoto.com

In Colegio Los Nogales we have a small ecosystem formed by plants, insects, animals, flowers, and more, and for the Nogalistas, it is important to take care of. This means knowing the specials that affect in a good or bad way and knowing the ways that Zasqua can be helped or improved. The *Setophaga fusca* can help and benefit this ecosystem in different ways: controlling pest populations, controlling parasites, affecting the forest health, maintaining the food web, etc. They control pesticides by consuming a lot of insects and bugs; this prevents outbreaks that could affect seriously vegetation in our Zasqua ecosystem. (Bird bot, n.d) If this type of bird wouldn't control pests it could be very damaging for zasqua. With more pests zasqua could have more damaging effects, pests affect ecosystems in certain ways: many pests feed on plants' leaves, which reduces photosynthesis and damages vegetation, and zasqua being an ecosystem that has a great variety of leaves plants and different leaving organisms could be affected by them; also pesticides can spread deceases than can affect plants from our ecosystem; they can affect on the food web since they affect plants herbivores could be affected and slowly impacting on the cycle. (Animaría, nd) But *Setophaga fusca* could also be damaging in terms of insects, in areas where the population of these birds is high as in Zasqua, it could overconsume insect species. This impacts a reduction of sometimes beneficial insects like other pest controllers. However for ecosystems like Zasqua, this is not certain to happen because of the population, but on some occasions had happened. (Clark, n.d.)



<http://avesmigratoriascolombia.wordpress.com>

To conclude, the *Setophaga fuzca* is an interesting migratory bird because of how they migrate; their appearances and how they look; their interesting facts, and how they can affect positively or negatively. As nogalistas in Colegio Los Nogales, people have to focus on how to help their community, and part of it is zasqua. They have to always try to improve Zasqua's knowledge about their community and know how to investigate and make others do it. Zasqua is an ecosystem that every nogalista has helped, improved, or impacted, because of the impact it makes on us. Knowing and searching about its environment is important for its health, to know how it can be improved or could be damaging for it. There are a lot of birds insects, plants, flowers and leaves that could affect zasqua. A nogalista's task is important because they are helping zasqua as zasqua helped them and impacts on them, they are giving back the favor that zasqua gives to them.



Es.wikipedia.org



Poems

The world needs help!

Sofia Cuevas

Nature bright

Emilio Ardila

Blossom is life

Linda Hernández

In the Amazon

Martina Pardo

The life of nature

Sigal Mishaan

Sustainability & Earth Systems

Miranda Dominguez

The Nature

Carlota Vergara

Writing by: Tomás Abello

Poems



INTRODUCTION

In our Led class we had to write a poem about the relationship between man and nature. First, we had a small workshop to learn about poems, we learned how they are composed, their rhyme schemes and the literary devices you can use. Literary devices are elements like similes, metaphors, alliterations, personifications, hyperboles and onomatopoeias. Additionally, we read certain poems to identify their rhymes and to understand how they worked. Furthermore, we had to choose a theme learned in class to also write about our poems. These themes were civilizations, sustainability and our novel “The Explorer”. With all this, we wrote the poems with a minimum of four stanzas and four verses in them.

THE WORLD NEEDS HELP!

The world needs help
from everyone around here
so we need to take one step
to make everything clear

Humans use some tools
that damage the woods
with it the ecosystem is getting damaged day by
day
because of it, or world is turning gray

The forests are suffering
they are being burned
stop smoking
or they will be dead

Now that your heard my tips
we hope this fix
if you do this tricks
the world will stick

By: Sofia Cuevas



By: Antonia Lutz



<https://www.britannica.com/science/brush-fire>



<https://www.istockphoto.com/photos/man-chopping-wood>



image from shutterstock

Natures bright



Poem by: Emilio Ardila

Humans, just like plants need water to survive

But if we don't start to take care of it now
We won't have enough to get through
another night

We need to make rivers grow but at the
same time flow

And even though people think nature
originated it self

It seems invented by Picasso glowing
every day more

sun is shining bright as ever making
rivers grow but at the same time flow

Nature may glow bright day and night

But slowly but surely

That suns glow that brightens

Nature day and night

Is coming to and end

That may arrive sooner than expected

And if we don't start now we

May not have rain for tonight

The sun will stop to shine

The river will stop to flow

And nature will stop its growth

To have more information you can go to
this link.

