

www.YearoftheTurtle.org

# Year of the Turtle News

No. 6

June 2011

Basking in the Wonder of Turtles

## How Zoos and Aquariums are Turtle-y Awesome!

*Edited by Valorie R. Titus, Curatorial Science Fellow, Bronx Zoo/Wildlife Conservation Society, NEPARC Co-Chair*

The 2011 Year of the Turtle has certainly become a hot topic in many zoos and aquariums! Turtle conservation has long been a priority in many zoo and aquarium programs all over the world, and the Year of the Turtle gives many organizations the chance to show their visitors the importance of turtle conservation. Many zoos and aquariums participate in both local and global programs to protect and conserve the turtles of the world.

Here are some stories from zoos in the U.S. and Canada and what they are doing to help benefit turtles.

### Toronto Zoo

The Toronto Zoo's Adopt-A-Pond Wetland Conservation Programme celebrated World Turtle Day by



*Bobbers, the Blanding's Turtle, and friends at the Toronto Zoo.*

inviting Zoo guests to explore the unique lives of our shelled friends at the Zoo's outdoor wetland exhibit. Accompanied by Bobbers, the Blanding's Turtle mascot, Adopt-A-Pond staff provided fun, interactive

information to empower people to help turtles in their own backyard and around the world. Seven of Ontario's eight turtle species are at risk of extinction and a vast number of threats endanger turtle

*Read more on p. 4*

### Behind the Scenes: PARC's Initiation of the Year of the Turtle

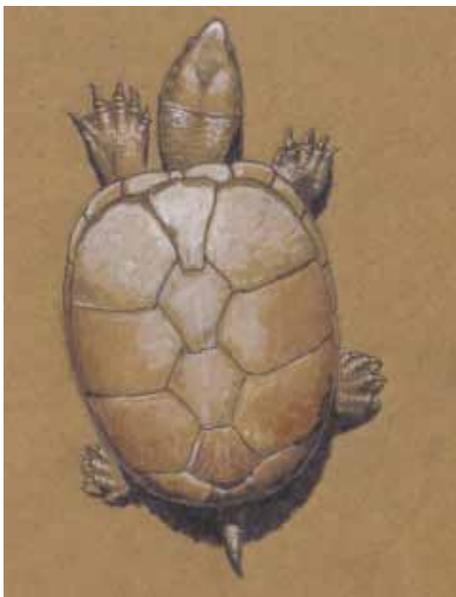
One year ago, members of the PARC Joint National Steering Committee initiated the pre-planning for '2011-Year of the Turtle.' They began by contacting potential partner groups to brainstorm how to organize the year. With that, the ball started rolling, and by Fall 2010 interest in the upcoming year was strongly growing. This interest continues to grow. For example, a total of 4,736 unique "hits"—or visits—were made to the Year of the Turtle website in the month of March alone. Additionally, the current **Year of the Turtle partnership** includes 50 local, state, national, and international agencies, educational centers, and research organizations, all of whom are promoting the Year of the Turtle to their constituents. This partnership continues to grow in number each month. Thanks to everyone for their continued support!

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**"Behold the turtle. He makes progress when his neck is out."** — James Bryant Conant (1893-1978), educator and scientist

## Turtle Art, Stories, and Poetry



Mud Turtle



Musk Turtle

Wood Turtle



Dave DeRan submitted these lovely watercolor paintings of turtles. Dave grew up in Maryland and now lives in Delta, Pennsylvania where he paints for a living.

Do you have a turtle story or piece of art that could be highlighted during the Year of the Turtle? Submit your turtle art (in jpg, tiff, or pdf format) and copies of your stories and poems via email to [yearoftheturtle2011@gmail.com](mailto:yearoftheturtle2011@gmail.com). We will be including submissions in upcoming newsletters and in other Year of the Turtle materials and outreach efforts throughout 2011, and we want your work to be part of it! Also, be sure to check out this month's Education Spotlight for more great artwork from the students at Copper Mill Elementary.

### Ask the Experts!

Do you have questions about turtle biology or turtle conservation issues, but you can't quite seem to find the answers? Submit your turtle questions via email ([yearoftheturtle2011@gmail.com](mailto:yearoftheturtle2011@gmail.com)) to our panel of experts, and we will select questions to answer in our upcoming newsletter editions. Please include your name and location in your email message



### Get Your June Calendar!

Alan Cressler won this month's featured spot on the photo contest calendar with this photo of a Florida Red-bellied Cooter (*Pseudemys nelsoni*). Get a better look at this month's winner and runner-up by downloading your calendar at [parcplace.org/images/stories/YOT/YearoftheTurtleCalendarJune.pdf](http://parcplace.org/images/stories/YOT/YearoftheTurtleCalendarJune.pdf)

### Call for Photos for the 2011 Year of the Turtle Calendar Photo Contest

It's not too late to enter the 2011 Calendar Photo Contest! We are accepting entries all year long. Give us your best shot! For more information and for entry details, please visit [www.parcplace.org/news-a-events/224.html](http://www.parcplace.org/news-a-events/224.html).

