

As individuals we are responsible for more than just ourselves, our family, our football team or country, or our own kind. There is more to life than just these things.

That we must each one of us also bring the natural world back into proper perspective in our lives, and realize that doing so is not some lofty ideal, but a vital part of our personal survival.

*Lawrence Anthony*

# 2019 ANNUAL REPORT



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## PREFACE

### MESSAGE FROM OUR INTERNATIONAL EXECUTIVE DIRECTOR

*This year has, once again, been a bumper year as we continued to bring environmental education and environmental change across the globe. With our diverse teams all over the world, we work to implement a suitable solution to the country and community with whom we engage. These may vary from first world scientific interventions to hands-on education and job creation in third world countries.*

*There is no one-size-fits-all approach as each country faces its own challenges. It is important when engaging with the individuals and groups in a given territory to apply a solution that can be implemented to bring the desired changes. These solutions often have to be developed on a gradient that can be implemented by that group based on existing resources and needs of their community.*

*Understanding the fundamental importance of safeguarding the environment becomes more vital to the survival of humanity with each passing year. The Lawrence Anthony Earth Organization will continue steadfast in our efforts to protect the environment for all. It is with gratitude that we thank our donors and partners who have made our work possible and continue to do so into the future.*

Sincerely,  
Yvette Taylor



### MESSAGE FROM OUR INTERNATIONAL PRESIDENT

*2019 has been a tremendous year of progress. It is an on-going honor for all of us to be forwarding the vision of our Founder Lawrence Anthony which he laid out in Chapter 16 of his book Babylon's Ark: The Incredible War-Time Rescue of the Baghdad Zoo. In the early days of our formation, we discussed the fact that, no matter what other projects we take on, if we did not work to change humanity's awareness of our vital partnership for survival with the natural world, we and other environmental groups would be saving the whales, saving the rain forests, saving the oceans, etc. ... until they're gone.*



*With this in mind, we created the term "Cooperative Ecology™" and use it to convey the principle that all life is interdependent and does best when it works towards mutual survival with other life. This concept is far-reaching, and when fully understood and implemented, brings about more constructive problem solving to environmental issues. Lawrence also felt it was imperative that each chapter take on those issues about which they are most passionate about resolving. We are proud of our dedicated chapters and give them our heartfelt thanks for the work they are doing to help re-create a better world for all life.*

*The future looks bright!*  
Sincerely,  
Barbara Wiseman



## MISSION

The Lawrence Anthony Earth Organization is an international non-profit conservation organization that seeks to reverse the decline of the plant and animal kingdoms and our environment through education and action. We are committed to the creative and responsible rehabilitation of Planet Earth and bring new solutions to this field.

We created a term for the basic principle underlying everything we do: Cooperative Ecology (CoEco). Through the application of this principle to each of the projects we take on, we are seeking to instill in people a sense and understanding that all life is interdependent, and that the decisions we all make affect the natural world, and then, in turn, circle back to affect the health and quality of life of each one of us. Basically, CoEco demonstrates that all life does best when it works together with other life towards mutual survival. When this concept is implemented, it better connects everyone to nature, and is a way of getting people to better co-operate with each other and the natural world around them.

Our purpose in working to infuse the concept of CoEco into society is to bring about a New Age of constructive decision making.



Being based in a third world country, it is vital that we address the issues of poverty as they relate to our conservation goals. Thus, our South African International Headquarters continues to focus on local community education and environmental conservation as a key part of our endeavours. Working with communities comes with its own set of challenges and the community empowerment program that we are pushing forward will become a model for application to communities all over South Africa and other areas around the world with similar challenges.

### ENVIRONMENTAL SCHOOL CAMPS

#### WE RAISED AWARENESS AND UNDERSTANDING OF ENVIRONMENTAL ISSUES AND SOLUTIONS IN 600 STUDENTS AND 45 TEACHERS

In alignment with our Cooperative Ecology goals, a key endeavour for LAEO is bringing environmental education to a broad base of people. We strongly feel it is only by changing the way people think that we will be able to bring about real change in how they interact with the environment and other life forms. This year, with the wonderful support of Peter Eastwood & the Tanglewood Foundation, we had the opportunity to take nearly 600 Grade 7 learners (12-13 years old) and 45 teachers from disadvantaged communities in South Africa on a life-changing weekend environmental camp.

After meeting with the Department of Education, school Principals and teachers from schools in the KwaXimba area around the Mayibuye Game Reserve and in the Umkomaas valley, we helped to initiate an art and essay competition in 20 schools. Learners could submit a drawing or essay on specific conservation themes. Winners were selected and won a weekend environmental camp at the beautiful Nyala Pans River Camp.





## HEAD OFFICE



Most learners did not believe that they were really going on a trip until the bus arrived and then they exploded into songs. The excited kids enthusiastically sang and waved to everyone the bus passed on the roads.

