

Eye on Nature

FALL, 2000

A publication of the Wildlife Diversity Program

Getting Texans Involved

New Tools for Habitat Friendly Developments

by Rufus Stephens

Urban sprawl, which is the spread of the suburbs into the surrounding countryside, is a significant cause of habitat loss and fragmentation around our cities and town. Traditional approaches to development along with common construction practices dramatically reduce the quantity and quality of the habitat. There are two main ways that new developments impact habitat quantity and quality. First is the way the development is laid out which leaves little continuous habitat, or important natural features. The second way new development impacts habitat quantity and quality is by damaging the habitat that is left behind during the construction of new homes, or businesses. Often large trees are left but the small trees, shrubs, and ground plants that grow under these trees are removed. Even the trees that have been selected for protection are often unknowingly damaged during the construction process and may die later from these injuries.

The assemblage of small, trees, shrubs and ground plants growing underneath larger trees is known as the understory. Studies have shown that understory can help to maintain habitat for many of our native songbirds and reduce the use by nonnative birds like house sparrows. Developers in Texas that have protected the native vegetation, including the understory, in their developments have realized financial benefits from increased sales. So, by protecting the understory a developer can not only maintain habitat values but also can increase the value of the land.

To help developers better understand the value of protecting the understory, and basic construction techniques for protecting it, Texas Parks and Wildlife with assistance from a Texas Forest Service Urban Forestry Grant

and the City of San Antonio, has produced two videos. The first video called "Keeping Our Communities Green" is geared to developers and builders and helps to show how protecting understory can not only improve esthetic qualities of the property and maintain habitat, but also can add to the financial value and marketability of the property. The second video is an educational tool that developers and builders can use to make

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their contractors and subcontractors aware of the basic techniques on the job site for protecting trees and understory. The title of this video is "On Site Preservation Methods" and includes such concepts as good communication, protection and care techniques.

New development can be designed and constructed to minimize the impact to habitat, while still being financially successful. Urban biologists are available to help developers with approaches for developments that are popular with consumers and minimize habitat fragmentation. With the addition of tools like these new videos, developers and builders can also learn how to minimize the impact of new construction on trees and understory and maintain the quality of the habitat on the construction site. For more information of these videos contact the Texas Parks and Wildlife Department, Urban Program near you (see list at right).

Rufus Stephens is an Urban Biologist working out of our San Antonio office.



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281-456-9350

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512-389-4974

San Antonio
210-348-6350

Rio Grande Valley
956-447-2704

El Paso
915-834-7070

Texas Master Naturalist Program Receives National Award

by Michelle Haggerty

The Texas Master Naturalist Program became the 2000 recipient of the Wildlife Management Institute's Presidents' Award during ceremonies in Chicago, Illinois earlier this spring.

The program, jointly sponsored by Texas Parks and Wildlife and the Texas Agricultural Extension Service, strives to assemble a group of well-informed citizens who provide education, outreach and service toward natural resources within their communities. To date, the program has trained hundreds of volunteers, established six local chapters across the state and enhanced thousands of acres of wildlife habitat, as detailed in its latest report. The program has also claimed a coveted national award in recognition of its achievements.

The Presidents' Award honors a North American public agency division, office or collaboration that has demonstrated exceptional creativity and tenacity in effecting such a program. The Texas Master Naturalist program and its volunteers were selected for their unique approach, exceptional initiative, and widespread success in improving public understanding and appreciation of natural resources and resource management.

Since its inception in 1998, the program has racked up several significant achievements including the following:

- Six localized chapters of Texas Master Naturalist program have been formed including – Alamo Area chapter, Capital Area chapter, Cross Timbers chapter, Gulf Coast chapter, Hays County chapter and North Texas chapter – other chapter expansions statewide are scheduled throughout the year 2000.
- Through the efforts of each chapter, the program has trained over 472 volunteers who contributed over 22,600 hours of service projects related to natural resources.
- These 472 volunteers have also obtained 2,950 advanced training hours.
- Through service projects, 4,000 acres of woodlands, rivers, ponds, prairies and lakes have been enhanced.

