



November 2010

Nez Perce Soil & Water Conservation District
www.nezperceswcd.org

Forever Soil & Water

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Unless otherwise noted, all articles are written by Whitney Garrison, and all photos courtesy of Nez Perce Soil and Water Conservation District.



Cover photo courtesy Nikki Lane

Spotlight: Past Board Member John Hechtner

Former board member John Hechtner learned the importance of conservation at an early age.

“It was instilled in me as a young boy that maintaining soil was a responsibility. One day soil is going to have to take care of us,” he said. “I learned conservation was part of doing business. I knew it was my job to leave the soil in good shape. Our planet is fragile.”

Hechtner, 80, was born in Emmett, Idaho, on July 10, 1930. He and his older brother, Bill, grew up in the Lapwai and Culesac, Idaho area. His parents were active members in the community. His father, a farmer, also had success in politics and served as an Idaho State Senator from 1953 -1962. His mother, too, was dedicated to various programs and active within the community.

“My mother was involved in the Idaho Home Demonstration program serving as state president for a time,” he said.

Hechtner graduated from Lapwai High School in 1948 before volunteering in the U.S Army. After service, he graduated from the University of Idaho (UI) in 1956 under the G.I. Bill with a bachelor’s degree in Economics. The G.I. Bill or “Servicemen’s Readjustment Act” was signed into law by President Roosevelt and provided college education to returning World War II veterans. He also met wife, Ellen, while at UI. The couple later wed and had two sons.

After college, Hechtner returned to Lapwai and began farming. He part-

nered with his brother and purchased and leased land in Tammany, Garden Gulch, Tom Beall, Winchester and Craigmont, Idaho areas. In 1980, Hechtner’s brother passed away and partnership turned to his eldest son, Dave.

“We farmed wheat, barley, peas, garbanzos, lentils...once in a while we would slip something else in but we were usually sorry that we did,” Hechtner said with a smile. “I also raised livestock and grew and sold hay.”

Hechtner served on the Nez Perce Soil and Water Conservation District board from 1974 -1988. He initially became involved after he was appointed to finish out another supervisor’s term. Hechtner said the Board accomplished several things during his involvement.

“We administered the Clean Water Act,” he said. “Our board was also responsible for getting all the news out to the community and those within



Name: John Hechtner
Age: 80
Birth date: 7/10/1930
Birthplace: Emmett, ID
Residence: Lapwai, ID
Occupation: retired farmer
Hobbies: reading

the District.”

Hechtner especially enjoyed being able to work with the other board members.

“The chair, Dale Silflow, did a great job. He set up a lot of meetings and invited producers to listen to what was needed. He put in lots of time. It was

Hechtner liked working on the farm. “I enjoyed that way of life,” he said. “I liked some seasons better and always enjoyed the fall because it was like a new sequence of events.”

good to work with him and also the office staff. They were all high quality people,” he said.

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John Hechtner, continued from page 1

There were times when controversial issues would arise and the District board banded together to work through them.

“At one point we were testing the water quality in Waha Lake. We had some problems with people and what they thought the real needs were,” he said. “Not everything is as smooth as you’d like it to be.”



John Hechtner, District Treasurer, July 1979

Financial issues, too, were often prevalent during Hechtner’s term on the Board. He said the Board struggled with

money issues and continually sought additional funding sources.

In 1988, Hechtner decided it was time to step down from his position on the Board, saying he wanted to give others a try and let them be provided with the experience. He didn’t retire from farming until just six years ago.

At present, public awareness is what Hechtner feels is most vital to resource conservation.

“The public should be most aware of its mental involvement in watching for violations coming from farming, mining, logging practices...and really in all these areas because it is basically all a crop, just a different kind of crop,” he said.

Hechtner says the Conservation District is as important today as it was 25 years ago.

“I believed in the message then and still do,” Hechtner said. “The District keeps the water clean and the soil in place. That is quite an accomplishment.”

District Staff Teach at September Camp Wittman Event



Joe Guenther’s Agriculture Economics class from the University of Idaho gathered at Camp Wittman on September 14 to learn about Natural Resource Education. The class began in the morning and completed the team building ropes course hosted by the Lewiston-Clarkston Valley Boys and Girls Club before having lunch. After lunch the class of 30 broke into three groups to move through different stations: forestry, water & soil and, fish & game. Randy Brooks, a University of Idaho Extension Forester in Orofino hosted the forestry station, Mark Hill and John Nelson of the Idaho Department of Fish and Game conducted the Fish and Game station, and Amber Dinges, Kayla Dau and Nikki Lane all from the Nez Perce Soil and Water Conservation District hosted the Soil & Water station.



