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# INTERNATIONAL ROCHA

Conservation and Hope



## ENVIRONMENTAL EDUCATION

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Editorial

Welcome to the 62nd edition of our international newsletter – this one on the theme of environmental education. The following pages give a glimpse of how we are working to inspire wonder and joy by connecting people of all ages and from a variety of backgrounds with nature.

Each year, over 26,000 people take part in our activities and learn, through hands-on experience and practical teaching, how ecosystems work. Our teams, based across 20 different countries, have carefully designed their education programmes to reflect each local context.

Some examples of this customized approach are set out in the following pages. There is an account of our work with young people to protect the tropical, dry deciduous forests of India; stories showing how children are experiencing the wonders of the created world at summer camps in the USA and Sweden; and examples from colleagues in the Czech Republic, Portugal and France of their work with various groups, including students and tourists to manage precious wetlands.

You will also read about our work to equip farmers in Nigeria with new organic agricultural methods, how ancient traditions have inspired our education work in Ghana, and how we can all responsibly and sustainably address our use of plastic.

I hope you enjoy finding out a little more about our work. Thank you, as ever, for your support.

Sarah Cosgrove, Editor

## IMPORTANT NOTE FOR EXISTING SUPPORTERS

On 25 May 2018, new data protection regulations come into effect across the EU. We welcome them as a way to ensure you have more control over the communications you receive from charities like A Rocha International. This means we need your permission to continue sharing our stories with you.

Please opt in at [arocha.org/sign-up](http://arocha.org/sign-up) if you don't, we won't be able to maintain contact with you.

# 27 years of inspiring communities

'It dawned on us recently that the teachers bringing their classes to our centre were themselves previous students of our first educational activities!', smiles Isabel (Bébé) Soares, A Rocha Portugal's Education Programme Coordinator.

Working with schools since 1991, A Rocha Portugal has the longest established environmental education programme in the A Rocha family. Isabel continues, 'In 27 years, thousands of people, of all ages, from many different backgrounds, have visited our Cruzinha centre.'

In addition to schools and educational communities, tourists and local residents also enjoy the activities. 'The groups play such an important role both in our conservation work and the fight for the preservation of Ria de Alvor estuary, a Natura 2000 site,' says Isabel. 'Keeping these local groups informed and aware of the paramount importance and natural wealth of our endangered biodiversity, and the very real possibility that it might be irreparably damaged if urban developments should prevail, is a major priority in our work.'

Isabel recognizes that changing people's behaviour towards the environment is hard, but it does happen. She explains, 'Last year, an older, local man was convicted of capturing birds, which is a criminal act under Portuguese law. He was sentenced to community service and came to us to learn why birds should be left in the wild. A morning spent bird ringing, having good conversations and releasing some birds was all he needed to understand the importance of letting nature stay free.'

This shows how our work to restore communities and ecosystems, combined with our Christian faith and beliefs, has very tangible effects on people's choices and their environmental actions.'

Bébé (in checked shirt) leads secondary school students on a bird walk to the Alvor estuary. (A Rocha Portugal)





# Working with exceptional people

Nicola leads a visitor from Hamilton's Stinson neighbourhood into the wild at Cedar Haven Farm. (A Rocha Canada)



Children from Operation Wild return from an exploratory hike (A Rocha Canada)

People with disabilities are often socially isolated or marginalized. They can yearn to experience the wonder of the wild – seeing wildlife in natural settings, breathing fresh air and participating in growing and harvesting vegetables.

‘These are therapeutic activities that all help to build a sense of connection to the land and other people’, says Luke Wilson, Ontario Director of A Rocha Canada. ‘Everyone needs to be in places that don’t constrain or restrict their sense of space.’



Operation Wild is an A Rocha Canada environmental education project run at Cedar Haven Farm in Freelon, Ontario that seeks to build community connections with nature. Over the past two years, Cedar Haven has hosted 150 people with disabilities and limited ability to access wild spaces. A \$300,000 gift from the Ontario Trillium Foundation will be used to grow this success over the next three years.

Described by a participant as ‘one of the best experiences of my life’, Operation Wild visitors are struck by the beauty of Cedar Haven Farm, the chance to breathe in fresh air, direct contact with creatures and exploration of the 100-acre property with its deciduous Carolinian forest. Luke adds, ‘We use nature therapy, environmental education and inspirational hands-on experiences to connect people with the natural world and each other. All these experiences form a basis for caring about conservation.’