<https://ed.ted.com/lessons/what-would-happen-if-you-didn-t-drink-water-mia-nacamulli>

BLOSSOM IS LIKE LIFE

By: Linda Hernandez



The passing time of human life
Is like a flower that shines
That starts with a small seed that
starts growing speed
And in the passing time they are all
free

With the easy outgoing of grow
They're colors and scents show up
In that time they fall in love band they
can also struggle a lot

The time that there knownage grow
They are more old
But it sent matter they learnt a lot
They are not afraid they have it all

The flower is fading away
But they still not afraid
Because there were happy every
day
And there were very proud of them



In The Amazon

By: Martina Pardo

There goes the panther walking on the water
There goes the bird chirping from the shadow
There goes the man in the Amazon jungle
Fighting for his life
Waiting for the arrow
If it wasn't for the plain
There all be left with
A little life
A little shadow

Some people would burn it to the ground
Destroying beautiful trees , innocent animals
and boiling waters
The Amazon restores life
The Amazon has power
If it weren't for him we'll be all rotten matter
There's still a long way to go
There's still many years left
But if we don't take action now
we must leave planet earth

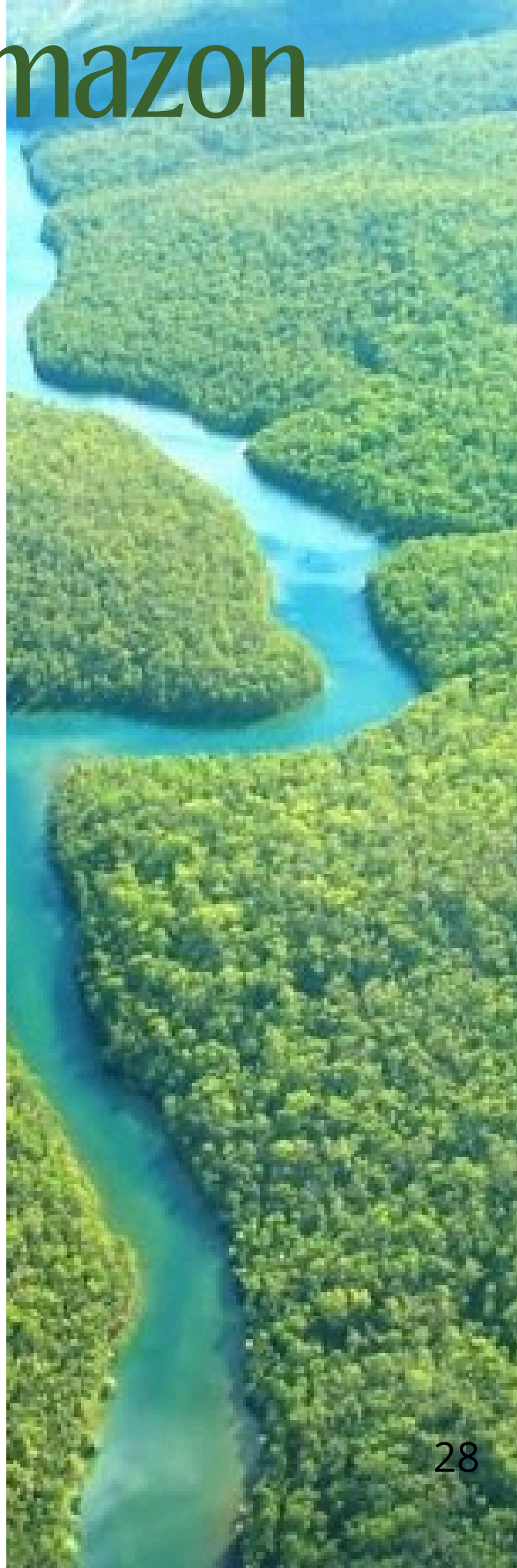
There's nowhere we can hide
There's nowhere we can run
Green trees will grow
Green trees will blow
Until there's only ashes
We must survive

