



Investing in people for conservation

Focus on impact



TROPICAL BIOLOGY
ASSOCIATION

The Tropical Biology Association has launched the careers of 1,000 environmental scientists from 29 countries in Africa. 100% of them still tell us about their progress 10 years after their TBA training. Many are now leading conservationists, working in research, government and NGOs.

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and trainers.





FIELD DATA SHEET

DATE: _____

TIME: _____

LOCATION: _____

Observer: _____

Time	Species	Count	Notes
08:00	Red-tailed Tropicbird	1	Male, singing
08:15	White-eyed Vireo	2	One male, one female
08:30	Yellow-crowned Night Heron	1	Adult male
08:45	Common Nighthawk	1	Feeding
09:00	Indigo Bunting	3	Two males, one female
09:15	Scarlet Tanager	1	Male
09:30	Black-chinned Flycatcher	1	Female
09:45	Gray-breasted Woodpecker	1	Adult male
10:00	White-eyed Vireo	2	One male, one female
10:15	Red-tailed Tropicbird	1	Male, singing
10:30	Yellow-crowned Night Heron	1	Adult male
10:45	Common Nighthawk	1	Feeding
11:00	Indigo Bunting	3	Two males, one female
11:15	Scarlet Tanager	1	Male
11:30	Black-chinned Flycatcher	1	Female
11:45	Gray-breasted Woodpecker	1	Adult male
12:00	White-eyed Vireo	2	One male, one female
12:15	Red-tailed Tropicbird	1	Male, singing
12:30	Yellow-crowned Night Heron	1	Adult male
12:45	Common Nighthawk	1	Feeding
13:00	Indigo Bunting	3	Two males, one female
13:15	Scarlet Tanager	1	Male
13:30	Black-chinned Flycatcher	1	Female
13:45	Gray-breasted Woodpecker	1	Adult male
14:00	White-eyed Vireo	2	One male, one female
14:15	Red-tailed Tropicbird	1	Male, singing
14:30	Yellow-crowned Night Heron	1	Adult male
14:45	Common Nighthawk	1	Feeding
15:00	Indigo Bunting	3	Two males, one female
15:15	Scarlet Tanager	1	Male
15:30	Black-chinned Flycatcher	1	Female
15:45	Gray-breasted Woodpecker	1	Adult male
16:00	White-eyed Vireo	2	One male, one female
16:15	Red-tailed Tropicbird	1	Male, singing
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16:45	Common Nighthawk	1	Feeding
17:00	Indigo Bunting	3	Two males, one female
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17:30	Black-chinned Flycatcher	1	Female
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18:00	White-eyed Vireo	2	One male, one female
18:15	Red-tailed Tropicbird	1	Male, singing
18:30	Yellow-crowned Night Heron	1	Adult male
18:45	Common Nighthawk	1	Feeding
19:00	Indigo Bunting	3	Two males, one female
19:15	Scarlet Tanager	1	Male
19:30	Black-chinned Flycatcher	1	Female
19:45	Gray-breasted Woodpecker	1	Adult male
20:00	White-eyed Vireo	2	One male, one female
20:15	Red-tailed Tropicbird	1	Male, singing
20:30	Yellow-crowned Night Heron	1	Adult male
20:45	Common Nighthawk	1	Feeding
21:00	Indigo Bunting	3	Two males, one female
21:15	Scarlet Tanager	1	Male
21:30	Black-chinned Flycatcher	1	Female
21:45	Gray-breasted Woodpecker	1	Adult male
22:00	White-eyed Vireo	2	One male, one female
22:15	Red-tailed Tropicbird	1	Male, singing
22:30	Yellow-crowned Night Heron	1	Adult male
22:45	Common Nighthawk	1	Feeding
23:00	Indigo Bunting	3	Two males, one female
23:15	Scarlet Tanager	1	Male
23:30	Black-chinned Flycatcher	1	Female
23:45	Gray-breasted Woodpecker	1	Adult male
24:00	White-eyed Vireo	2	One male, one female

The need for building capacity

For people everywhere, quality of life depends on the resources that nature provides. In response to growing pressure on our natural resources, the Tropical Biology Association (TBA) is giving people skills and tools for managing them sustainably. We do this by delivering practical training and support on the ground, where we can have most impact. Our focus is Africa, where the need for training has never been so urgent.

Why our training works

TBA courses are tailor-made to build expertise that is relevant and where it is needed most. This means that the people we train can apply their new skills straight away. We enhance their effectiveness by providing long-term follow-up support.

We bring together national and international specialists to equip African conservationists with knowledge and tools to bring about lasting change in their home countries.

