



Lifelong Learning through Nature

An education initiative that aims to connect young people with nature and instil values, knowledge and skills, to empower them to live in better balance with the environment now and in the future.



October 2016

partners and funding

Partners

Lifelong Learning through Nature is a collaborative project between five partners

- BirdLife Malta
- The Ministry for Education and Employment (Malta)
- RSPB – Royal Society for the Protection of Birds (UK)
- BirdWatch Ireland
- OTOP – Polish Society for the Protection of Birds



Funding and support

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educational resources and training

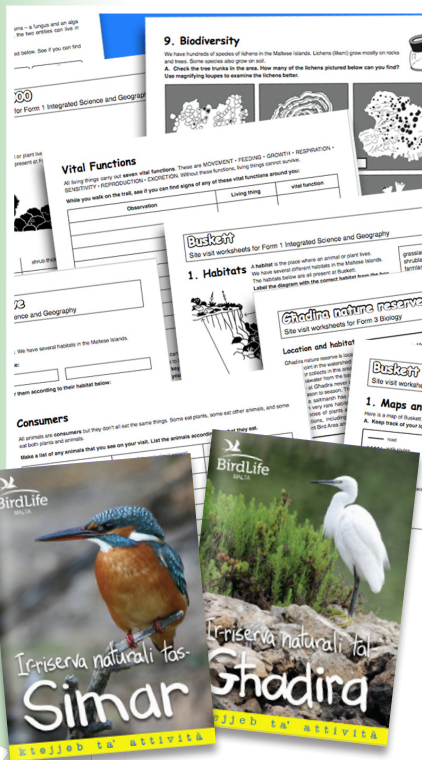
Formal education



Nature Days Activity Guide for Early Years

It is essential that young children get frequent and regular opportunities to explore and learn in the outdoor environment and this should not be seen as an optional extra. Learning outside the classroom supports the development of healthy and active lifestyles by offering children opportunities for physical activity, freedom and movement, and promoting a sense of well-being. Playing and learning outside also helps children to understand and respect nature, the environment and the interdependence of humans, animals, plants and lifecycles.

Lifelong Learning through Nature has created a Nature Days Activity Guide for Early Years and a Location Guide to show teachers suitable locations to take their class into the countryside. The approach for this resource is to provide simple, hands-on, sensory activities that can be delivered by the class teacher or kindergarten assistant.



Nature Watch field teaching resources

Field trips are recognised as important opportunities for learning; a shared social experience that provides the occasion for students to encounter and explore in an authentic setting. Their importance is supported by research which asserts field trips can deepen and enhance classroom study. A quality science curriculum is one that extends beyond the walls of the classroom.

Lifelong Learning through Nature has created Nature Watch field teaching worksheets for Year 3 to Form 5 linked to Social Studies, Science, Integrated Science and Biology. To extend the learning to the students' families, a take home resource was also created which has the objective to get families outdoors and to learn in the natural environment.



Gonna Dinja Wahda

Regular outdoor learning is necessary to build a connection with nature; therefore it is important that activities can also take place in school grounds or local green space. Many schools in Malta do not currently have suitable school grounds to be used as a beneficial learning environment.

Lifelong Learning through Nature has developed resources to support schools to improve their school grounds within the structure of a whole school approach linked to education for sustainable development. In this way the schools will develop a new ethos for integrated learning, improve their environment, and increase the learning opportunities for the students.



MCAST Learning Objectives

Building an awareness of the natural environment and sustainable development within students of all subjects is very important as it is relevant to everyone no matter what subject they study or career path they chose.

Lifelong Learning through Nature, through collaboration with the Malta College of Arts Science and Technology, has developed two new Learning Objectives within Key Skills Science and Technology, one with Level 2 and one with Level 3. The outline structure for the how the content will be delivered will include a field teaching visit, an environmental project by the students, and an opportunity for the students to share their projects.



