

The International Elephant Foundation (IEF) announced support for elephant conservation projects in 2013

IEF-supported projects protect elephants from poaching, seek solutions for human-elephant conflict, equip and train community conservationists, increase our knowledge of the treatment and prevention of disease and educate people. In 2013, IEF will provide over \$250,000 to support elephant conservation around the world, adding to the over \$2.5 million total invested in conserving elephants since its inception in 1998. The following elephant conservation projects will receive support from IEF in 2013:

Sumatra Elephant Conservation Response Units, Indonesia



This ongoing IEF project in Sumatra mitigates negative human-elephant interactions and improves local perception of elephants by utilizing captive elephants and their mahouts for direct field-based conservation intervention and protection for all wildlife and forest habitat.

Capacity building by the Northern Rangelands Trust (NRT), Kenya

NRT develops the capacity and self-sufficiency of its constituent community conservancies in biodiversity conservation, natural resource management and protection, and natural resources based enterprises.



Land and Waterways Project, Uganda Conservation Foundation (UCF), Uganda



This multi-year partnership constructs and equips marine and land ranger stations positively impacting the ability of law enforcement to reverse poaching and to initiate water rescue for the communities that make their livelihood from the resources of the lake.

Park Protection and Training Programme in Kafue National Park, Zambia

This project expands the Park Protection & Training Programme to include Waterborne Patrols, Surveillance and Monitoring of Lake Itzhi-Tezhi, providing increased security for the wildlife.



"My Elephant Neighbor" - Mouhoun Elephants Aerial Total Count, Burkina Faso



This program benefits elephant conservation both in the long and short term as both children and their parents are sensitized to the issues of neighboring elephant populations. The last count of the Mouhoun elephant population was conducted in 2002 resulting in between 200 and 900 elephants. The potential connection of the Mouhoun elephant population with other elephant populations, especially the Kaboré-Tambi – Nazinga, the Comoé-Léraba, and the Northern Ghana populations are unclear. These elephants are facing increasing pressures through habitat destruction and fragmentation. Outcomes of this project will determine long-term

conservation efforts to protect this population.

Support to Purchase Field Equipment for Namunyak Conservancy Rangers, Kenya

The Namunyak Wildlife Conservation Trust is an indigenous community-based organization promoting wildlife conservation and socio-economic development through sustainable utilization of natural resources. While the rangers do their best to prevent poaching and monitor elephant mortality, they are very inadequately equipped and need a variety of equipment to be able to carry out their job effectively. Equipping the rangers with adequate equipment will enable them to not only patrol a larger area but will also be a deterrent to potential poachers.



Developing long-term stakeholder capacity for elephant conservation in Mali

This initiative is part of the Mali Elephant Project to protect a unique population of 550 sub-desert elephants that has managed to cope with the dispersed and variable nature of the area's resources through making the largest annual elephant migration in Africa. Increasing human activity in the elephant range is increasingly impeding this migration, and incidences of conflict are escalating. This project brings together the diverse clans and ethnicities of communities to collectively establish natural resource management systems that *all* agree to, supported by legislation and government structure plans. These systems protect the elephant migration route, increase the quantity of resources by reversing destructive practices, and ensure wise land-use management.



Elephant Conservation Center, Myanmar

IEF is developing a long-term relationship with Myanmar Timber Enterprise (MTE) to assist in developing a Conservation Center that would use out-of-work elephants for eco-tourism and patrols. This center will also be a base for mahout training and an elephant hospital.

Capacity building to strengthen management of captive elephants in Laos

This project will reduce the illegal capture and trade of wild and captive elephants through the registration and micro-chipping of captive elephants. To date the team

has successfully micro-chipped 442 elephants. This project will also include the distribution of Elephant Identity Cards, training of mahouts in basic healthcare, and the dissemination of information within mahout communities promoting long term care, breeding opportunities, and socio-economic alternative to logging.



Supporting community-based conservation of Asian elephants in Rakhine Yoma, Myanmar

This project recognizes that conservation often imposes a significant opportunity cost on local communities, and that these same communities often have skills and experience that can be harnessed to promote conservation. This project will train villagers in elephant surveys to generate reliable data on total population, distribution, threats, and conservation status, support the participation of the villagers in joint patrols and associated management and monitoring activities, and support anti-wildlife trade and HEC mitigation through education and awareness.