The impact on learners has been remarkable and, in many cases, life changing:

*“Did I enjoy Nyala Pans let me think, I mean who wouldn’t have enjoyed a nice holiday. Where you get to be treated like a queen or a king where you get, to sleep peacefully on your bed without someone, tossing and turning. We even got to eat breakfast, lunch and dinner. It felt like home...”*

*“...What I got to learn in Nyala Pans is, to learn to get to know other people to try and, talk to them. Even if you are shy just like me. I get really shy words don’t come out, but as a result of the camp I’m not shy anymore. What I learnt about the environment is to stay at a clean and neat place and put a difference, between wants and needs because, needs are more important than wants... when we went hiking we learnt more about the environment of animals it was awesome we even saw animals we never thought we would see... I learnt a lot about the environment, the camp helped me a lot.” ~ Student ~*

*“I learnt that we need to keep our environment clean. We need to recycle the waste product for the environment. We need to drive our cars less for the environment. We need to reduce the usage of our wooden stove. We need to reduce usage of chemicals for the environment.” ~ Student*

*“I learned that you must not throw a paper in rivers and don’t pour anything with chemicals you will kill the animals living there. Yes it did change one, I have never saw giraffes in my life before. And now I know how to communicate with other children of other schools. Is that I will listen to all the things and words and keep them for the future and never pollute the environment.” ~ Student*



### ENVIRONMENTAL MONITORS

#### WE'VE TRAINED AND ACTIVATED 15 YOUNG PEOPLE TO MENTOR AND TRAIN OTHERS

Our 15 environmental monitors (EMs) are making a huge impact in the Mayibuye community. They are educating learners, mentoring students on environmental courses and implementing security around the game reserve. The EM's have completed mentorship, Assessor and environmental courses, such as the Nature Site Guide, at the South African Wildlife College to give them the skills needed to effectively do their work. Not only did the EM's assist with all the school camps they also mentored fifty Resource Guardianship students who did a year-long training course at our Mayibuye Training Centre. The EM's helped the students by mentoring them through their practical work.

As part of the mentorship program and general duties they carried out the following activities:

- Road maintenance;
- Litter clean-ups;
- Fence Inspections and patrol;
- Property maintenance including plumbing;
- Bush clearing – cutting back bush encroachment;
- Started a new educational campaign in the schools with the “Wonderful Wildlife Activity Booklet” from Blue Sky Society. We gave out over 4,000 booklets at numerous schools to bring home the environmental message;
- Domestic and field infrastructure maintenance;
- Plumbing;
- Identifying alien plants;
- Vegetation mapping with Resource Guardianship learners;
- Animal distribution mapping;
- Accompanied Resource Guardianship students on field trips to further their knowledge on local history, such as the Nelson Mandela Capture Historical Site;
- Carried out sustainable farming projects;
- Worked with the learners to install gabions (a gabion is a large wire basket filled with rocks and placed in eroded areas to prevent further soil erosion);
- Environmental crime scene investigation practice; and,
- Planted 25 trees in the grounds of local schools and churches.





### NATIONAL SKILLS TRAINING

#### 85 COMMUNITY MEMBERS GET ACCREDITED TRAINING ON PRESERVING THE ENVIRONMENT

LAEO implemented training programs to benefit the unemployed and under-employed women and youth within the KwaXimba community. These rural communities fall within the rural poor category and most do not have access to sustained income. Surveys have found that a single working “breadwinner” may support up to 20 people in one household!



- Fifty learners trained on Resource Guardianship.
- Fifteen learners trained as Nature Site Guides.
- Twenty cattle owners attended a Disease Control Workshop

### CLEANING CAMPAIGN

#### OVER A TON OF LITTER PICKED UP

LAEO carried out a cleaning campaign in the KwaXimba community with our 15 Environmental Monitors, 25 Resource Guardianship students, and approximately 20 members of local community-betterment organizations such as the South African National Civic Organization, The Way to Happiness Foundation and KwaXimba Conservancy.

Litter had become a big problem in the area with goats and cows becoming ill from eating it. In total, over 80 bags of rubbish were collected equalling over a ton of waste that the Durban Solid Waste company then properly disposed of.





### NATIONAL RESOURCE MANAGEMENT

#### JOBS FOR 80 COMMUNITY MEMBERS - 500 HECTARES (1,235 ACRES) CLEARED OF INVASIVE PLANTS

1.8 million rand (approximately \$105,000 U.S.) was awarded to LAEO by the Department of Environment, Forestry and Fisheries. This kicked off a new alien plant clearing project. The project is aimed at poverty alleviation by creating employment in rural areas whilst having a positive environmental impact by removing alien invasive plants. Focus areas are those that line and congest waterways because these destructive, invasive plants require high volumes of water and, as a result, cause rivers to dry up. The program has provided employment for 80 community members and we cleared 500 hectares (1,235 acres) of alien plants in 2019 alone.



### HAPPY EARTH FESTIVAL

#### 1,529 STUDENTS AND 111 TEACHERS INCREASED THEIR UNDERSTANDING OF THE NATURAL WORLD



For the seventh year, the Happy Earth Festival, whose primary objective is to help build a more sustainable world through creating awareness of the natural environment and human responsibilities towards it, was held outdoors in the Botanical Gardens in Pietermaritzburg. 1,529 children from local schools and 111 teachers participated in interactive activities designed to engage the senses and generate a feeling of connection, understanding and action. Participating teachers also had the opportunity to develop and broaden their own teaching capacity and understanding of environmental problems and solutions.



We were one of 20 environmental organizations and 140 educators/volunteers who collaborated to put on this event. Our Executive Director, Yvette Taylor, is the Chairman of Happy Earth and she helped to create a fun and interactive educational game for the Festival called 'The Amazing Race', where learners would race between different activities such as identifying indigenous plants, catching and releasing water insects, playing in the leaves, running a three-legged race, and more.