# The fun of restoring wetlands

'During the Communist era, and since, there has been a terrible loss of small ponds and damp meadows,' writes Pavel Svetlik, who leads A Rocha Czech with his wife, Radka. 'The urgent need for wetland restoration is one of this country's biggest conservation challenges. On a small scale, we are doing what we can with our own land.'

Common Kingfisher *Alcedo atthis*.  
(A Rocha Czech)



Pond-dipping for tadpoles. (A Rocha Czech)



The A Rocha centre near Dobre was once a mill and the stream still runs underneath the building. From the front door you can hear the chuckle of the Golden Stream and the song of Dippers. Now the team has added two large and three small ponds. The major earth shifting was done by machine in summer 2016 but since then, the transformation of the field has been continued by volunteers of all ages.

The team is delighting in the joy of visiting youngsters who often respond to their wildlife encounters with heart, soul and mind. When one of the teenage boys found a deer fawn in the long grass, there was no sign of its mother. Some of the children spontaneously prayed that it would not be abandoned and were thrilled when they later saw mother and fawn together.



Fawn. (A Rocha Czech)

A Rocha Czech takes a hands-on, practical approach to environmental education and students learn through taking part in physical tasks. The young people also have tremendous fun, moving rocks, squelching through mud to clear out algae and wading in the shallows to plant iris, bur-reeds and water lilies. Radka says, 'We are excited by the sheer abundance of animals which have already found a home here. We counted ten species of dragonflies and damselflies this summer! Children have been pond-dipping for tadpoles and insect larvae, watching Kingfishers and following Otter tracks. They have learned how to find Fire Salamanders *Salamandra salamandra* (below) by turning over stones in the stream.'



## Sparking awareness to fight fire

Uncontrolled, man-made fires can be devastating for the flora and fauna of a tropical, dry deciduous forest. And so every year, Bannerghatta National Park staff clear over 100 kilometres of firebreaks to prevent the spread of fire during dry summer months.

'This year, we wanted to bring the local community together with the Forest Department to increase awareness of how to protect our forests and woodlands,' says Sagarika Phalke, Programme Officer with A Rocha India. 'Encouragingly, over 30 students from a local college got involved.'

# Working with farmers, church leaders and schools



Vineyard Academy students visit Eden's Rennajj Fish Farm site. (Eden Creation Care Initiative)

Eden Creation Care Initiative, A Rocha International's Associated Project in Nigeria, works with local schools, church leaders and farmers through the education programme and organic farming workshops held at the Rennajj Fish Farm, Eden's main conservation project.

An organic farming workshop was held in partnership with the French Embassy for 80 local farmers. For participant Juliana Moses Maisamari, the effect of the training was profound: 'My mind-set changed towards planting organically... I realized that chemical fertilizer had been killing my soil and crops. I have now planted beans without applying herbicides, and my crop does not look wilted as it did with herbicides.'

Pupils from Berom Community Secondary learning to use a pair of binoculars to birdwatch. (Eden Creation Care Initiative)

Spur-winged Lapwing *Vanellus spinosus*.



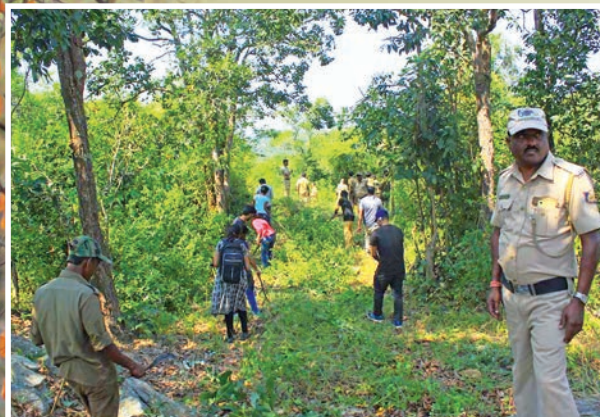
(Peter Harris)

Hosting scores of visits from schools, academies and colleges, and establishing conservation clubs in seven schools across Jos, Eden has developed an engaging programme to excite young people about the natural world. Chioma Immaculate, National Coordinator explains: 'We teach the children to use a pair of binoculars to bird watch. You only need to see the joy on their faces whenever they spot a beautiful bird!'

Eden's environmental education work was presented to a new audience on International Forest Day. A prime time evening television news show filmed a visit to the farm by young people, from nearby Gura Topp and Latiya, to learn about the importance of forests and energy.



'We conducted an education programme to equip the students with knowledge about forest fires, their impact on the ecology if not checked and measures taken to control them. The students were given hands-on training in creating and maintaining fire lines and worked alongside the forest department team.'