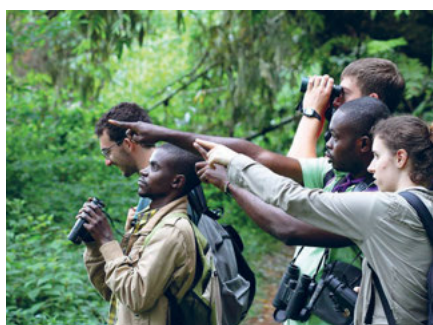
Empowering new leaders

Our training inspires young African scientists to become pioneers in conservation. TBA courses also enable organisations with responsibility for managing natural resources to respond better to local and national priorities by raising the capacity of their employees.

We continue to provide training and support to help our alumni to develop professionally, so they become leaders and trainers in their own right.

Our training has so far equipped 1,000 passionate conservationists who are bringing about real change and inspiring others across Africa. The TBA network – and its influence – grows every year.

Meet some of our alumni in this booklet, and see what an impact we are having by investing in people for conservation.



"TBA gave me an experience that shaped my career, enhancing my leadership and research capacity as well as raising my visibility among peers and seniors. Today, I am raising protégés of my own."

Faith Milkah Muniale, Kenya, Projects Coordinator ERMIS Africa

Launching careers that protect species and change opinions

We train and support young scientists at the start of their careers, inspiring a life-long commitment to conservation. Our courses expand horizons and provide new experiences, sparking interests and opening up opportunities.



CASE STUDY: Flying high in Malawi

Tiwonge Mzumara is Malawi's foremost bird expert and pioneer for ornithological research. Her award-winning work on threatened species is leading to important advances in rare bird protection. It all started with a TBA field course back in 2005.

Malawi is home to more than 600 species of birds. Yet, there are few specialist ornithologists, and much of the national data and information about birds hadn't been updated for decades. At a 2005 TBA field course in Uganda, Tiwonge became inspired to do something to change this.

"The first day, I was put in the group that went to look at birds. This was a completely new subject for me. In my school we had looked at fish, insects, reptiles, but not at birds at all," she says. "I had never even thought that scientists might study birds. The next day I was able to identify some of the birds again and remember their names; that experience was a 'wow' moment for me."



(opposite page) Tiwonge surveying birds in Malawi

(above) Teaching a student techniques for studying birds in the field

Award-winning work

Today, Tiwonge combines her role as ornithologist at the Museum of Malawi with research towards a PhD and contributing to bird conservation initiatives. She writes regularly for the Wildlife and Environmental Society's monthly newsletter, raising awareness of bird conservation issues. And she's the national representative on the African Bird Club.

Tiwonge's many national and international awards and prizes include the 2014 International Young Conservationist Award for her work assessing threatened species and Important Bird Areas.

"I want to put biodiversity conservation on the map in my country. I believe that every Malawian stands to benefit from looking after our biodiversity."

Tiwonge Mzumara

Tiwonge is working hard to update and improve the data available about birdlife in Malawi, as well as helping students with an interest in birds to carry out research projects to fill the knowledge gaps.

"I have started to change opinions," she says. "I do a lot of government reviews and when the University of Malawi has students who are interested in doing a project on birds, they put them in touch with me. So I am passing on my knowledge to the next generation."



"I am eternally grateful to TBA for its support that has helped put me in touch with the best in the field of ornithology. This will be a priceless resource to me for the rest of my career."