Through our involvement in this event, we were able to spark a lifetime of interest in nature with many of the students.

### SKYDIVE FOR RHINO

#### RAISING FUNDS FOR RHINO PROTECTION

LAEO is a member of Project Rhino, an affiliated group of organizations who work together to protect rhino from poaching. Our International Executive Director, Yvette Taylor, went the extra mile to support the amazing work done by Project Rhino by joining the Manyoni team to raise funds through a project called “Skydive for Rhino”.



The team collectively raised R104 000 (approximately \$7,000 U.S.) to continue the vital work of rhino protection by getting supporters to dare them to skydive in exchange for donations. Each skydiver had to raise a minimum of R5000 in order to participate. The team members went up in a tiny plane, two at a time, and, at 10,000 feet, stepped out into open space with their tandem partner. While definitely scary for those who had never done this before, being able to see amazing wildlife in the beautiful Hluhluwe area of KwaZulu Natal as they descended to Earth made it all worthwhile.

### PARICIPATING IN THE WORLD YOUTH RHINO SUMMIT



This year Project Rhino once again hosted a very successful Youth Wildlife Summit, bringing together 165 youth and 20 adults from all over the world.

The delegates had an intense, exciting and knowledge-packed four days at the South African Wildlife College in the Kruger National Park. The goal of the summit was to have the youth engage with conservation leaders and, thus, become local and international Ambassadors for wildlife and conservation.



Yvette Taylor was very honoured to be invited to participate in the summit as a conservation expert to lead discussions with youth groups on various topics.



### CHRISTMAS PARTY FOR THE CHILDREN

As a special treat this year, we hosted a Christmas party for the local children of Isgcawu, Ubuhle, Nqawuzana, Bhobhonono, Isthuma, Themalaba, Ntukuso, Bhekinkosi, Singalokuhle Creches.

As this is a severely disadvantaged community, it was a very special and appreciated occasion for the 60 kids who attended. As their contribution to the event, the kids spent a lot of time in preparation for it, putting together a fashion show for us that was fun and very creative. We then handed out lots of awesome presents to the children.

The happy smiles on everyone's faces and the spirit of goodwill and cheer that was generated made all the work absolutely worthwhile.



2019 was an action packed year for LAEO Head Office!

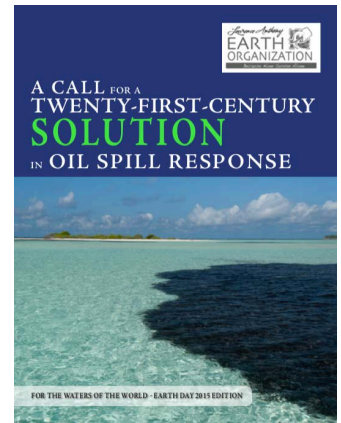
## UNITED STATES

*‘Ensuring that our home planet is healthy and life-sustaining is an overwhelming priority that undercuts all other human activities.’ ~ Lawrence Anthony*

### OUR 2019 FOCUS AND ACCOMPLISHMENTS

#### OUR EDUCATIONAL MATERIALS ARE USED TO BRING OIL SPILL SOLUTIONS TO COUNTRIES AROUND THE WORLD

2019 was a banner year for LAEO U.S., with accomplishments and progress that have exceeded all previous years combined. Since the massive Gulf of Mexico oil spill in 2010, LAEO U.S. has continued to work with like-minded groups to advance effective, non-toxic oil spill clean-up technologies around the world. Our educational materials have been used to expand the success of that program in over 60 countries.



#### RESEARCHING AND ACQUIRING CUTTING-EDGE TECHNOLOGIES FOR WATER LOCATION FOR ANIMALS AND PEOPLE IN NEED

In 2015, we began confronting the planetary crisis connected with the lack of accessible fresh water and the extremely negative impacts this is having in so many countries around the world on human health, the economy, biodiversity, and the well-being and perpetuation of the natural world. At that time, we were introduced to what appeared to be promising advancements in the science of water and the field of water location, particularly applicable in highly arid and drought-prone regions of the world.

We began researching and vetting the information and methods that could potentially provide much higher success rates when searching for good quality water in high quantity. Our purpose was to supplement water resources in regions in need of large-scale reforestation for the re-creation of wildlife habitat, and to enhance food and water security. As a result, in 2018, we launched a program to help bring potential solutions to the global clean water crisis. In 2019, this program became the primary focus of LAEO U.S.





## UNITED STATES

Below are our most major accomplishments of the year in this field.

### HIGH-TECH, WATER LOCATION SYSTEM DESIGN

“As a first step, we sent our newly hired team of scientists (specialists in geology, hydrology, biology, advanced satellite mapping and analysis techniques, and environmental management) to Australia for 6 months of tech acquisition and research.” They studied under experts and began codifying and advancing water location technology for mitigating the impacts of severe drought on rural communities, farmers, ranchers, and nature.



*Australian Field Trip Workshop*



To identify and set us apart from other fields, we named our proprietary system Deep-Seated Water Technology® (DSW-Tech®) and we have registered this science as a unique intellectual property in 167 countries.