- Outreach and technical guidance efforts have educated over 25,000 adults, youth and private landowners by use of tours, exhibits and demonstrations.

The Texas Master Naturalist program increases volunteer capacity and leadership in local communities, while also enhancing public awareness of local ecosystems and natural resources. Since most of the existing Texas Master Naturalist chapters are located in major cities, they provide Texas' rapidly growing urban populations with a better understanding of conservation and improvement of natural resources. Texas Master Naturalists are definitely needed.

"The impact these volunteers are making in their local communities, in educating others, and in the overall future of Texas' natural resources is tremendous. The volunteers and their activities are what makes this program a success," said Michelle Haggerty, program coordinator.

Volunteers receive 40 hours of in-depth training by educators and specialists from universities, agencies, nature centers, museums and other organizations who donate their services. In return, volunteers contribute at least 40 hours of service in community education, demonstration and habitat enhancement projects while pursuing a minimum of 8 hours of advanced training in areas of special interest to them.

Statewide underwriters for the Texas Master Naturalist program include the ExxonMobil Corporation, Texas Utilities Company, and the Wary Charitable Trust.

For more information about how you can become a Texas Master Naturalist volunteer, call Michelle Haggerty at 979-458-2034 or visit the web site at www.tpwd.state.tx.us/native/volunteers/txmasnat/ or write to: Texas Master Naturalist Program, 111 Nagle Hall, Texas A&M University, 2258 TAMUS, College Station, Texas 77843-2258.

Michelle Haggerty is Texas Master Naturalist Program Coordinator working out of our College Station offices.

2001 Great Texas Birding Classic Coming to an area near you for fun and conservation



Dates are set and host cities selected for the fifth edition of the longest, wildest birdwatching tournament in the United States! The 2001 Great Texas Birding Classic starts April 20, 2001 in Jasper Texas with event registration and the Opening Ceremony. The event moves down the coast to Corpus Christi on April 26 with the V.I.P. Birding Tour and Community Appreciation Dinner. The Birding Classic wraps up the week in Mission with the Awards brunch and Closing Ceremony on April 29.

The Great Texas Birding Classic offers a unique opportunity for birders of every age and skill level. Categories include Roughwings competitors (8 – 13 years old), Gliders (14 – 18 years old), Adults (19 and over) and Seniors (65 and over). Teams compete for prizes in either the three individual sections of the coast or in all three sections for a chance at designating which coastal habitat projects will receive \$50,000 in Conservation Cash Grand Prizes. The real winners each year are the birds, with \$200,000 going to habitat conservation or wildlife viewing enhancement projects in the Birding Classics first four years.

Come join the fun and help preserve the unique opportunities that Texas has to offer birders. For more information about the Great Texas Birding Classic 2001, please call 1-888-TX-BIRDS or visit us on the web at www.tpwd.state.tx.us/gtbc/

Eavesdropping on Bats

by Annika Keeley

Because bats are small nocturnal creatures with voices above human hearing range, most people never realize that bats eat dinner in their backyard each night. But in fact, they feed around tree canopies in city parks, backyards, and the open country, flutter around street lights in pursuit of insects, forage high up in the open sky, or come in for a drink on the wing to creeks, lakes, and swimming pools. Often confused with birds at dawn, bats have more fluttery, erratic flight patterns.

Although bats can see quite well, they use echolocation to navigate and detect insects in the dark of the night. Emitting high-frequency calls between 20 and 80 kilohertz (kHz) and listening to the echoes reflected back from objects in their path, bats can “see” everything but color, and in total darkness they can detect obstacles as fine as a human hair. Since humans hear best at frequencies below five kHz (but can detect frequencies up to about 18 kHz) most bat echolocation calls are inaudible to us - even though they are as loud as a fire alarm! However, thanks to technology we are able to eavesdrop on bats. By listening in with a bat detector we are able to discover where and when bats are near.