Teacher training

An essential part of the **Lifelong Learning through Nature** project is the delivery of teacher training to build the capacity of educators to have the knowledge, skills and confidence to deliver meaningful outdoor education.

informal education

In addition to formal education this project has also developed initiatives for non-formal and informal learning. To reach this audience further partnerships have been established between BirdLife Malta and The Scout Association of Malta and Malta Girl Guides.



Youth Leader Activity Guide

With children's access to nature and outdoor play at an all-time low, working with partner organisations, especially those involved in youth work, to provide access to such places and activities is a priority.

Lifelong Learning through Nature has created a Youth Leader Activity Guide which provides guidance on how to deliver a variety of environmental games that build a connection with nature. The Guide also provides details on how to develop and run a youth leader training to pass on this knowledge to others.



Youth leader training

Nature is an integral part of the scouting and guiding method.

Lifelong Learning through Nature will provide training and support to allow The Scout Association of Malta and Malta Girl Guides to increase the capacity of their leaders to better engage with their young people and support their development as individuals and as groups.

research summary



A Study of BirdLife Malta's Lifelong Learning Programme by Dr Mark C. Mifsud PhD CBiol. CEnv. CSci. (Sep 2016)

A summary about detachment from nature and the impact of Nature Watch reserve visits on Maltese youth. by **Dora B. Huszar**

The study summarised here is a result of cooperation between BirdLife Malta and the University of Malta, as part of *Lifelong learning through Nature* (LLN), an international collaboration partnership project between BirdLife Malta, the Ministry for Education and Employment (Malta), the Royal Society for the Protection of Birds (UK), BirdWatch Ireland and the Polish Society for the Protection of Birds, funded with support from the European Commission. LLN was designed to develop an environmental and sustainability education programme which engages young people aged 5–21 in Malta, through formal and informal education. One major goal of LLN is to provide documented evidence to show the importance of connection with nature, which can be used by international project partners to support implementation in their own and other European countries. This study aims to deliver such evidence by focusing on the attitude of Maltese youth towards nature and the impact of learning outdoors during reserve visits.

Background information

There is a growing number of research studies documenting the positive effects of spending time outdoors for mental and physical well-being. Learning outdoors is especially beneficial for children for a healthy development and for enhanced learning experience. Despite pointing to the fact that outdoor learning is extremely advantageous, most classes still take place between four walls. The Nature Watch visit is an opportunity for Maltese primary and secondary students to be and learn in natural settings. Considering that most children in Malta live in urbanised areas, for some this is a rare or even first-in-a-lifetime opportunity.

Dinja Waħda (One World) is BirdLife Malta's major educational initiative in its commitment to connect people with nature and to protect Maltese wildlife and habitats. Nature Watch is a half-day activity for school groups to visit one of BirdLife Malta's nature reserves and to learn from an experienced field teacher related to the school curriculum. In addition to being related to social studies or science, Nature Watch is also committed to helping schools deliver Education for Sustainable Development (ESD) which is a cross-curricular theme. Schools participating in Nature Watch earn Dinja Waħda points, and those who collect a certain number of points through Dinja Waħda activities are rewarded each scholastic year for their efforts.

About the study

This document is a summary of a detailed qualitative and quantitative analysis of Maltese students' attitude toward nature and their experiences during Nature Watch. The motivation and experiences of teachers who visited the reserve with the students are also included. The present study also serves as a tool to improve Nature Watch through feedback received from students and teachers across different year groups. The study used a mixed method of focus groups and questionnaires during one scholastic year.

The study

1. Qualitative study

Methods

Focus groups aim to engage groups of students to discuss a topic among themselves with minimal

interference from an adult. Students in primary and secondary schools were interviewed by a researcher in groups of seven to ten before and after the Nature Watch. The pre- and post-visit discussions were repeated with the same students. In total 12 focus groups were conducted, half of which were pre-visit and the other half post-visit focus groups. The purpose of the pre-visits was to study detachment from nature, and of the post-visits was to study if there has been an improvement in knowledge and attitude.