### VETTING AND DOCUMENTING THE TECH OF DEEP-SEATED WATER LOCATION

After studying under our water location and satellite mapping experts, the next step we have had to undertake is the documented, scientific verification of deep-seated water (water that is far below shallow groundwater aquifers) and the isolation of any defining characteristics it may have. Our Senior Geologist, Dr. Tigran Sadoyan, designed a research program to accomplish this and, under his guidance, our team is completing those qualifications, including writing technical bulletins on geology, hydrology, and geophysics. These bulletins are currently in development for our training materials to cover key aspects of these very technical subjects.

As a part of this step, an LAEO research team visited three historic water well sites in California, and a natural perennial spring in New South Wales, Australia, each with high probability of being deep-seated water, to study the geology of each area and analyze why these particular water sources had been so productive for so many years.

## UNITED STATES

### LOCATING BOREHOLE SITES FOR WATER WELLS

#### WE SITED OVER 50 POTENTIAL BOREHOLES

While we still have more to do to complete the full tech acquisition and compilation of training materials, we began delivering mapping and analysis services, field site assessments, and identifying precise borehole locations for landowners. We have sited over 50 potential boreholes for farmers and ranchers in need just in the past few months.

To expand our delivery capabilities, two new companies were formed to partner with LAEO to implement our DSW Tech breakthroughs:

1) a U.S.-based global-facing company named GIS Analytics Research LLC, (headed up by its CEO, Jim D'Arezzo),

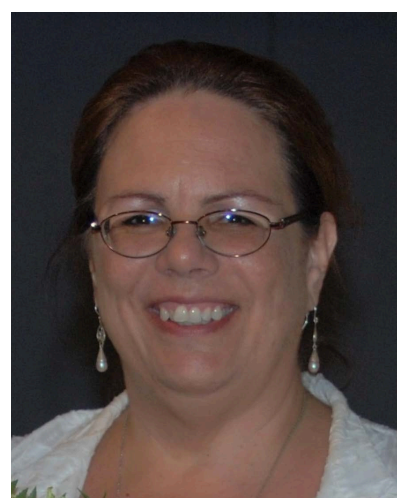
and

2) a regional-based company named GIS Analytics and Research Australia Pty Ltd, (Managing Director Darryl Bothe).

Our Deputy Executive Director, Deb Schreib, has coordinated the voluminous legal work necessary to bring these two entities into existence in partnership with LAEO.



*LAEO's Senior GIS Analyst Alli Del Gizzi and Operations Deputy Managing Director Clark Carr Reviewing Water Location Results with an Australian Farmer.*



*(left to right – Darryl Bothe, Jim D'Arezzo and Debra Schreib)*



## UNITED STATES

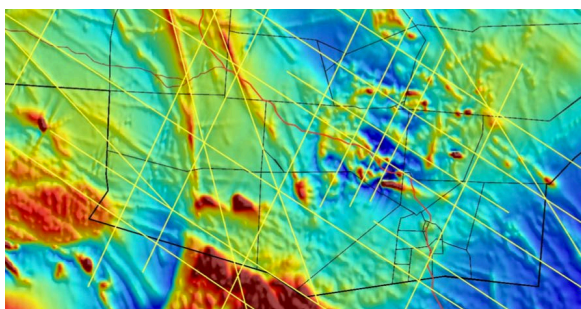
### EXAMPLES OF WATER BOREHOLE SITES WE HAVE LOCATED

Under the extremely able administrative guidance of our Managing Director, Diane Wagenbrenner, the following are a few examples of the projects we completed or that are currently in progress.

**STANTHORPE, QUEENSLAND, AUSTRALIA** is a farming community and town under severe drought conditions that have created economic disaster in the region. The town's water resources had completely run dry and water was having to be trucked in from great distances at huge and unsustainable expense. At the request of a strategic partner in Australia, Sustainable Water Solutions, our Senior GIS Analyst, Alli Del Gizzi, produced an extensive deep groundwater resource analysis of the Murray-Darling River Basin region to enable them to devise a drought-proofing plan.



While other companies had engaged in many failed and costly water location attempts, we presented a more precise water locating method to a group of area farmers to help them begin a recovery plan. This included siting 30 potential borehole sites and drilling the first one as a demonstration.



*Satellite mapping of Buckleboo area*

In **Buckleboo, South Australia**, we conducted remote mapping assessment for a large ranch. A subsequent field survey was completed with six sites for exploratory well drilling identified. Choosing one of the areas we recommended, the rancher drilled a successful borehole, finding water at exactly our predicted place and depth.

This borehole is now producing approximately 6,000 gallons of high-quality water per hour for one very happy rancher.

We began work in March for **Temora, New South Wales**, producing and analyzing maps, identifying several potential bore sites. Drilling is planned for the near future.

After a landowner had six, unsuccessful boreholes drilled by others on his property in **Orange, New South Wales**, we utilized our technology to identify two drilling sites. In August, he drilled at the first site we recommended and, as we predicted, drilled to a depth of 131 meters and got a flow rate of 3,000 gallons per hour, after which he wrote to us saying, "It was a wonderful relief to find good water after 6 dusty dry holes."



## UNITED STATES

The water company of a small mountain community, **Pine Mountain Club, California**, brought us in to provide accurate and in-depth analysis of potential good-quality water resources that could be accessed within its boundaries. An LAEO team spent several days mapping the area and conducting on-site field assessment and then presented our results to their Board of Directors, guiding them to five potential borehole sites with a high likelihood of good quality water.