'With nature as their classroom, students experienced the forest first-hand, deepening their knowledge of the challenges facing protected areas in our country. We hope this will instil in them a responsibility to protect this beautiful forest.'

Above: Creating firebreaks. Left: Curbing fires is necessary to protect ecologically significant species such as the tiger. (Avinash Krishnan)



Southern Festoon butterfly  
*Zerynthia polyxena* (A Rocha France)

# Connecting young people with biodiversity



Fr. Kenny leads campers through an owl pellet dissection. (Bethany Winz)



A partnership for the Vallée des Baux  
 'For the past six years, A Rocha France has partnered with Les Alpilles high school of Saint-Rémy-de-Provence for the management and restoration of a privately owned wetland. The Etroit Marsh is only seven hectares, but is one of the last remaining wetlands in the Alpilles regional park. Here, a combination of springs, ponds, riparian forest and wet meadows host several rare and protected plants, birds, bats, dragonflies and butterflies, such as the beautiful Southern Festoon *Zerynthia polyxena*.

Every winter, a class of around 15 students helps us to manage the marsh by cutting down the grass, clearing invasive ash trees from the meadow and pruning the trees. The landowner brings in Camargue horses to eat the shoots from the stumps. This annual maintenance is necessary to preserve the habitat year after year.

The students return in the Spring to see the results of their hard work. Then, together with their teachers, we teach them about the link between human activities and biodiversity. This project helps them understand that they are able to have a positive impact on creation. The partnership extends further as, most years, one or two of these students decide to join us later for several weeks of internship!

Timothée Schwartz, les Tourades, Arocha France

## Wild Wonder

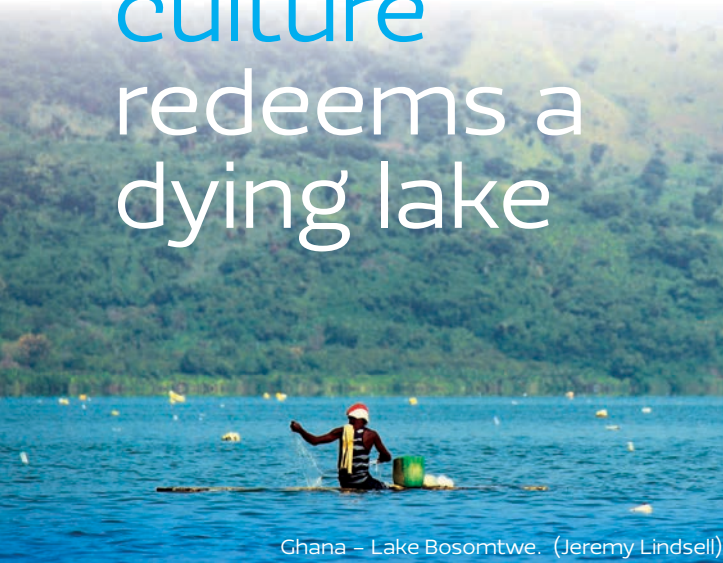
Creation Care Camp invites children to delight in God as creator, redeemer, and sustainer of all things by immersing them in the wonders of the created world.

The week is packed full of practical activities which include owl pellet dissection, learning bird calls and a water cohesion experiment to see how many drops of water can stick together on the surface of a penny. The children also shake branches of trees to find and identify insects, study the science behind the DNA of a strawberry and play games. Later in the week, they participate in art projects, and compete in a citizen scientist challenge. And each day they take a Nature Break – a time to be still in nature, to listen to the world and learn about the ways God speaks.

Flo Paris Oakes is Curriculum Manager and Wild Wonder Author for A Rocha USA. She believes fostering a love of local place is the first step towards action.

'Watching that excitement turn to joy and ultimately, to gratitude and praise of their creator is what camp is all about for me.'

# Indigenous culture redeems a dying lake



Ghana – Lake Bosomtwe. (Jeremy Lindsell)



The Akan people of Ghana have a deep connection to their natural environment. Prosper Kwame Antwi, Project Manager for A Rocha Ghana, writes: 'Our priorities were to teach school children about Lake Bosomtwe and to explore, with the whole community, the greater use of orchards and how these might protect land around the lake. The Akan culture is firmly rooted in land, water, animals and plants and so when we developed our education programme, we took our inspiration from the Akan traditions.'

Lake Bosomtwe is the largest natural lake in West Africa and a newly designated Biosphere Reserve. It is one of very few meteoritic lakes in the world and is the central focus of the programme.

