



# IN IT FOR THE LONG-TERM: RESEARCH

Most of our research, whether long or short-term, addresses our conservation priorities. Many factors can limit the value of time-bound studies, e.g. the complexity of ecosystems, changing weather patterns and natural population fluctuations. Some objectives cannot be achieved through short-term projects, but A Rocha's field study centres and field bases facilitate long-term research and monitoring when this is needed.

## Case study: Monitoring migrating raptors in southern Manitoba, Canada

For over twenty-five years, bird enthusiasts have visited Manitoba's scenic Pembina Valley to experience the amazing spring migration of hawks, eagles and falcons. Located in the centre of North America, the Pembina Valley is an important migration corridor for raptors as well as other birds. In 2005, A Rocha initiated a project to carry out standardized counts to better document this amazing migration. Our Pembina Valley Raptor Migration Project is citizen science driven, relying on volunteers to collect and report data.

The Pembina Valley has, on average, the highest spring count of Red-tailed Hawk *Buteo jamaicensis* in North America and of the sixteen diurnal raptors monitored at Pembina each spring, the Red-tail is by far the most abundant. Annual numbers vary, with the highest count exceeding 12,000 individuals. Bald Eagles *Haliaeetus leucocephalus* and Sharp-shinned Hawks *Accipiter striatus* are the second and third most abundant raptors passing through the valley.

Monitoring species at the top of the food chain, such as birds of prey, is one way to monitor ecosystem health. Long-term monitoring is also critical in assessing raptor population trends and species status. The Pembina Valley is one of over 200 raptor count sites in North America. Collectively, the data aids scientists in determining how raptor populations are faring. Ten years of data is required at a site before a detailed analysis is undertaken and so, with nine years of standardized monitoring completed, A Rocha is looking forward to completing its tenth year in 2014.

Paul Goossen, Volunteer Coordinator, Pembina Valley Raptor Migration Project.



(A Rocha Canada)



Watch the video (4 mins) *Raptors over the Pembina* at [www.arocha.ca/video](http://www.arocha.ca/video)

## Celebrating 30 years of community conservation



# A ROCHA

30 years caring for creation

**1983**  
Beginnings –  
and our name

Two families move from England to Portugal, to set up a Christian field study centre. A Portuguese name is chosen for the charity, meaning 'The Rock'.

**1986–1994**  
Foundations in  
Portugal

Community life and field studies increasingly involve local participation and the project comes under national leadership. Visitors from abroad seek help in starting community conservation projects in their own countries.

**1995–1999**  
Growth!

New projects begin: to protect a major wetland in Lebanon, coastal forests in Kenya, a marsh in Provence, salmon streams in British Columbia and, in the UK, to transform an inner city waste ground into a country park.

Weaver's Fritillary *Boloria dia* is a typical meadow butterfly at Bois de Chênes, but is now endangered in Switzerland, so A Rocha is monitoring the population trends for these dainty butterflies and other meadow invertebrates. (Steve Tanner)

Red-tailed Hawk  
(Peter Harris)



Four other examples of long-term research:

Portugal

Data gathered by capturing, weighing, measuring and ringing European Storm-petrels for twenty-three years has made it possible to examine links between climate change, oceanography, marine food-webs and the diet and migration strategies of these tiny seabirds.

France

Studies at the Ilon Marsh, since 1999, have led to management strategies which are benefiting birds, reptiles, amphibians, butterflies and dragonflies.

Lebanon

3,000 hours of field monitoring at more than 30 places, over three years (together with the Society for the Protection of Nature in Lebanon) led to the declaration of eleven new Important Bird Areas by BirdLife International and a huge new ornithological database.

Switzerland

A Rocha's conservation research at Bois de Chênes, Genolier, began with a bird inventory in 2008 and then, in 2009, a major biodiversity inventory of the dry meadows. These have enabled improved management of the reserve, with A Rocha volunteers regularly participating. The biodiversity inventory will be repeated every five years to evaluate the meadow management regime.



# IN IT FOR THE LONG-TERM: ENVIRONMENTAL EDUCATION

A Rocha's programmes encourage children and adults to enjoy, understand and care for the natural world. Each year we involve many thousands of people in hands-on, outdoor activities. Influencing attitudes and behaviour can take time. Success is often most apparent when research, conservation and education activities are interwoven, so that a community is actively involved in studying and protecting their local habitats which often provide them with essential natural resources.

