

Nahant News
 Winter 2010/2011
 Volume 4, Issue 4



How Eco-Tourism Can Help Save the World

By: Brian Ritter

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Visit us at our Nahant Marsh website:
www.nahantmarsh.org

Nahant Marsh Website:

- Educational information
- Photos
- Become a Member
- Marshy Facts
- Marshy Blog
- Calendar of Events
- This Newsletter
- Sign-up sheets for events
- And much more!!!

I spent the first part of 2011 working and learning in a rural village in a mountainous area of Costa Rica named Mastatal. The region had historically been a blend of small farms interlaced with diverse tropical forests, clear-running streams, and impressive waterfalls. However, as global demand for beef has risen, the majority of the area's forests have been cleared and converted to cattle pastures. And because the soil is highly erodible, many of the streams have turned from crystal clear to a shade of brown. But there is hope...

Mastatal is in Puriscal county, one the most heavily deforested areas in all of Costa Rica. Mastatal and surrounding communities had been full of flourishing chocolate-producing farms until a fungal blight destroyed the majority of the cocoa crops in the area, leaving many farmers devastated. The town had no stores, no jobs, and little opportunity for local people to better their lives. But, around 10 years ago, an ambitious American couple, fresh out of the Peace Corp in South America, decided to settle in the area and try to find ways to revitalize the local community. And for the most part, they have developed a model for creating economic opportunity while preserving the natural environment.

They accomplished this task by building an environmental learning center and eco-retreat called Rancho Mastatal on the site of a 500+ acre former farm. They have hired and trained several local

residents. And as a result, several of those individuals have been able to open their own family-run businesses in town, including a small restaurant, or soda, an internet café, and a craft shop. In addition, they purchase almost all of their food from local farms. Rancho Mastatal has built almost all of their buildings out of locally harvested, sustainable materials. And one of their most impressive accomplishments was their work with local residents and the government to get a nearby virgin forest, La Congreja, declared a national park. By protecting La Congreja, they have created further eco-tourism opportunities for the community, protected the community's water, which comes from a spring in the park, and ensured that future generations can enjoy this diverse tropical treasure. In addition, they are working with college groups and Solar Energy International to train locals on how to build and

maintain renewable energy systems.

While there, I couldn't help but see the parallels with the Midwest. We have altered most of the original ecosystem to make room for agriculture and urban development, small family farms have all but disappeared, and as a result, small rural communities are disappearing at an alarming rate. Perhaps we could learn a lesson from the developing world and find ways to revitalize our small towns by encouraging things like local food production, eco-tourism, renewable energy, and maybe most importantly, self-sufficiency. The most impressive person that I met during my time there was a 70 year old man named Domingo who lives down the side of a mountain in a small shack surrounded by forests and fields. Even though he had no money, he told us he has everything he needs. He grows his own food and medicine, has water from a spring, and a happy family right up the road. With our help, he also now has lights for the first time in his life- we helped him install a small photovoltaic system on his home that will power a few lights in his home and hopefully improve his quality of life.



Seventy year old Domingo switches on a light in his home for the first time.

Life in a Dead Tree

By: Becky Horton



Brian Ritter and Becky Horton putting the walls on the tree.

Dead Trees are a major part of the forest ecosystem. An ecosystem is a community of living and non-living things that work together. If all of the dead trees within a forest were removed, the forest would lose habitat for 1/5th of its species living there. So what kinds of species live in a dead tree? There are several species! Invertebrates, which are species without backbones, like insects, use dead trees as a food source. They bore holes in the trees and live in them. Many different birds

also live in dead trees. Woodpeckers, or primary cavity nesters, are constantly making holes in trees to find the insects to eat and to make nests to raise their young. They are the primary cavity nesters because they are the birds that initially make the holes in the trees. Other birds, such as wood ducks, chickadees, nuthatches, and owls are secondary cavity nesters because they make their nests in the previously made holes of dead trees to raise their young. Some birds of prey, such as eagles and hawks, use the upper branches of dead trees to perch on as they hunt for prey. They like the dead trees because there are no leaves blocking their view as they search for food. There are also small animals found living in dead trees. These animals include squirrels, raccoons, flying squirrels, bats, and opossums.