LAEO U.S. is currently developing water location projects in Kenya, South Africa, and the Middle East. Our International President, Barbara Wiseman, took teams of LAEO Staff and Advisory Board Members to each of these regions to meet with key government officials and other potential strategic partners to push forward future projects to bring water to areas in desperate need.



*Barbara Wiseman receiving gift from Nasser Al Shaiba for her team's presentation to the Dubai Supreme Council of Energy.*



*Barbara Wiseman & Yvette Taylor signing contract with Rotary Club President Apollo John in Homa Bay, Kenya.*

## ADVANCEMENT OF WATER LOCATION TECHNIQUES

A particularly important function of the environmental work we have taken on is to codify and create training materials for new water exploration techniques that were never before properly documented to insure these technologies and methods are not lost.

Our team, under the guidance of Deputy Managing Director of Operations Clark Carr, launched an in-depth compilations project, creating formal training videos with full transcripts and indexes of dozens of technical training sessions conducted by our experts, resulting in more than 35 hours of professional video training programs.



As a part of this, we integrated previously pen-and-paper analysis techniques into computer software programs.



## UNITED STATES

### DEVELOPING FOOD SECURITY SOLUTIONS



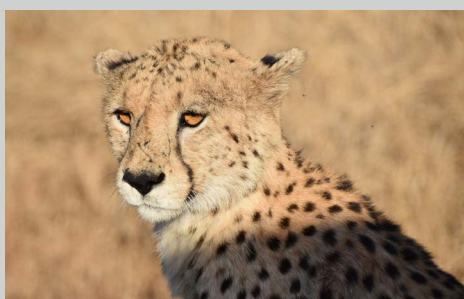
As a first step towards helping to reverse environmental damage created by conventional agricultural practices using toxic chemicals, our science team, led by Bettina Koch, our Environmental Scientist, began researching and developing a food security program with the ultimate aim of codifying an integrated system of environmental technologies to help farmers achieve truly sustainable food security and prosperity without causing damage to interlinked ecosystems.

We have identified improved methods of a) cleaning up soil and groundwater contamination; b) enhancing and regenerating soil fertility; and c) enhancing crop production and increasing pest resistance through non-toxic products and methods.

Through this work, we have begun to create a nature-friendly food production system that we intend will go hand-in-hand with our water location tech in order to bring about healthy people, healthy wildlife, healthy food, healthy water and a healthy environment.

### ECO SAFARI TO SOUTH AFRICA

#### SHOWING OUR MEMBERS WHAT REAL WILDLIFE CONSERVATION LOOKS LIKE



Our two-week-long Eco Safari to South Africa in April was a big success with extraordinary wildlife sightings and thrilling, up-close experiences with lions, cheetahs, elephants, Cape buffalo, and a wide variety of other animals. Each of our travellers stated that their awareness of conservation issues and solutions had been raised as a result of the trip, which included traveling along the extraordinarily beautiful Garden Route from Cape Town up to KwaZulu Natal, visiting a number of wildlife sanctuaries and game preserves, and bringing in needed supplies for Zulu children in a rural village.

The highlight of the trip was the emotional but fascinating experience of being able to observe and participate in a licensed veterinarian utilizing a helicopter and a team of game rangers to dart, capture, dehorn, and then re-release a wild rhino. Sadly, this activity has become the most effective way to protect rhinos from poachers and our financial and educational support of this activity was sincerely appreciated by the Manyoni Game Preserve staff.

### RAISING PUBLIC AWARENESS OF ANIMAL CONSERVATION THROUGH EVENTS, LECTURES, PRESS RELEASES, AND HANDS-ON ACTIVITIES

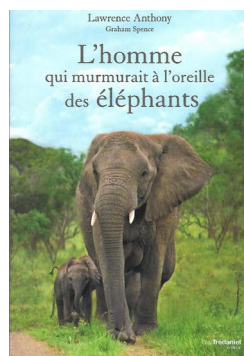
As LAEO Europe's purposes are mainly to safeguard biodiversity and animal welfare, in 2019, our chapter has focused on raising public awareness of wildlife and animal conservation through operating booths at events, lectures, press releases and hands-on activities like cleaning up litter, recycling, and participation in public forums. We have also supported a number of animal rescue and protection initiatives in collaboration with other like-minded groups. This included:

- projects to help wildlife and domestic animal shelters for the protection of stray or abused pets, wolves, birds, seals, other wildlife, former laying hens and industrial laying hens rescue, as well as the victims of animal experimentation or hunters.
- helping to support the creation of the only European retirement home for elephants, called Elephant Heaven, which should be opening in 2020 in France. The founders of the facility are former animal keepers who decided to create a place where they could rescue and take in elephants being retired from zoos and circuses who have nowhere else to go.
- conducted a litter cleanup in which we collected 800 kgs (1800 pounds) of garbage scattered along a roadway, picking up bottles, parts of broken cars, etc. that had never been picked up by official street cleaners. This generated a press article about our good work.

We are pleased to announce that Lawrence Anthony's biography, *The Elephant Whisperer*, has now been translated into both French (*L'homme Qui Murmurait à L'Oreille des Éléphants*) and German (*Der Elefantenflüsterer*).

