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Geep GLOBAL ENVIRONMENTAL EDUCATION PARTNERSHIP

Sharing ideas to create a more just and sustainable future through the power of environmental education

CASE STUDY

Zoos Victoria

Education for Conservation

Victoria, Australia

CONTRIBUTORS

[Ben Liu, Zoos Victoria](#)
[Alan Reid, Monash University](#)

GEEP is a partnership of the U.S. Environmental Protection Agency, the Environmental Protection Administration of Taiwan, and the North American Association for Environmental Education.



Zoos Victoria – Education for Conservation



GOALS KEY

[United Nations Sustainable Development Goals](#) addressed

Overview

This case study explores how zoos might redevelop their education strategies to address 21st century conservation priorities while incorporating current best practices in education.

In 2015, [Zoos Victoria](#) launched **Education for Conservation** across its three properties: Melbourne Zoo, Healesville Sanctuary, and Werribee Open Range Zoo. *Education for Conservation* was designed to develop independent learners who demonstrate positive environmental values and take action to protect wildlife and wild places. Implementing the program has required the redesign of full-day informal learning experiences onsite at Zoos Victoria properties, as well as the addition of formal learning opportunities offsite at schools.

This case study illustrates how:

- It became essential to align conservation and education priorities at the organizational level
- Program improvements involved re-imagining the role of the educator
- Through the redesign of a well-established program, participants ultimately embraced change
- Continuous improvement became a necessary mindset; a comprehensive evaluation model remains crucial



Photo: Julie Renouf

Photo: Amie Hindson



Tasmanian Devil

Photo: Raelene Hobbs.



Spotted Tree Frog

Photo: Zoos Victoria



Alpine She-oak Skink

Photo by Rick Hammond



Regent Honeyeater

Background

Over 40 years ago, Zoos Victoria designed an education model that consisted of up to 20 school classes rotating through a specially designated area of the zoo, affectionately known as the Zoo School. A key feature of this approach was the delivery of 45-minute scripted lessons focusing on key science curriculum areas. While this model positioned Zoos Victoria as a leader of zoo-based education at the time, and served Zoos Victoria well for many years, it did not address the zoo's wildlife conservation mission. Further, the scripted lesson approach no longer represented best practice in education. To address these shortcomings, and to halt recent declines in student visitation, Zoos Victoria redesigned their education model in 2014. The new model ensured that all programs educate and enable students to undertake actions that positively impact wildlife locally and internationally.

Prior to the implementation of *Education for Conservation*, Zoos Victoria's education programs traditionally focused on iconic species, with the key outcomes of raising awareness, increasing understanding, and helping students act with hope. With the move to align *Education for Conservation* to the conservation work of Zoos Victoria, education programs are now more centrally focused on 21 locally endangered species that Zoos Victoria is working to protect.

The educational offerings at Zoos Victoria now align directly with the wildlife conservation work of Zoos Victoria's wildlife science team, bringing the biological and educational streams of the zoo together under the banner of *Education for Conservation*.



Approach

The *Education for Conservation* model is driven by five key themes: conservation, pedagogy, unique opportunities, curriculum, and capacity. For conservation, all programs engage schools with one or more of Zoos Victoria's conservation campaigns. For pedagogy, onsite programs are challenge-based and promote the values of inquiry-based learning. For unique opportunities, schools explore the whole zoo property and engage in numerous animal encounters that are unique to Zoos Victoria. For curriculum, programs link to learning outcomes specified in the Victorian Curriculum and promote the application of higher-level learning (e.g., analysis and evaluation of knowledge). Finally, for capacity, programs are designed to broaden Zoos Victoria's reach, including by increasing visitation and offering professional learning opportunities for educators.

These themes are brought together in activities that foster transformative student experiences both onsite at Zoos Victoria properties, and offsite through opportunities to join the [Fighting Extinction Schools](#) community.

Onsite experiences: 1000 students = 1000 different journeys. Empowering students is a key feature of *Education for Conservation*, and is embedded in the design of the student experience at Zoos Victoria. Over the course of a day's visit, students are invited to explore all parts of Zoos Victoria's properties through purposeful, challenge-based learning that aims to inspire independence, curiosity, and problem-solving. Upon arrival, students are greeted by an educator who poses a key challenge question, providing a lens for students' full-day zoo experience. Students then explore a range of specially-designed animal, specialist, and interactive exhibits to collect evidence and formulate ideas related to the initial challenge question. As the day draws to a close, students reconvene to share, reflect on, and compare findings. Educators guide students to consider conservation actions that support the wildlife conservation issues arising from the day.