Follow all of the Year of the Turtle news and happenings on Facebook (<http://www.facebook.com/pages/yearoftheturtle2011>)

and Twitter (<http://twitter.com/YearOfTheTurtle>).

facebook



## Year of the Turtle Collaborating Partners

The Year of the Turtle Planning Team is pleased to welcome the following organizations to our growing list of collaborating partners:

**Chelonian Connection** is an independent behavioral laboratory now in Oregon, which, through socialization and training, explores turtles' cognitive abilities and potential. A goal, by means of our public lectures and demonstrations, trainings, Web presence, and publications in process, is to continue to arouse interest and respect for chelonian species that lead to positive attitudes and involvement in turtle conservation efforts. [chelonianconnection.blogspot.com](http://chelonianconnection.blogspot.com)

Since 1946, the **Denison Pequotsepos Nature Center** in Connecticut has provided visitors and the community with experiential science programs that further the mission to inspire and nurture appreciation and scientific understanding of the natural world and foster a personal environmental ethic. DPNC serves 50,000 people yearly with environmental science programs. The Nature Center is a private, not-for-profit organization funded by admission fees, memberships and contributions. With 10 miles of trails, live animals, and a natural history museum, many recreational and educational opportunities are provided. [www.dpnc.org](http://www.dpnc.org)



**Nature Abounds** is an emerging national non-profit dedicated to bringing people together for a healthy planet, focusing on volunteerism, education, and awareness of the natural world. Amongst Nature Abounds opportunities are Watch the Wild, IceWatch USA and the Pennsylvania Senior Environment Corps, all involving volunteers in citizen-science efforts. Maximillian Terrepene (Max for short) is the spokes-turtle for Nature Abounds. [www.natureabounds.org](http://www.natureabounds.org)

Our full list of partners can be found at [www.parcplace.org/news-a-events/year-of-the-turtle/237.html](http://www.parcplace.org/news-a-events/year-of-the-turtle/237.html). If you are interested in contributing to the Year of the Turtle efforts, please send an email to [yearoftheturtle2011@gmail.com](mailto:yearoftheturtle2011@gmail.com) with a brief description of your organization and its efforts.

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## Turtles in the News

According to data from the National Oceanic and Atmospheric Administration, shrimp vessels operating in the wake of the BP oil spill that failed to properly install "turtle excluder devices" in their equipment may have contributed to the death of sea turtles in the Gulf of Mexico. This new information is highlighted in an article from the *Washington Post*, available at [www.washingtonpost.com/national/shrimping-not-oil-causes-hundreds-of-turtles-to-strand-in-the-gulf/2011/05/25/AGmOPXBH\\_story.html](http://www.washingtonpost.com/national/shrimping-not-oil-causes-hundreds-of-turtles-to-strand-in-the-gulf/2011/05/25/AGmOPXBH_story.html).

The smallest turtle in North America, the **Bog Turtle**, is becoming scarcer and scarcer. However, researchers are banding together to find out why. Read more about the joint efforts of the **Wildlife Conservation Society and state and wildlife agencies** in this month's feature article, **How Zoos and Aquariums are Turtle-y Awesome!**, and at [www.livescience.com/14112-america-smallest-turtle-scarce.html](http://www.livescience.com/14112-america-smallest-turtle-scarce.html)

The **Chesapeake Conservation Corps and the Maryland Coastal Bays Program** encourage the public

to celebrate Maryland's iconic reptile – the Northern Diamondback Terrapin. As part of the Year of the Turtle, they provide citizens of the Chesapeake Bay region a number of ways to assist in protecting this species. Read the full store from [delmarvanow.com](http://delmarvanow.com) at

[www.delmarvanow.com/article/20110505/WCT02/105050352/Don-t-fear-turtle-celebrate-state-icon](http://www.delmarvanow.com/article/20110505/WCT02/105050352/Don-t-fear-turtle-celebrate-state-icon)

If you have items you would like to contribute to Turtles in the News, please send them for consideration to [yearoftheturtle2011@gmail.com](mailto:yearoftheturtle2011@gmail.com).

## Turtle-y Awesome!

*Continued from p. 1*

populations in the province. We handed out information on Ontario Turtle Tally, as well as resources for the identification of turtles and the restoration of their habitat, and turtle model replicas were on display. We also promoted awareness of sea turtles in Canadian oceans and the threats they face by distributing information on our up-coming Seafood for Thought event, to be held Wednesday, June 22. Visit [torontozoo.com/adoptapond/turtletally.asp](http://torontozoo.com/adoptapond/turtletally.asp) for more information on Ontario Turtle Tally or [torontozoo.com/events/seafoodforthought.asp](http://torontozoo.com/events/seafoodforthought.asp) for more information on our Seafood for Thought event!

—Julia Phillips,  
Adopt-A-Pond  
Coordinator,  
Toronto Zoo



## Zoo Miami

Zoo Miami encompasses approximately 740 acres. Three hundred thirty acres are currently developed for zoo operation. Undeveloped property is made up of endangered Pine Rockland habitat, and the zoo is currently undertaking efforts to conserve and restore this land. Pine Rockland does not seem like a good habitat for Gopher Tortoises (*Gopherus polyphemus*), since soil conditions conducive to burrowing are very limited. Nevertheless, there is currently a breeding population that inhabits zoo grounds.

The ectotherm staff at Zoo Miami has conducted herpetological surveys on the property since 2004. Part of those surveys includes data collection on the existing Gopher Tortoise population. Since 2003, over 20 Gopher Tortoises have been



documented on the property. The presence of hatchlings confirms that natural reproduction is occurring on this site. In addition to this, in 2006, 32 juvenile captive hatched tortoises were also released on property at the request of the Florida Fish and Wildlife Conservation Commission. Animals are found opportunistically (i.e., staff/guest encounter within the park). When a specimen is found, data is recorded for each animal, including date found, size, weight, sex, and location found, and the animal is marked uniquely and released in the same spot where it was encountered. Due to the longevity of this survey, the frequency of recaptures has allowed us to monitor growth, health, and seasonal movement. We hope to assess survivability and recruitment of these animals in what would normally be considered an atypical habitat.

