

# **Leave A Mark: An Interactive Pop-Up Children's Book Fostering Environmental Awareness and Wildlife Conservation**

Samantha Gabrielle C. Maravilla

## **Co-Author**

Mr. Jaime Jesus Pacena II

## **Abstract**

This thesis explores wildlife conservation using visual storytelling techniques through the perspective of conservation psychology. It investigates how human attitudes and emotions towards nature influence conservation behaviors. Focused on engaging young audiences, the project aims to create a children's book using interactive pop-up visuals to raise awareness and inspire action for wildlife conservation. By emphasizing the power of storytelling and effective communication strategies, this study aims to foster a deeper understanding of the human-nature relationship and empower children to positively impact protecting biodiversity.

**Keywords:** wildlife conservation, environmental awareness, interactive, pop-up book, Bleeding-heart pigeon

## **Introduction**

Throughout my journey as an artist, my medium has primarily been digital, with a semi-realistic style that I have familiarized myself with well. Yet, there has always been this longing, a nostalgia for the timeless charm of the pop-up books I used to read as a kid. It is this compelling desire to revisit this memory and explore what has always inspired me that has led me to start a creative project that I hope would leave a significant impact—an interactive pop-up children's book dedicated to the endangered Bleeding-Heart pigeon which is characterized by a golden or red patch or streak on the breast. The Bleeding-Heart pigeon holds a special place in my heart because it hails from my mother's province, Negros Occidental. Although my visits could be counted on one hand, and I've never seen one in the flesh, my interest was piqued when I saw an image of the pigeon. Its endangered status is a stark reminder of the urgent need for wildlife conservation, a cause I feel compelled to address through my art.



**Figure 1** *Negros Bleeding-heart pigeon (French, 2014)*

With the Bleeding-heart pigeon in mind, I wanted to write a story and build a character that would mirror its uniqueness. Someone like Lily, a little girl with a red birthmark on her chest who struggles with bullying. Seeking solace, she discovers a forest which is where she bonds with a Bleeding-heart pigeon that is similar to her.

My philosophy encapsulates the belief that art embodies a personal expression born from observation of the subject, paired with the artist's profound and emotional reaction to that experience. This philosophy guides me as I develop the creation of my interactive pop-up children's book for my thesis. I strive that every book element should reflect this essence - the special connection between the observer and the subject. In my philosophy, I align with the idea that artists think visually; they can envision the final piece way before laying the first brushstroke or, in my case, crafting the first pop-up element. This principle resonates heavily with my project, where I envision each page, every interactive surprise, and the overall impact on young readers even before the production.

I believe being creative is not merely an artistic endeavor but a pathway to enhance intelligence and foster awareness. More importantly, in children's books, this takes the form of nurturing a heightened awareness of how young minds perceive and

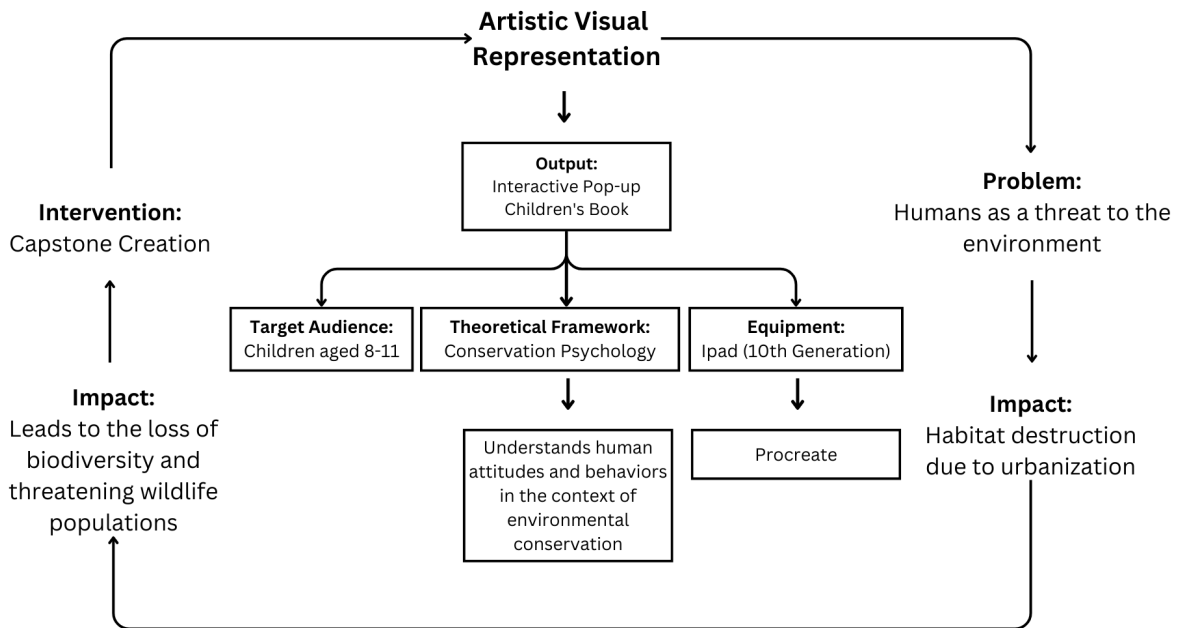
respond to the content. I aim to create a book that sparks empathy, encourages critical thinking, and awakens the senses, whether in the context of wildlife conservation, storytelling, or any other theme.

To reach a wider audience, a printed version, which would be the pop-up book itself, and a complete flip-through video of the book would be available online. The digital medium allows for a visually immersive experience online, while the printed copy ensures a tangible learning experience for readers. Through this multi-dimensional approach, I aspire to impart a lasting message that will not only leave an impact personally but also spread the lesson online.

In today's world, where preserving our natural environment is a critical concern, the role of children's books becomes even more pivotal. The rationale behind this thesis project is to address the pressing need for innovative educational materials that impart knowledge and instill a deep sense of responsibility and care for the natural world. Wildlife conservation is a topic of global significance, and its understanding should begin in childhood. Interactive pop-up books, known for their ability to captivate young readers and make learning engaging, provide a unique platform to introduce complex subjects like wildlife conservation to children.

The theoretical framework that will guide my thesis project on wildlife conservation is rooted in conservation psychology, a field dedicated to understanding human attitudes and behaviors in environmental conservation. It bridges the ecological and psychological dimensions of conservation, recognizing the pivotal role of human-nature relationships, emotional bonds with nature, and effective communication strategies in shaping individuals' behaviors and attitudes toward conservation efforts. By understanding and applying these insights, my thesis project aims to create a powerful narrative, leveraging visual storytelling to emotionally connect young readers with wildlife conservation and inspire them to take meaningful actions to protect the natural world. This theoretical framework provides the foundation for a comprehensive and engaging exploration of the critical subject of wildlife conservation.

In summary, this thesis aims to contribute to children's literature and education by offering a tangible solution for making wildlife conservation accessible and engaging for young minds. In an era where technology often competes for children's attention, this thesis acknowledges the lasting value of tangible and interactive experiences. This is firmly grounded in the vision of crafting a book that, while entertaining, serves as a way to a deeper understanding of our planet's diverse ecosystems and the critical importance of preserving them. The project is driven by the goal of nurturing a generation of young learners who are not only well-informed but also deeply connected to the cause of preserving wildlife habitats.



**Figure 2** Framework Visual Representation of Overall Concept and Methods of Thesis Project: Interactive Pop-up Children's Book

The creative framework of my thesis project revolves around developing an Interactive Pop-up Children's Book. It presents the essential ideas and methods related to the project's subject matter. An extensive illustrated information summary on the project output, resources, intended audience, theory, problem, impacts, purpose, and solution is given in this part. The following paragraphs go into further detail about the project's creative framework and research approach.

