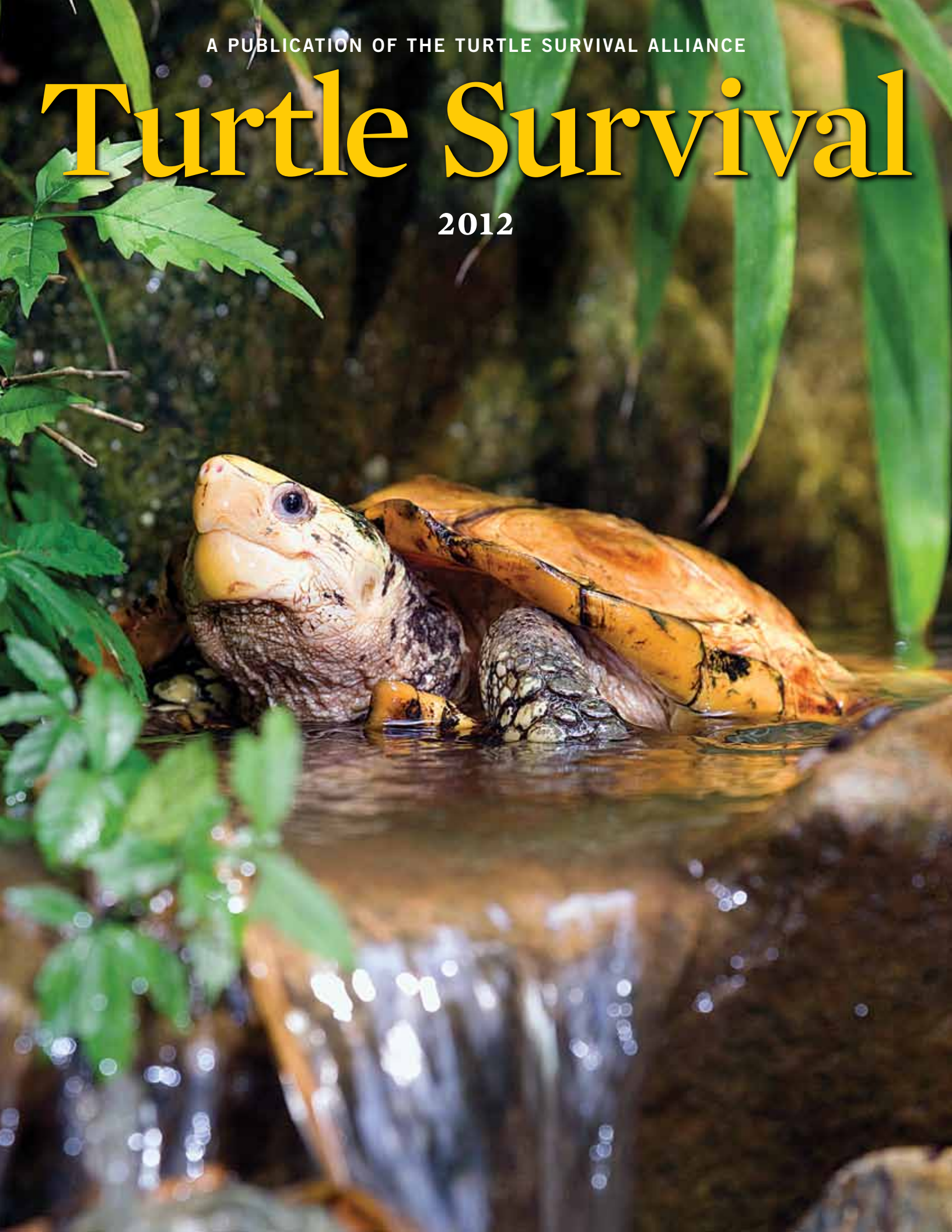


A PUBLICATION OF THE TURTLE SURVIVAL ALLIANCE

# Turtle Survival

2012



# TURTLE SURVIVAL ALLIANCE

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**ABOUT THE COVER:** The Sulawesi Forest Turtle, *Leucocephalon yuwonoi*, is endemic to the Indonesian island of Sulawesi and is the single representative of a monotypic genus. Ranked critically endangered by the IUCN Red List, *L. yuwonoi* has been high on the TSA's priority list of species in need of both *in situ* and *ex situ* conservation programs. However meaningful progress towards that goal has proved elusive, though 2012 may well represent the turning point for this enigmatic species. TSA Director of Animal Management Cris Hagen, accompanied by Indonesian biologist Awal Riyanto, recently sowed the early seeds of collaboration with Tadulako University in Palu where an enthusiastic group of students and faculty is ready to embark on turtle and tortoise research projects. We envision this program unfolding under a collaborative agreement with WCS Indonesia that will expand our impact on both *L. yuwonoi* and the other Sulawesi endemic, Forsten's Tortoise, *Indotestudo forstenii*. Unfortunately both of these species continue to decline due to local and illegal international trade. Cris and his team located a trader holding ~300 wild-caught adults under crowded and stressful conditions, in what will ostensibly become an approved "captive breeding" operation. On a brighter note, we reported cautious optimism earlier this year as *ex situ* captive breeding success continues to improve for *L. yuwonoi*, both in the U.S. and Europe. At least five private breeders in the U.S. and three zoos in Europe and the U.S. – Muenster, Atlanta and Denver – have reported hatchlings since 2003, and we are aware of at least 12 surviving captive bred juveniles in the U.S. PHOTO CREDIT ADAM THOMPSON, ZOO ATLANTA





Male Hicatee turtles develop a brilliant yellow coloration on their head during the breeding season. PHOTO CREDIT: THOMAS RAINWATER

# Hicatee Conservation Research Center Takes Shape in Belize

JACOB MARLIN

**The Central American River Turtle** (*Dermatemys mawii*), known locally in Belize as the Hicatee is the only living representative of a formerly widespread group of turtles of the family Dermatemydidae. Hence from a biodiversity preservation perspective this monotypic species ranks extremely high. It currently has a very restricted range, confined to the lowlands of northern Guatemala, southern Mexico, and Belize.