—Nicole Atteberry, Curator of  
*Ectotherms, Zoo Miami and Steve  
Connors, General Curator, Zoo Miami*

## The Virginia Zoo

At the Virginia Zoo, we promoted Year of the Turtle at our big **Party for the Planet** event which drew 5200+ visitors. We set up a booth (see photo, p. 7) with some literature along with set-ups to show our live chelonians (Bog Turtles, Wood Turtle, Eastern Box Turtle, Gopher Tortoise, and Northern Diamondback Terrapins). A banner was produced promoting Year of the Turtle that was displayed at the booth, but it is now being

posted at our new Aldabra Tortoise exhibit for high-traffic viewing. We also had a PhD student from Old Dominion University at the booth who displayed one of her posters from her sea turtle research (for more information on the Party for the Planet, see **Virginia Zoo Hosts a “Party for the Planet”** on p. 7 in this issue). Besides educational programs and exhibition of chelonians, the Virginia Zoo has a breeding program for Bog Turtles. I am also currently looking into the possibilities of starting a Diamondback Terrapin head start project for VA herps.

—Craig Pelke, Curator, Birds &  
*Ectotherms, Virginia Zoological Park*



## Bronx Zoo/Wildlife Conservation Society

On the local conservation front, the Wildlife Conservation Society's Bronx Zoo veterinarians, U.S. Fish & Wildlife Service, New York State Department of Environmental Conservation, and the Massachusetts Natural Heritage and Endangered Species Program have joined forces in order to assess the health of Bog Turtles in a few key local populations. To identify potential health issues in these populations, WCS's Global Health Program—based at the Bronx Zoo—is lending its expertise in these health assessments. The Bog Turtle team is currently locating wild turtles for health assessments to determine these baseline conditions and



possibly identify a common cause to explain increased turtle mortality in the past few years. After conducting a physical exam of individual turtles, health experts will collect a number of samples—blood, feces, cloacal swabs, biopsies—for later analysis. “We’re conducting a broad screening in order to identify a cause or causes for the increase in bog turtle deaths,” said Dr. Bonnie Raphael, WCS’s Department Head for Wildlife Medicine. “This information will be used to help determine if these recent losses are attributable to infectious disease, environmental perturbations, or other factors.”

—*Valorie R. Titus, Curatorial Science Fellow, Bronx Zoo/ Wildlife Conservation Society, NEPARC Co-Chair*

### **Binder Park Zoo**

Binder Park Zoo, Battle Creek, Michigan, is striving to aid in chelonian conservation efforts both on our extensive zoo grounds as well as in our local community. The zoo grounds consist of over 420 acres of natural, highly varied habitat. Last year marked the inaugural event for our Annual Herp Survey. Over 35 volunteers scoured the grounds for reptiles and amphibians, finding 22 species and more than 480 individual identified herpetofauna. The survey results were sent in to the Michigan Herp Atlas and included the first reported Blanding’s Turtle for our county. This year we are hoping to increase the number of species as well as individual animals found.

Eastern Box Turtles found on grounds during the survey as well as throughout the year are each microchipped, weighed, measured and have blood samples taken for the Chelonian genetic banking project as well as varied research projects. Including 2 newly found box turtles during last year’s Herp Survey, we now have samples and



data from 48 specimens living free on the grounds. Our vet department has also helped provide medical care for an Indiana University-Purdue University Fort Wayne M.S. student’s study started in 2009 on the effects of controlled burns on Eastern Box Turtles at the Fort Custer Military Base. Lastly, we are renovating our Malaysian Box Turtle exhibit and including ovipositioning areas to begin reproducing our two females once an appropriate male is acquired.

Locally, the 2010 oil spill in Marshall, Michigan was incredibly devastating, affecting countless animals, particularly the diverse and extensive herpetofauna population of the Kalamazoo River. However, much progress has been made in providing expert veterinary, husbandry, and cleaning assistance for the oil-covered turtles that were recovered from the Kalamazoo River, as well as coordinating with area zoological institutions, nonprofit organizations, and universities to staff the rescue effort. More details on these efforts one year later following the oil spill will be featured in the August issue of the Year of the Turtle News.

—*Chris Tabaka, DVM, Lisa Duke, Chris Gertiser, Angel Mitchell, LVT, Binder Park Zoo*

## **Introducing Turtle World, a Newsletter Dedicated to Research and Conservation of Turtles and Tortoises**

**Turtle World** ([www.turtleworld.nebio.in](http://www.turtleworld.nebio.in)) is an international newsletter of turtle conservationists and biologists, dedicated to providing an open forum for the timely exchange of information concerning the conservation, research, management, legal status, and survival prospects of all turtle species in general, and freshwater turtles and tortoises in particular. The newsletter is published twice a year (July and December). Turtle World currently has an open call for articles and welcomes the submission of articles on all areas of research and conservation on turtles and tortoises. Manuscripts should be submitted online in editable format (for instance, .doc or .docx in Microsoft Word) to the Editor-in-Chief of Turtle World at [turtleworld.newsletter@gmail.com](mailto:turtleworld.newsletter@gmail.com).