Tiwonge Mzumara

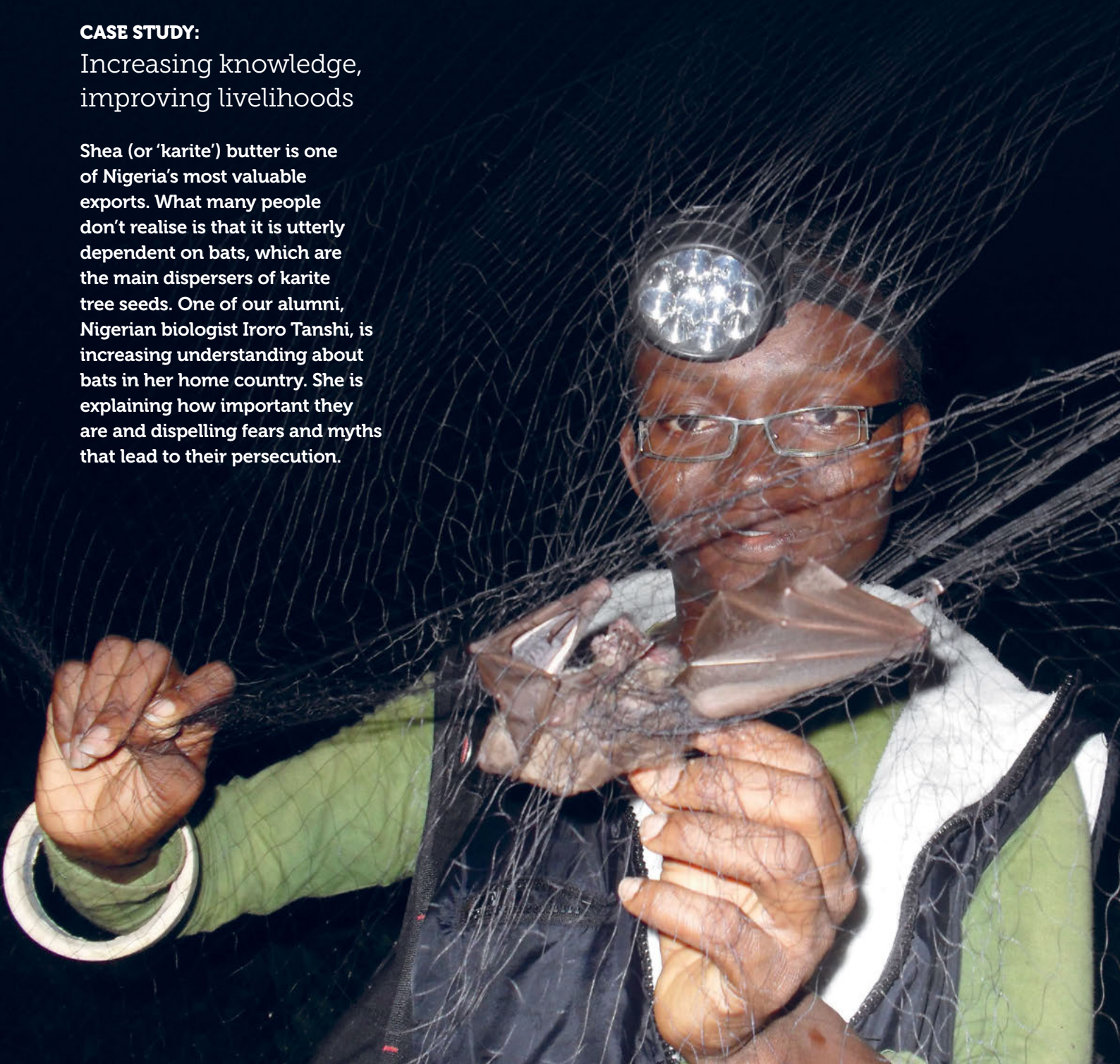
Transforming training into action

What a student gains from a TBA course can have a wide-reaching impact. Their knowledge and experience lead to more awareness and research and, often, essential changes in the way communities live with nature.

CASE STUDY:

Increasing knowledge,
improving livelihoods

Shea (or 'karite') butter is one of Nigeria's most valuable exports. What many people don't realise is that it is utterly dependent on bats, which are the main dispersers of karite tree seeds. One of our alumni, Nigerian biologist Iroro Tanshi, is increasing understanding about bats in her home country. She is explaining how important they are and dispelling fears and myths that lead to their persecution.



Before Iroro attended a TBA field course in Uganda in 2010, she knew nothing about bats. Inspired by one of our expert teachers, a bat specialist, she became hooked on these fascinating mammals.

Iroro played a key role in setting up the research network Bat Conservation Africa, drawing on what she learnt through our training and support. She works with scientists in other countries to fill important gaps in Nigeria's knowledge of bats – something made possible by TBA's international networking opportunities.

"Bringing together people from many different countries is really important," says Iroro. "These networks break down the sense of isolation that scientists, researchers and conservationists in Africa often feel. I would not have been able to progress in my work without them."

Iroro is about to start a PhD on bat diversity, landscape ecology and conservation. She is raising awareness of their role as a pollinating and economically important species – and also raising the profile of conservation in her country.

"TBA woke me up and made me aware of conservation, why it matters and how to do field biology, which is so vital for conservation research. The 'TBA factor' in my conservation career is huge," she says.



"Conservation is not just about the future. It's about creating and improving livelihoods today. I really believe that bats in Nigeria are safer now than before. People are listening when I speak."

Iroro Tanshi

(below) Iroro's passion for bats is encouraging others to get involved in bat research and citizen science



"The TBA field course was a critical moment in my life. It inspired me to pursue a future in research and conservation. I have never looked back."