Offsite experiences: Connection, collaboration and celebration. Experience over time has demonstrated that single-day zoo encounters have limited learning and conservation impact. Therefore *Education for Conservation* encompasses more than the single-day onsite visits described above. Students, teachers, and schools are now supported by increased access to Zoos Victoria's expert knowledge and support before and after their visits. These include a suite of digital resources, a teacher membership program, web conferences, and the opportunity to join the growing Zoos Victoria Fighting Extinction Schools Community.

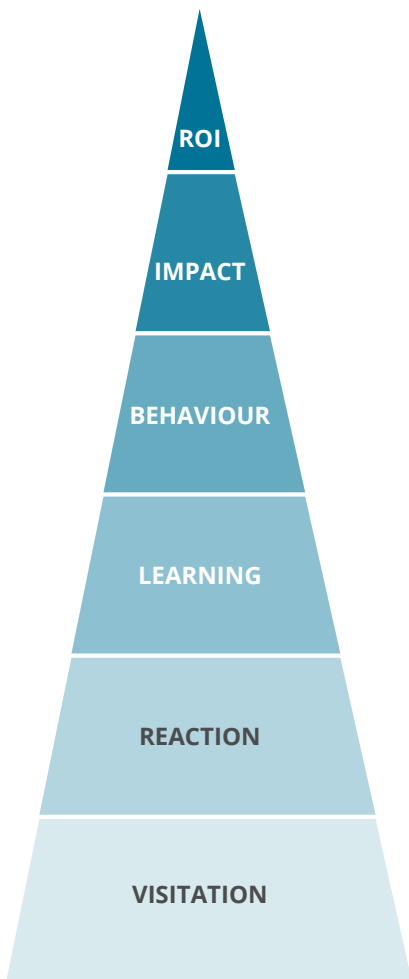
Evaluation Plan

Zoos Victoria is committed to documenting and investigating evidence of the educational impacts of *Education for Conservation*. This commitment represents a step forward from previous evaluation priorities, which were typically satisfaction surveys with very little investigation into short- or long-term outcomes. The hallmarks of the *Education for Conservation* evaluation model are:

- A requirement of long-term evaluation planning
- Strategic partnership development with research and evaluation partners

These combine with a commitment to building capacity among the Zoos Victoria education teams to evaluate programs, both within the team and with partners.

Education for Conservation is viewed as a strong avenue towards achieving the conservation goals of Zoos Victoria. Zoos Victoria defines Community Conservation as conservation driven by our community. The [Community Conservation Master Plan 2015-20](#) outlines Zoos Victoria’s commitment to inspire citizens to take positive action for wildlife through conservation messaging and actions, education, and evaluation. To avoid the recent criticism of zoos in failing to demonstrate evidence of the impact of their education efforts, it is important that Zoos Victoria explores all options to measure *Education for Conservation’s* impacts, both for participants and for wildlife conservation.



EVALUATION PRIORITY	KEY EDUCATION TEAM ACTIVITIES	REPORTING FREQUENCIES
Return on Investment		
Analysing and prioritising costs, benefits, contexts and alternatives of the model	Applying the ZV Education ROI Prioritisation Protocol	Annually + Triennially
Community Impact		
Assessing the model’s impact on changing whole school and community behaviour	Longitudinal study, with the support of a research partner	Annually
Behaviour Change		
Tracing changes in behaviour and practices of participants following an EfC experience	Suite of research and development projects with research partner	Quarterly
Learning Outcomes		
Identifying changes in knowledge, skills, and attitudes of EfC participants	Suite of research and development projects with evaluation partner	Quarterly
Program Satisfaction		
Using market segmentation analysis to benchmark EfC participant and staff satisfaction	Post-visit survey with qualitative and quantitative elements + educator focus groups	Monthly (summed survey) Annually (focus group)
Visitation		
Tracking key features of student visitation to ZV properties for an EfC experience	Reviewing data trends in central booking database	Monthly

Outcomes

Key outcomes after the first 18 months of implementing the new Education for Conservation model across Zoos Victoria include:

- **Increased staff motivation** – The motivation among zoo education staff fluctuated during the initial implementation of the new *Education for Conservation* model. Since then, staff motivation has increased and stabilized as elements of the new model have become more embedded within the strategy and operations of the zoo, and as Zoos Victoria has captured student conservation stories from the new model. Many educators now see their work as aligned more closely with their original intentions for becoming a conservation educator in the first place. They are also critically reflecting on their work using an evaluation, research, and development strategy that is shared and supported by the zoo’s leadership.