While brainstorming for the conceptualization of this project, I knew that I had to make this personal. While doing so, I suddenly remembered a book I read ages ago as a kid. It was "May Monster Si Kuya" by Segundo Matias (2009). This particular book struck a chord with me because it instilled the idea of drug abuse within me at an impressionable age. Although the topic was foreign to me, I knew it meant something bad because of the illustrations and how the story was told. I wanted to do something similar, so I thought, why not make a children's book too? With the medium in place, I racked my brain for the story. What message do I want to impart to these children?

Wildlife conservation came to mind as it is timely and has become an even more pressing issue than it was before. Going back to making this project personal, I thought of implementing my mother's hometown, Negros Occidental. I suddenly remembered where I spent my summer vacations playing in the forest with my cousins and

encountering animals I wouldn't normally see in the city. I then searched for endangered species in this area, and a particular species caught my attention: the Bleeding-heart pigeon. Its appearance immediately inspired a story about friendship and conserving wildlife habitats.

For this thesis project, the **data gathering method** primarily relies on secondary data collection. This approach involves examining and analyzing preexisting literature, research findings, and scholarly works pertaining to the project's subject matter. This method makes it easier to examine various points of view, theoretical frameworks, and factual data without requiring the administration of questionnaires or interviews. Instead, synthesizing information from reliable sources becomes the basis for informing and guiding the creative process underlying the development of the pop-up book.

Grounded in the theory of **Conservation Psychology**, which delves into human behaviors and attitudes concerning environmental conservation, the project aims to tackle the overarching issue of humans posing a threat to the environment. Focusing on the adverse effects of urbanization, particularly habitat destruction, the project's core concern is the subsequent loss of biodiversity and its negative impact on wildlife populations. Urbanization continues to diminish natural habitats, resulting in a detrimental impact on various ecosystems and endangering the existence of numerous species, such as the Bleeding-heart pigeon.

The equipment mainly consists of an iPad (10th generation), an Apple pencil (1st generation), and the digital art software Procreate. The interactive pop-up children's book, designed in an A5 size format with 17 spreads, aims to serve as an engaging tool to foster awareness about wildlife conservation among young readers between the ages of 8-11. Intended to captivate and educate this age group, the book incorporates vibrant illustrations with interactive pop-up elements. The book employs vivid colors, playful textures, and expressive brush strokes. This format, crafted to match young readers' attention span and interests, aims to present a relatable narrative that helps children understand wildlife conservation. Through interactive storytelling and engaging visuals, the book strives to create an impactful experience, fostering empathy and understanding among children.

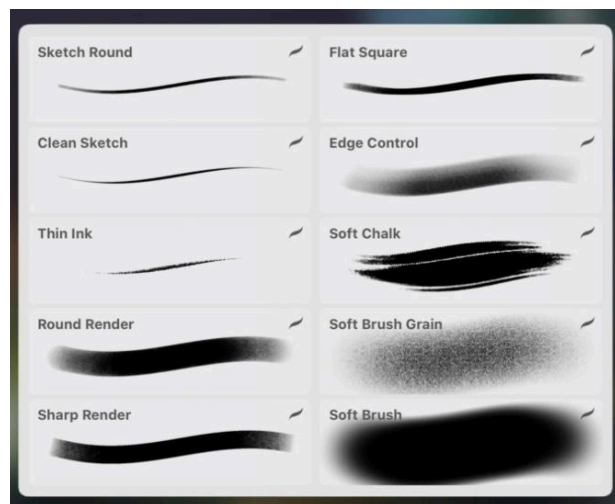
## **Design Process Creative Framework**

The **research design** of the thesis focuses on a semi-realistic painterly art style, integrating diverse textures and exaggerated expressions to vividly portray the characters' emotional journeys. Textures will add depth and realism to the artwork, giving life to the illustrations and not making them look flat. To achieve this, textures will be strategically incorporated into the foreground, middle ground, and background, distinguishing the characters from the backdrop and enhancing the visual narrative.

Each page is designed to incorporate interactive pop-up elements that amplify the storytelling experience.

The pop-up book is crafted for a **target audience** consisting of children aged 8 to 11, offering an immersive and educational experience tailored to their developmental stage. This age group represents an ideal audience for pop-up books because, according to a study by Foulkes et al. (2018), it was found that children aged 8 to 11 have increased susceptibility to social influence and can have positive outcomes. This includes an increase in the reporting of prosocial behavior. The book aims to captivate young readers through vibrant illustrations, engaging storytelling, and interactive pop-up elements. The goal is to instill curiosity and empathy, allowing children to comprehend the impact of their actions on each other and the environment. Through this imaginative journey, "Leave A Mark" inspires young readers to actively preserve nature and cultivate positive change.

The **design process** started with the conceptualization of the main character, Lily. I initially opted for the usual route, leaning more toward the cartoon-like art style reminiscent of Pixar. After some advice from my thesis mentor, who recommended I avoid the usual art style that children's books often possess, I decided to do more studies with a semi-realistic and painterly art style, which I'm used to. I found that I connected to it more. It felt like most of Lily's personality and quirks got lost when I tried to get a cartoonish look, which was foreign to me. Starting with a headshot, I experimented with different hairstyles and chose one that mirrored Lily's personality the most. I also did a few variations for her uniform, inspired by the typical Filipino uniform, which will be shown in the pre-production section.



**Figure 3** *Jingsketch Procreate Brushes: Basic 10*

The brushes I mainly use are from the brush set created by artist Jingsketch, which is free at Gumroad. The brushes have the right amount of texture appropriate for

each illustration stage. I use the Sketch Round brush for the rough sketch of the illustration, while the Clean Sketch is for the line. The rest of the brushes in the set are mainly used in the rendering process, making visible brush strokes easier to allow for a more organic and textured appearance, enhancing the overall visual appeal.

The core of "Leave A Mark" lies in its interactive design elements, meticulously crafted to create an immersive and tactile reading experience. Through pop-up mechanisms, the book will reveal three-dimensional scenes, unfolding the protagonist's journey and the impact of their choices on the world around them. These interactive features serve as dynamic visual metaphors, allowing children to actively engage with the narrative and comprehend the significance of their actions. Alongside the pop-up visuals are interactive elements that the reader can interact with firsthand to unveil visual surprises and add a playful touch to their reading experience.

### **Dynamic Color Progression**

"Leave A Mark" employs a dynamic color scheme that directly reflects the emotional fluctuations of the main character. The color palette is not static; it responds dynamically to the protagonist's mood and emotional state. During moments of melancholy or sadness experienced by the main character, the colors depicted in the book mirror her emotions. Dull and desaturated hues dominate these instances, symbolizing her inner turmoil and sense of isolation after constant bullying. Conversely, when the main character experiences happiness, courage, or moments of triumph in her journey, the color scheme transforms into warm, vibrant tones. The pages come alive with radiant and vivid hues, expressing her positive emotional states. This intentional shift in colors amplifies the narrative's emotional impact, allowing readers to visually experience the protagonist's highs and lows on a deeper level.

Among the dynamic color shifts, the deliberate inclusion of red elements is a pivotal visual tool within the book. Red is used strategically as a bold and impactful color to accentuate specific page elements. It serves as a symbolic representation of key moments, emotions, or significant aspects of the storyline. The bursts of red create focal points, drawing attention to critical narrative elements and emphasizing their importance in the protagonist's journey. Using red amidst varying color palettes creates a powerful visual contrast, allowing these elements to stand out prominently against desaturated and warm backgrounds. This contrast adds visual interest and evokes emotional resonance, intensifying the impact of pivotal scenes or emotions depicted in the narrative.

## **Logline**

An interactive pop-up book follows a resilient young girl and her bleeding-heart pigeon friend on a courageous journey to save their magical forest sanctuary from deforestation while learning the profound strength of unity and acceptance.

## **Synopsis**

Lily is a beautiful little girl with an even more beautiful heart, but life has given her a unique challenge—a huge red birthmark on her chest. Seeking solace, she discovers a forest where she encounters a bleeding-heart pigeon resembling her mark. This pigeon becomes her faithful companion, offering Lily the friendship and acceptance she longs for. However, their newfound haven faces the imminent threat of deforestation.