Emily Young working on the door of the tree.

If the tree falls over or branches fall off the tree, it creates a brush pile. Within the brush pile, you can usually find rabbits, chipmunks, box turtles, lizards, skinks, salamanders, snakes, tree frogs, and skunks using it as shelter, a hiding place, or a food source.

There are five ways wildlife species use nearly every part of a dead tree in its decay. One way is a soil refresher. Dead trees usually all have fungi or mosses growing on them which

help return nutrients to the soil below the tree through the nitrogen cycle. The fallen trees help new seedlings by acting as a nursery for them. Another way is a hiding place. Not only do animals hide themselves in the trees from predators, but they also use the nooks and crannies in a tree as a storage place for their food for the winter months. A third way is a food source. As explained above, insects and birds use

the tree as a food source. A fourth way is a place to live and the fifth way is a look-out spot. As you can see, dead trees are just as important as live trees in a forest ecosystem.

During Bald Eagle Days this year at the QCCA Expo Center, Nahant Marsh had a booth with a “dead” tree for kids to go in and look around. Inside the tree, there were a lot of facts mentioned above along with pictures of animals that live in dead trees. Also, on the outside of the tree, there was a crow, an owl, a woodpecker, and a squirrel. The tree was made out of insulation foam board, wood, chicken wire, and a lot of nuts, bolts, and screws. The texture of the bark was made by scraping the side of the insulation with garden trowels. The inside of the tree was lined with burlap cloth to cover up the chicken wire and nuts and bolts. We then put the final touches on it by spray painting it brown and adding the critters to the tree. The tree is now back at Nahant Marsh for repairs and hopefully will be shown at future Earth Day Fairs and Bald Eagle Days. For those that stopped by the Nahant Marsh booth at Bald Eagle Days, we hope you liked our tree and thank you for your support!



Transporting the tree to Bald Eagle Days one half at a time. Thank you Brittany Ackerland for the truck!



The final product with Jen Rothe working at our booth.

Nahant Marsh Intern: Jennifer Rothe



Hello! My name is Jen Rothe, though I've picked up several additional monikers along the way, with "Hobo" and "Wildlife Gypsy" being the most recent (and most appropriate, for reasons I will get to).

Originally from Oshkosh, WI (yes, of "Oshkosh B'Gosh" fame), I graduated from UW Stevens Point in May 2010 with B.S. degrees in Biology and Wildlife Ecology and minors in Science/ Environmental Writing and Conservation Biology. Since then I haven't stayed in one place for very long.

This summer I worked at the Raptor Education Group (REGI) in Antigo, Wisconsin, where I cared for sick/ injured birds and spent a lot of

time doing educational programs with raptors on my glove. I was granted 2 weeks off to go backpacking on the remote Alaskan tundra where I teamed up with other field biologists to work with wild Gyrfalcons, rappelling down craggy volcanic craters to access their aeries and banding/ bleeding their white, downy kids. As autumn fell, I migrated to Linwood Springs Research Station outside of Stevens Point, where I literally became nocturnal and ran mist nets all night long to trap, band, measure, and release 1/4-lbs Northern Saw-whet Owls.

If you've noticed a "birds-of-prey" theme to the aforementioned jobs, you're absolutely correct. No other taxon has served to inspire, fascinate, honor, and humble me as much as Falconiformes.

My love of raptors is also what brings me to Iowa for the winter: I'm doing Bald Eagle night roost surveys along the Mississippi River. As that

occupies only six hours of my week, I spend the rest of my time interning at Nahant Marsh. I have been pleasantly surprised by the generosity, kindness, and sheer breadth of knowledge of the people I've encountered here. Thank you all; be assured that I will be sharing your stories long after I leave here at the end of March.