Although bats can see quite well, they use echolocation to navigate and detect insects in the dark of the night.

Bat detectors are small, hand-held devices that make the sounds in the 10 kHz to 200 kHz range audible. Some bat detectors are expensive, scientific instruments that - with a lot of experience - allow to identify bat species. However, there are some affordable detectors such as the MICROBAT*, that

are well made, easy to use, and can serve to monitor bat activity.

When you turn on a bat detector you will realize that there are a lot of high frequency calls in our environment, produced by vegetation rubbing on clothes, grass crushing under your feet, by bats, other mammals, and many insects. Bat calls in the bat detector sound like a rhythmic series of clicks passing by. When bats are commuting, the rhythm is regular, however it changes when the bats are encountering objects or insects. A big brown bat, for example, that cruises along looking for insect produces 10-20 calls per second, but as it approaches an insect the frequency of clicks speeds up to 200 per second. It's called a 'feeding buzz' and sounds like a glass marble bouncing on glass table top. To describe the sounds emitted by the detector even scientists use terms like 'tick, tack, pjop, pjoup, and bwioeuuw'.

If you are interested in estimating bat activity and habitat use by bats in your neighborhood or on your property you can use a bat detector and apply the point transect methodology. Here is how it works:

Select a walking route (transect). Designate stopping points that are evenly spaced out. Walk the transect once during the day to record the habitats present. Then walk the transect with a bat detector and flashlight at night (right after sunset).

point along the transect) can be calculated as an index of bat activity.

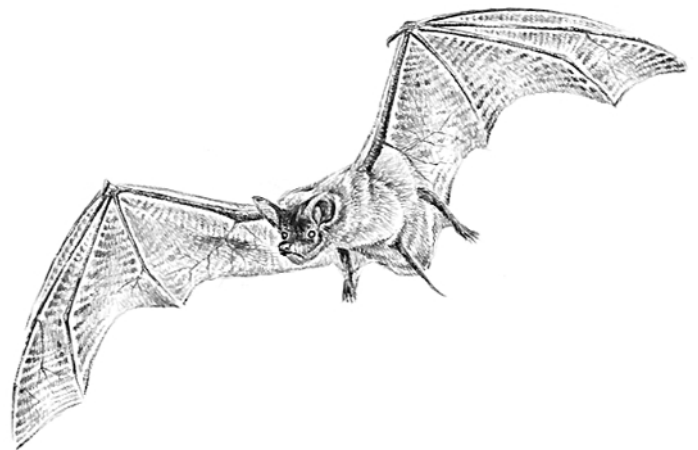
With this method you can compare bat activity between years by always walking the transect in the same month, i.e. if you do the monitoring in July one year, repeat it in July the next year(s). To look at differences between habitats, walk the transects through different habitats in the same month of the same year. Or to compare bat activity between seasons, walk the transects at different times during the year. Bat activity will be greatest on warm nights from April to October but especially in south and east Texas, bats are also flying and feeding throughout the winter when temperatures stay above 50° F in the early evening hours.

Echolocation is clearly one of the most fascinating aspects of the biology and behavior of bats. Bat detectors allow you to listen to this usually unnoticed aspect of night life - right in your backyard! Try it - and you will be richly rewarded.

If you are monitoring for bats with a bat detector - I would love to hear about it! (Annika Keeley: 512-912-7052; Annika.Keeley@tpwd.state.tx.us).

* For sale at Bat Conservation International: www.batcon.org; 1-800-538-BATS (2287).

Annika Keeley is a Bat Biologist working out of our Austin offices.