## Meet the PARC Year of the Turtle Team – Dede Olson



*Dede and her 'herp-hounds', the two golden retrievers that go 'toading' with her in the Oregon Cascade Range.*

Starting this month and continuing over the next several issues of the Year of the Turtle News, we will take an opportunity to “Meet the PARC Year of the Turtle Team.” This month we introduce Dr. Dede (Deanna H.) Olson. Dede is the PARC National Co-chair and a Research Ecologist with the US Forest Service, Pacific Northwest Research Station in Corvallis, Oregon. She’s worked with herpetofauna and conservation since her first lizard project at the University of California, San Diego in the 1970s under the guidance of Bruce Wilcox, student of Dr. Michael Soulé. She also helped out at their first Conservation Biology conference in 1978. Though she works primarily with amphibians now, her most vivid turtle memories include:

**1960, Michigan** – a snapping turtle biting the corner off a large box of ‘Tide’ detergent when her Mom tried to nudge it off a rural road, and seeing the pile of white powder next to the turtle out the back window as the car - “rackety boom” - sped away;

**1980, Suriname** – 1) a tortoise’s hissy fit resulting in its winning the battle of the prized ripe pineapple from her boyfriend and future husband Mike, in Suriname’s interior tropical rain forest, at the edge of a large granite bedrock plate;

2) the chilling sound of slowly nearing steps crunching dry leaves at night at a remote forest camp, a fierce animal stalking them as its prey for certain...nope, just a tortoise;

3) helping at a sea turtle nesting beach reserve;

**1993, Oregon** – finding a Greek Tortoise (*Testudo graeca*) crossing a remote road in the Oregon Coast Range;

**2009, Australia** – seeing a snoozing sea turtle on the sea floor, so peaceful and sublime in its sheltered nook, while scuba diving with her kids (ages 20 and 22) at the Great Barrier Reef.



*Dede in 1980 holding a 'headstarted' sea turtle and digging up eggs at Galibi Nature Reserve, Suriname, operated by STINASU, Suriname Foundation for Nature Preservation.*

### Finding Turtles? Two New Forms Make it Easier to Map Them

Thanks to a request from Elaine Martinez of Sacramento, we now have Turtle Mapping Project data forms available in two PDF formats. If you’re finding turtles in the field whose locations you want to contribute to the mapping project, but don’t have Microsoft Excel available on your computer, or only have one or a few sightings to report, you may find the fillable PDF form easier to use. It can be filled out in free Adobe Reader, saved for each turtle location you find, and sent in by email. The fillable form features pull-down menus for many of the data fields to help keep data consistent, including a list of turtle species of North America. To make collecting information even simpler, there is also a print-ready version of the PDF that you can print out and write on while gathering data, or even mail in as hard copy. If you have large numbers of observations to report, the Excel spreadsheet may still be your best bet.

Visit [www.yearoftheturtle.org](http://www.yearoftheturtle.org) and follow the USA Turtle Mapping link to <http://parcplace.org/news-a-events/year-of-the-turtle/203.html> to download any of the three forms.

## “Top 25 Turtles in Trouble” Interactive Flip Cards Now Available



In February the Turtle Conservation Coalition released the report “Turtles in Trouble: The World’s 25+ Most Endangered Tortoises and Freshwater Turtles.” The Year of the Turtle Team is now pleased to announce the release of a set of online informational flip cards focusing on the Top 25 species in this report. On the front of these interactive cards you will find a photo of each species, with an overview of the species’ status, global distribution, and information on the threats to each species all included on the reverse side. These cards may be accessed at [parcplace.org/YOT\\_flip\\_cards/index.html](http://parcplace.org/YOT_flip_cards/index.html).

These informational, interactive cards are the product of the hard work of several individuals. A big thank you goes to Dr. Anders Rhodin for providing the photos of each species, to Amy Jo Lindsley of Oregon State University and David Dimitrie for developing the informational text, and to John White of the Virginia Herpetological Society for his development of the idea for the cards,

for his design of the interactive webpage, and for the overall implementation of this project. We also thank the Turtle Conservation Coalition for the “Turtles in Trouble” report. The full report may be downloaded at [www.iucn-tftsg.org/top-25-2011/](http://www.iucn-tftsg.org/top-25-2011/).

## Virginia Zoo Hosts a “Party for the Planet”

*By Winfield S. Danielson III, Virginia Zoo Marketing and Public Relations Manager*

Nearly 5,000 attended the Virginia Zoo’s annual Party for the Planet Saturday, April 23. The event celebrated Earth Day and animal enrichment. Visitors learned about conservation steps they can take to protect habitat locally and worldwide, and how zookeepers use enrichment to keep our animals healthy and happy.

“Party for the Planet is a fun way for people of all ages to learn how they can help with animal conservation and how we at the Virginia Zoo provide habitats and enrichment items to keep animals engaged and encourage their natural behavior,” said Greg Bockheim, the Virginia Zoo’s executive director.



*Craig Pelke, Reptiles and Amphibians Curator at the Virginia Zoo, talks turtles with a young visitor during the annual Party for the Planet event on April 23. Photo by David Totten.*

Activities and exhibits included educational talks at select animal habitats; informational presentations, animal enrichment activities and crafts at the event pavilion; and Balinese music performances at the entrance to Asia – Trail of the Tiger by Gamelan Raga Kusuma, a community ensemble from Richmond, Virginia.

Featured at the event pavilion was a Year of the Turtle information booth, where visitors could learn about the global crisis facing turtles, and meet some turtles face-to-face to learn about them and their habitats. The Virginia Zoo’s turtle conservation efforts include public education efforts, like the Year of the Turtle information booth, and the Bog Turtle reproduction project.