## **Pre-production stage**

Everything starts with defining the book's concept and theme. This stage takes quite a while for me to have a concrete idea. Going back to my philosophy that art is the embodiment of a personal expression born from the observation of the subject, carefully selecting a theme that not only resonates with me but is also suitable for my target audience proved to not be an easy feat, even more so as my only experience with the subject of my book is through images. It's a process of contemplation and research as I strive to build a concept that aligns with the project's educational objectives while ensuring it's engaging and captivating for young readers. This stage is similar to the selection of the colors on a painter's palette, setting the tone for what will follow.

With the concept in place, I transition to the storytelling phase. Here, I focus on crafting the first draft of the narrative. I wanted to write a story that young readers could relate to. Central to this creative process is the development of the main character. This character is not just a figure within the story; they are a vessel through which young readers can see themselves. It's essential to create a protagonist that embodies qualities, experiences, and challenges that children of the target age group can identify with. This relatability forms a critical aspect of the narrative, allowing young readers to place themselves in the character's shoes, invoking a sense of empathy and immersion.

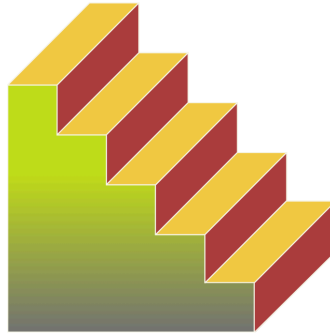
After the initial draft comes the critical process of refining and finalizing the story. This is where I carefully review each page, sentence, and word. Diving deeper into the main character's relationship with the pigeon and developing their bond further is an important step in finalizing the story. Their bond serves as a main element of the narrative, symbolizing the overarching theme of caring for wildlife and the importance of their conservation. This stage requires a keen eye for detail as I scrutinize the narrative to eliminate inconsistencies, refine character development, and ensure the storyline



flows seamlessly. It's a process of honing the language to ensure that it's accessible and engaging for young readers, all while retaining the essence of the story's message.

## Assets

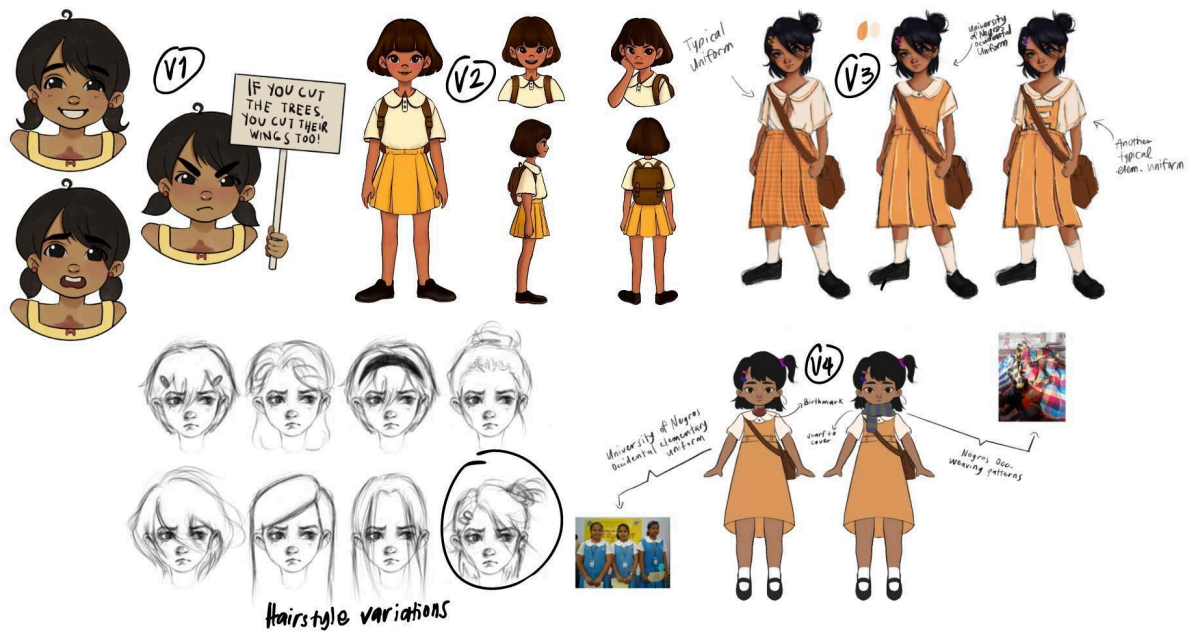
I then go into the tedious process of character design and color direction. This is where the characters of the story come to life visually. Inspiration plays a significant role in character design, and I draw from real-life experiences and research to capture the qualities I aim to input in my characters. Each character's visual representation is carefully crafted, taking into account their expressions, attire, and unique traits. A color direction has also been implemented. Included is the narrative shape, which serves as a visual guide for the story's progression.



**Figure 4** *Narrative Shape*

The staircase symbolizes Lily's character development and journey throughout. At the start of the story, she finds herself at the bottom step, her lowest point, dealing with bullying and isolation due to her birthmark. However, upon discovering the forest and meeting the bleeding-heart pigeon, she ascends the metaphorical stairs, gradually forming a deep connection and discovering a magical world that offers solace and acceptance. As her friendship with the pigeon deepens, she gains confidence and stands up for herself and her friend, representing the middle section of the stairs. When faced with the conflict of deforestation, the staircase reflects the steep climb of obstacles they encounter as they work to protect the forest. As Lily rallies her classmates and community, the staircase embodies their collective effort, leading to the triumph of their mission near the top of the stairs. At the story's end, Lily has reached the top step, having grown from a vulnerable, bullied girl into a confident advocate for nature and friendship, symbolizing the resolution of her character arc while reinforcing

the theme of personal growth, unity, wildlife conservation, and environmental awareness.



**Figure 5** Initial Character Design Variations for Lily

As mentioned, I initially started the design process with the thought of pursuing a cartoonish art style. This style and design didn't connect with me. It seemed plain compared to Lily's unpredictable personality. I knew I had to redesign it, so I tested out more designs with various hairstyles and wardrobes and ended up with four versions, each with different styles and looks. I took inspiration from local uniforms for the wardrobe aspect and chose the typical blouse and skirt combination. I also opted for a backpack instead of a sling bag as it felt more realistic for a child to carry one. After all of this, it still felt lacking, so I added a scarf to cover up her insecurity, which is her birthmark. It's also a bonus that Negros is quite known for weaving, so adding this as a symbolic element in the story was a defining moment in the character design process.



**Figure 6** *Final Character Design for Lily*

This project deals with both transitional and associative colors. The transitional aspect represents the story's environment, whereas the associative aspect represents Lily and the colors she is associated with. Lily's color scheme is carefully chosen, with yellow symbolizing her childlike wonder, an embodiment of curiosity, innocence, and joy. Red, on the other hand, represents her passion, her fiery determination, and zest for life. It's also associated with her birthmark, a visual motif that adds depth to her character, symbolizing her uniqueness and connection to the story's central themes. Finally, purple is meant to show her creative side and add a bit of the pigeon's color to her.



**Figure 7** *Character Studies for Lily*



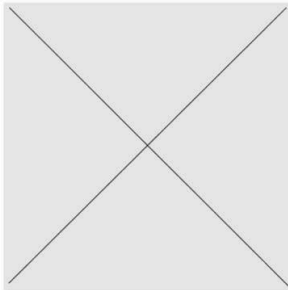
**Figure 8** *Final Character Design for the Bleeding-heart Pigeon*

In the world of character design, creativity knows no bounds. This is especially evident in the character design for the pigeon, a character that takes on an unconventional but charming trait: expressive eyebrows. While pigeons don't normally possess this feature, adding eyebrows infuses a quirky and highly expressive element into the character. These eyebrows become a key part of the pigeon's visual language, conveying many emotions that young readers can easily recognize and connect.