Kids Corner!

Nahant Marsh Winter 2010-2011 Crossword Puzzle

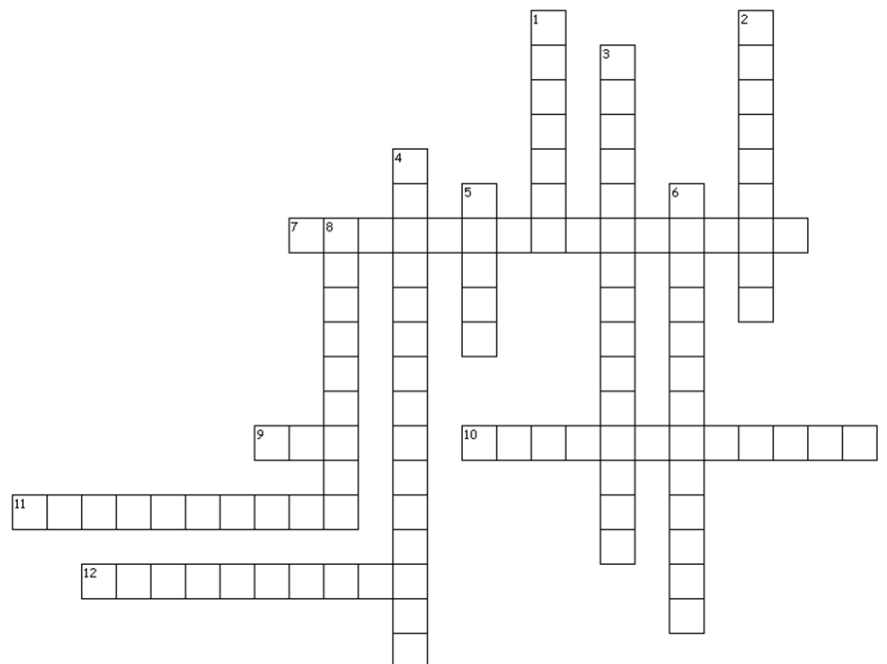
The answers to the clues for the crossword puzzle are found in this newsletter. Happy Reading!

Across

- 7. Energy that comes from natural resources.
- 9. A potent insecticide that results in fatally brittle eggshells
- 10. A species without a backbone
- 11. Uniting conservation, communities, and sustainable travel
- 12. Example of a primary cavity nester

Down

- 1. Active during the day
- 2. National Bird (2 words)
- 3. Marsh Hawk (2 words)
- 4. North America's smallest falcon (2 words)
- 5. Another word for legs in hawks
- 6. Highway hawk (3 words)
- 8. A community of living and non-living things that work together



Common Winter Raptors of Iowa: By Jennifer Rothe

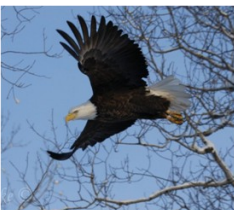
When I tell people I work with raptors, I'm usually met with one of three reactions: 1) enthusiasm and interest, 2) indifference, or 3) laughter, combined with claw-like slashing motions with their hands à la Jurassic Park.

So what is a raptor?

The word "raptor" is derived from a Latin word meaning "to seize." The birds of prey, as the raptors are popularly called, are the avian equivalent of top predators like tigers, wolves, or sharks. They are hunters; their lives depend on their ability to detect and capture prey. Their radiant eyes are as sharp as their gracefully decurved beaks, and their talons, the real business end, are as capable of bringing their prey to a swift end as they are at deftly scratching an itchy cheek. Iowa is fortunate to have a variety of these incredible birds hanging around during the winter. Here I will discuss only the most common diurnal raptors (those active during the day).