## June's Featured Citizen Science Programs

Get involved in a citizen science (volunteer) program in your neighborhood, community, or elsewhere!

Citizen science places volunteers of all backgrounds and ages in partnerships with organizations and scientists to collect important biological data. This month we highlight several citizen science programs from the US and Costa Rica with which you can become involved. A full list of US and international programs can be found at [www.yearoftheturtle.org](http://www.yearoftheturtle.org). We thank everyone who has contributed information on their citizen science programs to the Year of the Turtle thus far. Are you involved with a turtle citizen program or have information on a specific project that you would like to share? Please send information on your citizen science programs to [yearoftheturtle2011@gmail.com](mailto:yearoftheturtle2011@gmail.com) and make sure your project helps us get more citizens involved in turtle science!



### Gopher Tracker

Volusia County, Florida uses volunteers to help protect the Gopher Tortoise. These "Gopher Trackers" document sightings of gopher tortoises and their burrows. All trackers have to do is submit the location of the tortoise or burrow. An address or GPS waypoint associated with each turtle is preferred, but any precise location description works. Volunteers are also welcomed to submit photos, descriptions, and accounts of any gopher tortoise's activity. These efforts help to protect and understand this endangered species.

#### Contact Information:

Danielle Dangleman

Phone: 386-736-5927 ext. 2734

E-mail: [ddangleman@co.volusia.fl.us](mailto:ddangleman@co.volusia.fl.us)

<http://www.volusia.org/environmental/gophertortoise/gophertracker.htm>

### Lake George Turtle Monitoring Program

The Lake George Watershed in New York is home to five different species of turtles: Northern Map Turtle, Painted Turtle, Wood Turtle, Stinkpot, and Snapping Turtle. This program seeks to achieve a greater scientific understanding of the turtles in the area through compiling citizen volunteers' observations. Volunteers count turtles in their chosen location during one day "snapshots" similar to a Christmas Bird Count. This is an exciting opportunity to possibly find a sixth species in the region...the Spotted Turtle.

#### Contact Information:

Lake George Association, Inc.

PO Box 408

Lake George, NY 12845

Phone: 518-668-3558



### Parismina Turtles

The Asociacion Salvemos Las Tortugas De Parismina (ASTOP) in Costa Rica has worked since 2001 to save nesting sites of Leatherback, Green and Hawksbill sea turtles from nightly poachers who once destroyed 98% of the nests. With the nightly patrols of ASTOP, this has decreased to 38% of nests. Although this has been a huge success, there is still a need for volunteers to continue this work. Volunteers have the chance to work with local turtle guides, go on patrols, and protect nesting turtles. They also learn how to identify tracks, count the number of eggs laid, record tag numbers of nesting females, and assist with relocating the eggs to the hatchery. Volunteers also have the chance to monitor the hatchery, as well as other nests left on the beach, and safeguard the hatchlings on their first journey to the ocean.

#### Contact Information:

Volunteer Turtle Program

Phone: 506-2798-2220

Email: [info@parisminaturtles.org](mailto:info@parisminaturtles.org)

<http://parisminaturtles.org/>



## Education Spotlight: Turtles a “Class Act” at Copper Mill Elementary School

By David Dimitrie

The Year of the Turtle may have officially began in January, but for students in Mandy Conly’s fifth grade classes at Copper Mill Elementary School in Zachary, Louisiana, the Year of the Turtle has been going on since the 2010-2011 school year began. In 2010, Mrs. Conly adopted two Red-footed Tortoises as classroom pets. It did not take long before Mrs. Conly discovered the endless learning opportunities for her students surrounding these two new “classmates.”



Art by Samantha Bankston. “Samantha has always been a turtle enthusiast. She chose to paint a slider because the image is very common here in south Louisiana,” explains Mrs. Conly.



Art by Kolton Jacobs. “Kolton has developed an appreciation of sea turtles this year through our tracking of the adopted turtles,” says Mrs. Conly.



in maintaining this home for the animals.

As a culmination to the year-long focus on turtles in the classroom, Ms. Conly’s classes celebrated “Turtle Week.” During this week, lessons and classwork focused on turtle anatomy, differences among turtle species, nesting habits, conservation efforts, and other turtle-related issues. In addition, throughout the week the students created some truly unique turtle art projects. Drawing on inspiration from the turtle experiences the students took part in throughout the entire school year, students created turtle water



Turtle mosaics created by fifth graders at Copper Mill Elementary School.

color paintings, a turtle collage, and even turtle mosaics constructed from torn paper. The students were then all rewarded for their hard work by having their art on display during the school’s annual art show.

“The students in my class develop a great appreciation for the plight of all turtles,” Mrs. Conly explains. “On each field trip we go on, they show an extreme interest in turtles that we see. They know the struggles of all turtles and the need for the conservation of these wonderful animals. I sincerely hope that these students will keep these things in mind as they grow and remain interested in the conservation efforts of turtles and tortoises.” The turtles and tortoises of the world hope so, too.

For more information, please contact Mandy Conly ([mandy.conly@zacharyschools.org](mailto:mandy.conly@zacharyschools.org)).

### Are You an Educator or Interpretive Naturalist?

We continue to work to develop a collection of Year of the Turtle resources for teachers and naturalists to use for turtle education. If you are willing to share, please send your unit materials, educational program information, websites, or PowerPoint presentations to [yearoftheturtle2011@gmail.com](mailto:yearoftheturtle2011@gmail.com). Please include your name, the name of your school/nature center or organization, and location. If you did not create the materials, please be sure to tell us where you found the materials.