Determining Pharmacokinetic Characteristics of the Antiviral Drug Ganciclovir in Asian Elephants

Appropriate dosages and dosing intervals to maintain therapeutic blood levels of ganciclovir in elephants needs to be established in order to guarantee effective treatment and to minimize drug-associated side effects.

Elephant Edotheliotropic Herpesvirus (EEHV) Research

IEF is one of the primary funders of the National Elephant Herpesvirus Laboratory at the Smithsonian National Zoo and directs and funds multiple studies aimed at identifying the causes of EEHV.

Emergence of highly fatal endot heliotropic elephant herpesvirus in Asian elephants of South India

This is the first report of EEHV both in India and in free ranging elephant populations. This project will be a thorough epidemiological investigation of the EEHV infections in both free ranging and captive Asian Elephants in the study area. This project will identify and evaluate the extent of emergence of EEHV, risk factors and risk groups involved and will help formulate management strategies for the future conservation of this species.



Innovative attempts to propagate elephant endotheliotropic herpesvirus cell culture

The ability to grow and propagate this virus in laboratory conditions is so critical for the progress of future research towards understanding the biology and pathology of this virus, as well as for any hoped for possibility of generating live attenuated vaccines that additional innovative approaches must be carried out as one of the top priority goals of EEHV research. This study will employ a variety of improved detection methods and alternative approaches beyond the simplistic standard ones.

Validation of the effectiveness of anti-herpesvirus inhibitors for EEHV disease

This project will carry out sophisticated basic research experiments designed to answer which if any of the drugs are truly capable of stopping EEHV so that informed decisions can be made.

Disease risk analyses for Tuberculosis detection and prevalence in elephants

Identification of risk factors and assessment of currently available diagnostic methods in U.S. elephants will provide information that can be used for making recommendations to minimize transmission and prevent infection. Improved interpretation of diagnostic tests, identification of risk factors associated with infection, and assessment of the current infection status of the U.S. elephant population will facilitate decision-making by elephant managers, veterinarians, and regulatory officials regarding movement, treatment, and management of elephants to prevent TB infection.



Overview of Tuberculosis in Elephants in the United States

Tuberculosis in elephants in the United States is a complicated disease that poses numerous elephant and human health concerns, regulatory difficulties, and diagnostic challenges. Tuberculosis is difficult to diagnose in elephants, and current diagnostic tools have limitations. In addition, treatment options for elephants are of uncertain efficacy and have potentially serious side-effects. These issues have contributed to debate regarding appropriate regulatory standards. This study is intended to ensure that contributions from all authorities

are integrated into an objective assessment of currently available information, and it will assist with clarifying where key information exists or needs to be developed to best manage and eliminate Mtb in elephants.

Investigating a Low Tech Method of Cryopreserving Elephant Sperm

Cryopreservation of semen for use with artificial insemination has the potential to be a valuable tool in the management of elephants. Unfortunately, post-thaw motility of cryopreserved Asian elephant sperm is usually poor. This study will investigate the use of manual seeding to control ice crystal propagation and thawing at temperatures higher than 37C as a method of increasing post-thaw sperm quality of cryopreserved Asian elephant sperm.



EEHV Viral Genomics and Pathogenesis.

The three most common and useful techniques for studying viruses are not applicable for EEHV. However studying the genomes of EEHVs by PCR amplification and DNA sequencing



directly from necropsy tissue and other clinical samples provides information about the genetic make-up of each virus and about the genes and pathways that they utilize to take control of particular types of host cell. That information allows us to generate additional clinical reagents such as specific antibodies and target antigens, as well as cloned expression vectors for viral enzymes that can be used in laboratory research and pathological diagnosis. The ultimate goal is to identify viral immediate-early genes, latency genes and immune evasion genes and other potential novel viral genes or pathways that will provide insights into the mechanisms of viral pathogenesis, and will also in the future help for generating engineered attenuated vaccine strains or new targets and approaches for better antiviral drugs.