The Hicatee has traditionally been heavily

harvested for its meat – hunted with nets, harpooned or collected by hand – to the point that many populations have been extirpated. This continued downward spiraling trend has resulted in *D. mawii* being ranked Critically Endangered by the IUCN Red List, which calls it “the most endangered species, genus, and family of turtles in Mexico, and possibly elsewhere in its limited range.” Despite intense collection pressures, Belize still supports some healthy popula-

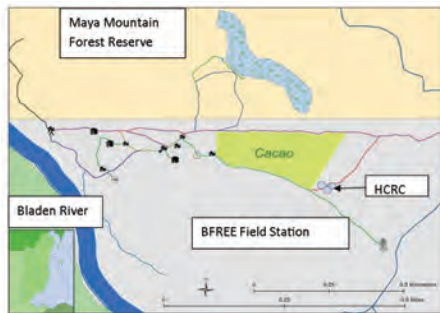
tions, though generally these are in remote and sparsely populated areas.

A regional initiative to save the species from extinction has been launched in Belize. The TSA is playing a leading role in that initiative, partnering with the Belize Foundation for Research and Environmental Education (BFREE) to establish the Hicatee Conservation and Research Center (HCRC) at the BFREE biological field station in southern Belize. Construction of the center began in 2011, with initial work focused on the creation of ponds and a freshwater well and solar powered pumping system to provide clean fresh water to the ponds. Material acquisition for infrastructure development is also underway.

Work currently continues on pond stabilization. Initially, a decision was made to dig the ponds, then use clay as a natural liner, a process that requires time for the ponds to seal. Large amounts of clay have been brought to the pond site, and layered using heavy machinery, along with wheelbarrows and a lot of hand labor. The



The pond at the HCRC, the future home for the Hicatee. PHOTO CREDIT: JACOB MARLIN



Location of the Hicatee Conservation and Research Center in southern Belize.

clay has been tightly compacted using a variety of methods including driving atop it with an ATV. Unfortunately, the ponds have yet to seal, and continue leaking for reasons unknown. Though the seepage is slight, it is enough to delay construction. We are seeking a solution, and expect to have the ponds ready for the Hicatee in the next few months.

Concurrent with pond construction, we have spent the past months preparing for the dietary needs of the River Turtles to be housed at the new center. Previous Hicatee surveys conducted by Don Moll (1980s) and John Polisar (1990s) found

that a large proportion of the turtle's diet consists of angel grass (*Paspalum paniculatum*), Dr. Steven Brewer, a plant ecologist who has worked in Belize for 20 years and who resides at BFREE for part of the year, volunteered to propagate angel grass at the HCRC in order to offer a steady, self-maintaining on-site supply of this food source.

Seed "heads" (infructescences) from the BFREE garden were collected and dispersed around the perimeter of both breeding ponds, and around the bio-filtration and food-rearing pond. The seeds have germinated, and angel grass is now becoming part of the ground cover vegetation within the HCRC. As the Belize rainy season moves into full swing, BFREE staff will tend the grass and encourage its abundance, so that the Hicatee will be well provided for when they arrive. Thank you to Dr. Brewer for aiding in this important aspect of the care and husbandry of this critically endangered species.

It is our hope and expectation that when the HCRC is fully operational it will play an important role in conserving the Central American River Turtle.

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## Hicatee Outreach Making Big Impact in Belize

Lee McLoughlin

Pressure on the Hicatee – the Central American River Turtle – has been significantly reduced in Belize thanks to a successful awareness raising campaign that began in 2011. To build on that momentum, the Ya'axché Conservation Trust (Ya'axché), with the help of the TSA, secured funding from the Turtle Conservation Fund to sustain the campaign.

Ya'axché again teamed up with Belize's number one radio and television station, Love FM, to sponsor the three biggest social events in Belize – La Ruta Maya, a 175-mile kayak race; The Belize Agriculture Show; and the National Bicycle Race. A song highlighting the plight of the Hicatee and what Belizeans can do to reverse its decline was written in Kriol (the national dialect), and played on Love FM throughout the events.

This coverage was supported on the ground by the Belize Fisheries Department. The agency conducted enforcement patrols and distributed awareness-raising materials to restaurants and food vendors that often illegally sell Hicatee meat. Ya'axché reports that, for the first time ever, no vendors were caught selling Hicatee. Many vendors and restaurants say they learned about the threats to Hicatee survival through the campaign.

While the survival of the Hicatee is still not guaranteed, it is clear that progress is being made. A continued awareness campaign in 2013 will be essential.

Lee McLoughlin, [lee.mcloughlin@yaaxche.org](mailto:lee.mcloughlin@yaaxche.org)



This large 10' x 20' billboard is visible to all drivers leaving Belize City and is seen by those heading north into the Belize river valley, the region of highest Hicatee consumption.