Texas Nature Trackers Volunteers Brave the Heat

by Ann Miller

Over the summer the TNT office received some interesting stories from monitors who braved the heat and wanted to share their experiences before they sent in data. One amphibian enthusiast told of a pond on her property in the eastern part of the state that had so many frogs that when she approached it, the WHOOSH of hundreds of frogs jumping into the pond all at once frightened her! She had never seen (or heard) frogs in that great a number! It took her several moments to realize what had happened. Data on this frog pond will be very interesting, especially over time. Will she have a similar frog population next year? The consistent data, sent by our monitors over time, are valuable tools to help us understand population trends and environmental factors affecting our wildlife.

When Jim Mills called to change his address on our database, he told us about stopping highway traffic to save a Texas horned lizard crossing Hwy 87 in Big Spring. We don't ever want our monitors to put themselves in danger, but Jim just couldn't help saving this "horny toad." He told us of only seeing 3 Texas horned lizards on his 10 acres outside of Big Spring this past year when, in the '50s and '60s, there was an abundance of "horny toads." Jim took pictures of a horned lizard on his property this year to show his grandkids. He will show them the real thing when they come to visit. Jim still has populations of native red ants and no fire ants, yet. The causes for the declines in Texas horned lizard populations are still a mystery, but the data our monitors are sending us will help us to solve it. Thanks to all our monitors who have figured out ways to deal *safely* with the Texas heat and still give us important data!

Get Ready! Monarch Migration is Upon Us!

An exciting part of fall for many Texas nature enthusiasts is the amazing monarch migration! We eagerly watch for the first monarchs to light on our frostweed or blue mist flowers on their trip to Mexico. TNT's summer teacher intern, Mary Kennedy, who has been very active in Monarch Watch, and whose students have won awards for their monarch science fair projects, worked with Bill Calvert and our staff to create a new publication titled *Texas Monarch Watch*. This publication gives monarch monitors the background they need to identify monarchs and Texas milkweed species, understand the need for data about monarchs, and learn various ways they can participate in scientific research on monarchs. The fall monarch migration is at hand! If you are interested in documenting this awesome migration through Texas and want to receive this publication, please fill out and return the form on page 5. Or, if you have internet access, you can download the entire document as well as our other monitoring packets. Go to www.tpwd.state.tx.us/nature/education/tracker/



Swallow-tailed Kites

During 1998-1999, over 200 observers contributed sightings of the Swallow-tailed Kite for our Watch program. These observers also led us to two active kite nests which constituted 40% of the documented nests of this species in Texas since about 1911. It helps to have more eyes watching the skies for this rare and declining raptor.

Project Prairie Birds

Project Prairie Birds is a citizen science project designed to answer basic questions about the wintering habits of grassland birds in Texas and the Southeastern U.S. During the field season of winter 1998-1999, over 50 volunteers in Texas alone surveyed 116 areas and counted 987 individual grassland birds of 26 species. They also collected vegetation data to correlate with the presence or absence of these grassland birds. These observers contributed almost 550 hours of field work. For more information on birding projects, please visit the Birding Page under Nature at www.tpwd.state.tx.us

Don't forget!

Please mail in your monitoring data for Texas Horned Lizard Watch and Texas Amphibian Watch by Nov. 1st. Mussel monitors may send in their data as they complete each monitoring event.

Review safety precautions listed in each monitoring packet and always be alert to any possible hazards in the field. We want all our monitors to have a safe and productive monitoring experience.

TNT Monitoring Workshops

The TNT staff is preparing now for workshops being scheduled for next spring and summer. (Check our web site for workshop updates.) The final workshops for 2000 are:

Aug. 19th - Texas Mussel Watch in Waco at the Cameron Park Zoo

Sept. 16th - Texas Amphibian Watch in Brownsville

Oct. 13th - TNT for Teachers at the CAST conference in College Station

Oct. 29th - TNT for the Texas Master Naturalists Annual Meeting

For information about these workshops, contact Ann Miller at 512-912-7025 or ann.miller@tpwd.state.tx.us

Ann Miller is a coordinator of Texas Nature Trackers working out of our Austin office.