...our staff discussed the history behind the District, why the District is important and what it accomplishes for local landowners.

During the Soil & Water portion of the event, our staff discussed the history behind the District, why the District is important and what it accomplishes for local landowners. We then showed the group three ways the District assists landowners in meeting water quality and endangered species act regulations.



We brought stream temperature gages, insect nets, insects from Lapwai Creek, and a soil quality kit for the interactive portion of the presentation. We discussed how we complete the stream temperature monitoring, what kind of data it gives us and why it is important. During the insect monitoring portion the students helped in identifying different insects collected earlier that morning. Finally during the soil quality presentation, we discussed our field process, why we run the soil respiration test, infiltration test, bulk density test, electrical conductivity test, pH test, soil nitrate test, slake test, earthworm test, water quality test and the observation tests, and what we can use collected data for.

September Field Training for District Staff

In late September, District staff received training on how to collect field inventory information. Staff learned how to complete soil/water infiltration tests and how to measure gully erosion and field slope. With training completed, staff is currently inventorying sites. After all data from about 10 different sites is collected, the next step will be analysis to decide which sites are of highest priority in determining project implementation. For more information, contact Tim Robinson at the District (208) 843-2931.



Gully erosion in field

Forever Soil & Water

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District Project Briefs

Tammany Road Erosion Project

DEQ 319 funded

District staff and Nez Perce County staff began work along Vollmer Road in October. Project updates and schedule can be found on the District Web site.



Erosion along Vollmer Road

*And more information is always online at:
www.nezperce.swcd.org*



Catholic Creek

Catholic Creek Project

Pacific Salmon funded

Field inventory work began this summer. The lower part of the watershed had never been explored until District members inventoried in July.

Goals: identify watershed needs and fish habitat and water quality projects.

Landowners interested in this project are encouraged to contact Brenda Boyer at (208) 843-2931.



Cottonwood Creek

Cottonwood Creek

SRBA funded

District staff completed a stream inventory for Cottonwood Creek over the summer and fall. Landowners wanting more information on this project can contact Kayla Dau at (208) 843-2931.

Big Canyon Creek Project

Pacific Salmon funded

Currently working on weed control, fencing, tree plantings and streambank stabilization.

WAG News

No future meeting dates have been scheduled Tammany, Lindsay or Cow Creek WAGs. For more information, check the District Web site or contact Whitney Garrison at (208) 843-2931.



Big Canyon Creek



continued on page 4

District Project Briefs, continued from page 3



Lower Clearwater Forestry Project

SRBA funded

The District is currently seeking any interested landowners within the Lapwai Creek, Big Canyon Creek, Jacks Creek, and Cottonwood Creek watersheds for forested land projects.

Activities include:

- Fencing
- Riparian planting
- Erosion control
- Buffer establishments
- Forest plantings
- Sediment control practices
- Weed control
- Livestock waste practices
- Off channel water developments
- Road improvement practices
- Grass plantings

All of the above projects have cost-share opportunities available. For more information contact Noreen Durante at the District (208) 843-2931.



Lapwai Creek watershed overview

Lapwai Creek

BPA funded

The District is currently finalizing designs and installing projects. Activities include streambank restoration activities, tree plantings, fencing and weed control. Landowners remember: this project has cost-share opportunities for tree plantings, livestock water developments, fencing and road improvements. For more information contact Tim Robinson at the District (208) 843-2931.

Flood proofing: What you need to know

Information courtesy Nez Perce County

There are several different ways to go about protecting your home or building from flood damage. One way is to keep the water away by regrading your lot or building a small floodwall or earthen berm. An earthen berm is used in many erosion control systems. They can be used as a dam to temporarily hold back water (floodwater storage) or they can be used to deflect or collect water. These methods work if your lot is large enough, if flooding is not too deep, and if your property is not in the floodway. The Building Department can provide this information.

Another approach is to make your walls water-proof and place watertight closures over the doorways. This method is not recommended for houses with basements or if water will get over two feet deep. A third approach is to raise the house above flood levels. A small wood frame house can be elevated for approximately \$5,000-\$10,000.



