

### Flights for a Phoenix



The mature American crocodile (*Crocodylus acutus*) has no predators in its ecosystem, but the rise of development in coastal areas leads to more human-crocodile interactions and threatens its survival. *Photo courtesy of ACES*



ACES relocates problem crocs such as this one that was preying on local pets. Crocs are not born to hunt domestic animals but when garbage dumped nearby attracts raccoons, pets are not far behind and present easy pickings. *Photo courtesy of ACES*



*LightHawk flights can help change hearts and minds about the natural environment, and they can help gather data about species. Flights often persuade decision makers and inspire media to illuminate conservation battles. But sometimes these flights can provide a second chance for wildlife without a voice and environmentalists faced with incredible tragedy.*

On March 3, LightHawk received a disturbing email, "Last year LightHawk was going to assist ACES/American Crocodile Education Sanctuary in Punta Gorda Belize," wrote Research Biologist Cherie Rose. "Unfortunately, our facility was burned down last September by villagers." The email went on to say they had relocated to Ambergris Caye and were continuing to save crocs there. ACES now needed LightHawk to help them conduct an American crocodile (*Crocodylus acutus*) population and habitat viability assessment for the Belize Government.

The American crocodile, an apex predator, plays an important role in keeping its ecosystem in balance. Without these mega fauna in the mix, dramatic impacts on the natural environment can occur, like dominance of a single species of fish, favoring ecologically unstable relationships, resulting in larger problems that magnify in a domino effect. The American crocodile is increasingly at risk as the coastal zones they inhabit are rapidly developed.

ACES is a non-profit group founded by husband and wife team, Vince and Cherie Rose, and dedicated to conserving Belize's critical habitats for American crocodiles through scientific research and education. A true labor of love, every cent of their funding goes towards rescuing ill-kept, injured and problematic crocodilians country-wide in Belize; conducting population assessments for conservation efforts; providing a secure, natural habitat and professional care for rescued crocodiles; educating local school children; and raising public awareness on how to safely co-exist with these highly threatened creatures.

In September 2010, an angry mob of villagers burned the ACES facilities in Punta Gorda to the ground after two children from a local village went missing. A local psychic had suggested that scientists from ACES had fed the children to their rescued animals. However, there was never any indication that crocodiles had anything to do with the disappearance of the children. Ironically, ACES regularly

The aerial perspective helped ACES spot prime crocodile nesting sites along a hard to reach coastal area. *Photo: ACES with aerial support from LightHawk*



ACES co-founder Vince Rose conducting an impromptu street class on the American crocodile. *Photo courtesy of ACES*



Following their flights for ACES, volunteer pilot David Cole and his wife Martha (shown here) were invited to participate in a juvenile crocodile release. *Photo courtesy of ACES*



This crocodile was being relocated by ACES because local boys were feeding it illegally and it became problematic - approaching humans looking to be fed. *Photo courtesy of ACES*

captures and houses crocodiles that are considered problematic and would otherwise be dangerous to humans and be destroyed. Crocodiles that have been fed illegally and/or kept as pets illegally often lose their fear of humans and become nuisance beggars and scavengers.

After the incident, the owners of ACES lost everything. Like the mythical phoenix that rises from the ashes, Vince and Cherie began again by rebuilding their center in another part of Belize. Once they had relocated in Ambergris Caye, they asked LightHawk for help.

ACES is conducting a crocodile population and habitat viability assessment on Ambergris Caye to propose a crocodile conservation management plan to the Belize Forest Department. Ambergris Caye has the dual distinction of hosting three marine reserves and a national park, as well as boasting the highest rate of human-croc conflicts in Belize. A LightHawk donated flight, piloted by David Cole of Meeker, Colorado helped the ACES team to geo-locate prime crocodile nesting areas that otherwise would not have been discovered because there were in hard to reach, shallow remote lagoons. LightHawk also helped ACES to assess plausible release areas for non-problematic crocodiles and to record the levels of mangrove clearing for new developments. Research data shows that American crocodiles in this region are declining primarily due to habitat loss and fragmentation due to human development. ACES is gearing up to propose a limited land development area plan to the Belize Ministry of Natural Resources and the Environment to secure enough critical habitat for the survival of this species in Ambergris Caye.

Gaining the aerial perspective also helped ACES to investigate an area offered as a future crocodile sanctuary on Ambergris Caye. The area would safely and naturally contain problematic and ill/injured crocodiles that otherwise would be killed or die an untimely death. ACES had been unable to assess the habitat, as it is currently inaccessible by land or water.

A second LightHawk flight helped ACES and the Belize Forest Department to investigate a proposed location for the future main crocodile facility just north of Belize City. By gaining a landscape-scale view, LightHawk partners were able to determine the best way to move forward with construction while causing minimal impact on the surrounding mangrove habitat.

Crocodiles, as apex predators, are extremely important for maintaining the health of ecosystems. These ancient animals that have lived on earth for approximately 200 million years without much change and have survived mass extinctions are now in danger due to harmful human activities and lack of understanding. ACES and LightHawk are collaborating to save and protect these magnificent creatures, and educate the public about their importance before it's too late.

## **About LightHawk**

What started in 1979 with one man and a vision has grown to over 185 volunteer pilots flying missions across the U.S., into Canada, through Mexico and down to Panama. Today, LightHawk is the oldest and largest nonprofit, volunteer pilot-based organization flying environmental missions in collaboration with hundreds of partner organizations.

At LightHawk we believe the view from the window of a small airplane provides a powerful and effective platform for research, ground-truthing, environmental awareness, and education.

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