Environmental Education

by Chuck Kowaleski

Most of us learned to enjoy the delights of the outdoors through the actions of a mentor. This mentor was often a family member or friend who loved the outdoors. Through their guidance we delighted in observing plants and animals in their natural habitats that were but a few steps from our own back door. We used books and television shows to increase our own knowledge and answer questions that puzzled us.

Unfortunately, this is no longer the case. Most children now live in cities. Their mentor is a narrator and their observations are often done in front of a TV instead of in the woods. The habitats they see are on different continents thousands of miles away.

What can we do about this? We can take the time to introduce children to the natural world around them. First, get them interested in nature through programs like Outdoor Kids, Project WILD or Rare and WILD. Then take them to any of almost 125 Texas State Parks and encourage them to ask



questions on what they find. You'll be amazed how much both of you learn! I guarantee that the time spent introducing your children to the natural world will be most satisfying you'll ever spend together!

Check out the wealth of information on Texas State Parks, plants, animals and environmental education programs and materials at our web site: www.tpwd.state.tx.us or call us at 800-792-1112 for more information on a specific subject.

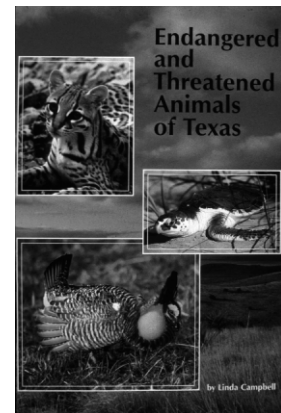
Chuck Kowaleski is Project WILD Coordinator working out of our Austin office.

Endangered and Threatened Animals of Texas

by Linda Campbell

With 165 color photos and information on 36 species in Texas listed as endangered or threatened by the U.S. Fish and Wildlife Service, this handsome book features a description of each animal, its habitat and life history, reasons for its decline, recovery efforts on its behalf, and resources for more information and public involvement.

To order, call Mark Klym at 512-389-4644.



\$12.95

TNT Response Form - Fill out and mail to:
Texas Nature Trackers
3000 IH 35 South, Suite 100
Austin, TX 78704

___ Please send me the Texas Monarch Watch Monitoring Packet (free)

Check the names of projects for which you would like more information. We will mail brochures about the following projects. Or view information about the projects on our web site: www.tpwd.state.tx.us/nature/education/tracker/

___ Texas Horned Lizard Watch

___ Project Prairie Birds

___ Texas Amphibian Watch

___ Swallow-tailed Kite Project

___ Texas Mussel Watch

___ Hummingbird Roundup

___ Texas Monarch Watch

___ Mid-winter Bald Eagle Survey

Name _____

Street Address _____

City, State, Zip _____

E-mail address (if applicable) _____

Texas Hummingbird Roundup – Sixth Year Brings New Growth



by Mark Klym

Texas has the most diverse hummingbird population of any state in the union, and data from six years of backyard surveys is helping us to better understand their ecology and behavior. Hummingbird watchers from across the state continue to send in reports establishing new county records, reporting new and interesting behavior and important bird habitat notes.

Established in 1994 to provide Texans with a way of becoming involved in the resource and to provide researchers and managers with valuable information on our hummingbird resources, the Texas Hummingbird Roundup is an annual survey by backyard bird enthusiasts just like you. Spending only a few hours each week, these volunteers provide population, behavior and environmental information to Parks and Wildlife biologists. In exchange for this information, Parks and Wildlife staff summarize the data and compile it into an annual

newsletter and other educational materials to help the volunteers and other Texans enjoy these flying jewels more.

With the coming of fall, hummingbird numbers peak and excitement around the feeders builds. Many Texans miss a real bonus of our southern weather by taking their feeders down immediately after the peak of fall migration. With the mild winters Texas enjoys relative to the rest of North America, hummingbirds from across the United States and Canada may make Texas their winter residence. This is the only time of the year that some of the west coast migrants frequent Texas.