Many houses, even those not in the floodplain, have sewers that back up into the basement during heavy rains. A plug or standpipe can stop this if the water doesn't get more than one or two feet deep. They can be purchased at a hardware store for at a reasonable cost. For deeper sewer backup flooding, talk to the plumber about overhead sewers or a backup valve.

If you know a flood is coming, you should shut off the gas and electricity and move valuable contents upstairs. It is unlikely that you will get much warning, so a detailed checklist prepared in advance would help ensure that you don't forget anything.



Home in Big Canyon Creek circa 1996



A reach of Cold Springs Creek displaying excellent fish habitat such as woody debris, over-hanging branches, and riffle/pool sequences

Fish Habitat Needs

Quality habitat provides fish with clean, cool water, well-vegetated stream banks, abundant shade from trees, clean spawning gravel, plentiful food supply, and rocks and woody material in streams to create pools for resting and feeding.



Caddis fly larvae and case.

Physical Habitat and Food — Fish, especially anadromous fish, need diverse habitat. Boulders, cobbles, woody debris, roots, and stable banks help maintain habitat diversity in streams. Streamside vegetation, over-hanging branches, and fallen trees provide cover from predators as well as shade during the hot summer months. Large woody debris, such as logs and root wads, create backwater pools that can be used as rearing habitat for young fish. Woody debris and streamside vegetation also provide habitat for the organisms (insects and other invertebrates) upon which fish feed.

Dissolved Oxygen — Fish need oxygen to stay alive. Inadequate oxygen, or hypoxia, negatively affects growth and survival of fish. Many factors affect oxygen levels in water. For example, cold water holds more oxygen than warm water. Excess nutrients and sediments in the stream cause reduced levels of dissolved oxygen. Inadequate or low stream flows decrease the amount of turbulence in a stream. Churning water creates air bubbles, oxygenating the stream. Therefore, a lack of turbulence decreases the stream’s ability to acquire oxygen.

Temperature — Fish are unable to self-regulate their body temperature, so they must rely on their environment for temperature regulation. For this reason, many biologists consider temperature the most significant environmental factor affecting fish populations. Temperature affects growth, digestion, behavior, swimming ability, and reproduction.

Different species have different optimum temperature ranges. For salmonids (trout/steelhead and salmon), temperatures above 70-75°F can be fatal. Steelhead are slightly more tolerant of warmer temperatures than salmon, but both prefer a water temperature close to 57°F. Stream temperatures need to be even cooler for spawning to occur.



Mayfly larvae

Flow — Fish cannot live without water. Streams must have enough flow to prevent spawning beds and streams from becoming ‘high and dry.’ Sufficient flow also keeps the water supplied with oxygen. Flow not only brings oxygen to developing fish eggs but also carries the growing eggs’ metabolic wastes away from the spawning beds. Water temperature is also affected by flow. For example, slow-moving, shallow water is more easily heated by the sun and surrounding air, just as slow-moving or stagnant water freezes sooner than faster running water.

Field Technician Nikki Lane

Field technician, personal assistant, basketball coach, little league volunteer... are titles to name a few, that describe Nikki Lane.

Nikki Lane, 22, was born in Boise, Idaho on July 24, 1988 to parents John and Gwen Lane. Born Nicole Patricia Lane, Nikki joined a brother, Cody, and three years later, younger brother Matt arrived. The family lived in Eagle, Idaho until Nikki was 5 years old.

“My parents decided to move to Culdesac because the Boise area was growing, and they wanted me and my brothers to be raised in a small town,” Lane said.