Bald Eagle (*Haliaeetus leucocephalus*)

With almost every river town hosting Bald Eagle-themed festivals, these handsome birds are certainly the stars of the Mississippi River come winter. When the northern water bodies freeze over, they are drawn en masse to stretches of open water where they can continue pursue their main prey: fish. The iconic white-headed, white-tailed adults



Adult Bald Eagle (Photo: Erik Bruhnke, Naturally Avian: <http://www.pbase.com/birdfedr>)

are easily recognized as our national symbol, but the all-dark immature birds mixed in with them often cause confusion because of their resemblance to Golden Eagles (*Aquila chrysaetos*). Prior to molting in their adult plumage at 4-5 years of age, "Balds" sport varying degrees of white mottling throughout their dark undersides, a characteristic not shared with immature or adult Golden Eagles. Another common point of confusion is the

Balds' high-pitched, almost-wimpy vocalization: the hoarse scream that popular culture has taught us to associate with the Bald Eagle actually belongs to the Red-tailed Hawk!



Immature Bald Eagle, banded at Hawk Ridge Bird Observatory in Duluth, MN, showing extensive white on undersides. (Photo: Jen Rothe)

Red-tailed Hawk (*Buteo jamaicensis*)

Redtails are the quintessential "highway hawk:" you can hardly drive a mile through open country here without spotting one if you're observant. Generally their cream-colored bellies contrasted against the dark tree lines across a field are what give them away, but just as often you can see them perched on telephone poles or climbing a thermal (rising column of warm air) in slow circles. They are relatively passive hunters, expending a minimum amount of energy while their keen eyes scan far below for movement of small rodents. Most people recognize a hawk with a red tail as a Red-tailed Hawk. However, not all Red-tailed Hawks have red tails! Hatch-year birds don't molt in their red feathers until they

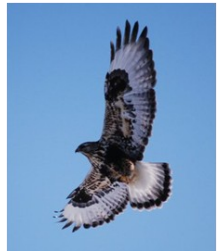


Adult Red-tailed Hawk soars overhead. (Photo: Erik Bruhnke, Naturally Avian: <http://www.pbase.com/birdfedr>)

are about a year old; prior to that they have brown tails. In other parts of the country there are subspecies of Redtails with pink or even white tails as adults! Look for a stocky hawk with a cream-colored underside, black speckled "belly band," and black "commas" near the outer wing.

Rough-legged Hawk (*Buteo lagopus*)

These lovely birds are winter visitors from the far north. Natives of vast, treeless expanses of tundra, here they are drawn to open fields and tend to perch somewhat awkwardly at the very top of trees, as if they are unsure of how to best employ the strange structure. The name "Rough-legged" comes from the fact that they wear feathers on their legs all the way down to their feet, a defense against the subarctic cold. A dark lower belly and a bicolored tail, with white close to the body and black band at the tip, can help identify perched birds. If it happens to alight, be sure to check for black wrist patches.



Adult female Rough-legged Hawk (Photo by: Katie Rymer)

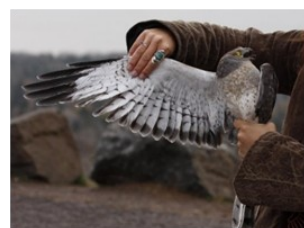
Northern Harrier (*Circus cyaneus*)

Sometimes called the "Marsh Hawk," you most commonly find these birds sailing low over marshes and fields. The most owl-like of all diurnal raptors, they rely primarily on their hearing to detect scurrying rodents in



Female/immature Northern Harrier displaying white rump patch (Photo: Jen Rothe)

the vegetation below, adjusting the contours of their facial discs to channel sounds to their sensitive ears. Harriers are one of the few raptor species that exhibit color dimorphism: females (and immatures) are brown,



Adult male ("Grey Ghost") Northern Harrier banded at Hawk Ridge (Photo: Erik Bruhnke, Naturally Avian: <http://www.pbase.com/birdfedr>)

whereas males are very light in color, earning them the title of "Grey Ghosts" among birders. Regardless of sex or age class, all individuals display an obvious white rump patch that is diagnostic.