During 2019, our volunteers worked to educate the general public about the decline of wildlife. According to the World Wildlife Fund's "Living Planet" report, 60% of the planet's wildlife has disappeared since the seventies. As the first step to resolving this issue is education, we operated booths in book fairs and public places to inform about the importance of preserving wildlife and our planet, including our Founder Lawrence Anthony's recommendations regarding wildlife in war zones.

We sincerely thank our volunteers, supporters and partners without whom we could not have made the progress that we did in 2019.





Since its inception, LAEO Ghana's main focus has been to raise awareness of and educate children and the public on environmental issues and solutions. In the many disadvantaged communities we work with, issues that seem to go far beyond the natural world, such as HIV/Aids, drug addiction, lack of farming know-how, and hygiene, in fact, circle back and impact the communities' ability to deal with their local environmental and conservation issues.

Thus, we have had to widen the circle of educational subjects we provide in order to work towards addressing core issues that distract communities' attention from being able to solve challenges related to the natural world around them.



The following were our main activities and curriculum in 2019:

1) In deprived areas of Ghana, we were able to assist and promote access to general education for children as well as promote the importance of not littering and how to recycle. These included:

- Working with 7 schools in the Greater Accra Region. The total number of students and pupils educated in the separation of waste and proper disposal of waste was 550. Twelve litter bins were donated to 4 of these schools with the help of the Accra Metropolitan Assembly.
- Conducting workshops in nine schools in Kumasi, which is in the Ashanti Region of Ghana, our team trained a total of 678 students on waste recycling.
- Through our LAEO Ghana Youth Club, which is now up to a total enrolment of 546 students since we began this project a few years ago, training each of the club members about school and domestic waste recycling.
- Seven schools receiving litter bins from us for recycling various forms of material. With the delivery of these bins, we conducted workshops on how to use them. While we continued our successful environmental education into schools, 2019 was particularly challenging because of the need for additional funding to be able to access the volume of educational materials and supplies we have created a demand for.

Because of that, we fell far short of our target for the number of schools we intended to deliver these to and intend to improve on this in 2020.

- 2) We improved agricultural production, primarily for women in farming, by introducing them to permaculture methods in order to help them improve their yields through seven training sessions in groups as well as on-site consulting at some of their individual farms. A total of 156 trainees, mostly women in the communities of Banda and Borley Banbio in the Northern Region of Ghana, were taken through this training with our total number of training hours being 164. Our work is helping increase their income and raise the standard of living for their families;
- 3) Through the use of educational visuals with a projector in community parks and rented premises in several communities, we were able to improve the health of women and children through hygiene education;
- 4) In several of the schools we worked with, we empowered youth towards responsible citizenship through raising awareness of the United Nations Declaration of Human Rights;
- 5) Included in some of our community education activities was information designed to educate and sensitize the public on sexual health issues including HIV/AIDS, sexually transmitted diseases and other contagious diseases.

LAEO Ghana believes in a mutually collaborative and supportive approach with other groups and we sincerely appreciate the help we received from organizations such as the Wisher Alliance Ghana, the Accra Metropolitan Assembly, Narconon Ghana, a variety of school and community officials and leaders, Youth for Human Rights, and I'm Ghana.



## TEACHING ENVIRONMENTAL PRINCIPLES TO STUDENTS OF DIVERSE AGES

This project was first developed by LAEO Johannesburg and has been managed by research scientist Sayomi Tasaki since 2014. The main objective of the project is to support environmental education by teaching young generations about Natural Sciences, Ecology, Biology, Biodiversity, Environmental Pollution, and Conservation.

Using a holistic approach, lectures are given via multimedia, practical classes and field work experience based on the core mission: to help the planet by creating a greater depth of environmental awareness whilst encouraging students to obtain a closer understanding of Earth's phenomena, its history and matters regarding the flora and fauna within the diversity of ecosystems.

The project has been designed to cater to disadvantaged youth that are not able to get early knowledge about Life and the impacts human behaviour has on Earth. Over time and by applying a holistic and positive attitude, we teach the kids that they have the power to change ideas and attitudes to improve the way in which we impact the Earth and, thus, to have a positive impact on all fauna and flora. Empathy and a love of animals is developed in these young people so as to prevent the future abuse of animals.



In 2019, we started our educational project year preparations close to March when schools are fully functional. Bookings were made with different institutions such as orphanages, children's homes and schools and we conducted classes with a variety of different age groups and classrooms. For example, we did training sessions at Tiddlers Toddlers where we got the environmental message to 40 young children between the ages of 2 to 5, with the purpose of inspiring a conservation attitude in them from early on.

Another example is that we conducted training sessions with kids from 3 to 17 years old at Kids Haven. Our environmental message reached 120 students there in classes that were divided by age so that real engagement could occur.