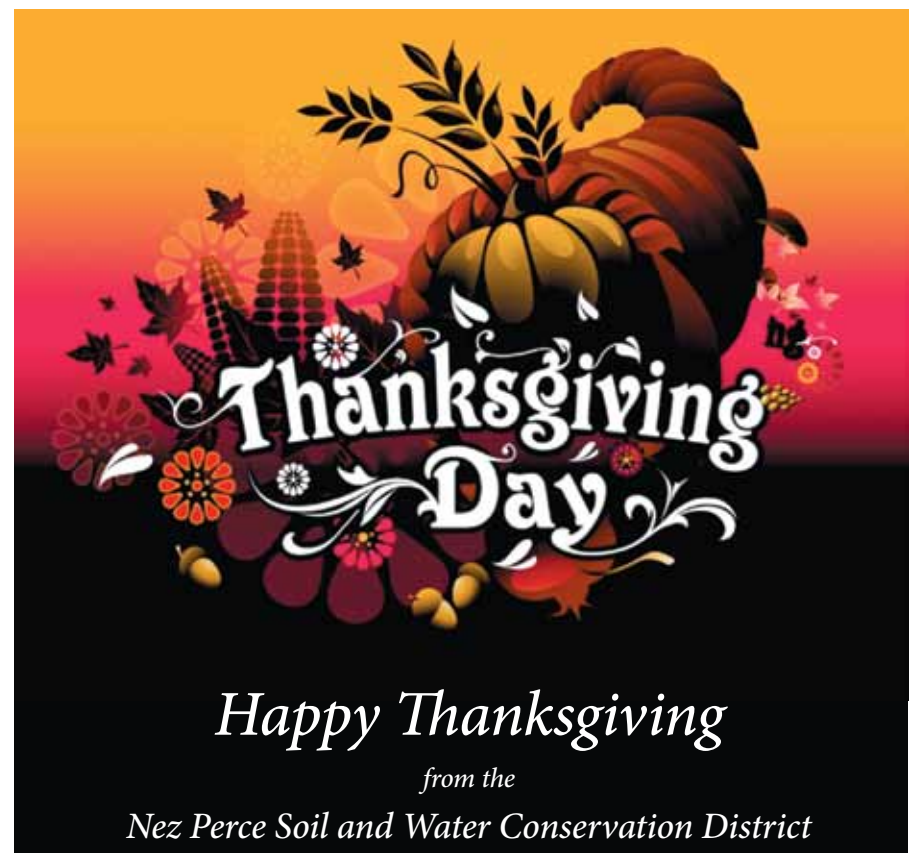


Culdesac undeniably makes for the epitome of small-town characterization and Lane doesn’t mind. With hands in the pockets of her green Culdesac Wolves Softball sweatshirt, she shrugged.

“Despite it being tiny, I’ve always liked it here,” she said.

Lane attended school in Culdesac and graduated in 2006 with a senior class grand totaling 16 students. Following high school, she pursued college at Lewis

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Nikki Lane, continued from page 5

and Clark State College working toward a major in Elementary Education. After a year at school, she decided to take a break to work.

Lane has been employed by the Nez Perce Soil and Water Conservation District as a field technician for more than two years now.

"I do things like noxious weed control, tree planting, administrative assistance, stream temperature monitoring, and photo point monitoring," Lane said.

Last summer, Lane deployed stream temperature gauges into local streams. She said by doing this, stream temperatures can be assessed throughout the summer, data will be collected, and conclusions can be made regarding each stream's status.

While her official title is as field technician, Lane offers her assistance to all staff with close to everything. Her care-free, easy-going temperament allows her to work flexibly. On any given day, you might find her out in the field inject-

On any given day, you might find her out in the field injecting noxious weeds, or find her in the office assisting management, putting together PowerPoint presentations, or offering staff members her help in order to complete an array of different tasks.

ing noxious weeds, or find her in the office assisting management, putting together PowerPoint presentations, or offering staff members her help in order to complete an array of different tasks.

"My favorite part of the job would have to be working outdoors though," Lane said, "and I really enjoy working with the team that we have here."

Over the summer and early fall, Lane and other field technicians injected countless knotweed plants at several sites in the area.

"We injected at sites like Mission Creek, Lapwai Creek, Garden Gulch Road and Tom Beall Road. We inject-

ed the knotweed at the bottom part of the stem to maintain its spread," she said.

Last month, Lane and other field techs. returned to each site to re-inject the knotweed that had not died.

"It was a large project but worth it," she said. "It was important to treat the knotweed so that it didn't completely take over those particular areas."

Another accomplishment Lane says she took part in at the District was a wetland installation project. When Lane first began working at the District, she along with Project Manager Lynn Rasmussen, another field technician, and an Idaho prison work crew planted various wetland plants like sedges and rushes in Winchester, Idaho.

"The project took about a month and it allowed for improved water quality," Lane said.

When she's not busy getting her hands dirty at work or coaching youth sports in her community Lane enjoys playing sports, fishing, hunting and riding her four-wheeler. She also has lots of friends whom she likes to be around and do things like go to the movies. She lives in Culdesac with her family and pets that include three dogs, a cat, and a 13-year-old turtle named "Speedy".