There are a few options we could take into
account
To save planet earth
To remain alive
Like a hopeless flower we remain
If we don't stop burning planet Earth
Planet will shine as the sun
Fire , fire , fire ,ashes
Will burn

[https://youtu.be/SAZAKPUQMw0?
si=Wz9L37L_pPt5H66Y](https://youtu.be/SAZAKPUQMw0?si=Wz9L37L_pPt5H66Y)

Image: [https://www.google.com/url?](https://www.google.com/url?sa=i&url=https%3A%2F%2Fmx.pinterest.com%2Fpin%2F801500064927323322%2F&psig=AOvVawOm7uZOY4m532lgzVOdnD3a&ust=1738160820340000&source=images&cd=vfe&opi=89978449&ved=0CBcQjhXqFwoTCLDXkeXPmlsD)

sa=i&url=https%3A%2F%2Fmx.pinterest.com%2Fpin%2F801500064927323322%2F&psig=AOvVawOm7uZOY4m532lgzVOdnD3a&ust=1738160820340000&source=images&cd=vfe&opi=89978449&ved=0CBcQjhXqFwoTCLDXkeXPmlsD
FQAAAAAdAAAAABAE



The life of nature

By: Sigal Mishaan



With all of nature
Let's make them a favor
With all of the colors
Let's play with the others

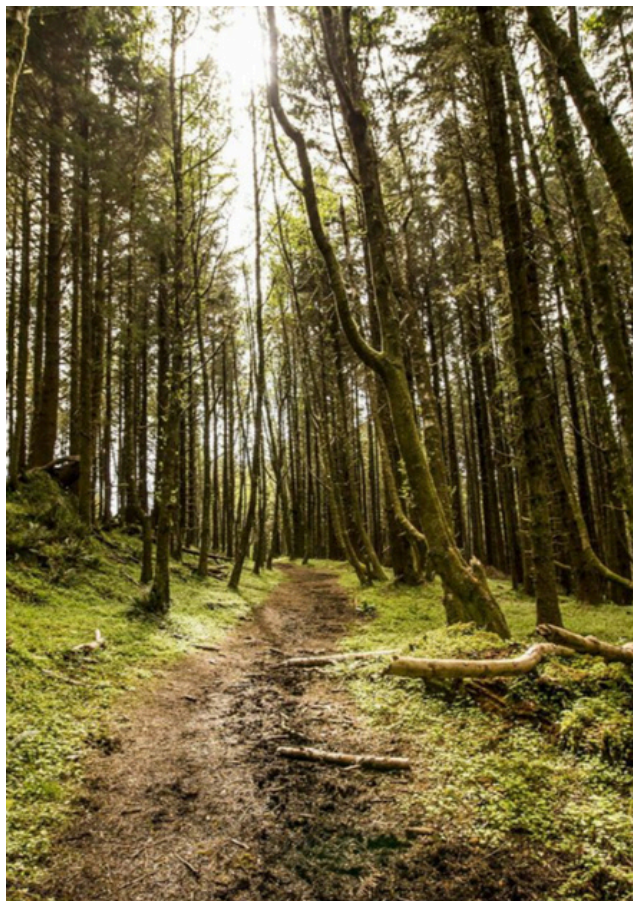
In the river and the sky
Let me tell you why
Let's take care of it
Help me transmit

When we have it all
All they have is a call
A call to transmit
The feeling that they are in

