

Bio-blitz

Durham East Cross Forest BioBlitz - Phases 1 and 2

article and photos by James Kamstra

A BioBlitz is an intense period of inclusive surveying to document all living species at a designated location over a specified period of time (typically 24 hours) by experts and volunteers. The goal is to record all species of birds, mammals, herptiles, insects, vascular plants, mosses,



bryophytes and other organisms. The first ever BioBlitz was held near Washington in the US in 1996. The idea has caught on - since then BioBlitzes have been spreading around the world. The Royal Ontario Museum and Toronto Zoo have held large BioBlitz events each year since 2012 covering entire watersheds of the GTA and involving over 700 participants. Whistler, B.C. has held annual BioBlitzes since 2007.

The first ever BioBlitz in North Durham, was recently held at the Durham East Cross Forest Conservation Area in the southeast corner of Scugog Township. Kristie Virgoe, program manager with the Oak Ridges Moraine Land Trust (ORMLT), was the brainchild behind this event. With the



help of Ontario Trillium Foundation funding and the Kawartha Conservation Authority (KCA), she promoted the event, recruited experts and naturalist volunteers, ran several workshops beforehand and oversaw the whole thing. KCA had a few staff assigned to help with the implementation, in particular Jon Hale. KCA owns and manages the property as a conservation area.

The goals of the BioBlitz were two-fold. First, as a means of collecting species specific information on the diverse range of life forms that live in the East Cross Forest which can aid in better management and stewardship of the conservation area. Secondly it is an exciting way to engage the public in a fun way to learn about the natural world. A 24 hour period was chosen from noon on Friday May 13 to



Cinnamon Fern

noon on Saturday May 14. Volunteers came from far and wide including North Durham Nature and Durham Region Field Naturalists but also from Ministry of Natural Resources and Forestry, and Sir Sandford Fleming College. In total 107 volunteers contributed 530 hours of effort. Over 85% of those had never participated in a BioBlitz before. Several participants even camped overnight.

East Cross Forest may not be well known to most members but that is likely to change. This property is located almost in the middle of the Oak Ridges Moraine but has been subjected to decades of abuse including mud bogging, 4 wheel drive off-roading, garbage dumping and bush parties, resulting in severe erosion. There was even a grand estate residential scheme proposed on much of the land that never came to fruition. Kawartha Conservation took ownership of the first 220 ha in 2006, turning it into a public conservation area. They kick started the process of cleaning up this property, installing trails and patrolling it to keep out the four-wheelers and riff raff. KCA has added to the land base so now the protected area has grown to over 535 hectares. Much of the property consists of pine plantations but many of those are transitioning into a more natural deciduous forest through succession. The site consists overwhelmingly of dry sandy soils which grow mature forests of maple and oak, open meadows and sand barrens but also include some wetlands such as

beaver ponds, marshes and a Leatherleaf thicket swamp.

So what did they find on the BioBlitz? Quite a diversity of species in fact: 81 species of birds, 8 mammals, 10 herptiles, 4 fish, 244 vascular plants and a handful of lower plants including mosses, and lichens as well as fungi. Highlights included a Northern Goshawk, which terrorized some of the participants who got too close to its nest. Goshawks will scream, fly at, and even strike at anyone or anything which approaches their nest. A Least Bittern was heard cooing in a beaver marsh, while a Long-eared Owl hooted at night. Mid-May was a good time to get a good bird list since migration was in full spring.



Prairie Buttercup

migrants included 18 species of wood warblers. An adult Eastern Milk Snake was encountered as well as some salamander egg masses (probably Spotted Salamander) in

one of the wetlands. Olympian Marbled Kingfishers were observed by two groups. This is a provincially rare butterfly that has a very short flight period in early to mid-May, so timing was perfect for that species. The spring woodland ephemerals were in good form: Carolina Spring-beauty, Large-flowered Bellwort, Hepatica, Yellow Trout-lily, and Red and White Trilliums among others. Several provincially rare Prairie Buttercups were in flower on the sand barrens and three regionally rare plant species were reported: Arrow-leaved Violet, Selkirk's Violet and White Oak.

Since June is really the best month of the year to document the maximum biodiversity, North Durham Nature decided



Hobomok Skipper

to hold a less formal “Phase 2 BioBlitz” about a month later on Saturday June 11, in attempts of getting a more complete species list. James Kamstra led a group of six BioBlitzers to focus largely on plants while Geoff Carpentier and Tim Logan headed out to document birds. Another 16 bird species were added (bringing the total to 97), all of which were probably breeding. The less common among them included Red-shouldered Hawk, Virginia Rail, Yellow-billed Cuckoo, Yellow-throated Vireo, and Clay-colored Sparrow.

The plant hunters documented 244 species of vascular plants bringing the total of the two phases up to 345! Exciting finds included several regionally rare species:



Shining Ladies-tresses

Shining Ladies-tresses (an orchid), Hairy Beardtongue, Marsh Speedwell and Carpenter’s Square Figwort. The sedges were in fine form with 24 species documented. There were also many more



Two-striped Grasshopper

butterflies out by this time with 18 species documented including the locally rare Milbert’s Tortoiseshell.