Prosper adds: 'Our programme encourages the community to explore how the Akan people view their natural environment. Poetry, traditional dance, music and drama workshops are then held, all of which has been inspired by Lake Bosomtwe.'

- Over 150 garden tools have been distributed to schools
- More than 1,500 young people have contributed to the sustainable management of the lake
- Nearly 4,000 community members have been motivated to care for their local place
- 2,500 trees and fruits have been planted on 10 acres of shore zones

## Young leaders in Sweden raising funds and fun

Jacob Carlzon of 'Friends of A Rocha in Sweden' is a youth advisor with the Swedish Alliance Mission, which holds an annual year-end camp for young people. In December 2017, they chose to support A Rocha Kenya's Arabuko-Sokoke Schools and Eco-tourism Scheme (ASSETS). Jacob says, 'We had 400 young people from 13 to 17 years old. Our goal was €4,000 but they raised almost €5,000. They are amazing!'

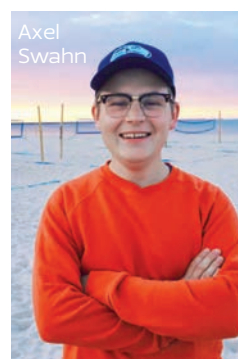


23-year-old Axel Swahn, a youth leader, devised a brilliant prize draw idea. 'My friend Josef and I persuaded camp leaders to sponsor items like ice hockey tickets and a chat with the players, a course on making chocolate candy, a home-cooked dinner, and a paintball game. We managed to raise €1,000 from selling tickets.'



17-year-old Alma Gunnarsson (second from left) took part in a beach clean-up during the camp. 'God gave us the mission to care for the earth. If we love God, then we are to love what God created. If we don't bother to think about how we consume just because it's inconvenient for us, then someone else ends up paying the price, going totally against loving our neighbours. It's crucial the Church teaches creation care to equip people to live in a just and loving way.'

Jacob will bring seven youth leaders and pastors to A Rocha Kenya in 2018, including Axel: 'I want to gain more knowledge about climate issues and learn things I can pass on. The younger generation is the most important audience, and I have the opportunity to teach them creation care at an early age.' (Photos: Jacob Carlzon)



Axel Swahn

Are you inspired?

Mobilize your community and fundraise for conservation. Write to [giving@arocha.org](mailto:giving@arocha.org)



# Living more wisely with microplastics

Green Turtle *Chelonia mydas* (Projeto Tamar Brazil/Marine Photobank)



'When a plastic bag floats away in the breeze,' says Dr Robert (Bob) Sluka, Lead Scientist of A Rocha International's Marine and Coastal Conservation Programme, 'it's easy to dismiss it as just one bag. But when this solitary bag enters the ocean, it becomes thousands of pieces of microplastic. The sun and salt shred it into tiny pieces which never completely go away. These microplastics are then eaten by marine animals and enter the food chain with unknown consequences. Minuscule fibres of acrylic, nylon, spandex, and polyester are shed each time we wash our clothes. These fibres are then carried off to wastewater treatment plants. Standard water treatment methods are not effective at removing these tiny fibres and so they can enter drinking water systems.'

It's not surprising, then, that plastic has become one of the most pressing issues of today.'

In response to the growing awareness of microplastics, A Rocha has developed a toolbox of resources explaining how we can responsibly and sustainably address the use of plastic.

Bob adds, 'I am excited that A Rocha's environmental education programme complements our efforts to conserve the marine environment. The creation of plastic has many beneficial uses, but some are harmful to ourselves and God's planet. With plastic pollution affecting many communities, if you are trying to love God and your neighbour, then I encourage you to learn about this issue.'

**Microplastics**  
- small fragments of plastic less than 5mm in size. We spread them on our faces, sit on them on our beaches, and are likely to drink them in our tap water.


**Microplastics** - download one of our factsheets in English, French, Spanish or Portuguese. [arocha.org/microplastics-toolbox](http://arocha.org/microplastics-toolbox)





We need your help to spread the message about the problem of marine plastics, provide resources to get involved and reduce its presence in the ocean.

**DONATE TODAY** at [bit.ly/marine-plastics](http://bit.ly/marine-plastics)



A Rocha International 89 Worship Street, London, EC2A 2BF.  
Tel: +44 (0)300 770 1346 E-mail: [international@arocha.org](mailto:international@arocha.org)  
Registered Charity No. 1136041 Company Registration No. 6852417

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