The sound of a bird
Is everything that I heard
Loud and clear
They are here



The Nature

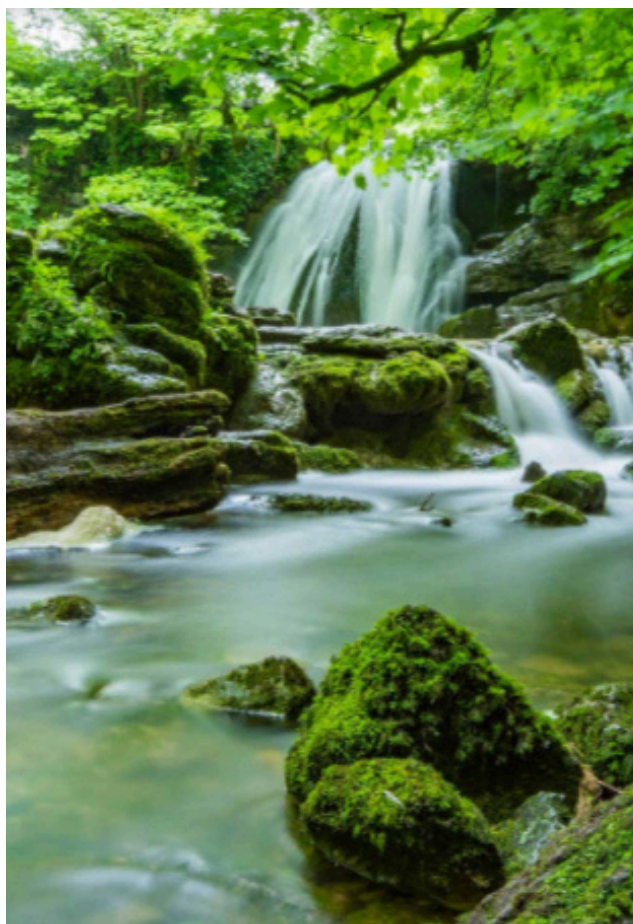


By: Carlota Vergara

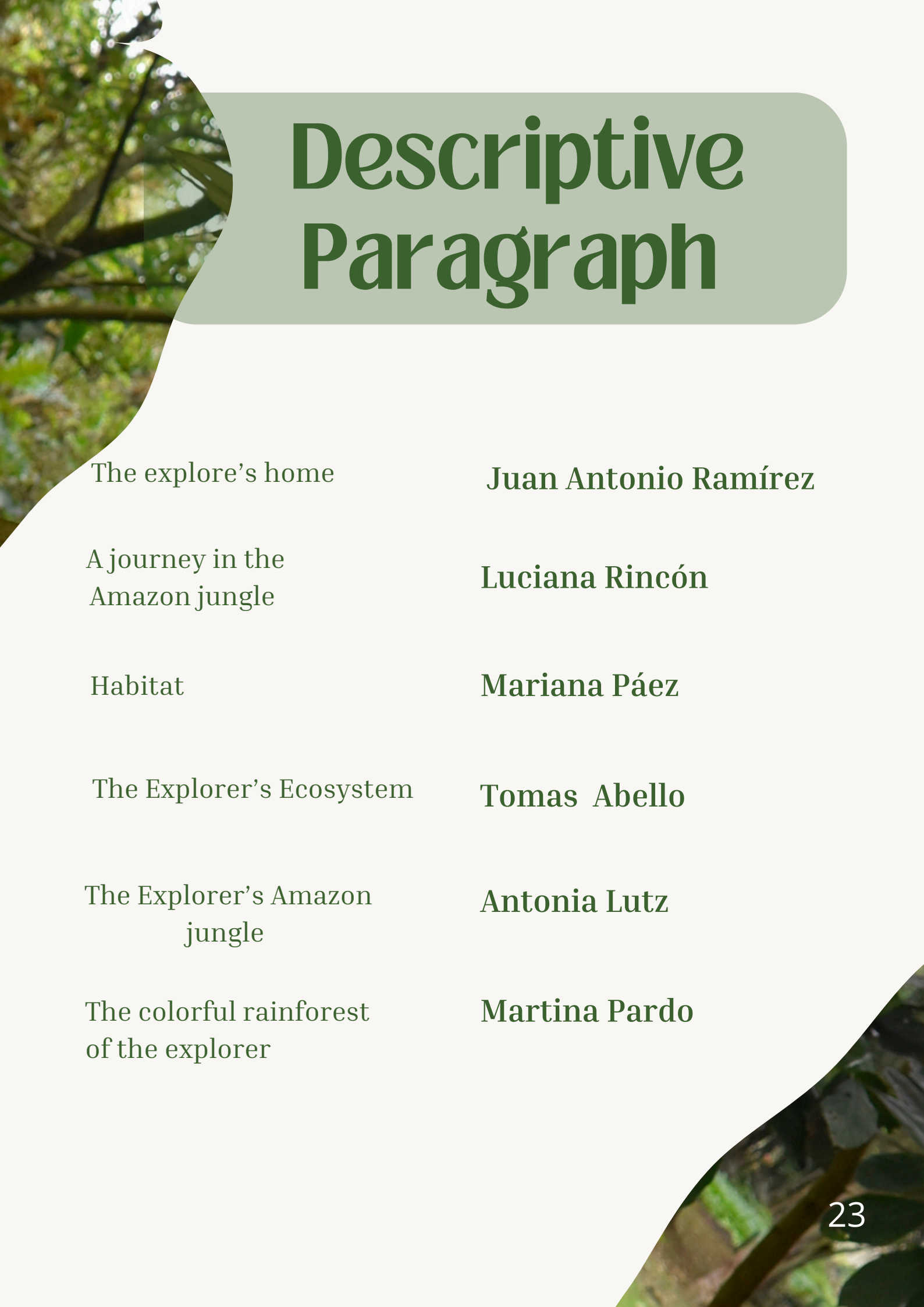
The rivers are calm like a rabbit .
The river flows so bright and free.
A shiny path for fish to see.
The rivers are calm to see it.