## NEW JERSEY

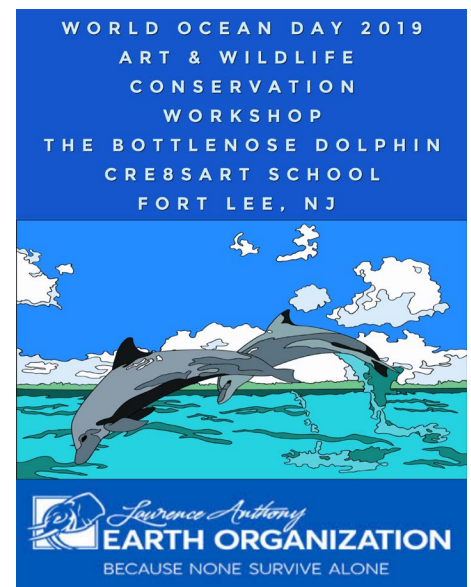
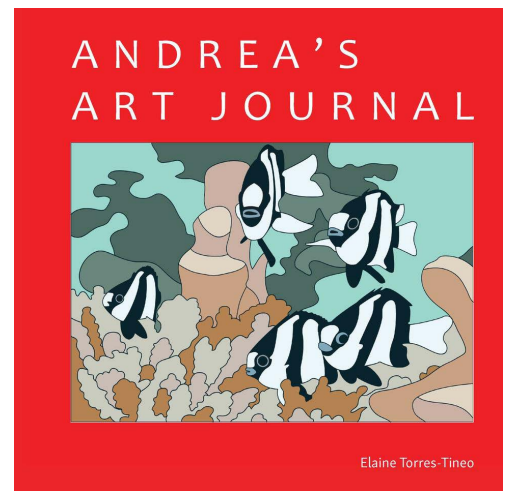
### RAISING CONSERVATION AWARENESS IN YOUNG CHILDREN THROUGH ART EDUCATION

In 2019, the New Jersey Chapter expanded its children's arts & wildlife conservation programs with the publication of the colouring book, Andrea Art Journal, an introduction to the colourful and diverse marine animals that populate the coral reef environment.

The first in a series of conservation theme picture books 'AAJ' complements the NJ Chapter's mission of teaching animal literacy and biodiversity through the visual arts. On World Ocean Day, the book was introduced to a classroom of art students who celebrated our blue planet with a painting workshop of the bottle-nose dolphin – one of the book's many illustrations.

The sad predicament of pollinators was the NJ Chapter's theme for World Animal Day 2019. Local schools and churches were the target of a mail and email campaign we ran encouraging them to mention the troubling decline of pollinators worldwide in their classes and bulletins. During the art & conservation workshop "Monarchs & Milkweed" that we held, children painted and learned about the beautiful monarch butterfly and how milkweed is the only host plant for this iconic butterfly species. Seedlings obtained from the Monarch Foundation were distributed to the parents afterwards as part of the event.

Promoting pollinator gardens and monarch way stations is the latest initiative of the NJ Chapter and is a program we hope to develop in 2020 and beyond.



## REPTILE AND AMPHIBIAN CHAPTER

### SEVERAL THOUSAND PEOPLE ENLIGHTENED ABOUT THE IMPORTANT PART REPTILES AND AMPHIBIANS PLAY IN THE WORLD'S ECO SYSTEMS

LAEO's South-African-based Reptile and Amphibian Chapter is run by its Director, Nick Evans, who spent a great deal of time in 2019 educating people about reptiles. He teaches them the value of snakes and how they play a critical role in the ecosystem. Through his talks and demonstrations at over 50 schools, companies and events, several thousand people learned more about snakes in order to help reduce their fear and boost understanding and care for these amazing creatures.



### OVER 200 SNAKES RESCUED FROM HUMAN CONFLICT

Every year since Nick started his LAEO chapter, he is increasingly called out to do more and more snake rescues. The majority of pleas for help end up being for a harmless species and in those cases, Nick encourages people to leave them in their garden. But in the warmer months, he has received an average of two to three calls per week to remove venomous species such as Mozambique Spitting Cobras, Boomslang, Vine Snake and Puff Adder.

Just one example: A request for help came in towards the end of 2019 related to a python in a rural community. It was crossing the road when it was spotted by some passerby who started throwing rocks at it. A local man, who had recently attended one of Nick's talks, stopped the group of panicked people and immediately called Nick. He held the group at bay and prevented anyone else from trying to injure the 3.5m (11.4-foot) snake until Nick could arrive. It was a great demonstration of the results of Nick's work, as the man who had rescued the snake felt proud of his accomplishment in helping the snake to survive. The snake was fine, and Nick released it back into the wild.



## REPTILE AND AMPHIBIAN CHAPTER

### MAMBA SEASON AND GENETIC RESEARCH AND TRACKING STUDY WITH THE UNIVERSITY OF KWAZULU NATAL

Nick not only rescues and releases Black Mambas but he is also conducting research on this fascinating species. The Black Mamba snake (*Dendroaspis polylepis*) is highly venomous. It averages 2,2m-2,5m (7 to 8 feet) in length with a grey/brown colour and a matt appearance (not shiny). They will always flee if given a chance. While many snake species go fairly quiet in the winter months, mambas do not. Winter is their mating season and, thus, Nick responds to many emergency calls for help from people who have sited mambas in or around their buildings.

This year he had several extremely unusual experiences in which he had to capture male mambas that were fighting, and three times he had to remove mating pairs that were inside houses or storerooms.



In coordination with the University of KwaZulu-Natal, Nick takes DNA from all of the mambas, as a part of our genetic study of Durban's Black Mambas population. He is also microchipping Black Mambas in three particular valleys. These are not GPS trackers, but they enable him and his team to see if they've captured a particular snake before, and track changes such as how far it has moved, and how much it has grown. The goal is to eventually get GPS trackers on at least three mambas, in order to see how the world's most infamous snake lives among suburbia, while rarely being seen. Fundraising is currently going on for this project.