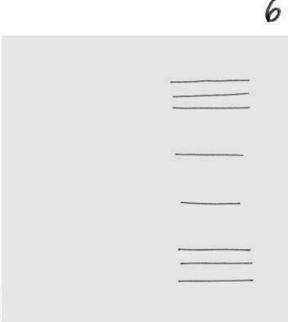
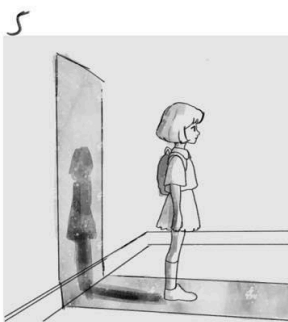
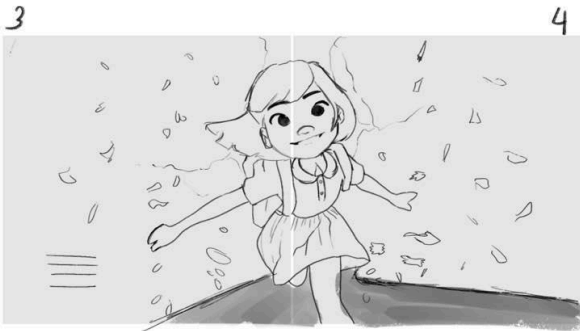
## **Storyboard & Page Layout**

This stage is an intricate process, where I focus on determining the layout of each page. It involves making deliberate decisions about how the text and illustrations will interact, and how the story's progression will unfold. The beauty of the storyboard lies in its ability to save time and streamline the creative process. It acts as a series of visual thumbnails or guides for the final illustrations, preventing the need to approach each page blindly. Instead, it provides a clear vision of the book's structure, enabling a more efficient and effective path to the final product. It ensures that every element, from the text to the interactive pop-ups, harmoniously contributes to the overarching goal of engaging and educating young minds about wildlife conservation.

# SCENE 1



Title Page



10

# SCENE 2

11



12



13



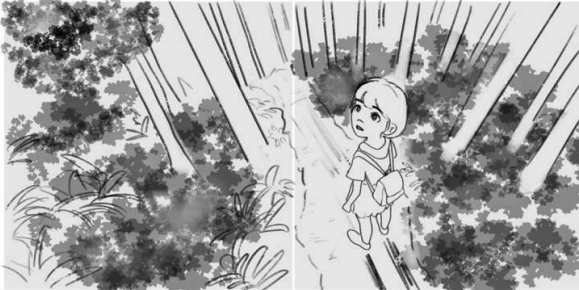
14

15



16

17

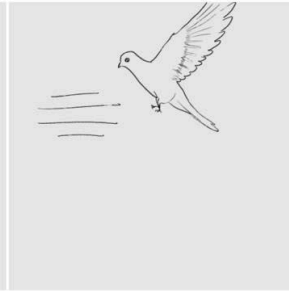


18

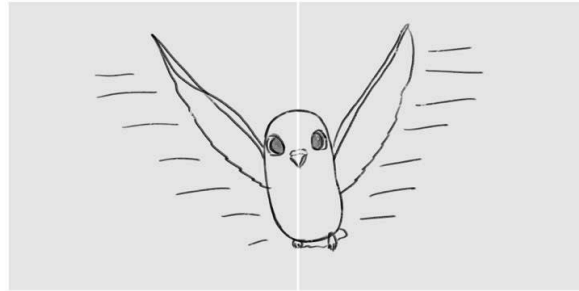
19



20

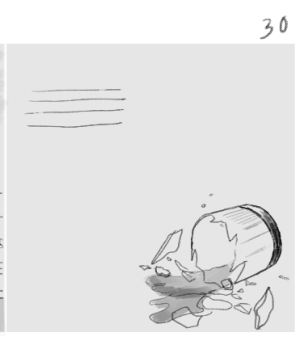
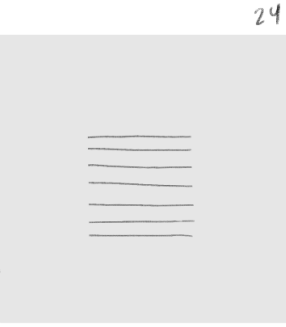