The rabbit hops and tops to drink.
Is soft fur glows so white and pink.
The trees all dance with leaves so
green.

The pretties place i have ever seen.



The sun shines down; the world
feels right.
The wind carries the water reverd to
the right.
Nature is my friend, both day and
night.

The background of the page is a lush green rainforest scene. A large, rounded rectangular box in a muted green color is positioned in the upper left, containing the title. The title itself is in a dark green, serif font. The rest of the page is white, with the rainforest image visible around the edges and in the bottom right corner.

Descriptive Paragraph

The explore's home

Juan Antonio Ramírez

A journey in the
Amazon jungle

Luciana Rincón

Habitat

Mariana Páez

The Explorer's Ecosystem

Tomas Abello

The Explorer's Amazon
jungle

Antonia Lutz

The colorful rainforest
of the explorer

Martina Pardo

Writing by: Tomás Abello

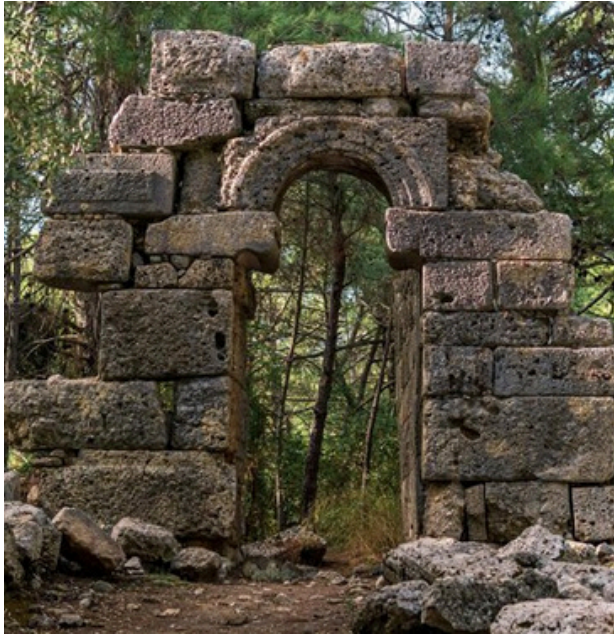
Descriptive paragraph



INTRODUCTION

In our Led class we have been reading since the beginning a novel called “The Explorer”. This book is written by Katherine Rundell and it is about some kids that had a flight in an airplane to Manus, Brazil and the airplane fell. It is about all the adventures these kids had in the Amazon jungle, the river and even a ruined city.