Common Winter Raptors of Iowa: (Continued...)

Cooper's Hawk and Sharp-shinned Hawk (*Accipiter cooperii*, *Accipiter striatus*)



Stunning adult Cooper's Hawk banded at Hawk Ridge Bird Observatory in Duluth, MN (Photo: Erik Brubnke, Naturally Avian: <http://www.pbase.com/birdfedr>)

“Coops” and “Shins” are arguably the most challenging raptors species to tell apart. Originally birds of the forest, they have adapted well to urban places, where their short, rounded wings and long, rudder-like tails allow them to zip through neighborhoods in pursuit of their agile avian prey. As juveniles, both species are brown with vertical streaking on their breasts and have straw-colored eyes that turn to orange or even a deep red as they age. Adults have slate-grey backs and reddish-brown horizontal barring on their breasts. Coops are generally larger than Shins, but there is greater size difference between the sexes than between the two species, so it's not a very helpful indicator. Coops tend to have more squared-off-looking heads, greater contrast between

their dark caps and light cheeks, rounded tails with more white showing at the tip, and tarsi (legs) the diameter of a pencil as opposed to the Sharp-shins' matchstick-sized limbs. In flight, the characteristic “flap-flap-flap-glide” pattern tends to be



Adult Sharp-shinned Hawk banded at Hawk Ridge (Photo: Jen Rothe)

slower in Coops, whose heads also project further from their bodies, giving them the appearance of a flying “t” (as opposed to the Shins' capital “T”). If you happen to catch a glimpse of a raptor flying near eye-level in your yard, chances are very good that it was one of these stunning Accipiters!

American Kestrel (*Falco sparverius*)



Male American Kestrel banded at Hawk Ridge (Photo: Jen Rothe)

Weighing in at a mere ¼ lbs, kestrels are North America's smallest falcons. They are also one of two U.S. raptor species to exhibit obvious color differences between sexes, though you won't likely get any practice sexing them at this time of year:

females generally don't overwinter this far north. Males are vibrantly colored, with rust-brown backs, creamy undersides, slate-blue wings, and three bold black stripes on each side of their heads. You'll most often encounter them hovering over fields as they search for insects and rodents or perching on telephone wires, bobbing their colorful tails. Kestrels' unique size, coloration, and habits make them difficult to legitimately confuse with any other winter raptor.

Peregrine Falcon (*Falco peregrinus*)

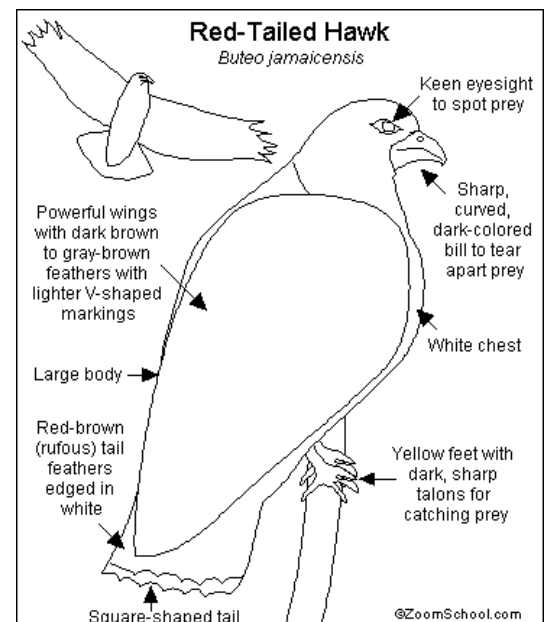
Though not exactly a common winter raptor in Iowa, Peregrines are worthy of discussion as they tend to be conspicuous wherever they do occur. This magnificent falcon nearly fell to extinction in the 1970s at the hands of DDT, a potent insecticide that resulted in fatally brittle eggshells. They have since made a remarkable comeback, returning in large numbers to nest on tall urban structures reminiscent their historical cliff-nesting sites. The envy of any fighter pilot, Peregrines perform split-second barrel rolls and regularly sustain