21

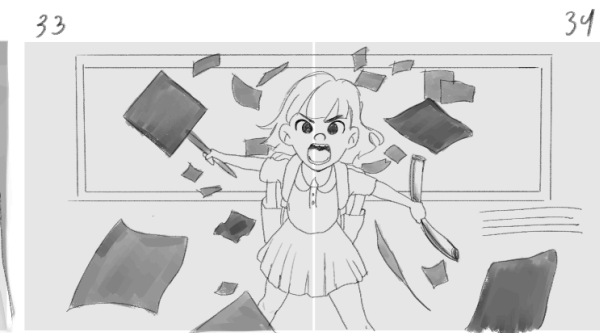


22

### SCENE 3

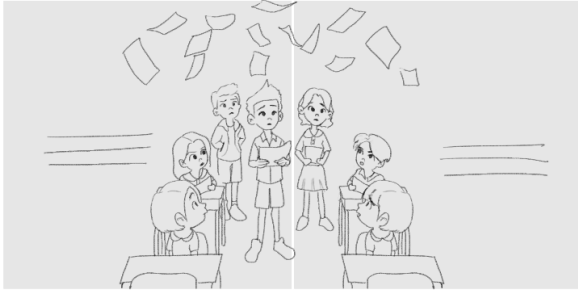


### SCENE 4





35

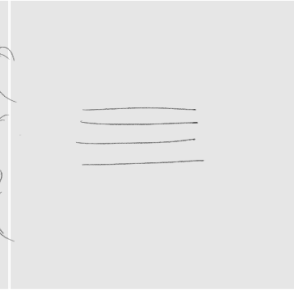


36

37

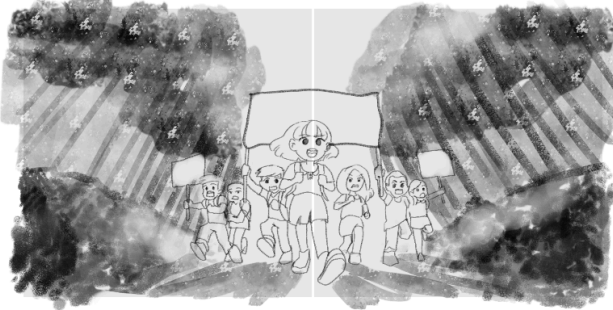


38



### SCENE 5

39



40

41



42

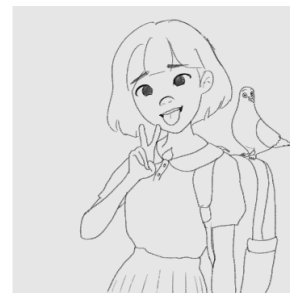


43



44

45



46

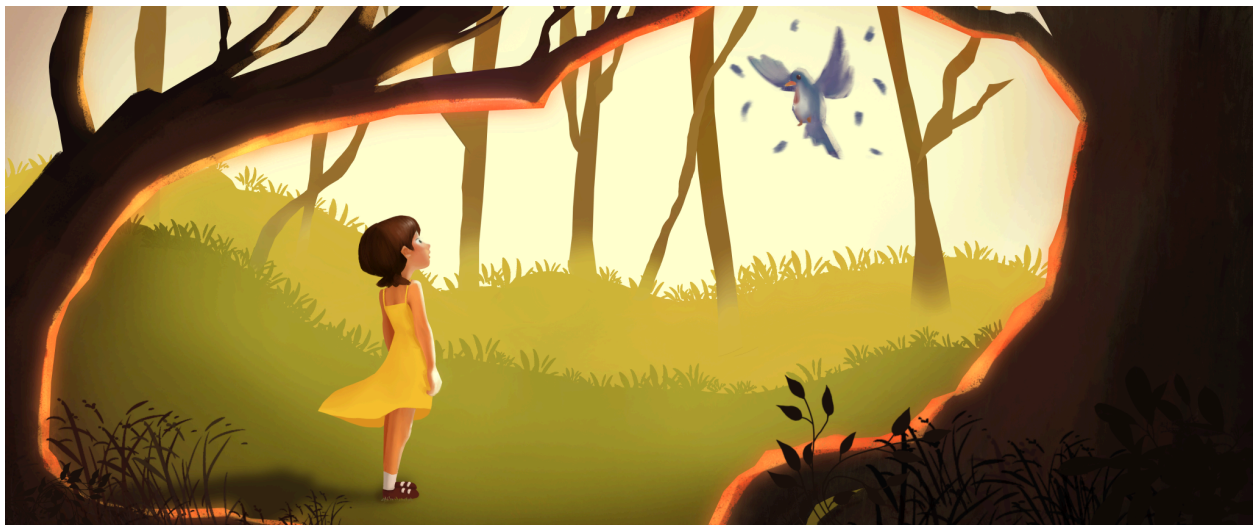


## Studies

I made 3 scene studies for my class in scenography, and the following still had the cartoonish style I initially aimed for.



**Figure 9** *Scene study 1*



**Figure 11** *Scene study 2*



Figure 12 Scene study 3

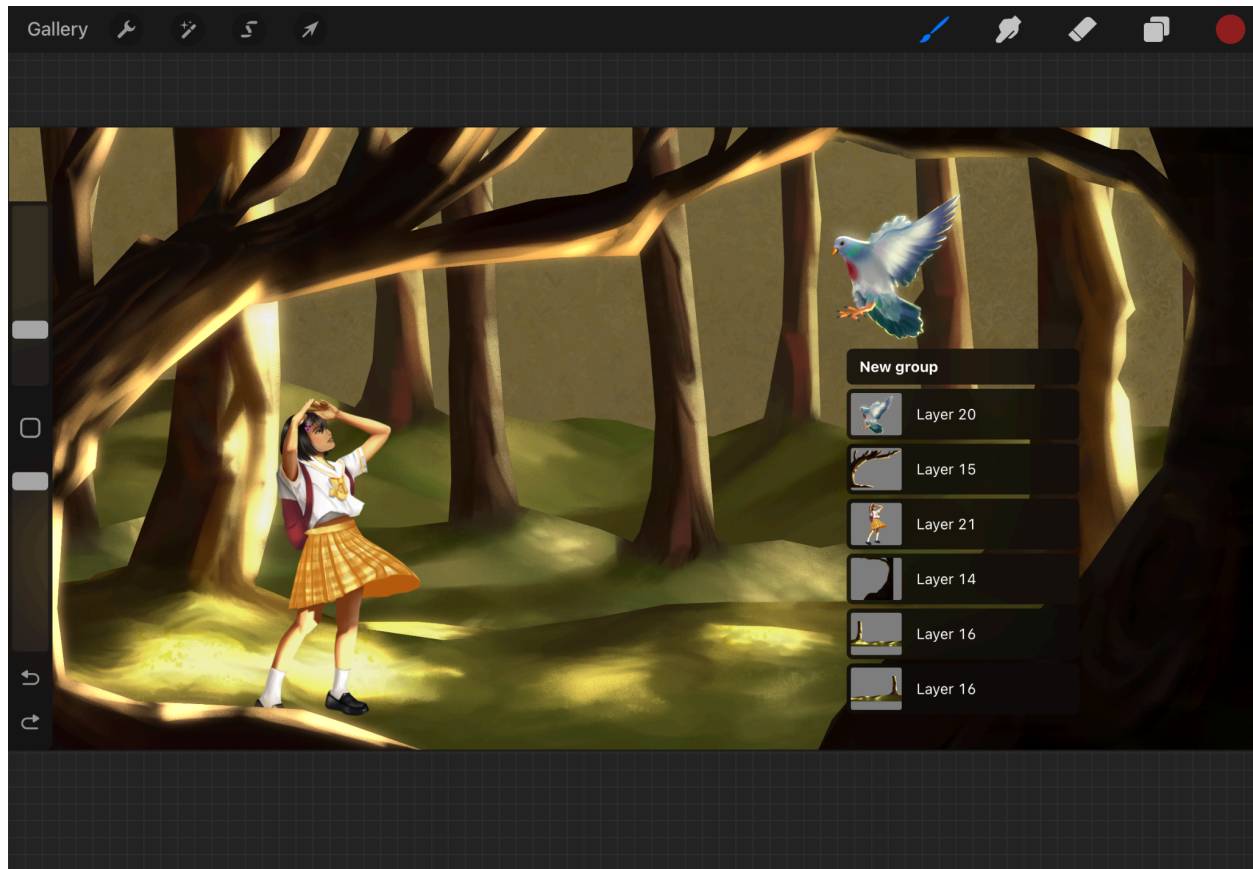
## Production Stage

During the production phase, the creative process transitions into the design and layout of the prototype. At this stage, I carefully lay out the conceptual foundation of the book, envisioning how each spread will seamlessly combine illustration and interactive elements to create an engaging and educational narrative. As a first-time pop-up book creator, the prototype is a foundational learning experience. This is where I will familiarize myself with this particular genre's unique challenges and nuances. In this stage, I can experiment with various pop-up mechanisms, gaining insight into what works effectively and what requires adjustment. It is also cost-efficient as identifying and rectifying issues during the prototype stage significantly reduces the likelihood of costly errors during the final printing phase. It is a preventive measure that ensures a smoother, more efficient, and ultimately more cost-effective production process.



**Figure 13** *Initial Prototype*

In the preliminary phase of transforming my concept into a tangible prototype, I began by sketching the scene from the storyboard onto the colored papers that were glued onto folders for more structure. As I refined and defined the scenes to match the envisioned pop-up elements, I carefully pasted these sketched designs onto sturdy folders, ensuring the scenes aligned with the book's layout. Employing precision, I utilized a paper cutter to delicately and accurately cut out each element, shaping the pop-up elements and pages. This hands-on approach allowed me to visualize and manipulate the scenes' dimensions, verifying their compatibility with the book's structure and ensuring the interactive elements were both visually stimulating and justified the scene.



**Figure 13** Procreate interface showing separate layers

After considerable time designing, crafting, and testing pop-up mechanisms in the prototype comes the culmination of the production phase. The final illustration stage is a testament to the project's dedication to visual storytelling. These illustrations are not static; they are dynamic elements that contribute to the overall engagement and immersion of the readers. The illustrations will be done using the software Procreate, which is the program I've primarily used for the last four years. Before moving on to the actual printed prototype, it's important to note that each scene element should be drawn and rendered on a separate layer to ensure that each layer would be printed and cut out separately. This is to ensure that each layer of element placed on the spreads would have its exact position for proper layering and distancing to show depth. The layout would be done in Adobe Indesign on an A4 sized page which would be equivalent to an A5 sized paper when folded in half.

## Fully Rendered Spreads



**Figure 14** Fully rendered spread 4



**Figure 15** Fully rendered spread 4 (Upside down version)



**Figure 16** *Fully rendered spread 10*

### **Post-production Stage**

In the post-production phase, as I transition towards finalizing the project, printing and binding the physical copies of the interactive pop-up children's book is central. This is where the project's digital designs and visual elements take on tangible form. Selecting the right printing service is crucial to faithfully replicate the book's visual and interactive appeal. The binding process would be a hard case binding to ensure the durability and aesthetics of the finished product. Throughout this stage, I scrutinize every detail, ensuring that the pop-up elements function seamlessly, the colors are vibrant, and the quality is exceptional. As the first printed copies emerge, the tangible realization of months of creativity and labor comes to life.