## PARC Regional Working Group Spotlight: Turtle Tracks across Northwestern North America – the NW PARC Turtle Report

*By Dede Olson, US Forest Service, Oregon*

Turtle monitoring, research, and conservation are gaining momentum in the northwest. Five species of freshwater turtles are native to northwestern states and provinces (see species occurrence table). Four sea turtles occur in coastal waters, although no sea turtle nesting beaches are in the northwest. Introduced species are a concern, and in British Columbia, six non-native turtle taxa have been found. Only the Yukon is turtle-free. By state and province, here is input from select northwest experts:



*Painted Turtle habitat in Alberta. Photo by Kris Kendall.*

### Alberta

*by Kris Kendall, Alberta Conservation Association*

Alberta's only native turtle species, the Western Painted Turtle, occurs sporadically in the southeast corner of the province where it ekes out a living in a handful of sun-drenched weedy ponds, oxbows, lakes and slow flowing streams. The ancestors of Alberta's Painted Turtles likely entered the province via the Milk River which joins the Missouri River in Valley County, Montana. Other possible dispersal routes into Alberta from southern clines include Lodge and Battle Creek. Birthed in Alberta's deep southeast, these creeks meet with the Milk River in northern Montana after a short journey through the province of Saskatchewan.

The distribution of Painted Turtles has become an enigma of sorts in Alberta. Painted Turtle sightings are routinely reported from many areas well outside their believed natural range. These outlying observations are thought to be pet or translocated turtles that have been irresponsibly and illegally released into the wild. Anecdotal and confirmed Painted Turtle sightings in

Alberta include: Banff and Waterton Lakes National Park, localities in the Cypress Hills, Calgary, Red Deer, Edmonton, Half Moon Lake, Miquelon Lake Provincial Park, Hines Creek, north-east of Spirit River, McLennan, Claesholm water treatment facility, Lethbridge, Bigoray River northwest of Drayton Valley and Maybelle dunes area, north of Fort McMurray. Whatever their origin, evidence of breeding has been documented as far north as Edmonton, Alberta. A more detailed survey and a genetic assessment of established and introduced turtle populations in Alberta would be insightful. In 2009, two non-native turtles were confirmed in Alberta—a Red-eared Slider was collected from a small stormwater retention pond within a residential area in Edmonton and a Snapping Turtle was collected from a natural area southwest of Lethbridge.

### British Columbia

*by Purnima Govindarajulu, Co-Chair – Western Painted Turtle Recovery Team, Chair – Western Painted Turtle Working Group, BC Ministry of the Environment*

The Western Painted Turtle reaches its northern distribution limit in British Columbia, where it is found in three disjunct populations of varying conservation concern: the Pacific coast population is “Endangered” (Red), and the Intermountain and Rocky Mountain populations are listed as “Special Concern” (Blue). The primary threats arise from habitat degradation, including loss of nesting and basking sites, nest predation by species such as skunks and raccoons, and road mortality during migrations to and from nesting grounds. The only other native freshwater turtle in British Columbia is the Western Pond Turtle which is listed as “extirpated.” A number of introduced freshwater turtles have been found around the province, primarily red-eared sliders but also snapping turtles, various cooters, eastern painted turtles, midland turtles etc. Two species of marine turtles are periodically found along the coast, the Leatherback Turtle and the Green Turtle.

### Northwestern California

*by Bruce Bury, US Geological Survey, and Hart Welsh, US Forest Service Redwood Sciences Laboratory*

A handbook entitled “Western Pond Turtle: Sampling Techniques, Inventory and Monitoring, Conservation

and Management” is being assembled now, edited by Bruce Bury, Hart Welsh, Don Ashton (US Forest Service, Redwood Sciences Laboratory), and Dave Germano (California State University, Bakersfield). Contributing authors of handbook chapters represent a broad suite of affiliations, including US Fish and Wildlife Service, US Forest Service, US Bureau of Land Management, Army Corps of Engineers, Oregon State University, Oregon Department of Fish and Wildlife, and Woodland Park Zoo – Seattle, Washington. Western Pond Turtle population ecology in the Klamath-Siskiyou Ecoregion from a decade of work was recently published by Bury et al. (Copeia 2010:443-451). Hart Welsh and Don Ashton also are nearing completion of a Conservation Strategy for Western Pond Turtles in the state of California, an effort funded by California Department of Fish & Game – the strategy will be available on the Cal Fish & Game website.

## Oregon

David Shepherdson, Research Biologist for the Oregon Zoo in Portland, in partnership with the Seattle Woodland Park Zoo, Washington Department of Fish and Wildlife, Bonneville Power Administration, and the US Fish and Wildlife Service, is engaged in a recovery program for the Western Pond Turtle. “Headstarting” of hatchling Western Pond Turtles at the zoo results in the release of approximately 10-month old young turtles at wild sites. Turtles at this age have attained a size to escape predation by non-native bullfrogs and large-mouth bass, both gape-limited predators that have contributed to turtle population declines. This year, 2011, marks the 10th anniversary of the first release of Oregon Zoo’s headstarted turtles to a site on the Washington side of the Columbia Gorge, bringing this population from a low of 150 animals in 1990 to about 1,400 today. In cooperation with the Oregon Zoo, new headstarting efforts for Western Pond Turtles are developing at the Oakland Zoo and San Francisco Zoo in California. See: <http://www.oregonzoo.org/Conservation/westernpondturtle.htm>

## Washington

by Frank and Kate Slavens ([www.pondturtle.com](http://www.pondturtle.com))

In cooperation with the Oregon Zoo, above, Frank and Kate Slavens help lead multi-pronged conservation efforts for Western Pond Turtles in Washington state, where the species is listed as Endangered. These are joint federal/state/private efforts that have been in progress since the late 1980s, supported by the Washington Department

of Fish and Wildlife, Woodland Park Zoo, Oregon Zoo, US Fish and Wildlife Service, and Bonneville Power Administration. This species went from being relatively common in the Puget Sound area to being almost extinct, down to 150 or so individual turtles. In addition to headstarting efforts to restore populations in Washington, efforts are addressing the dominant threats to these turtles in their native habitats, including habitat protection and restoration, and control of non-native predators such as bullfrogs. Today the turtle numbers around 1,600 or so in the state.