Also, we had to write a descriptive paragraph of the setting, we had to describe the setting of The Explorer with sensory details and different adjectives and adverbs learned from our grammar platform “Noredink”. The idea of these descriptive paragraphs is to imagine the setting of the book.



Juan Antonio Ramirez

THE EXPLORE'S HOME



The water was very windy. It had many canals, wide and narrow ones. In some places, the water has dazzling fast currents. In others, it was calmer but all was full of life. Swarms of fish and dangerous piranhas, some parts are for special care; fast current and dangerous living things. But others are just unpleasant and hard. The forest was vivid green and dark and let humid atmosphere and tension in the land. The ruined city leave a strange atmosphere of a new environment. The river was full of animals, which some of the, are dangerous while other aren't. The Tarantulas were see in of two colors, brown and black. This animals let a scared atmosphere. The forest has many colors and many types of green which leave a magic view in which you could only see large trees, vines and many leaves of many types.

A journey in the Amazon jungle



The Explorer, we can find different settings while we read the book. The book tells how the Amazon jungle is. It describes the animals that Fred and the group see and how the birds sing in the middle of the jungle. The author describes the big green plants and trees in the Amazon. It seems like a place that never ends, with a lot of dangerous animals and plants causing fears and problems for the characters



Foto iStock

The air was humid and hot, but the sun was covered by the tall trees that were in the jungle. Some animals were important to them so they could get food to eat. Another setting that is described in the book is the big river that crosses most of the jungle. The river was beautiful, and it had clear water. The water worked like a mirror, reflecting the trees. In the river, dangerous animals like pirañas were found. When the characters finished traveling through the river, they emerged into a new jungle. In this jungle, there were tall trees that covered part of the sunlight. The sound of the river made it a calm place. The characters advanced until a big rain started falling, making it difficult to continue. When the rain stopped, they found an old place that was like a lost city from the past. It was mysterious. This city was covered with some plants, showing that it was old. Fred and the group found important things that they stayed for. Finally, the characters were still moving through the jungle and started getting sick, but they would not stop walking until they reached a place where they could find doctors to attend to Max principally and the rest of the group. So, these are some of the settings that the author writes about in the book.

HABITAT



The habitat and the ecosystem that is described in the explorer is very unique, while the amazon forest is a place which is full of beauty, and is also full of danger. the big and green form a dense colorful ecosystem, that makes it difficult for the sun to enter. The air is full of humidity. The forest is full of scary and dangerous sounds , birds, non seen creatures, and the hum of insects. The big river is all through the forest, with their dark waters, full of depredadors, rocks and lost pieces of numan things. Everything is full of colors, marked by flowers, plants and animals, But there's also freakyer part, the big jungle is full of weird and harmful animals, like poisonous snakes, dangerous plants and very defensive predators . The jungle feels like a puzzle where the pieces are not connected, evry vew looking the same, with big rocks and unknown plants, helping you to get lost and almost dragging you crazy.

The ruined city is like an a path way with big leaves and stones, that is always giving a sensation of could always find something new, it is cold but at the same time full of humidity, from the outside you could see the huge tarantula nest that would give you a sensation of danger . For mortal people like us is important to know basic skills to survive, the jungle is full of freaky and awesome animals, flowers, fruits, and plants that would surprise you in different ways, giving you panic and also a lot of imagination.. That's why we need to give the jungle the respect that it deserves



- studentsofhistory.com



The Explorer's Escosystem

Tomas Abello
Rey



AMAZON RAINFOREST - ISTOCK BY GETTY IMAGES

The Explorer is a book written by Katherine Rundell. How is the setting? The story of this book takes place on the Amazon. Also, The Explorer takes place in many places like the Jungle, forests, the river or even a ruined city. In all of these places you could have a hot sun or some rain. First, the Jungle. The jungle was full of trees and plants, also the ground was mossy and speckled with grass, flowers from the trees and thorns. Additionally, the jungle was full of animals, from insects to snakes. Also, you could find fernlike plants where you could lay. In the jungle you could see different kinds of greens and other tropical colors. "Fred looked around the clearing air. The air was fresh here and the sky above them a blue that does not exist in England. (15)". Furthermore, you could find puddles of water that were dirty and not potable.