The focus groups collected qualitative data through general questions about the Maltese environment and about the Nature Watch experience. Students were allowed to frame their own answers. Such questions were asked:

- *What do you think are the causes of environmental problems?*
- *From where do you learn about the environment?*
- *Did you learn anything from the outing?*

Selected results

What the study found is that Maltese children are very detached from nature, except a few whose parents work on farms. Detachment is a problem for several reasons: first, children miss out on all the benefits of being close to nature. Second, if youth don't know the importance of having nature, they won't care to protect it through personal actions. In line with that, the individuals asked could not think of possible ways to protect nature other than recycling and avoiding littering. When discussing the Maltese environment, students accepted that most natural habitats disappear and blamed politicians and people for their carelessness and interest in constructing ever more roads and buildings for profit:

- *We have a lot of buildings, Malta is small and nature is being destroyed.*
- *They [politicians] mostly want and love buildings mainly because of the money.*
- *People are not interested anymore in the environment. They pick flowers and destroy trees, they do not care. Thanks to them all of*

The individuals could not think of possible ways to protect nature other than recycling and avoiding littering.

Malta will eventually be covered with buildings.



Students further blamed politicians for not investing in protecting the environment and for not listening to what citizens want. In one student's neighbourhood trees got chopped down even though the locals tried to stop it. *"Before we had lots of trees where I live. Now they removed everything to make way for swings. We told them not to but they still did it."* These point to the fact that children don't feel empowered both because of lack of knowledge and because it is easier to point fingers than to take action. This is unfortunate and the opposite of what Education for Sustainable Development thrives for: what society needs is active citizens who feel empowered to lead and make a change happen for a more sustainable future.

Children could identify environmental problems such as littering, overpopulation, destruction of natural habitats and air pollution. The study found that they learn about these environmental issues at school but also experience them through their lives. Children trust information coming from their teachers more than hearing or seeing it on television or the Internet: *"If the information is coming from a teacher it is definitely true. On TV it is different. They lie a little bit on TV."* In terms of acquiring knowledge, the Internet is not utilised as it is mostly used for entertainment, e.g. playing games.

Children are aware of the bad infrastructure in Malta and don't like to use public transport because of its slowness and unreliability. This unfortunately creates a vicious circle that is difficult to escape: although students were well aware of the polluting effects of cars (*"Traffic is a big problem in Malta"*, *"Too many people using cars"*), even identifying it as a main environmental issue after overpopulation, they all wanted to buy a car as soon as they turn 18: *"Better drive a car."*

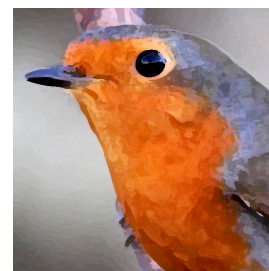
Children were also asked questions about their experiences after Nature Watch. The vast

majority of students enjoyed the outing, had words of praise for the organisers and loved the idea of being closer to nature: *“The environment was beautiful and you could breathe fresh air”*. They were impressed that there was nature and greenery in Malta. Some students spoke about their impactful experience with their parents and they plan to return to the reserve with them. Most importantly, after the visit students showed increased understanding of a number of biological and environmental concepts including biodiversity and soil erosion. Changes in value systems were also perceptible:

- *I really understood soil erosion – before Foresta 2000 started there were a lot of cars and no trees and the soil used to be lost. Now because of all of the trees the soil is staying in place.*
- *A lot of people do not appreciate nature; they do not understand that we cannot live without it.*
- *If I have children I want them to grow in natural surroundings not in buildings and technology.*
- *I have to give more care to the environment especially to places like Is-Simar that help these birds come here as otherwise there are too much buildings.*

The motivating factors are either intrinsic, academic or to develop values.

of 57) which is in line with the female-biased ratio among Maltese teachers. Samples were obtained from Malta’s three regions (south, central and north) and from Gozo, with most who participated living in the south and central regions.