Case study: Changing behaviour amongst Kenyan coastal communities

A Rocha Kenya's centre is adjacent to Arabuko-Sokoke Forest and Mida Creek, two of Africa's biodiversity hotspots threatened by illegal logging (mainly to pay secondary school fees), poaching and over-fishing. Poverty, and a lack of understanding of these important habitats by the local people, led A Rocha to establish a community conservation programme in 2001, called ASSETS.

## Key components:

- Secondary school bursaries for local, needy students: 139 students from 35 schools benefited in 2012
- Conservation education with the students and parents through wild-life clubs, camps and meetings
- The construction of a tree hide and boardwalk for tourists: income from fees helps to pay for the bursaries



Esther Dama Kahindi, Head Girl, Bogamachuko School  
'Whenever I can, I try to stop people from killing birds or wild animals from the forest, and in our community, people have now begun to give up that habit.' (Angela West)

A total of 478 students have now received bursaries and during the last twelve years, the attitude of the local communities has notably changed.

In 2006 the parents of ASSETS students formed their own association, Muvera wa ASSETS, (Muvera is Giriama for 'thanks'). They organise forest patrols to deter logging, destroy snares and plant native trees. They also alert the authorities if they suspect illegal activities.

ASSETS staff continue to teach about local conservation issues each time they visit beneficiary communities and also run special camps. In April they bring together students and their parents in cluster groups near their villages and in August they run two, three-day camp at the A Rocha centre, mainly for new ASSETS students.



ASSETS beneficiary Nickson Mwanjule  
'Stanley and Colin took us into the forest and taught us the names of the forest birds. I thought the birds were so beautiful and interesting, I decided then that I would like to become a birdwatcher, and be involved in the work of conserving them and their habitats.' (Angela West)

The change in attitudes is so notable that we hope destructive use of the forest and creek will be eliminated amongst the participating communities.



Three other examples of long-term environmental education:

### Brazil

A four-year partnership with Tearfund has enabled A Rocha to run workshops, designed to encourage environmental action, with 763 Christian leaders in N and NE Brazil. This network helped to mobilise the church to prayer and action around Rio +20.

### Czech Republic

Wildlife clubs, run by the team since 2002, have enabled enthusiastic youngsters to acquire knowledge and skills, so that some are now involved in ringing and monitoring birds or studying biological sciences at university.

### USA

Working with churches and volunteers, A Rocha has developed a four-year Nature Care Camp curriculum for 5-12 year-olds. Each summer, the curriculum builds on the previous year's experience to teach and engage students in an ever-deepening examination of their locality, how it functions and how to care for it.



Felling in the Arabuko-Sokoke Forest has been drastically reduced by establishing tree nurseries at schools. Here, at Bogamachuko School, parents of ASSETS students are watering seeds. The seedlings will be taken home and grown on family plots to provide timber for their own use, or be sold. (Angela West)

Primary school children in Nashville, Tennessee, learning about river life during an A Rocha Nature Care Camp. (A Rocha USA)



# IN IT FOR THE LONG-TERM: COMMUNITY CONSERVATION

Working over many years with a community has real benefits: it allows strong relationships to be built, especially important if historical events have caused mistrust of conservationists. A local team can gain understanding of the threats to important sites which may not be obvious to outsiders. Only a long-term commitment can make it possible to assess the lasting benefits – or failures – of interventions, and thus modify them over time.

## Case study: Protecting Asian Elephants in farming communities

Bannerghatta National Park is dry deciduous scrub forest, classic habitat for the Asian Elephant *Elephas maximus*. The park lies just outside Bangalore and the sprawling growth of the city is causing human–elephant conflict with casualties on both sides as elephants leave the forest to seek food in neighbouring farmland.

A Rocha India has been working in and around the park since 2004, in partnership with Karnataka State Forest Department and local communities. The involvement is characterised by patience and relationship-building, aided by careful science and environmental education.

The work was initiated by Dr Vijay Anand, who gathered a committed team including five full-time and 30 short-term volunteers, winning the trust of local villagers and wildlife officers. They oversaw an innovative and successful project which used ropes soaked in a brew of chilli and tobacco as a sensory barrier to keep elephants off crop fields at key times.

