Since the beginning of the Environmental Education Program of the São Paulo Zoo, in 2002, it was noted the need to cover a very special audience: teachers. No one has greater importance in the construction of knowledge and educational background of a person than these professionals. In this sense, this paper aims to present a special Teacher Training Program of the São Paulo Zoo called ZooEscola, highlighting its characteristics, perceptions of the participants and particularly of the 2014 program. Also, we present guidelines that can support and inspire other environmental educators to develop their own programs, to strengthen the interaction between formal and non-formal educational institutions and increase the contribution of zoos in transforming attitudes towards environmental issues.

1. The ZooEscola Program and the conservation of the Atlantic Forest

The Atlantic Forest, considered one of the richest areas in biodiversity and most threatened on the planet, currently covering an area that represents only 8.5% of its original formation. Nowadays, the few existent areas of Atlantic Forest in Brazil are highly fragmented. One of these fragments is the Fontes do Ipiranga State Park (Figure 1), a protected area that has approximately 5.25 Km², located at São Paulo City in an urban area with high population density (Fernandes et al., 2002).

Since the São Paulo Zoo is placed into the Fontes do Ipiranga State Park, this institution plays an important role in the conservation of this area and also of this biome. Aware of this responsibility and from previous experience in teacher training projects, the São Paulo Zoo initiated in 2011 the Teacher Training Program “ZooEscola: The Atlantic Forest as a Teaching Tool” (Roberti et al., 2012), which has a partnership with the São Paulo City Department of Education to reach all teachers of municipal schools interested in participating.

Held over a year, the ZooEscola Program basically consists of four steps: theoretical and practical course for teachers; a tour with the students to the São Paulo Zoo with emphasis in the Atlantic Forest; the development of educative projects in schools; and the presentation of the projects and their results at the end of the year to other teachers and staff involved, for evaluation and selection of the most relevant ones (Figure 2).

Since its inception, the ZooEscola Program has trained about 200 teachers, assisted more than 6,000...
students in guided tours and contributed to the development of approximately 80 environmental projects in schools.

At each edition of the program it becomes more and more obvious its contribution is to make the learning process more dynamic and meaningful, encouraging reflection and the construction of environmental values for educators and students.


In the 2014 edition, in addition to addressing the Atlantic Forest, the ZooEscola Program brought for discussion a vital important subject to all living things: water. According to the situation currently experienced by Brazil, especially in the Southeast region of the country and in São Paulo city, which alert not only to the imminence of a water collapse, but also a crisis of values, it becomes increasingly clear that the development at any cost will make life unbearable in the world. Therefore, it is essential to address this issue in the classroom to stimulate students in having a critical view and attitudes of respect and community towards causes that favor all and consider the balance between the three pillars on which sustainability is based: economic, social and environmental.

Thus, the environmental projects developed at schools should address the conservation of the Atlantic Forest and the water theme. To make this possible, we provided teachers the necessary knowledge on the subjects during the theoretical and practical course and, for the students, a guided tour with emphasis on the Atlantic Forest, native fauna and processes that involve the use of water at the São Paulo Zoo, in order to bring suggestions for actions that could be applied to overcome the water crisis experienced by the population.

In Figure 3 (below) you can see the route taken during the guided tours with the students at the São Paulo Zoo, involving animals, contents and spaces related to the Atlantic Forest and the water theme.

3. Methodological approach

To understand the educational process in the ZooEscola Program 2014 and especially the teacher perception, theoretical and methodological frameworks of research in environmental education that could subsidize the reflection and the improvement of the educational activities developed were considered. In order to analyze each step of this Teacher Training Program, we used data collection instruments in a qualitative research approach (Denzin et al., 2005).
and in a critical environmental education perspective (Carvalho, 2001; 2004; Guimarães, 2004; Layrargues, 2004; Loureiro, 2004; Sorrentino, 1999).

Therefore, after the theoretical and practical course for teachers and at the end of the year, we applied an open questionnaire to the participants to understand whether the ZooEscola Program’s objectives were achieved through the proposed steps. In addition, we also asked about the characteristics of the projects developed at schools.

4. Perceptions of the participating teachers about the ZooEscola Program 2014 edition

In 2014, 37 teachers participated in the program, about 1000 students aged 4 to 15 years were involved, and 14 educative projects were developed at schools.

Among the participating teachers, only 16 responded to the questionnaire at the end of the program. They all reported that the ZooEscola Program fulfilled its objectives mentioning that, after their participation, they acquired knowledge concerning the topics addressed, which many of them didn’t have enough information about. In addition, teachers reported that the program provided a greater incentive to carry out environmental education projects at schools and provided an improvement in their teaching practices, helping them to include the subject in the school curriculum and encouraging the seek for improvement.

Regarding the benefits for students, teachers reported that the ZooEscola Program was a great source of knowledge and helped in the awakening of values in the children, providing an experience considered extremely important for these educators. Below is the perception of some teachers (Figure 4).

In the tables (Figure 5) we can see characteristics of some projects developed during the ZooEscola - 2014 edition

6. Guidelines for elaborating a Teacher Training Program in Zoos

From the experience developed in the ZooEscola Teacher Training Program, we highlight below a set of guidelines that can inspire educators from other institutions to develop their own teacher training programs, strengthening the rapprochement between zoos and schools.

• Establish a partnership with the agency responsible for formal education of your city or region covered by the project;

• Design a schedule considering the entire project, which will facilitate the organization of the infrastructure and the necessary services, as well as guarantee the availability of the team involved at each stage;

• Develop a theoretical and practical programming that includes the participation of different professionals, not limited only to environmental educators;

• Use topics that can be worked with any age group, increasing the participation of teachers;

• Think about the factors that possibly influence the participation of teachers in the project, considering them in the planning;

• Provide educational materials to support the participants, covering all that was addressed throughout the theoretical course and has other relevant sources for reference;

• Provide the necessary guidance to teachers for the development of environmental projects in their schools;

• Establish a standard for the presentation of the developed projects and criteria to evaluate them;

• Disseminate the achieved results by the end of the year, not forgetting also to share them with all employees of your institution.
7. Final considerations

Environmental education is in fact a field of knowledge that contributes to building a more just and environmentally sustainable society, and has a main characteristic being a continuous process of formation of values and attitudes towards the environment.

The ZooEscola Program clearly demonstrates these aspects when it contributes to the reflection and civic education of the participants in a process that in principle takes only a year, but may be the initial stimulus for continued work in the schools, with the potential to reach teachers, students and, through them, the whole community.

8. References