Caleb Ofori, Research Fellow at the Forestry Research Institute of Ghana, and recipient of the prestigious international Future for Nature Award, 2014

Developing conservation leaders

We achieve long-term change by developing strong leaders with essential skills. Our support builds the confidence they need to influence policy and practice for the benefit of communities – locally and beyond.



“TBA encouraged me to focus on evidence, which has helped me when making a case to government.”

Charles Meshack

CASE STUDY: Better policy for conservation

Thanks to the communication and leadership skills they learn on our courses, TBA alumni regularly go on to lead influential conservation organisations. Charles Meshack is one of them.

How local people view the forest is key to saving it from destruction. Like many people, Charles Meshack used to think of the forest as ‘just timber’. Now, as the director of the largest forest conservation NGO in Tanzania, he knows that working with local forest communities is vital to bringing about change.

Charles decided to learn more about the forest and its essential ecosystems and biodiversity following a TBA field course in 2000. Further specialist TBA courses helped develop his research and communication skills, showing him how to produce data and evidence and use them to raise awareness and change attitudes.

“TBA gave me a grounding in research skills and designing research projects which produced useful data and resulted in strong evidence”, he says.

Charles believes the communication and presentation skills he learnt have made him more effective when he presents his work to colleagues and influencers.

Charles’ organisation, the Tanzanian Forest Conservation Group, works with communities: encouraging villages to set aside village land for conservation; and increasing awareness of the value and importance of biodiversity and ecosystem services.

Charles is also proud of leading TFCG in successful advocacy, securing government upgrades to National Nature Reserve status for eight key forest sites.

While there is more awareness of forest conservation now than when he started, Charles knows there's still much to do. As well as his NGO work, he gives talks and contributes to TBA courses, helping inspire more young people to become game-changing conservationists.

With Charles at the helm, the Tanzanian Forest Conservation Group has:

- overseen the planting of 1 million tree seedlings
- helped 500 farmers to improve agricultural practice
- promoted livelihood activities – such as butterfly farming – which help increase household incomes by 25%
- helped set up 50 village forest reserves.



“TBA has created an excellent platform for providing capacity for the next generation, giving people a broader picture of conservation. There are very few young students who really understand that the forest is such an excellent habitat for biodiversity. By passing on this knowledge, we are increasing the base of young people who can fight to protect the forests for the future.”

Charles Meshack

(opposite page) Charles - front left - during a national planning workshop for developing biomass energy, meeting the then chairman of the Tanzanian Parliamentary Committee for Land, Natural Resources and Environment, James Daudi Lembeli

(above left) Charles with community members

(above right) Charles inspecting a beehive

(right) Children in Chake Chake village, Lushoto, Tanzania, identifying plants used locally for food and medicine



Sharing skills to benefit communities and biodiversity

We help scientists to bring the benefits of conservation into the heart of communities. We teach them how to use new tools to measure the value of nature, and how to share these skills.

CASE STUDY:

Measuring the benefits that nature provides for people

In Cameroon farms can be developed in forest areas, which often leads to degradation of valuable forest ecosystems. Conservationists like TBA alumnus Patrick Mbosso are raising awareness in forest communities of the positive benefits of sustainable forest management.

Patrick is showing that to change minds you need to know how to present information in a way that matters to people personally.



(opposite page, main) Patrick (on right) taking notes with a colleague

(opposite page, below) During a TESSA training course

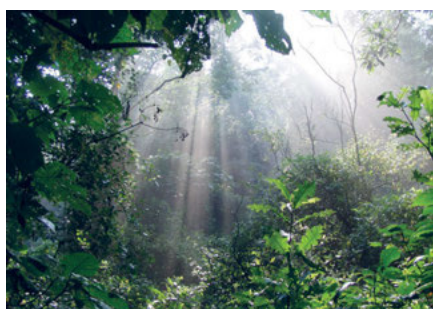
(right and below) Initial meeting with local forest community

(bottom) A shaft of light in tropical forest



“When I started working with forest communities, I noticed that people did not really care about biodiversity. However, when we explained the range of beneficial services and products that the forest provides, they were very interested.”

Patrick Mbosso, Chief of Service, Follow-up of Environmental and Social Management Plans, Ministry of Environment, Protection of Nature and Sustainable Development in Cameroon



Patrick was working for a government environment agency when he began exploring an ecosystem services approach to conservation. This means measuring the benefits that nature provides for people, such as clean water. He attended a TBA specialist course which provided the first training in Africa on how to make such measurements, using a new tool: the Toolkit for Ecosystem Service Site-based Assessment (TESSA).

