

URBANIZATION, AN- THROPOMORPHIZA- TION AND WILD FAUNA – AVOIDING CONFLICTS AND IMPROVING CO- EXISTENCE WITH THE HELP OF ENVIRONMEN- TAL EDUCATION

Laís Mayumi Antunes

Universidade de Sorocaba

Sorocaba - São Paulo

<http://lattes.cnpq.br/5174161833462010>

Lys Hingst Oliveira

Universidade de Sorocaba

Sorocaba - São Paulo

<http://lattes.cnpq.br/1192671876412227>

Thamy Melissa Oliveti Santos

Universidade de Sorocaba

Sorocaba - São Paulo

<http://lattes.cnpq.br/8989095147836401>

Amanda Bozi Barbosa

Universidade de Sorocaba

Sorocaba - São Paulo

<http://lattes.cnpq.br/9423872961981748>

Mônica Rodrigues Alves

Universidade de Sorocaba

Sorocaba - São Paulo

<http://lattes.cnpq.br/7146070021675693>

Isabel Vilhena Furquim de Andrade

Universidade de Sorocaba

Sorocaba - São Paulo

<http://lattes.cnpq.br/7692398099532019>

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



Gabriele Caroline Antunes dos Santos
Universidade de Sorocaba
Sorocaba - São Paulo
<https://lattes.cnpq.br/1567717287831698>

Isabella Karoline dos Santos Subeche
Universidade de Sorocaba
Sorocaba - São Paulo
<http://lattes.cnpq.br/0159241112623663>

Ana Carolina Correa Porto
Universidade de Sorocaba
Sorocaba - São Paulo
<http://lattes.cnpq.br/7318699464819416>

Abstract: The problems caused by wild animals living alongside humans in urban areas can lead to environmental imbalances and animal abuse. Therefore, it is crucial to engage in a dialogue with the population to resolve or mitigate these issues. With this goal in mind, this project aimed to discuss the significance of local fauna, the appropriate behaviors for the public when they come into direct contact with animals, and the agencies that can be contacted for the rescue or removal of wild animals in the municipality of Sorocaba, São Paulo, Brazil. The project was conducted at ``Colégio Dom Aguirre`` in seven 7th-grade classes, involving 122 children aged ten to eleven. After preparing the materials for the interventions, they were shared through interactive slides, providing information on the environmental importance of the most well-known species in the municipality of Sorocaba. This allowed students to share their experiences and insights with the presenters. To assess the project's effectiveness, a "pass and repeat" quiz game was conducted with the participating students. The project yielded positive results, as the groups answered the questions without any errors, and the students displayed great interest in the topic. This project successfully contributed to the children's knowledge acquisition, focusing on the environmental importance, basic care, and appropriate behaviors when encountering wild animals. As a result of the project's outcomes, it is expected that the children will share the information they have acquired with their parents and others in their community.

Keywords: Wild animals, environmental imbalance, native wildlife, population, environmental importance.

INTRODUCTION

The rapid growth of cities has resulted in the progressive replacement of natural areas by urbanized environments, which has intensified contact between humans and wild animals. This proximity, despite triggering fascination and curiosity, can also generate a series of problems, such as inadequate understanding of their natural behaviors, which in turn can result in inappropriate human reactions, generating mutual attacks, disease transmission and animal trafficking (Biondo et al., 2019). In an era where biodiversity conservation is crucial, it is imperative to find ways to promote peaceful and sustainable coexistence between humans and wildlife (Gross et al., 2021).

A study carried out highlighted that constant urban changes have devastating consequences, leading to the extinction of species and the loss of genetic variability (Mendonça et al., 2009). Alarming examples include the yellow fever outbreak in Brazil in 2016 and 2017, which resulted in numerous cases of aggression and deaths of non-human primates due to transmission of the virus (Bispo et al., 2020). Furthermore, myths and incorrect information about bats have generated unfounded fears regarding these animals, harming several species and contributing to ecological imbalance.

In this scenario, it becomes evident that the dissemination of correct and educational information is crucial to promoting peaceful coexistence between humans and wildlife. Environmental education, as a facilitating tool, plays a fundamental role in dissuading aggressive and hostile attitudes towards animals (Lima; Mendes, 2022).

However, for these efforts to bring results, it is crucial to start raising awareness early. Children, due to their curious and receptive nature, are excellent agents of change. By integrating environmental education into the

school curriculum, especially in urbanized municipalities, it is possible not only to prevent future conflicts, but also to cultivate a conscious, engaged and responsible generation in relation to environmental preservation (Brazil. MEC. SEB., 2013).

The project was carried out in the city of Sorocaba, located in the interior of São Paulo, has around 723,574 inhabitants, and a territorial area of 449,872 km² (IBGE, 2022), according to Mello et al (2014) the territory has only 16, 68% natural vegetation. Through these data it is possible to observe this growing contact between inhabitants and wild animals, which ends up generating an increase in conflict due to a lack of instructions and knowledge. The consequences of these factors are environmental problems, fueled by unfounded fear of the dangers associated with animals.

Given this context, this project aimed to instruct and educate, in a playful way, 7th year students at ``Colégio Dom Aguirre``, about common wild fauna, in the municipality of Sorocaba. Contributing to the construction of environmental awareness from childhood, preparing future generations for a harmonious coexistence between humans and wild animals in urban environments.