In addition, nature camps draw the attention of park-adjacent villages to the wealth and importance of the local wildlife, leading to the formation of eco-development groups. School children from the villages have taken part in a wildlife painting competition and volunteer forest watchers have benefited from health check-ups.

When Vijay died in late 2011, many wondered if A Rocha's work here would cease. However, A Rocha India's team, board, and volunteers are determined to carry on. Vijay's widow, Sunita, joined the Board and many others have put in extra effort. Vegetation studies are being conducted (as part of A Rocha International's Tropical Forests Conservation & Restoration Programme) seeking the long-term sustainability of the forest.

On average, a thousand people per year, mainly school and college students, have been educated about the wildlife in and around the park, with an emphasis on the issues surrounding human–elephant conflict.

2012 saw the publication of *Ecology, Conservation and Management of the Asian Elephant in Bannerghatta National Park, Southern India* – a compilation of the research findings of the 2004–2009 study, fittingly dedicated to Dr Anand's memory.

Dave Bookless, Director of Theology

Four other examples of long-term community conservation:

### Ghana

Since 2005, A Rocha has been working with rural communities depending unsustainably on local natural resources. By introducing training and support in alternative livelihoods (such as beekeeping, snail and fungi farming) they are helping them to manage their land to benefit wildlife as well as meeting their own long-term needs. Programmes pioneered in the north are now being adapted in the south.

### Netherlands

The Deventer A Rocha group has stepped in to care for a small but wildlife-rich reserve at De Slenk. It was run for 30 years by other volunteers who ran out of energy, but their good work in managing the woods and meadows for a growing diversity of butterfly species will now continue.

### New Zealand/ Aotearoa

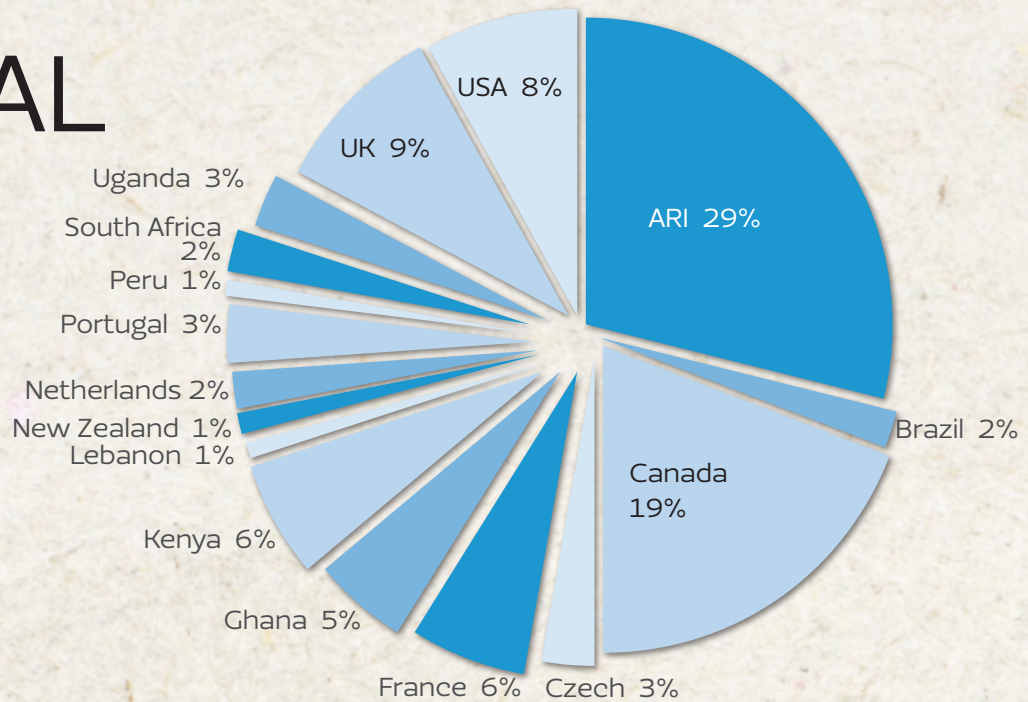
Restoring the native flora and fauna at Mount Karioi involved 40 volunteers last year, mostly locals who put in 2,000 hours, much of their effort focussed on setting and checking traps for non-native predators. More colonies of Grey-faced Petrel *Pterodroma macroptera gouldi* were discovered: a rare, burrow-nesting bird which will benefit from the control.