Next, the river. The river was stark, bright blue. Also, it was muddy and cold, it was refreshing. Additionally, the deeper you went, the colder the river was. You could find different kinds of aquatic animals like fish, aimans, piranhas, eels or pink dolphins. "Fred trod water, the kicked downwards, below the surface

The Explorer's Escosystem



where it was cooler, and sucked in a mouthful water. It had a tang of mud to it, and a strand of waterweed wrapped itself around his tongue. (27)". Furthermore, you could see a cliff made of stone covered with vines and lianas.

Finally, the ruined city. On the top you could see a path with leaves and stone. Also, the floor was made of white and yellow stone. Additionally, you could see a square of stone with sculptures and different rooms. Moreover, you could see a vine curtain and you could see something on the other side. Furthermore, you could see different tarantula nests on the floor, which looked like holes. "It dropped suddenly down, smooth moss on smooth stone. She didn't have time to stop and cascaded down it on her back, thumping against stones and roots. (90)."



The Explorer

By:

Katherine Rundell



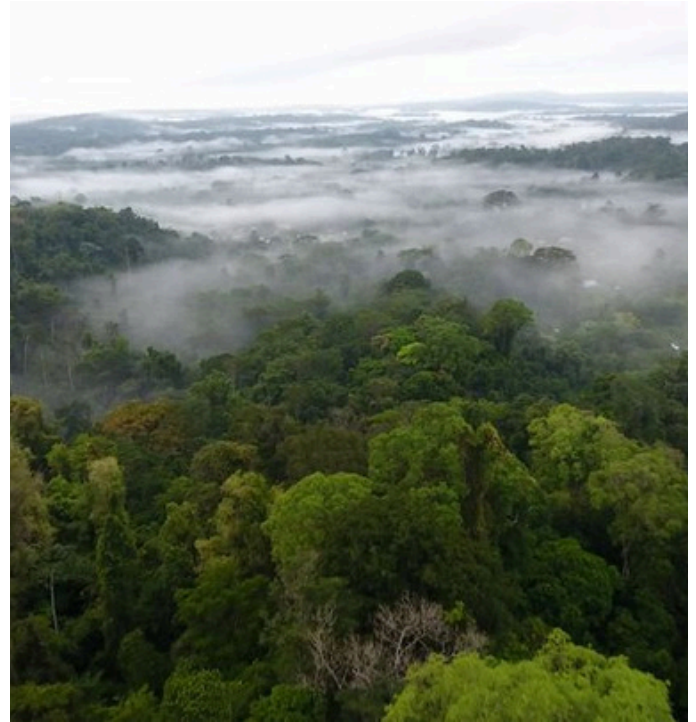
AMAZON RIVER - CHILE TRAVEL GUIDE

THE EXPLORER'S

AMAZON JUNGLE



In the Amazon jungle you can see green everywhere, from the trees to the flowers ever they that surrounds you is life. The variety of animals is immense. You can see snakes of vibrant colors, some that make a rattle sound that can be heard for miles, and others that curl up in the branches. The cold roothing river makes a sound that provokes a calming sensation as you can walk between the trees and you can smell the pineapples fresh scent. You can also see thousands line, as if in formation, During the cold nights when you are setting by the fire you can smell the burning wood and can feel how your body gets warmed up day the dense foliage covers the sun, this makes it easier to walk in this hostile environment The food in this place is different, the wild berries taste toed, but when it is the only food you have to eat it lasts like heaven.



When you go to the river to catch some decent meals you might end up finding piranhas swimming around the eveater. In this jungle there are all kinds of trus, tall, short, with more heaves than others, etc . When you see this diversity of flora you consider the wonders of nature. The sound of the wind when everything is silent is a low mile you are in a different place. Heco that feels like it is taking over the jungle with that suille sound. In this place you like has to offer, such as a beautiful fluffy baby lathe. You can just sit Journ and look at all the wonders of this jungle but it can also tak as a cond. The jungle has its wonders walking around in voces, when you step into it is a way out, it becomes infinite, and eternal. This humid, wild place has all kinds of majestic creatures wandering in its "fallway". This impenetrable location hard to find you "pathways holds a vast amount of flora that comes in every color, shape, can and size that your can imagen. Here there is room for exotic animals, wild species and incredibly agele animals. Even though it is a savage environment there is always a sadness to explore that is created here. And although it will never be a suitable place to live, its interesting foliage will always captivate you, and its dazzling multicolored birds and insects give it more life than it already has.