### PRESTIGIOUS AWARD

In July of 2019, Nick was awarded the Stevenson Hamilton Award by the Zoological Society of Southern Africa (ZSSA) for his conservation efforts.

This well-deserved honour was presented at an award ceremony at the annual ZSSA conference, held this year in Skukuza camp in Kruger National Park.



## 42 FARMERS TRAINED AND OPERATING ON SUSTAINABLE COFFEE FARMING OPERATIONS TO REDUCE NEGATIVE IMPACT ON LOCAL FORESTS

In 2014, LAEO Uganda created a unique coffee plantation project aimed at creating a buffer between villages and forests to reduce the amount of wood that is taken from the forest and thus safeguarding trees, while at the same time providing a valuable source of income for the local community to combat poverty. Poverty is a driving cause of poaching and other forms of unsustainable environmental exploitation and this project has been making significant strides in helping the local economy and protecting its local forests.

In 2019, this program continues to expand, with LAEO Uganda staff now actively working with 42 farmers to assist and train them in how to viably run a coffee plantation in all of its aspects.



Additionally, they have embarked on a project to encourage the local community to stop draining swamps for growing crops but rather to initiate more sustainably viable activities in the swamp areas such as bee keeping. In this way, additional sources of income can be developed for the community, while protecting environmentally important and sensitive areas that are so vital to the health of the local eco system. Thus far, they have four farmers who have set up bee keeping projects in the swamps with 32 bee hives.

LAEO Uganda has started a bee keeping farm of its own to be used as a model for training other farmers. The goal of the project is to train farmers to keep both traditional and modern bee hives, including how to do queen production and how to harvest, handle and market honey.



## 9 LIONS AND 4 BEARS RESCUED AND RELOCATED

LAEO funded the launch of a chapter in Ukraine in 2013, in response to a dire situation in which the government had cut off all funding to the national zoos, leaving thousands of animals in peril of starving in their cages. A South African expatriate living in Ukraine, Lionel De Lange, stepped up to the plate to take this challenge on and ran the LAEO Chapter there until early 2020.

During the year of 2019, Lionel and his team accomplished many successful lion and bear rescue and relocation initiatives. Here are the main projects Lionel and his team undertook:

- After 24 years as circus performers, Marsha and Lorna (renamed to Dasha and Katia) were finally freed. The two bears are twins, although they were kept in tiny cages apart from each other when they were not performing their circus tricks of riding bicycles and jumping through hoops. When LAEO Ukraine was finally able to relocate and release them at the Liberty Bear Sanctuary in Romania, they regained their sisterly bond.
- Two other bears that found freedom are Alisa and Timka, who were rescued from the Khmelnytski City Zoo, where they had spent their lives in a tiny, concrete cage. Alisa, 26, is blind and her mate, Timka, is 20. Alisa was believed to be a breeding bear. After two years of hard negotiations, Lionel and his team were finally able to get the two Eurasian Brown Bears into facilities under LAEO Ukraine's care, where they received badly needed dental work including three infected teeth extractions, and sterilization. Alisa was also checked over to see if her sight could be restored but, unfortunately, it could not. The rescue included an 18-hour drive to their temporary facility where they were treated in preparation for their move to a humane bear sanctuary.





## UKRAINE

Five Ukrainian lion cubs (Sandra, Carmen, Uma, Maya & Lion-EL), aged 15-16 months old, were rescued from private breeders and roadside zoos. Lionel worked with Yvette Taylor, our International Executive Director, to arrange for them to be accepted in their “forever” home at the beautiful Ubuntu Wildlife Sanctuary in South Africa.

The cubs started their 76-hour journey in Boryspil International Airport in Ukraine by truck, going on to Istanbul and then, with the help of Turkish Airlines, flew on to Johannesburg where the crates were loaded onto five pickup trucks. They then drove the last three hours of their trip to the sanctuary. The cubs took their first steps on African soil early the next day. They are now happy and healthy, and loving their lives in their beautiful, natural surroundings.



## UKRAINE

The next Ukrainian lions rescue was of four lions from different backgrounds.

Luke, a young male, was trained to perform in a circus living in a small travel crate. Demira lived in a 30-square meter cage in a monastery. When they could no longer afford to feed her, they contacted Lionel to come and rescue her.

Diya was a cub in a petting park, and Frieda was a personal pet until she got too big and was taken by a zoo in Ukraine where she lived in a clear acrylic display box. Due to the poor ventilation and cross contamination, she suffered from chronic eye infection.

The four lions travelled by truck and plane from Ukraine to Love Lions Alive Project in South Africa with Andi Rive and her partner Line and the LAEO team to be released into humane conditions under African skies.





## CONCLUSION

The Lawrence Anthony Earth Organization is an active association of passionate chapters working to improve conditions for all life on Planet Earth. Every year since our inception, we have expanded our reach outwards with the aim of actively improving the health of the natural world through the implementation of science-based solutions and by expanding people's understanding of Cooperative Ecology™ and, thus, their vital partnership for survival with all life and the world around them. We are very proud of the progress we made on that road in 2019 and we look forward to growing exponentially in our positive impact around the world in each coming year.

The future looks very bright and we invite you to join us on our mission's journey.

Respectfully,  
The Staff of the Lawrence Anthony Earth Organization



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