Selected results

Both students and teachers reported a very positive experience of Nature Watch. On closer analyses, the experience was slightly but consistently more positive for primary schools than for secondary schools both in case of students and teachers. Primary school teachers reported more benefit gained both for themselves and for the students than secondary ones, and younger students were more engaged than the older ones both in primary and secondary schools. Students and teachers enjoyed the visit in general, found it interesting and thought that the teachers on site were good.

2. Quantitative study

Methods

Questionnaires were handed out after the Nature Watch visit to both students and teachers to answer questions about social and demographic background (e.g. *Where do you live? How old are you?*), about the experience in the reserve (e.g. *What did you like most about the Nature Watch reserve visit?*) and general questions about environmental knowledge, e.g. about possible sources of environmental information.

Data collection was based on random sampling within each year groups. In total 562 student (329 primary, 233 secondary) and 57 teacher (40 primary, 17 secondary) questionnaires were analysed. Participating students were between 7 and 16 years old, equally divided between girls and boys. Teachers were between 20 and 59 years old, with a great majority of them female (50 out

For the students (both primary and secondary) the main motivation to take part in the visit was to increase knowledge and that they care about the environment. For teachers the main motivation for themselves was to increase knowledge, the curricular links, to increase environmental values and nature conservation. The motivation of teachers for their students was again to increase knowledge, the curricular links, to increase environmental values but also to do outdoor activities. From these, we can see that the motivating factors are either intrinsic, academic, or to develop values. Extrinsic motivation such as earning Dinja Wahda points didn’t seem to be so important.

Similarly to what the focus groups found, for students the majority of information about the environment comes from school, the Internet, but also from the Nature Watch. Other sources, such as books, television and billboards didn’t seem to have much influence. With teachers, the major

source of information was the Internet, followed by books, the Nature Watch visit and school.

The questionnaires also asked open-ended questions from the teachers about the main strengths and weaknesses of Nature Watch and how to improve the visits. These qualitative data gave further insights into how to improve Nature Watch to better fit the schools' needs. The main strengths the teachers reported were: good hands-on experience, the exploration, observation and interaction components of activities and the knowledgeable and professional field teachers on site. The importance that students actively interacted with both each other and with nature instead of inactively observing was highlighted in the responses. No surprise then that many teachers suggested that there should be higher quantity of and more variable activities and that they should be less fast paced so students can do more hands-on learning, especially for the secondary school visits. Some teachers even wished that the visits would spread over a couple of days instead of only one day. Some complained that the explanation took too long time and that there were not enough binoculars for every individual student and that the observation windows were rather high for the young students. Keeping the groups small so students can hear the field teachers better and receive more attention was also pointed out.

Nature Watch increased environmental awareness and knowledge among the students.

Conclusion

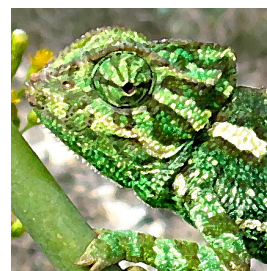
The present study is a very important step for BirdLife Malta to assess the success of its education work. There was a great deal of positive feedback from both students and teachers, and the Nature Watch reserve visit was shown to be impactful for them. The weaknesses reported are already under consideration; while some improvements can be easily implemented, others, like for example a multi-day nature experience is difficult, due to lack of resources and facilities.