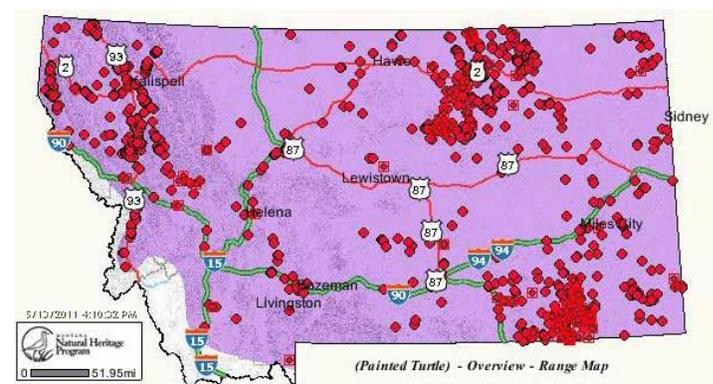
## Idaho

Idaho Fish and Game (<http://fishandgame.idaho.gov/cms/wildlife/nongame/amphibreptile.cfm>) lists the Painted Turtle as a state protected nongame species. It is illegal to collect, harm, or otherwise remove this turtle from its natural habitat. It is the only native turtle in Idaho, where it occurs in the northern part of the state, and recently has been seen in selected other locations (<http://imnh.isu.edu/digitalatlas/bio/reptile/test/chpi/chpi.htm>).

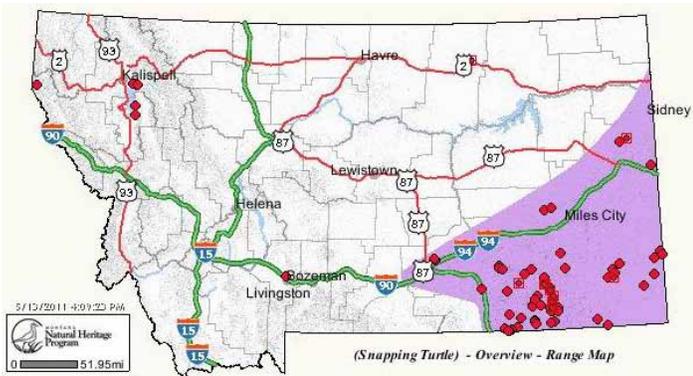
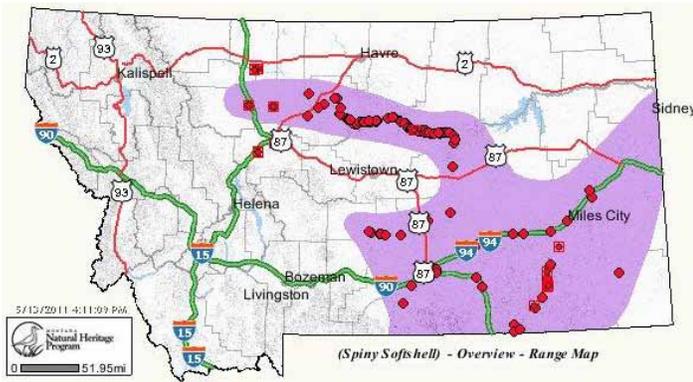
## Montana

by Bryce Maxell, *Interim Director/Senior Zoologist*,  
*Montana Natural Heritage Program*

Two of the three native turtles of Montana are listed as Species of Concern: Snapping Turtles and the Spiny Softshells. Snapping Turtles are native to southeastern Montana, but have been introduced in the Bozeman area, around Flathead Lake, and along the lower Clark Fork River near the Idaho state line; the introduced population in Flathead Lake is firmly established and may pose a threat to some native species. Their status in their native range is somewhat uncertain, and they face potential threats from human hunting, coal-bed-methane development,



Range maps for the Painted Turtle in Montana, by the Montana Natural Heritage Program.



Range maps for the Spiny Softshell and Snapping Turtle in Montana, by the Montana Natural Heritage Program.

and dewatering of smaller tributaries from drought. The Spiny Softshell is mostly restricted to four major rivers in eastern Montana (Missouri, Yellowstone, Tongue, and Musselshell). However, they also have been detected recently in the lower reaches of the Marias, Teton, and Powder Rivers. Their distribution and habitat use in these rivers has been investigated with radio telemetry by the Montana Department of Fish, Wildlife, and Parks and the U.S. Fish and Wildlife Service. They have determined that Fort Peck Reservoir is a barrier for the species and that populations above the reservoir are isolated from the rest of their range. A graduate student at Montana State University, Brian Tornabene, is following up on this work with additional radio telemetered animals in the Missouri River above Fort Peck Reservoir to identify seasonal movements, nesting areas, and overwintering areas. Painted Turtles are the most common turtle species in Montana and can be found in lakes, ponds, reservoirs, stock ponds, backwaters of ephemeral streams and rivers at lower elevations across the state. They have probably benefitted from the habitat provided by the large number of reservoirs and stock ponds that have been created across the state.