As for the future, Lane, like many 22-year-olds, isn't certain what it is she would like to do.

"I know I want to go back to school, but I'm not sure what field I want to go into yet," Lane said.

Lane and other District staff recently completed an inventory of Pine, Cottonwood, Hatwai and Catholic Creek watersheds. The data collection includes native plant species and stream habitat in order to improve and sustain the watersheds' resources.

A Few Facts About Energy, Soil and Water

Energy

Each day we read about the need for energy conservation and alternative energy sources. Energy plays a large role in our daily lives. We need energy to have electricity and run our automobiles. It even takes energy to make our bodies move. Conservation's Power education materials explore these important topics and more. Use the educators guide and other materials below in your promotion of wise energy use and its importance to each person.



A Few Facts about Energy

- Almost one-fourth of the energy used in homes is used for lighting and appliances. Lighting is essential to a modern society. Lights have revolutionized the way we live, work, and play.
- America is a nation on the move. About 28 percent of the energy we use goes to transporting people and goods from one place to another.
- Gasoline is used mainly by cars, motorcycles, and light trucks; diesel is used mainly by heavier trucks, buses, and trains. Together, gasoline and diesel make up 86 percent of all the energy used in transportation.
- The first modern wind turbine was built in Vermont in the early 1940s.
- Wind farms currently produce enough electricity to meet the needs of more than 600,000 families in the United States.
- Almost half of the renewable energy produced in the United States comes from biomass sources, like wood and paper products.
- In Iowa and Wisconsin, biomass energy from landfills and dairy farms is being used to make electricity.

Information gathered from Energy Information Administration, the National Energy Education Development Project and Alliant Energy

Soil

Is soil an important ingredient in your every day life?

The answer is yes, and here are a few reasons why:

- Last night you slept in a building built on soil.
- You drink water that flows through soil and is cleaned by the soil.
- You breathe air that comes partly from plants growing in the soil.
- You even wear clothes made from plants that grow in the soil.

Soils make our lives possible. We build on them, play on them, drive on them, eat food grown in or raised on them, take medicines from them, wear clothes we wouldn't have without soils, drink water that wouldn't be clean without soils, breathe air we wouldn't have without the plants and trees growing in soils. The entire earth—every ecosystem, every living organism—is dependent upon soils.



A Few Facts about Soil

- Soil makes up the outermost layer of our planet.
- Topsoil is the most productive soil layer.
- Soil has varying amounts of organic matter (living and dead organisms), minerals and nutrients.
- Five tons of topsoil spread over an acre is only as thick as a dime.
- Natural processes can take more than 500 years to form one inch of topsoil.
- Soil scientists have identified over 70,000 kinds of soil in the United States.
- Soil is formed from rocks and decaying plants and animals.

- An average soil sample is 45 percent minerals, 25 percent water, 25 percent air and five percent organic matter.
- Different-sized mineral particles, such as sand, silt, and clay, give soil its texture.
- Fungi and bacteria help break down organic matter in the soil.
- Plant roots and lichens break up rocks which become part of new soil.
- Roots loosen the soil, allowing oxygen to penetrate. This benefits animals living in the soil.
- Roots hold soil together and help prevent erosion.

Information provided by U.S. Dept. of Agriculture, Natural Resources Conservation Service and listed on the Environmental Protection Agency website at <http://epa.gov/gmpo/edresources/soil.html>.

Water

Is water important to your daily life? The answer is yes, and here is why: We use water each and every day. Some of the direct uses are cooking, cleaning and brushing our teeth. There are many indirect uses that sometimes we forget how much water is needed to produce items we use everyday. The food you eat each day relies on water and good soil to produce it. About 4,000 gallons of water are



needed to grow one bushel of corn, 11,000 gallons to grow one bushel of wheat and about 135,000 gallons to grow one ton of alfalfa. It also takes 30,000 gallons of water for to manufacture 1 ton of finished steel to build the vehicles we drive.

Water is important to us each and every day, and we all must work together to take care of it.