METHODOLOGY

The project was developed at ``Colégio Dom Aguirre``, covering seven classes in the 7th year of primary school two, with the participation of 122 children aged between 10 and 11 years old. After preparing the material for the interventions, it was shared through slides. To evaluate the effectiveness of the project, a question and answer competition game was conducted, called "pass or pass", in which students were separated into two groups and pressed a button to answer questions relating to the topic discussed. Each correct answer was rewarded with a point, while

incorrect answers allowed the other group of students to take their turn.

To carry out the game, some questions were asked, including:

- What to do if bats appear in your house?
- If a maritaca makes a nest on the roof of my house or in any area of my residence, I...
- How important are wild animals to the environment?
- Which public bodies must we notify when a wild animal appears in our home and it doesn't go away on its own?
- Wild animals are protected by law, therefore according to Brazilian law...
- Why mustn't we feed wild animals that live in urban areas?

RESULTS

The material developed, rich in colors and images, facilitated the interaction of students with the speakers, resulting in a significant exchange of experiences and making the activity dynamic, as demonstrated in figures 1, 2 and 3. The method proved to be effective, a fact evidenced by the absence of errors on the part of all groups in answering the questions, showing a notable interest and acquisition of knowledge by students on the topic.



Figure 1 - Presentation of the theoretical content of the interventions with playful slides and interactions with students.



Figure 2 - Environmental education and exposure of the relevance of zoonoses to public health through interactive slides.



Figure 3 - Dynamics between students with the questions addressed in the presentation during the “Get it and forward it” game.



Figure 4 - Machine used in the dynamics to carry out the game “Get it and forward it”.

DISCUSSION

Given the need to foster empathy and respect in future generations, as well as broaden understanding about wildlife and the environment, it is essential that children are introduced to relevant topics such as coexistence between species (Gross et al 2023).

In an era in which urbanization brings wildlife ever closer to the population, the issues that were addressed in the interventions are part of everyone’s daily life (Vilela et al 2016). This project demonstrated the effectiveness of presenting the species found in the municipality of Sorocaba, highlighting their

importance for the balance of the environment and providing guidance on attitudes that can be practiced to live harmoniously with animals.

The question game strategy applied, as an evaluative practice, revealed that the intervention was highly effective, since the children answered the questions correctly, through the “pass and repost” game, as there were no errors when answering. Furthermore, the high participation of students, expressed through pertinent questions and shared experiences, reflected a deep interest and knowledge on the topic.

Therefore, it is undeniable to state that such educational approaches play a crucial role in forming more aware and engaged citizens, promoting harmonious coexistence between local fauna and human beings.

CONCLUSION

It is concluded that this work contributed to the enrichment of children’s knowledge, focusing on raising awareness of environmental importance, basic care and attitudes to be adopted when encountering wild animals, allowing children to share the information acquired with their parents and other members of your household.

REFERENCES

- BIONDO, D.; PLETSCHE, J. A.; GUZZO, G. B. **Impactos da ação antrópica em indivíduos da fauna silvestre de Caxias do Sul e região: uma abordagem ex situ.** Revista Brasileira de Biociências, [S. l.], v. 17, n. 1, 2019.
- BISPO, A. J.; GARCIA, C. F.; MARTIN, M. B.; SILVA, A. C. A. C. da; RIBEIRO, A. R. **Ação educativa sobre a febre amarela visando a preservação de primatas na cidade de Poços de Caldas / Education activity about yellow fever disease, aiming the primates preservation in the city of Poços de Caldas.** Brazilian Journal of Animal and Environmental Research, [S. l.], v. 3, n. 3, p. 1252–1257, 2020.
- BRASIL. **Diretrizes Curriculares Nacionais para a Educação Ambiental.** In: **Brasil. Ministério da Educação.** Diretrizes Curriculares Nacionais Gerais da Educação Básica. Ministério da Educação. Secretaria de Educação Básica. Diretoria de Currículos e Educação Integral. Brasília: MEC, SEB, DICEI, p. 534 - 562, 2013.
- GROSS, E. M.; JAYASINGHE, N.; BROOKS, A.; POLET, G.; WADHWA R.; HILDERINK-KOOPMANS F. **A Future for All: The Need for Human-Wildlife Coexistence.** WWF, Gland, Switzerland, 2021. Disponível em: https://wwfint.awsassets.panda.org/downloads/a_future_for_all_the_need_for_human_wildlife_coexistence.pdf. Acesso em 17 out. 2022.
- IBGE – INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA. **Censo Brasileiro de 2022.** São Paulo: IBGE, 2022. – Disponível em: <https://www.ibge.gov.br/cidades-e-estados/sp/sorocaba.html>. Acesso em: 01 out. 2023.
- LIMA, A. C. da S.; MENDES, S. B. **Desmitificando os morcegos: uma análise da percepção de discentes do Ensino Fundamental II e práticas de Educação Ambiental.** Revista Brasileira de Educação Ambiental, [S. l.], v. 17, n. 6, p. 458–477, 2022.
- MELLO, K. D.; PETRI, L.; LEITE, E. C.; TOPPA, R. H. **Cenários ambientais para o ordenamento territorial de áreas de preservação permanente no município de Sorocaba, SP.** Revista Árvore, 38, 309-317, 2014.
- MENDONÇA, L. B.; LOPES, E. V.; ANJOS, L. **On the possible extinction of Bird species in the Upper Paraná River floodplain.** Brazil. Braz. J. Biol. São Carlos, v. 69, n. 2, Jun. 2009.
- VILELA, D.; TEIXEIRA C.; HORTA C.; LOURA G, MIRANDA DA SILVA, M. **Gestão de conflitos com animais silvestres em centros urbanos.** Informe técnico, grupo Especial de Defesa da Fauna (GEDEF), Belo Horizonte. 2016.