### Uganda

Lubigi Wetland, the biggest papyrus swamp in the Kampala area, is surrounded by slums. A Rocha is reducing pollution, eg by organising litter clear-ups and building toilets. Destruction of surrounding woodlands is being slowed by the introduction of bio-sand filters (which removes the need for drinking water to be boiled). Combined with environmental and health education, the activities are also improving life for local families.



# FINANCIAL REVIEW 2012



Asian Elephants (Vijay Anand)



Farmers and A Rocha team members discuss where best to site chilli rope barriers. (Vijay Anand)

LEFT: Esther Sserwanga, a widow with a family of nine, displays the new bio-sand filter which is helping to protect the family's health – and saves trees! (David McKay)

## A Rocha's Global Income & Expenditure

We are pleased to report that A Rocha's global income has continued to grow: from £3.3 million in 2011 to £3.7 million\* in 2012, an increase of 12%. The chart shows income received by A Rocha International and each National Organization (except those whose income is under £20,000: Switzerland, Bulgaria, India and Finland).

During 2012 A Rocha International again saw growth in its income due to a small number of highly committed donors. As a result of this:

- During 2012 we again made substantial grants, amounting to £163,000, to the National Organizations. These are instalments in a three year programme (totalling £690,000) to fund leadership posts in 15 countries: we are already seeing very satisfying progress in these teams' abilities to raise funds and undertake community conservation.
- In June 2012 we held a Forum with representatives from 18 National Organizations for a period of teaching, encouragement and sharing of best practice from the various conservation science and environmental educational programmes.
- Whilst on-going project monitoring and support for National Organizations is generally given by Skype and telephone, the Directors also visited National Organizations to provide more in-depth support and training, e.g. our Executive Director went to New Zealand, Canada, India and Lebanon, and our Operations Director travelled to France, Uganda, the USA and Peru. Our Director of Conservation Science is working closely with our teams in India, Kenya, Uganda, Ghana and Peru on our Tropical Forest Programme.

We are deeply grateful to all our donor partners around the world – whether churches, individuals, corporations, governments and/or institutions – for your on-going support and financial investment. We could not do the work without you!

*\* These figures are based on management accounts as audited accounts for all our National Organizations were not available at the time of going to press. The National Organizations are separate, independent legal entities. Their income is combined here to show the progress of the A Rocha family as a whole.*

# LOOKING AHEAD PLANTING SIGNPOSTS TO HOPE

'It is never easy to predict how conservation thinking will evolve, yet we suggest three ways in which A Rocha is likely to develop:

*Firstly, we can expect a proliferation of urban A Rocha initiatives within the next decade.* Our Christian convictions have always drawn us to include human flourishing in our vision of restored environments. When A Rocha started, the conservation world was about animals and habitats: our insistence on considering the human community was regarded by some as slightly eccentric. That is no longer so, but our head start has given us plenty of experience to draw on, and ensures that we are quite at home working in cities.

*Secondly, we will continue to plan over long time frames.* We have always got involved for the long haul and have found it essential for the true transformation of places and people, as this *Review* illustrates. Happily, many of our supporters around the world share our perspective and are partnering with us over many years.

*Finally, it is our hope that A Rocha can assist with peace-making.* Increasingly scarce resources and stressed economies will make



Peter and Miranda Harris, A Rocha Founders

environmental conflicts even more acute. There will be a need for solutions where all can benefit. We will need the wisdom of God, but we begin from a posture of hope in the Creator, who made us and all things very good.'

Peter and Miranda Harris

'When explaining A Rocha's work, I often describe our projects as signposts to hope. In a landscape of loss, they show what communities can achieve when they seek to live authentic, earthed, gospel lives.

But we need more signposts!

For 30 years and in 19 countries, A Rocha has been pointing forward, but the task is ever more urgent. We want to enable groups who are catching the vision – in countries as diverse as Nigeria, Australia and the Philippines – and in other regions where there is no A Rocha presence yet, to join in a truly global, Christian response.

If you would like to join us in planting more signposts to hope across the globe, please support us financially.'

Chris Naylor



Chris Naylor, Executive Director, A Rocha International

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A Rocha International 3 Hooper St, Cambridge, CB1 2NZ, England.  
Tel: +44 (0)1387 710286 E-mail: [international@arocha.org](mailto:international@arocha.org)  
Registered Charity No. 1136041 Company Registration No. 6852417

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