A Few Facts about Water

- Of all water on earth, 97.5 percent is salt water, and of the remaining 2.5 percent fresh water, some 70 percent is frozen in the polar icecaps. The other 30 percent is mostly present as soil moisture or lies in underground aquifers. In the end, less than 1 percent of the world's fresh water (or about 0.007 percent of all water on earth) is readily accessible for direct human uses. It is found in lakes, rivers, reservoirs and in underground sources. Water is the only substance found on earth in three forms solid, liquid, and gas.
- A person can live more than a month without food but only about a week, depending on conditions, without water.
- 66 percent of the human body is water; 75 percent of the human brain is water.
- The average American uses over 100 gallons of water per day; the average residence uses over 100,000 gallons during an entire year.

Sources: <http://www.water.org/resources/waterfacts.htm> and http://www.epa.gov/OGWDW/sdwa/30th/factsheets/pdfs/fs_30ann_waterfacts_web.pdf

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**Nez Perce Soil and
Water Conservation
District**

District Board
meetings held the
third Thursday of
each month

NACD Joins with Agriculture, Environment Groups to Support Estate Tax Reform

WASHINGTON, D.C.—September 15, 2010—The National Association of Conservation Districts (NACD) is joining forces with agriculture production and environmental advocacy groups in support of the Family Farm Estate Tax Deferral Act of 2010 (S.3664). The Act, sponsored by Senator Dianne Feinstein (D-CA), would exempt family farms and ranches from the estate tax, and update existing estate tax incentives for voluntary, permanent protection of lands with conservation values.

“The estate tax is a serious obstacle to keeping agricultural lands intact and productive,” said NACD President Steve Robinson. “Without estate tax relief, many of these lands will be sold for development, and we’ll in turn see permanent declines in clean water, healthy soils, wildlife habitat and the other critical benefits they provide.”

Earlier this week, NACD, the American Sheep Industry Association, Environmental Defense Fund, Land Trust Alliance, National Cattlemen’s Beef Association, Public Lands Council, and the Nature Conservancy sent a letter to Senator Feinstein in support of her bill.

“Without estate tax relief, many of these lands will be sold for development, and we’ll in turn see permanent declines in clean water, healthy soils, wildlife habitat and the other critical benefits they provide.”

“Nearly three quarters of the land in the lower 48 states of the U.S. is in private ownership, with the vast majority owned by farmers and ranchers,” stated the groups in the letter. “These lands are vital to both healthy ecosystems and vibrant rural communities. They provide clean water, climate benefits, food and fiber production, and wildlife habitat.”

“The estate tax, as currently formulated, promotes the break-up, sale and development of family-owned farms, ranches, and green spaces,” the letter continues. “This bill will reduce the financial burden which currently impedes the handing down of productive, intact, agricultural operations to America’s next generation of producers and land stewards.”

The National Association of Conservation Districts is the non-profit organization that represents the nation’s 3,000 conservation districts and 17,000 men and women who serve on their governing boards. For almost 70 years, local conservation districts have worked with cooperating landowners and managers of private working lands to help them plan and apply effective conservation practices. NACD’s website is at www.nacdnet.org.



Checkout the District Web site:
www.nezperceswcd.org

- Meeting Announcements
- Publications
- District Projects
- Natural Resource Data and Information
- Public Comment Opportunities
- Employment Opportunities



Nez Perce Soil and Water Conservation District

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Bats, Bats, Oh My!

Quick Facts

- Bats are natural enemies of night-flying insects
- More than 1,100 different types
- More than 50 percent of American bat species are in severe decline or already listed as Endangered
- Nez Perce County bat species include: Hoary Bat, Fringed Myotis, Long-legged Myotis, Little Brown Bat, Townsend’s Big-eared Bat, and Silver-haired Bat.
- Congregate in large numbers
- Slowest reproducing mammals on earth for their size, most producing just one pup annually
- Pollinate plants and disperse seeds
- Like most mammals, bats can contract rabies; however, less than one-half of one percent of bats ever get the disease, and those that do



Photo courtesy: www.findthewildlifepro.com

- normally bite only in self-defense and pose little threat to people who do not handle them
- During the past 50 years, only 48 U.S. residents are believed to have contracted rabies from bats, making it one of the rarest diseases in America

- Contrary to popular belief, bats are not blind
- Seldom transmit disease to other animals or humans
- Bat droppings, called guano, in caves support whole ecosystems of unique organisms and are a popular garden fertilizer
- Tropical bats are key elements in rain forest ecosystems. They pollinate flowers and disperse seeds for countless trees and shrubs.
- Losing bat species would increase the demand for chemical pesticides, jeopardizing whole ecosystems of other animal and plant species.

Information Courtesy: Bat Conservation International