“I realised that although I had been working in this area, I knew nothing about measurement techniques,” says Patrick. “The TBA course was a unique opportunity to learn how to measure these services.”

It also gave Patrick the skills to present results in a way that would change minds and practice - and led to promotion to his current post. With further TBA support, he put TESSA to the test helping farmers in a local cooperative to see the link between the biodiversity and future of the forest.

“Now, they can see that only in natural forest is biodiversity and provision of ecosystem services high,” says Patrick. “Now they say: ‘Oh, when there is high biodiversity, ecosystem services are also high.’”

Having learnt how to use his knowledge to protect forests, Patrick is making a long-term impact on the livelihoods of local people who live and work in them.

Conservation solutions through research

We train scientists to design research and communicate their findings in relevant and accessible ways. Our support ensures they can use their knowledge to bring about lasting solutions to conservation challenges.

CASE STUDY:

Bringing sustainable farming into the mainstream in Kenya

Thanks to training and support from TBA, biologist Mark Otieno's expertise is having a direct impact on farming in his home country of Kenya, bringing sustainable practice into mainstream agricultural training programmes.

"Insects are just pests." This was the view of many Kenyan farmers. They were using broad-spectrum pesticides, which were also killing off bees and pollinators. But without pollination, crops fail.

Back in 2001, Mark Otieno, then a young biology graduate, took a TBA field course which laid the foundations for his interest in the role pollination has to play in food security. He went on to do an MSc in acacia pollination and a PhD at Reading University on pigeon pea, having met his academic supervisors through TBA. His PhD findings led to new farm management practice which promotes pollination and increase yields.

Now Dean and lecturer at Embu University College, Kenya, Mark has helped set up a degree programme in agricultural education. It is helping ensure practical, sustainable farming methods, which protect natural biodiversity, are being taught more widely. Mark also works with farmers, showing them the benefits of sustainable systems.

"The farmers I work with now understand that there are beneficial insects in the system," says Mark. There are implications of this work for the whole country, driving a nationwide interest in 'smart farming'. "We are passing on messages to the whole nation," says Mark. "The information is there and it is getting out through the media."



(above) Mark gathering data on pollinators

(below) Mark teaching a new generation of environmental scientists

"The TBA helped me to gain confidence, and to put my research work into a global arena and perspective. Thanks to the networks which I have developed through TBA, today I know who is who in pollination research globally, and that is how I can continue to develop."

Mark Otieno

"In Africa, there is barely a single country where we don't have TBA alumni featuring at a senior level, either looking at species, or at habitat and ecosystems. This is no easy achievement."

Ishmael Dodoo, Country Strategic Advisor to the Office of the Assistant Secretary General/ Regional Director for United Nations Development Programme (UNDP) Africa



Growing impact

The TBA alumni who feature in this booklet are a small handful of the hundreds of committed conservation scientists who are making a difference in their countries. They are multiplying the impact of our training, and they are our proudest legacy.

Alumni groups

Our alumni have set up 14 national groups across Africa, each carrying out many valuable conservation projects and initiatives, which include:

- an education programme for schools in Madagascar, helping to halt the degradation and overexploitation of its rainforests and preserve access to drinking water and hydropower
- species research into: one of the most threatened primates in Tanzania, the Udzungwa red colobus; an endangered Aloe plant in Uganda, used as medicine by local communities; and persecuted chameleons of Malawi.
- an ecosystems project into the benefits and dangers of intensive farming in Rwanda, with important results for many African countries
- a research project that's helping to save one of Nigeria's remaining montane forests, home to rich and rare biodiversity.



Pan-African platform

Our alumni also set up the TBA Africa Alumni Group (TAAG), to provide a platform for young conservationists across the continent. TAAG organises a unique biannual conference, the African Student Conference on Conservation Science, to give young scientists the opportunity to present their work, share ideas and learn new approaches to conservation. The 2015 conference was opened by former President of Ghana and current UN Special Envoy on Climate Change, His Excellency John Kufuor.



"Meeting people from all over the world with the same passion and striving to work for conservation, that forges very strong links. It is a family. In Africa, family is very important and TBA is like a family for us."

Patrick Mbosso, TBA alumni
(see page 10 for Patrick's story)





“Targeting, training and supporting young ecologists has a great knock-on effect. It has got to be such an efficient way to use money for conservation.”

Dr Ashleigh Griffin, Associate Professor of Evolutionary Biology, University of Oxford

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TBA's work is more important and in demand than ever. Without training and follow-up support today, there will be no conservation experts tomorrow.

With your help, we can make a lasting impact through developing leaders who can protect biodiversity where they are needed most.

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