There is no reason to take hummingbird feeders down during the winter. The concern used to be that by not taking the feeder down we would encourage hummingbirds to spend the winter in an area they were not supposed to be in. Simple observation disproves this, since often feeders

are still up when large numbers of hummingbirds leave. Your feeder will provide food for a winter visitor and possibly the enjoyment of unexpected guests over the winter months!

To learn more about hummingbirds in Texas, why not join the Texas Hummingbird Roundup? Send a \$6.00 donation to:
Hummingbird Roundup
4200 Smith School Road
Austin, TX 78602.

Mark Klym is coordinator of the Texas Hummingbird Roundup working out of our Austin office.



The Wildlife Diversity Program sends out a number of newsletters each year relating to specific interests and activities within the program. Some of these newsletters are listed below. Please indicate those you would like more information about and whether you prefer to receive printed or electronic (e-mail) information. Mail to: Texas Parks and Wildlife, Wildlife Diversity Program, 4200 Smith School Road, Austin, Texas 78744-3291.



Eye on Nature

Hummingbird Roundup

Partners in Flight

Texas Nature Trackers

Attwater's Prairie Chicken

Name _____

Street Address _____

City, State, Zip _____

E-mail address (if applicable) _____

New "Texas Birdwatching Bonanza" offers chance of a lifetime Birding Package!

by Matt Dozier

Texas Parks and Wildlife has launched a new program to raise money for habitat conservation and restoration in Texas. "The Texas Birdwatching Bonanza" is an exciting opportunity to win a package of three spectacular Texas birdwatching trips while contributing to the conservation of our precious natural resources. All proceeds will fund Texas Parks and Wildlife avian habitat conservation projects. The package will include trips to see:

Lower Rio Grande Valley Specialties

January 2001

Ted Eubanks of Fermata, Inc. will be your guide as you explore the most biologically diverse area in the continental United States. Subtropic, temperate, coastal and desert influences come together here at the most southern tip of Texas, creating an ideal situation for species diversity.

Over 400 species, including neotropical migratory birds, shorebirds, raptors, and waterfowl, can be found in the Lower Rio Grande Valley.

Spring Migration in the Upper Texas Coast and Pineywoods

April 2001

Bob Behrstock of Fermata, Inc. will be your guide for the second leg of your Texas birding adventure. Spring migration on the upper Texas coast is famous for the incredible numbers of colorful neotropic migrants that stop to rest and refuel on the coastal plain.

You will also see dozens of species of shorebirds, gulls and terns. Visit the Pineywoods to find the eight species of woodpecker that are possible.

Davis Mountains and Big Bend Region

September 2001

Greg Lasley of Victor Emanuel Nature Tours will be your guide on this tour of the Texas Trans-Pecos. Desert mountain ranges are the dominant feature of this area and the mixture of desert, grassland and woodland provide an incredible diversity of habitats and birds.

Many species found in the mountainous Trans-Pecos are not regular elsewhere in Texas or the United States.

The deadline for entering is midnight the evening of November 1. For complete

Six other winners will also be drawn to each receive a free weekend at one of the following locations:

The Brown Pelican Inn

South Padre Island

The Brown Pelican Inn offers some of the finest accommodations in South Texas. Enjoy three nights amidst beautiful beaches and great coastal birding.

Cayman House Bed and Breakfast

Rockport

Cayman House offers comfort and convenience in a tranquil, secluded setting. Enjoy two nights and a half-day birding tour with Coastal Bend Birders.

Hoopes' House Bed and Breakfast

Rockport

Enjoy three nights at this elegant but casual B&B located within an easy drive of some of the best birding spots on the central Texas coast.

The Inn at Chachalaca Bend

Los Fresnos

Over 40 acres of natural landscaping and the chance to view hundreds of species of birds. Enjoy three nights of South Texas hospitality along with gourmet breakfasts and some of the best birding in South Texas.