Seeing that there is a need for more outdoor learning in Malta is very positive. As this study confirms, students need to improve their

knowledge about their local environment and about global conservation and developmental problems in general. ESD describes the practice of using education as an essential tool for sustainability. With this study we aimed to show that outdoor learning needs to be part of ESD: Nature Watch increased environmental awareness and knowledge among the students and we hope that their enthusiasm will also affect their parents, as some students already reported. The very strong detachment from nature in Malta has to be addressed in order to empower the younger generation with the right knowledge and attitude to cope with the environmental problems the planet is facing. This study found that schools have a major responsibility in this

process as students trust and gain most of their environmental knowledge from school teachers. Thus regular Nature Watch visits that link the relevant knowledge to the curriculum is very important for ESD in Malta.

This study will hopefully be very useful for the partners involved in the LLN programme and will inspire research and improvement in the participating countries wishing to strengthen their education programme for sustainable development.



feedback from teachers



“The guide made students aware of things they usually overlook.”

“It was a very satisfactory activity, both teachers and students loved it.”

“Such an experience only once a year is too limited.”

“The experience leaves a positive impact both on teachers and students”.

“Pupils like such visits because they offer something totally different than the tablets/ laptops and virtual gadgets that are totally dominating their lives”

“Keep up the good work!”

“It was a very interesting outing.”

“The information was useful and interesting and the students enjoyed themselves.”

“We appreciate the time you dedicate to our girls. The field teacher helps the students not only to understand but also to love the environment. ”

“Teachers accompanying us are very well prepared.”

“Very informative and interesting”

“It was absolutely fantastic.”

“The Nature Watch reserve visit was very interesting and it increased my knowledge about birds, plants and insects.”

“Excellent guide, good explanations, interesting environment.”

“Students did not just observe nature but they interacted with it and this helped them to reduce their fears of certain insects, since they understood that they won't harm them.”

“It helps students to see in practice what they learn at school.”

“The visit was beyond satisfactory.”

“Observing certain things such as litter, the students felt sorry and triggered in them the sense of responsibility towards nature, so much so, that during the visit some students were cleaning up and picking up litter”

“The visit focused on both material related to syllabus and the impact of the students' life on the environment.”

“I have attended twice and both years children and I have enjoyed the visit. Keep it up!”

feedback from students



"I learned many things about the environment." (15 yrs)

"I liked everything." (9 yrs)

"There was a lot to learn about the environment and there was a good guide to tell us everything and show us where things are." (15 yrs)

"It was all amazing!" (9 yrs)

"It was very informative and I truly learnt about the different species and habitats one can find in Buskett. ... It cultivated a real appreciation for the flora and fauna in Buskett as well as the various habitats." (15 yrs)

"I liked that the things we learned were not abstract, like at school. And we could visually see what we were learning." (11 yrs)

"I didn't know there was so much life in just a small plant." (13 yrs)

"The guide gave us valuable information that we could use in our work and nature break." (14 yrs)

"We got to be exposed more physically to the biological environment." (14 yrs)

"The trees I usually see as the same, now I can see the difference between them." (15 yrs)

"I would like these outings to be more frequent." (14 yrs)

"I liked that I learned new information and the small incredible things." (11 yrs)

"An opportunity to experience biology in real life." (14 yrs)

"It increased my knowledge a lot. I can now apply some things I have learnt in everyday life and care for the environment." (15 yrs)

"It was fun and adventurous." (15 yrs)

"I learned about Malta's ecosystem." (15 yrs)

"What I liked most was the diverse area of nature and woodland." (14 yrs)

"I felt that this Nature Watch reserve visit was very interesting ... we got to learn many facts about different types of trees and shrubs ... we also managed to see many types of insects and birds... I felt that this visit was very informative and educational. Therefore whoever goes has a chance to learn more about the environment and how we should protect and conserve it." (14 yrs)

"It was really interesting, I really learnt from this outing and I also enjoyed it very much." (11 yrs)

"You learn a lot about nature." (14 yrs)

"The Nature Watch reserve visit was very interesting. I feel I've learnt a lot from the visit especially because our guide gave us a lot of information. I now appreciate the environment more and know much more about nature." (14 yrs)

"I liked it and I would like to visit again." (12 yrs)