## Wyoming

by Zack Walker, Wyoming Department of Game and Fish

Monitoring of Spiny Softshells began last year in the Bighorn River of Wyoming, and baseline surveys are under consideration for Ornate Box Turtles. Primary concerns for turtles, and other herpetofauna in Wyoming, include habitat loss and degradation from land use changes and development.



Spiny Softshell Turtles, a Wyoming juvenile, and an adult from the Bighorn River basin. Photos by Zack Walker.



## Alaska

Sea turtles are relatively infrequent visitors to Alaskan shores, but sightings of all four species listed in the table are known. According to Alaska Department of Fish & Game (R.P. Hodge 2008: [www.adfg.alaska.gov/static/education/wns/turtles.pdf](http://www.adfg.alaska.gov/static/education/wns/turtles.pdf)), Leatherbacks are the most frequent species seen, with 19 reports between 1960 and 2007, with Green Sea Turtles being reported 15 times over this time span; an increase in reports of Green Sea Turtle carcasses since approximately 1993 remains unexplained.

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## Relocation, Reintroduction, Translocation, and Headstarting (RRTH)

Zoos and Aquaria are in the business of species conservation, as well as providing species education and entertainment for the public. They address the rarest world lifeforms and bolster breeding and survival, sometimes using approaches called relocation, reintroduction, translocation, and headstarting (RRTH). RRTH projects are often the final stop-gap measures to prevent species or population extinctions, and are used by countless other institutions, agencies, non-governmental organizations, and nature centers.

RRTH approaches can have high costs in terms of money and mortality of precious rare animals, hence lessons learned from ongoing efforts are important to convey. Partners in Amphibian and Reptile Conservation is assembling ongoing RRTH efforts for all herpetofauna (see: <http://parcplace.org/news-a-events/242-rrth.html>). To date, 16 species of turtles and tortoises in the USA have RRTH projects on the list. Contact information of project leaders is provided if you would like to ask specific questions about successes or failures. Please submit your spreadsheet additions and revisions to: [dedeolson@fs.fed.us](mailto:dedeolson@fs.fed.us). Worldwide projects can be added. Many thanks to PARC's RRTH Task Team members J.D. Kloepfer and Tracey Tuberville for their hard work to initiate this effort.

## Upcoming Meetings and Events

**Traveling Turtles program** on seasonal breeding migration, June 11, South Shore Natural Science Center, Norwell, Massachusetts.

**Operation Blanding's Nation**, part of SuAsCo Riverfest, June 1, 10:00 am - 1:00 pm. Learn about Blanding's Turtles. Old Manse, Concord, Massachusetts.

**Turtle Ecology at Great Meadows: Restoring the Blanding's Turtle**, June 11, Audubon's Drumlin Farm Wildlife Sanctuary, Sudbury, Massachusetts.

**Turtle Time** at MassAudubon's Ipswich River Sanctuary, June 12, Topsfield, Massachusetts.

**Turtles of the Outer Cape Field School**, June 22-25, MassAudubon's Wellfleet Bay Wildlife Sanctuary, Wellfleet, Massachusetts.

**"Year of the Turtle Day"**, Connecticut Dept. of Environmental Protection and Friends of Sessions Woods, June 26, Burlington, Connecticut.

**Joint Meeting of Society of Wetland Scientists, Wetpol, and Wetlands Biogeochemistry**, July 3-8, Prague, Czech Republic.

**Joint Meeting of the American Society of Ichthyologists and Herpetologists League, and Society for the Study of Amphibians and Reptiles**, July 6-11, Minneapolis, Minnesota. Includes the **Biology of Turtles of the Upper Mississippi River Basin Symposium**, July 10-11.

**Western Association of Fish and Wildlife Agencies - Summer Meeting**, July 15-21, Big Sky, Montana.

**Turtles and Snakes program**, July 16, Trustees of Reservations naturalist Rene Wendell, Sheffield, Massachusetts.

**American Museum of Natural History's Southwestern Research Station course on field herpetology**, July 24 - August 3, Portal, Arizona.

**Midwest PARC Annual Meeting**, August 5-7, Lesterville, Missouri

**Ecological Society of America 96th Annual Meeting**, August 7-12, Austin, Texas.

**SW PARC Annual Meeting**, August 10-11, Tucson, AZ

**9th Annual Symposium on the Conservation and Biology of Tortoises and Freshwater Turtles**. Co-hosted by the Turtle Survival Alliance and the IUCN Tortoise and Freshwater Turtle Specialist Group. August 14-17, Orlando, Florida.

**Current Research in Sonoran Desert Herpetology V Symposium**, August 15-16, Tucson, Arizona.

**Northeast PARC Annual Meeting**, August 16-17, Millersville, Maryland.

**Society for Ecological Restoration International World Conference**. August 21-25, Merida, Mexico.

**The Wildlife Society, Central Mountains and Plains Section Meeting**. August 23-25, Gering, Nebraska.

**Association of Fish and Wildlife Agencies 101st Annual Meeting**, September 1-14, Omaha, Nebraska.

**Hatching Diamondback Terrapins Field School**, Massachusetts Division of Fisheries and Wildlife, September 9-11, Wellfleet, Massachusetts.

**Association of Zoos and Aquariums Annual Conference**, September 12-17, Atlanta, Georgia.