I then focus on developing an author website or blog dedicated to the interactive pop-up children's book. This online platform is a hub for potential readers, educators, and parents to learn about the book's content and educational value. The website features behind-the-scenes insights into the creative process, a complete flip-through of the pop-up book, additional resources related to wildlife conservation, and a direct point of contact.

In the digital age, visual content is a must, and in this stage, I craft and publish a captivating flip-through video of the interactive pop-up children's book online. This video offers a dynamic preview of the book's content, allowing potential readers to experience

its interactive elements and captivating visuals. The video aims to offer a sneak peek into the immersive world of the book. I meticulously plan the video to ensure it captures the book's essence, intensifying the light, playing with shadows, showcasing vibrant colors, and highlighting the contrast from warm to cool and dark to light.

As the project concludes, I take a step back to critically evaluate its outcomes. This is a reflective stage where I assess the success of the interactive pop-up children's book, examining whether it has met the educational objectives, resonated with the intended audience, and achieved its intended impact in raising awareness about wildlife conservation. I consider the feedback received during prototype testing and throughout the project's development, using it to make informed judgments about the project's strengths and areas for improvement. Ultimately, the insights gained in this stage provide valuable lessons for future endeavors and inspire a sense of accomplishment as the project reaches its culmination.



## **Review of Related Literature**

The goal of educating young readers about the need for wildlife conservation and protecting the environment stands as an essential aim in the field of children's literature. It is more important than ever to instill in children a feeling of duty and empathy for nature because of the constant threat posed by human activity to innumerable species and their habitats today. This review of related literature and creative works goes through various types of literature, films, and educational resources that have influenced wildlife conservation narratives for children. My creative project, a pop-up children's book centered on the critically endangered Bleeding-Heart pigeon, aims to write relatable and empowering narratives with young protagonists who have deep connections with endangered animals. This section tries to provide a thorough overview of the methods and concepts used to convey the importance of saving endangered species by including studies about the factors that affect the conservation efforts for the Bleeding-Heart pigeon in the region of Negros. This review will offer fundamental insights and inspirations that support the development of my project by analyzing how these narratives emphasize the value of preserving our natural world.

## **Conservation Psychology**

Vega (1982) stated, "With the rapidly increasing human population and the multitude of problems it entails, the interest in Ecology suddenly gained the focus of attention in the field of science." Ecology is the study of how organisms and their environments interact. The demand for improved production, pollution of the air, soil, and water, the need to prevent the extinction of plant and animal species, and the cycling of harmful toxins and radioactive isotopes in the food chains, among other issues, are some of today's most important issues. Concern about the wise use and conservation of the Earth's natural resources will become increasingly important as difficulties with environmental conditions brought on by overpopulation arise. These are all ecological, either directly or indirectly. This is where conservation psychology enters the picture. As a distinct field of study, conservation psychology delves into the intricacies of human attitudes and behaviors in the context of environmental conservation. It offers valuable insights into how changing human behaviors can positively impact ecological challenges, providing a bridge between the ecological and psychological dimensions of conservation.

Conservation psychology is psychological research oriented toward understanding why people help or hurt the natural environment and promoting environmentally sustainable practices (Saunders, 2003). Some general findings from psychological research have significant conservation implications. Clayton and Myers (2009) said, "They include the idea that behavior is strongly affected by the consequences that follow that behavior; that people learn not only behaviors but also attitudes, values, and norms from those around them; and that people change over

time, in ways that are genetically pre-programmed as well as responsive to environments." Specific events have different effects depending on the developmental stage in which they occur, and some significant influences or experiences have a disproportionately large effect early in development. These ideas apply to understanding how humans and nature are interdependent.

One foundational theme in conservation psychology is the exploration of the human-nature relationship. Clayton (2003) underscores the importance of comprehending how individuals perceive and emotionally connect with the natural world. Researchers have delved into emotional affinity toward nature, considering it a vital motivation for protecting the environment (Kals, Schumacher, & Montada, 1999). These emotional connections are pivotal in shaping attitudes and behaviors toward conservation efforts. Understanding the deep emotional ties individuals may form with nature can inform the design of interventions that aim to create meaningful and lasting connections between people and the natural world. For instance, studies have shown that individuals with a strong emotional attachment to nature are more likely to engage in pro-environmental activities (Mayer & Frantz, 2004). This connection can be a powerful motivator for supporting wildlife conservation, as people are more likely to protect what they feel emotionally connected to.

Effectively bridging the gap between awareness and action is necessary in conservation efforts. Conservation psychology recognizes that clear, persuasive, and tailored messaging is crucial in conveying the urgency and significance of wildlife conservation. Effective communication strategies inform and motivate individuals to take conservation actions. For instance, research has shown that framing conservation messages positively, focusing on the benefits of pro-environmental actions, can be more persuasive (Milfont, 2012). Effective communication strategies in the context of conservation psychology can greatly influence individuals' behaviors and attitudes toward wildlife conservation.

Visual storytelling is known to be an effective communication strategy in the context of conservation psychology. Wildlife conservation issues can sometimes seem distant or abstract to the general public. However, visuals have the extraordinary ability to make these issues tangible and relatable. For instance, an infographic illustrating the impact of plastic pollution on marine life can convey the message more effectively than a lengthy scientific report. Visuals translate complex scientific data into easily digestible formats, ensuring that a broader audience can grasp the significance of conservation efforts (Balmford et al., 2002). Through the interactive visuals in my book, young readers will be able to see the direct connection between their actions and the well-being of the natural world. By making the concept of wildlife conservation relatable and tangible, I hope to empower children to take action and positively impact the well-being of our planet's biodiversity through visual storytelling as a key communication strategy under conservation psychology.

## **Human Socioeconomic Factors And Local Conservation Efforts In Negros Occidental**

As I was looking for insights into the pigeon's nesting, breeding, and feeding habits to offer authenticity to my story, it was apparent that the ongoing destruction of primary forests in Negros and habitat degradation have continued to pose a serious threat to its population. Local trapping, hunting, and trade are chronic problems that exacerbate the effects of deforestation that parallel the challenges the characters in my story face. All of which were emphasized in the journal article titled "Conservation of the Critically Endangered Negros Bleeding Heart Pigeon *Gallicolumba keayi* on the Island of Negros, Philippines" by Cariño (2006). Interestingly, the article discusses public awareness campaigns and initiatives to raise awareness about the region's Bleeding-Heart pigeon and wildlife conservation. It highlights the role of educational programs, festivals, and community-based environmental education activities.

While the previous article serves as a foundation for understanding the current status and conservation efforts for the Bleeding-Heart Pigeon back in 2006, it's clear that nothing much has changed since then. Various factors affecting these species must be considered to understand how to effectively conserve endangered species. According to the study of Posadas (2018), which highlights the intricate interplay between human socioeconomic factors and the conservation of endangered species and ecosystems in the region of Sipalay City, Negros Occidental, Philippines, it emphasizes the urgent need for integrated conservation efforts. This study focuses on the escalating human settlement near forest patches over the past three to four decades. This raises concerns about increased pressure on diminishing natural resources, particularly within the habitat of the critically endangered Bleeding-Heart pigeon. Due to poor living conditions, the local population depends on diverse income sources, including wildlife collection, which threatens vulnerable species. These challenges are further compounded by inadequate infrastructure and limited livelihood opportunities, resulting in many resorting to environmentally detrimental activities for their subsistence despite their awareness of the ecological consequences.

This idea is further strengthened with a passage from the book "Save the Birds". It stated, "For thousands of years, mankind has burnt and chopped and sawn his way through these once endless forests until now only pathetic remnants are left." If this was the case for the past thousand years, it's more likely to continue for the next thousand, with global change and industrialization only leading to extensive deforestation. This is extremely troubling because, according to Diamond & Natur (1987) from the same book, "Most birds are quite strictly confined to particular habitats, which must provide them with food and shelter and a suitable climate." This statement underscores the book's core message, highlighting the intricate relationships between avian species and their environments. "Save the Birds" emphasizes the urgency of preserving these habitats and the species that depend on them. The stark reality, as presented in the book, serves as a poignant reminder of the urgent need for conservation efforts.