The Inn at El Canelo

Raymondville

The hacienda-style Inn at El Canelo Ranch greets you with a view of its graceful buildings and swaying palm trees. Enjoy two nights at this deluxe bed and breakfast with some of South Texas' best birding on site.

The Queen Anne Bed and Breakfast

Galveston Island

Enjoy a three-night stay at the elegant Queen Anne on historic Galveston Island. This beautiful Victorian home is a wonderful place to relax after enjoying some of the best coastal birding in Texas. Enjoy gourmet breakfasts served with gracious southern charm.



THE **texas**
birdwatching
bonanza

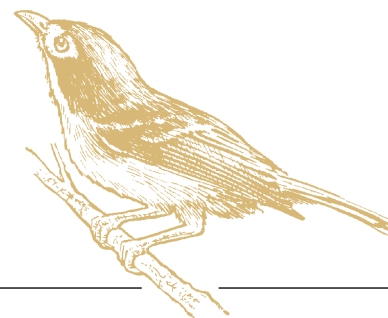
rules and more information, or to receive entry forms, call us toll-free at 1-888-TXBIRDS (892-4737) or visit us on the web at: www.tpwd.state.tx.us/bonanza/

Matt Dozier is Great Texas Birding Classic Development Coordinator working out of our Austin office.



The Back Porch

by Pat Morton



Given our busy lives and the summer heat how many of us find our way to the back porch or deck to enjoy the sounds, sight and smells of nature? While thinking about this column I made several visits to my back deck to see what treasures might appear there to soothe a spirit too long disconnected with the natural world. For me evening is the best time for a trip to my deck. Dropping into a comfortable chair and taking a few deep breaths I feel the day's tensions begin to disappear. My senses slowly come alive.

I first become aware of the pulsating cicadas. While I'm amazed at the intensity of these loud vibrating songs coming from insects one rarely sees, I am simultaneously awed by a "ball" of daddylonglegs that is breaking up under the overhang of my roof. How delicately they move along the wall on long legs as fine as a human hair. My focus on the invertebrate world is immediately interrupted by the air show going on around my hummingbird feeder. *Varoom!* past my head as the Black-chinned and Ruby-throated hummingbirds

compete for a last meal. It seems impossible that there is enough energy in sugar water to power these determined little aviators. This year Tufted titmice and Golden-fronted woodpeckers have also been frequent visitors to my feeder. Luckily the metal feeder can withstand the rather heavy-handed tactics of these large woodpeckers.

The light is growing dim now and the cloud shapes are enhanced by the shifting angles of the setting sun. Scattered thunderstorms in the area have created quite a landscape in the sky. I still imagine, as I did as a child, how it might feel to free-fall through those huge white, puffy clouds. Silhouettes dash between treetops outlined against the clouds. Birds are settling in and bats taking wing. It's easy to distinguish the two as birds fly a more direct and deliberate flight path while bats flutter erratically like butterflies. This time of year insect food is scarce and bats are emerging earlier in order to find enough to eat. Like birds they are putting on body fat to support the energy demands of their fall migration south. Now that

the yard security light has come on I know that there will be dozens of bats hawking insects attracted to the light.

It's almost dark. As I sit very still breathing in the cooler evening air I can make out the outline of two deer coming to drink from the large water-filled plant trays I put out for the birds. They pass no more than ten feet from me. My breath is shallow and my heart pounding. I'm always awed by their beauty and it's exciting to be so close and undetected.

Night has fallen and I'm totally relaxed and ready for sleep. As I rise from my chair I hear a screech owl off in the distance. What a haunting sound this is. It adds to the magic of the night and stimulates the imagination to picture ghouls and spirits that might be lurking in the shadows. Quietly I slip back into my dark house. As I fall asleep I think back on the many simple and commonplace gifts that Nature provides if only we make time to step outside and use our senses to observe what's there.

Pat Morton is the program leader for education and outreach in the Wildlife Diversity Program.