forces of 25Gs while careening towards air-borne prey at speeds upwards of 240mph. Small, cone-like structures in their nostrils slow down invading air. As the falcon approaches its target, it clenches its feet into tight fists and strikes its prey mid-air, delivering a tremendous, instantly lethal blow. The Peregrine is an efficient predator, and it looks the part: its pointed wings are all-business, and its head is crowned with a “helmet” of dark feathers that surrounds the chocolate-brown eye and terminates in a “moustache” on either side of the head. Watch for dark silhouettes flapping powerfully by overhead.



Adult Peregrine Falcon showing dark eye and “helmet” (Photo: Erik Brubnke, Naturally Avian: <http://www.pbase.com/birdfedr>)

Color Me!



EICCD/ATEEC/Nahant Marsh

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www.nahantmarsh.org

Connecting People with Nature.



Nahant Marsh preserve is one of the largest urban wetlands on the Upper Mississippi River. It is comprised of marshy areas, mesic, wet, and sand prairie, and bottomland forest. A spring-fed quarry, known as Carp Lake, and the surrounding grounds, is part of the Nahant Marsh Preserve as well. Nahant Marsh was used for skeet and trap shooting from the 1960's to the 1990's. Because of the lead left behind, the marsh was declared an EPA Superfund site and was cleaned up in 1999. After that time, the site was declared a preserve and educational center. The building and 78 acres of land is owned and managed by the City of Davenport. The remaining land is held by the Nahant Board, a 501c3. The Educational programming is overseen by the Eastern Iowa Community College District. River Action, Inc. is also critical part of Nahant Marsh.

Getting to Nahant Marsh...

From Davenport, Iowa:

Take Highway 22 South and turn left on Wapello Avenue (last left turn before the I-280 overpass). Follow Wapello Avenue and you will see Nahant Marsh to your left, just before the railroad crossing.

From Illinois:

Take I-280 to Iowa and take the Highway 22/Rockingham Road Exit. Turn right onto highway 22 and right onto Wapello Avenue. Nahant Marsh is on the left, just before the railroad crossing

Winter & Spring Happenings at Nahant



March 5, 2011 Geocaching Class

Saturday, 9:00am-12:00pm
Nahant Marsh

March 10, 2011

Invasive Species Workshop
Thursday, 8:30am-11:30am or
5:30pm-8:30pm
Duck Creek Park Lodge, Davenport

March 15, 2011 Money Really Does Grow on Trees or Opportunities in Agroforestry

Tuesday, 6:30pm-9:00pm
Nahant Marsh

March 19, 2011 Guided Bird Hike

Saturday, 8:30am-11:30am
Nahant Marsh

April 15-16, 2011 Earth Week Fair

Friday, 8:30am-2:30pm
Saturday, 10:00am-4:00pm
QCCA Expo Center, Rock Island

April 16, 2011

Introduction to Digital Nature Photography

Saturday, 9:00am-3:30pm
Nahant Marsh

Friends of Nahant Marsh

Friends of Nahant Marsh meet on the last Wednesday of each month at the Nahant Marsh Education Center.

February 23rd @ 7pm

March 30th @ 7pm

April 27th @ 7pm

May 25th @ 7pm

Friends of Nahant Marsh also meet every Saturday morning from 9am-12pm of each month. Volunteers are much needed and help for just an hour is valued!

Homeschool Schedule

Friday, February 18 @ 2:30pm
Nahant Marsh

Friday, March 25 @ 2:30pm
Nahant Marsh

Friday, April 22 @ 2:30pm
Nahant Marsh

Friday, May 20 @ 2:30pm
Nahant Marsh



For further information visit our
website at
www.nahantmarsh.org