## **Supplementary Educational Materials**

The Center for Empowerment and Resource Development (CERD) created a supplemental environmental education handbook called "Magandang Mundo (Beautiful World): A Sustainable Education Handbook for High School Teachers" for the "Pilot Environmental Education Program" in four high schools in Calbayog City and Almagro, Samar. It began as a straightforward manual project with the modest goal of educating children about environmental issues in their fishing villages. In the end, it had a significant effect on a lot of lives. It changed how the community thought about marine ecosystems (Gamboa, 2009). Furthermore, it is said that the manual has been found to have some logical flaws and lack coherence in modular order, even when used as a reference or supplementary material. It is also available only in very limited copies. Despite these challenges, "Magandang Mundo" shows how a relatively basic and simple information product, such as a handbook, could build a learning environment that changes and transforms communities and schools.

## **Pop-up Mechanisms**

In a study by McDermott (2015), she explores the intricate relationship between mechanical engineering principles and their impact on storytelling, showing how pop-up mechanisms enhance the narrative. McDermott unveils the paper engineering behind these seemingly simple yet captivating book designs by dissecting various pop-up techniques and their underlying mechanical structures. Through detailed analyses and case studies, she demonstrates how different pop-up mechanisms, such as pull tabs, flaps, and intricate folding techniques, contribute to the storytelling experience. In creating a pop-up book, McDermott's study is a guiding light for understanding and implementing various pop-up mechanisms. Studying the mechanical intricacies outlined in the research makes it easier to experiment with different pop-up techniques that would be a huge help as a first-time pop-up book creator.

## Review Of Related Creative Works

With this understanding of the complex interplay between socioeconomic factors and wildlife conservation, let us now transition to the creative realm where the themes of connection, preservation, and education converge in my creative project centered on the critically endangered Bleeding-Heart pigeon. This section will introduce a selection of creative works that have profoundly influenced the concept and direction of my project. Some of these sources are animated films that have left an indelible mark on my childhood and continue to inspire my passion for storytelling. Their captivating art style not only evokes nostalgia but also serves as a vibrant source of inspiration for the visual aspects of my project. Through these creative works, we will explore how their narratives, characters, and artistic styles have contributed to shaping my project's vision and its mission to engage and educate young audiences about the importance of wildlife conservation.

### "Wake Up, Sloth" by Anouck Boisrobert (2011)



**Figure 17 & 18** "Wake Up, Sloth" book cover (left) Opened page of the book (right)

"Wake Up, Sloth" (2011) by Anouck Boisrobert is a pop-up book that has left a lasting impression on me, not only for its delightful storytelling but also for its insightful touch on deforestation. The book is a visually enchanting journey through the rainforest habitat of a charming sloth, brought to life with intricate pop-up illustrations. It subtly but effectively addresses the critical issue of deforestation, mirrored in the shrinking rainforest depicted throughout the book. This theme resonates deeply with my creative project, which focuses on wildlife conservation and the preservation of natural environments.

The common thread between "Wake Up, Sloth" and my project is the overarching theme of nature conservation. While the book primarily follows the sloth's daily routine, it indirectly underscores the urgency of protecting our forests. The rainforest, with its vibrant flora and fauna, is vividly portrayed, as a backdrop that highlights its beauty and the diverse animal species it houses. However, as the pages turn, it becomes clear that the sloth's home is threatened by deforestation, a challenge that mirrors the real-world crisis rainforests face.

In terms of medium, "Wake Up, Sloth" demonstrates the power of storytelling and interactive visuals in conveying complex ecological issues to a young audience. Its pop-up design engages and educates, serving as an interesting model for communicating the importance of deforestation awareness and the need for conservation in a way that resonates with children. This book embodies the potential of creativity and artistry in nurturing a sense of responsibility toward our natural world in the next generation, aligning seamlessly with the objectives of my creative project. It is a testament to the impact of creative media in inspiring environmental consciousness among young readers.

**"Stranger Things: The Ultimate Pop-Up Book" by Kyle Lambert and Simon Arizpe (2022)**



**Figure 19 & 20** "Stranger Things: The Ultimate Pop-Up Book" book cover (left)  
Opened page of the book (right)

The inspiration drawn from "Stranger Things: The Ultimate Pop-Up Book" (2022) in my creative project is significant. The way this book reimagines a beloved series, allowing readers to physically step into its world, is profoundly inspiring. The decision to

transform my project into a pop-up book, as opposed to a conventional storybook for children, was motivated by the potential to create a tactile and visually appealing experience for young readers. With its visually captivating and meticulously designed masterpiece, "Stranger Things: The Ultimate Pop-Up Book" brings the world of Hawkins, Indiana, to life in an astonishing pop-up format. This book is a spectacular blend of creativity and nostalgia, immersing fans of the hit Netflix series in an interactive journey through its iconic settings and spine-tingling moments.

The medium of pop-up books offers a unique and engaging way to convey storytelling. It's more than just reading; it's an interactive experience. The intricate pop-up elements in this book do justice to the eerie and mysterious atmosphere of "Stranger Things." They serve as a testament to the boundless creative potential within this format, and the attention to detail is awe-inspiring. "Stranger Things: The Ultimate Pop-Up Book" demonstrates that a pop-up format can transcend the boundaries of storytelling, turning it into an enchanting adventure. It has ignited my passion for creating a medium that imparts a captivating narrative and fosters an interactive connection between readers and the story, just as this book does for fans of "Stranger Things." Its brilliant use of the pop-up format paired with a semi-realistic art style has set a high standard for creative projects, offering an exciting and visually mesmerizing way to engage readers.

### **"Turning Red" Directed by Domee Shi (2022)**



**Figure 21** *"Turning Red" promotional poster*

Domee Shi's film, 'Turning Red' (2022), has inspired my creative project. Both 'Turning Red' and my project share significant similarities that revolve around young female protagonists and their unique connections to endangered animals. Mei Lee transforms into a red panda in the film, forging a deep bond with this rare creature. Likewise, my storybook features a young female lead named Lily who embarks on a transformative journey alongside an endangered animal companion, the Bleeding-Heart pigeon, illustrating the profound connections between humans and wildlife. Turning Red masterfully captures the essence of these connections, inspiring my project to do the same by imparting essential lessons about preserving our natural world through relatable and empowering narratives for young readers.

**“The Lorax” Directed by Chris Renaud (2012)**



**Figure 22** *“The Lorax” promotional poster*

The same goes for the 2012 film 'The Lorax,' based on Dr. Seuss' beloved book. The Lorax has profoundly influenced my creative project by highlighting the urgent theme of environmental crisis and destruction, particularly its message on deforestation. Like the movie's characters, I've been inspired to delve deep into the consequences of rampant deforestation and the reckless exploitation of forests. The Lorax resonates with me because it underscores the power of a single individual, the Lorax himself, in advocating for the preservation of trees and the environment. In my creative endeavor, I draw upon the film's message to emphasize the importance of ending deforestation and promoting reforestation. The film's portrayal of a world stripped of its trees and natural



wonders is a constant reminder of the devastating consequences of deforestation, which calls for raising awareness and fostering positive change for our planet's forests.

### **“Eco” by Strange Loop Games (2018)**



**Figure 23** *“Eco” promotional poster*

As much as an animated film enthusiast, I spend most of my free time watching gameplay, which has allowed me to stumble upon the video game "Eco," released in 2018. It has significantly impacted my creative project, not only by its captivating art but particularly with its theme of the gentle use of natural resources. As I observed players navigating the intricacies of this virtual world, I was drawn to the game's unique blend of environmental simulation and cooperative gameplay. Witnessing how every action had a ripple effect on the delicate ecosystem within the game resonated deeply with me. This experience sparked my imagination and inspired me to incorporate similar themes of responsible resource management and ecological preservation into my creative work. "Eco" stands out as an educational tool for young players. It is a powerful medium to teach the importance of sustainable living and the interconnectedness of all living beings in an ecosystem through something young audiences are familiar with. Gameplay encourages critical thinking and decision-making, forcing players to make choices that can harm or protect the natural world. Just as the players in "Eco" must tread carefully to avoid environmental disaster, I aim to convey the importance of balance and sustainability and encourage others to consider their impact on the real world's resources.