Throughout the story, characters move from one place to another. After the plane crash characters describe the place as a muddy ,full of nature and animals. The den is defined as a small refuge with logs as a roof, it's also surrounded by vivid trees that block their way. The river is brownish, making it impossible to see the creatures on it, it's also described as fresh or cold, with trees where there is land. The rock mountain that leads to the lost city is set out to be a steep wall I would assume a brown color since the book is blank and white, with a variety of trees since they took some vines to make the climbing easier. When they got to the city there were 4 huge stones resembling animals found in the Amazon one of them being a panther. Most of the city was in ruins with roofs broken and small pieces of what used to be walls and the rest was abducted by nature. There was just a small amount of city and the rest was more jungle. The air was humid and the sun spicy and strong as fire.

- After all, I think Katherine Rundell describes the Jungle as a both dangerous and exciting place. After all, I think the characters learned valuable lessons that school would have taught them.



Who Civilizations are Sustainability Infographic



How where civilizations sustainable?

Sustainability is a modern concept, it started to be introduced by this name in the 1900's. Various ancient civilizations used this concept unconsciously. Sustainability is the idea of using the different resources that the earth provides us and using them consciously and moderately so that we don't harm the earth. An example of a civilization that practiced sustainability is the ancient Egyptians. They relied on the Nile River to provide food and water for nearby communities. Each year, the river would flood, enriching the soil and allowing plants to thrive. The Sinú civilization, like others, incorporated sustainability into their daily lives. They lived in harmony with nature and showed great respect. When they cultivated crops, they left some for the earth as a way to give back. The Sinú also regarded their river as special, seeing it as a connection to the gods. This river contributed to their prosperity by providing rich soil, which resulted in abundant crops. Sustainability has changed significantly over the years. For example, many cities today are filled with buildings and houses, whereas in ancient times, much of the land now occupied by these structures was used for farms or open grasslands that could provide more sustainable resources for communities. One of the major contributors to poor sustainability is the textile industry. The production of fabrics increasingly contaminates the atmosphere and harms the environment. Sustainability has been very different from many years before to now. One of these examples is the cities, now most of the world is with buildings and houses in all parts but in ancient times most of these places that now are buildings could be farms or grass which can give more sustainable resources to the people. One of the most affecting reasons for bad sustainability is the fabrics that are something that today in actuality we use a lot. The fabrics each time they produce something contaminate the atmosphere and the world. If we want to be sustainable nowadays we have to have in mind what makes sustainability, 3 key points can help us understand how to be sustainable. The first one is how to manage the earth's resources by conserving and preserving, conserving means using the earth's resources in a good and proper way, and preserving means leaving these resources intact so that future generations can make good use of them. The other point is about how socially we make resources meet our needs no matter the cost. The last one is the economy, every resource has a monetary value, and the greater the production the lower the price, the lower the production the greater the price. As you can see sustainability can be applied if we just try, if the ancient civilizations could without trying we can too.





Editors:

Miranda Dominguez and Juan Antonio Ramirez

Cover designers:

Sigal Mishaan and Linda Hernandez

Grammar editor:

Antonia Lutz Cruz

Graphic Desingers:

Sofia Cuevas and Luciana Rincón

Photigrapher

Antonia Lutz Cruz

Introduction:n/

Tomás Abello

Writers:

Miranda Dominguez, Tomás Abello, Antonia Lutz Cruz, Martina Pardo, Sofia Cuevas, Linda Gabriela Hernandez, Sigal Mishaan, Maria Jose Figueroa, Juan, Antonio Ramírez , Miguel García , Simon González , Mariana Paez, Emlio Ardila



54698726114