Photo: Sarah Summers

- **Education positioned as an investment in conservation** – The internal positioning of education as an investment in conservation has been one of the greatest outcomes of *Education for Conservation* for the organization, and as a model for other zoos and conservation organizations to consider. The strategic shift to align all education activities with the wildlife conservation work of Zoos Victoria has meant that capital outlay into education activities is now considered an investment in conservation, and can be evaluated in terms of a “return on investment” model. As a result of this repositioning, educators are able to focus on developing student and teacher programs that equally achieve conservation outcomes as well as increase school visitation.
- **The creation of a Conservation School Community** – By its nature, *Education for Conservation* has led to more schools undertaking actions that support the conservation priorities of Zoos Victoria. This has led to the development of a network of like-minded schools across the state known as the Fighting Extinction Schools community. More than 50% of the schools undertaking conservation action are doing so for one of the 21 locally endangered species that Zoos Victoria is working to protect.
- **Increased student visitation** – In order to extend its reach and impact in conservation, increasing student visitation was a priority for Zoos Victoria’s *Education for Conservation* model. In the initial 18 months of implementation, Zoos Victoria saw a modest increase in visitation of approximately five percent (5%).
- **Changes in student knowledge, attitudes, and behaviors** – Preliminary evidence from research and evaluation projects suggests positive changes in the pro-conservation attitudes and knowledge of participating students. To a lesser extent, this same research has also begun to indicate positive short-term changes in pro-conservation behaviors.

Lessons Learned

Key lessons learned from the first 18 months of *Education for Conservation* implementation include:

- **Schools and educators ultimately embraced change** – A fear in shifting to the *Education for Conservation* model was that schools, the families of students, and zoo educators would reject the new full-day conservation challenge-based model. The new model represented a major departure from the traditional 45-minute curriculum-focused sessions that Zoos Victoria had implemented for 40 years. Eighteen months into the implementation of the *Education for Conservation* model, with much consultation with educators and schools throughout the change process, Zoos Victoria has seen an increase in visitation levels. This increase has included independent follow-up visits by students and their families.

- **The role of zoo educators has changed** – The journey to *Education for Conservation* has demonstrated the need for zoo educators to extend upon their traditional classroom-based skills to incorporate full-day, challenge-based education experiences. For some educators, this has involved the concrete realization that learning does not always require students to be in front of an educator or teacher. It has demonstrated a positive shift in educators' roles as facilitators, and shown how the involvement of additional zoo staff and experiences can lead to equal, and at times improved, educational outcomes. This has been particularly evident when zoo educators work in partnership with school teachers before, during, and after students' onsite visits to Zoos Victoria properties.

- **Education programs should immerse students in the zoo experience and engage them with the zoo's conservation mission**

- Zoos Victoria offers a world-class zoo experience. The previous education model, being located in a specially designated school-only zone, tended to separate students from experiencing the wider zoo. As *Education for Conservation* has developed over time, it has become apparent that education needs to complement and enhance the wider zoo experience. That is, *Education for Conservation* provides an education lens through which students can critically engage with Zoos Victoria's mission and features.

- **Continuous improvement is a necessary mindset** – What *Education for Conservation* looks like today is different from what it will look like in the future. In the development of the *Education for Conservation* model, Zoos Victoria established a range of values and standards that educators strive to address when designing the onsite programs. In line with the continuous improvement practices across the organization, these values and standards will remain under continual review to further refine Zoos Victoria's practice and development of *Education for Conservation*.



Photo: Julie Renouf

The best part of our students' experience was being able to ask questions and encounter a range of animals as they wandered around Healesville Sanctuary.

—R. Waterworth, Derinya Primary School, Victoria, Australia

Resources

Online Strategic Documents

- Community Conservation Master Plan: <http://www.zoo.org.au/sites/default/files/ZVCommConsMPFinal.pdf>
- Wildlife Conservation Master Plan: http://www.zoo.org.au/sites/default/files/ZVConsPlan14-19_FA_1.pdf
- Education for Conservation Onsite Program Standards

Online Education Resources

- General Zoos Victoria Education Web Page: <http://www.zoo.org.au/education>
- Fighting Extinction School Community: <http://www.zoo.org.au/education/fighting-extinction-schools>
- Community Conservation Campaign Teacher Resources: <http://www.zoo.org.au/education/teacher-resources>

Fighting Extinction Schools:

- Eastern Barred Bandicoots released at Woodleigh School: https://www.youtube.com/watch?v=IHgvl2IKt_Q
- Bentleigh West Primary School Orangutan Celebration Day: <https://vimeo.com/172063323>

Contact:

Ben Liu, Learning Engagement Manager, Zoos Victoria
bliu@zoo.org.au

As part of our vision to be the world's leading zoo-based conservation organisation, Zoos Victoria is committed to fighting extinction locally and globally.



Photo: Zoos Victoria