## **Results and Discussion**

Drawing upon the framework of Conservation Psychology, this study delved into human attitudes and behaviors regarding wildlife conservation efforts. Through secondary data collection, the research explored human activities' profound impact on the environment and wildlife populations, particularly urbanization. The findings highlighted the alarming consequences of habitat destruction due to urban expansion, leading to significant biodiversity loss and endangerment of various species, such as the Bleeding-heart pigeon. The analysis revealed a pressing need to address the adverse effects of urbanization on ecosystems and wildlife habitats. Habitat destruction emerged as a critical concern, driven primarily by human activities associated with urban development. The study emphasized the urgency of implementing effective conservation strategies to mitigate the detrimental impact of urbanization on wildlife populations and preserve biodiversity.

The findings underscored the importance of understanding individuals' emotional connections with nature, a key theme in conservation psychology. Emotional affinity towards nature emerged as a potent motivator for pro-environmental actions, aligning with previous research emphasizing the role of emotional attachment in supporting wildlife conservation efforts (Kals, Schumacher, & Montada, 1999). Moreover, the study highlighted the effectiveness of visual storytelling in bridging the gap between abstract conservation issues and public understanding. By making complex scientific data relatable through visuals, the project's pop-up book aimed to empower young readers to engage with wildlife conservation deeper, fostering a sense of connection and responsibility towards environmental conservation (Balmford et al., 2002).

Furthermore, creating the interactive pop-up book provided valuable insights into the practical application of Conservation Psychology principles. By integrating conservation themes into the narrative and incorporating engaging pop-up mechanisms, the project was an innovative tool for raising awareness and educating children about the importance of protecting the environment and wildlife. Through visual storytelling and interactive elements, the book aims to instill a sense of responsibility and promote positive attitudes and behaviors toward wildlife conservation among young readers, contributing to the broader efforts of addressing the threats posed by urbanization to biodiversity.

## **Conclusion**

Despite the persistent problems caused by habitat destruction and biodiversity loss, the need for wildlife conservation remains undeniable. Despite the disruptive consequences of urbanization and human impact on natural environments, the necessity for coordinated conservation efforts remains. This study emphasizes the

importance of addressing the dangers to wildlife populations caused by habitat degradation.

In response to these serious environmental challenges, this thesis project aims to use the effectiveness of visual storytelling by using an interactive pop-up children's book to educate and engage young readers on the importance of wildlife conservation. Through vibrant illustrations and captivating narratives, the book seeks to foster understanding and empathy in children aged 8 to 11 and a sense of responsibility for maintaining our planet's biodiversity. By emphasizing the effects of habitat destruction on wildlife populations, this project hopes to encourage action and advocacy to preserve our natural ecosystems. The findings of this study emphasize the urgent need for proactive steps to protect wildlife habitats and offset the negative effects of human activities on biodiversity.

## **Recommendations**

### **Research Topic**

The research topic focuses on wildlife conservation, with opportunities for future enhancements to include additional data and stories related to conservation efforts. The current study centers on understanding human attitudes and behaviors in the context of wildlife conservation, particularly among children. While the study primarily targets children aged 8-11, further research could expand to include a broader demographic range.

### **Creative Process**

The creative process of developing an interactive pop-up children's book as the thesis output offers scope for improvement, especially in maintaining consistency in design elements and adhering to the production timeline. Due to equipment constraints, an iPad and digital art software were chosen as the primary tools for creating the pop-up book. However, there is potential for further exploration of pop-up mechanisms and visual storytelling techniques to enhance the engagement and educational value of the book. Additionally, the layout and design of the pop-up book could benefit from additional interactive elements and detailed illustrations to captivate young readers and effectively convey the message of wildlife conservation.

Furthermore, utilizing a Gantt chart and a production timeline can facilitate more efficient planning and execution of the project. Techniques like sketching prototypes and experimenting with pop-up mechanisms have been prepared to streamline the creation process. However, given the target audience's age range, it is essential to ensure that the content and design of the pop-up book are age-appropriate and engaging. Moving

forward, it is recommended that time management be maximized during the production phases and that feedback from stakeholders be considered to refine the pop-up book further. Future researchers should also explore innovative approaches to wildlife conservation education for children to create meaningful impact.

### Bibliography

- Arizpe, S. (2022). *Stranger Things: The Ultimate Pop-Up Book*.
- Balmford, A., Clegg, L., Coulson, T., & Taylor, J. (2002). Why conservationists should take note of the European common agricultural policy. *Conservation Biology*, 16(3), 730-732.
- Boisrobert, A. (2011). *Wake Up, Sloth!* Roaring Brook Press.
- Cariño, A. (2006). CONSERVATION OF THE CRITICALLY ENDANGERED NEGROS BLEEDING HEART PIGEON *Gallicolumba keyi* ON THE ISLAND OF NEGROS, PHILIPPINES. *Silliman Journal*.
- Clayton, S. (2003). Environmental identity: A conceptual and operational definition (S. Clayton & S. Opatow, Eds.), *Identity and the natural environment: The psychological significance of nature* (pp. 45-65). The MIT Press.
- Clayton, S., & Myers, G. (2009). *Conservation psychology: Understanding and promoting human care for nature*. John Wiley & Sons.
- Diamond, A. W., & Natur, P. (1987). Save the birds. In *Cambridge University Press eBooks*. <http://ci.nii.ac.jp/ncid/BA07748361>
- Foulkes, L., Leung, J., Fuhrmann, D., Knoll, L., & Blakemore, S.-J. (2018, April 15). Age differences in the prosocial influence effect. *Developmental Science*, 21(6). Wiley Online Library. <https://doi.org/10.1111/desc.12666>
- French, P. (2014, January 24). *Negros Bleeding-Heart*. Ebird. <https://ebird.org/species/nebhea1>
- Kals, E., Schumacher, D., & Montada, L. (1999). Emotional affinity toward nature as a motivational basis to protect nature. *Environment and Behavior*, 31(2), 178-202.
- Gamboa, S. (2009). *Communities, Conservation and the Filipino Environmentalist* (A. J. Manipon & S. Mesina, Eds.). Foundation for the Philippine Environment.
- Matias, S. D. (2009). *May monster si kuya!* Lampara Books.
- Mayer, F. S., & Frantz, C. M. (2004). The connectedness to nature scale: A measure of individuals' feeling in community with nature. *Journal of Environmental Psychology*, 24(4), 503-515.
- McDermott, R. (2015, June 24). *The significance of pop-up : an exploration of mechanical engineering's impact on storytelling* [Thesis]. MIT Libraries. <https://dspace.mit.edu/handle/1721.1/98778>

- Milfont, T. L. (2012). The interplay between knowledge, perceived efficacy, and concern about global warming and climate change: A one-year longitudinal study. *Risk Analysis*, 32(6), 1003-1020.
- Posadas, M. F. G. (2019). Anthropogenic effects in tropical forest patches of Sipalay City Negros Occidental, Philippines. *Philippine Social Development and Resource Management Journal*. (Print), 1(1).  
<https://doi.org/10.36292/psdrmj.v1i1.41>
- Renaud, C. (Director). (2012). *The Lorax* [Film].
- Saunders, C. D. (2003). The emerging field of conservation psychology. *Human Ecology Review*, 10(2), 137-149.
- Shi, D. (Director). (2022). *Turning Red* [Film].
- Strange Loop Games. (2018). *Eco* [Video game].
- Vega, M. (1982). *Biology and the Environment*. Publishers Association of the Philippines, Inc.