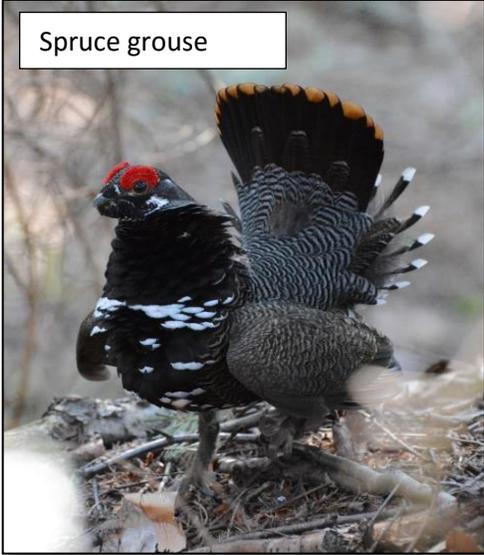
In all there were about 600 species of life forms recorded at the East Cross Forest between the May and June blitzes. Many new species were added to the list of what was previously known from the property. Many participants helped out, learned about species they didn’t know before and had fun in the process. Next year we will have to focus more on insects, spiders, mosses, lichens, fungi and others. So much still to do and learn!

Birdathon 2016

by Geoff Carpentier

Well my 2016 Birdathon is now in the record books literally. I found 174 species of birds, while my group found 175! This was a personal single day high for me. Peter Hogenbirk and I did the same challenging route as last year, starting in Algonquin Provincial Park about 5 p.m. on May 23rd. We birded primarily the Spruce Bog Trail, Opeongo Road and Mizzy Lake Trail areas. After having some

Spruce grouse



great success, particularly with Spruce Grouse, we tried for Saw-whet owl. Pete saw one but I missed it - darn! That would be my only miss for the entire trip. One interesting thing that happened was that we had seen Boreal Chickadee and Olive-sided Flycatcher about 2 hours before we officially started and when we went to record them, both were gone and neither was seen elsewhere during the adventure. From here we started a long night of searching the Carden Alvar near Kirkfield and myriad marshes and woodlands further south trying to find night birds. Almost everything we could hope for showed up and we even had four species of owl, missing only Great Horned Owl. Throughout the night we found many sparrows, a Mockingbird (our only one), Least Bittern and much more. As dawn broke on the 24th, we were at Darlington Provincial Park, and the Piping Plover was amongst our first finds. Shorebird pickings were slim, but we did add Whimbrel and several ducks. Second Marsh produced many

species of shorebirds and ducks aplenty. A quick diversion to Pete's house added Mourning Warbler and Red-bellied Woodpecker and then we went to Intrepid Park in Oshawa to find the Acadian Flycatcher. Successful, we went next to Thickson's Woods and Point and added still more – mostly woodland birds and some swallows. At Cranberry Marsh a few more ducks



Upland Sandpiper

rounded out this part of the adventure. As the day progressed we moved off the Great Lakes shoreline and went inland. Stops at favourite haunts produced Hooded and Blue-winged Warblers and a few “gap fillers”. Nonquon lagoons beckoned next but were somewhat disappointing as only a handful of species were added. So off we went northward again and tackled the Carden Alvar in daylight this time. Lots of great birds here – Loggerhead Shrike, bluebirds, snipe, Upland Sandpiper and more. And it was here that we ended our day with 175 species! Thanks to all who supported me and NDN with your generous pledges. Money is still coming in but so far I'm over \$2700! If any of you



Northern Parula

are thinking “can I still donate?” – Well “yes you can”. Here is the link <http://birdscanada.kintera.org/birdathon/geoffcarpentier> or send me an email (geoff.carpentier@gmail.com)

So what did we see? Well here’s the list in random order):

- Swallow, Tree
- Jay, Blue
- Jay, Gray
- Crow, American
- Raven, Common
- Chickadee, Black-capped
- Creepers, Brown
- Nuthatch, Red-breasted
- Nuthatch, White-breasted
- Wren, House
- Wren, Marsh
- Wren, Sedge
- Wren, Winter
- Gnatcatcher, Blue-gray
- Kinglet, Golden-crowned
- Kinglet, Ruby-crowned
- Bluebird, Eastern
- Robin, American
- Thrush, Hermit
- Thrush, ~~Swainson's~~
- Thrush, Wood
- ~~Veery~~
- Catbird, Gray
- Mockingbird, Northern
- Thrasher, Brown
- Waxwing, Cedar
- Ovenbird
- Parula, Northern
- Redstart, American
- Warbler, Bay-breasted
- Warbler, Black-and-White
- Warbler, ~~Blackburnian~~
- Warbler, Blackpoll
- Warbler, Black-throated Blue
- Warbler, Black-throated Green
- Warbler, Blue-winged
- Warbler, Cape May
- Warbler, Chestnut-sided
- Warbler, Golden-winged
- Warbler, Hooded

- Warbler, Magnolia
- Warbler, Mourning
- Warbler, Nashville
- Warbler, Pine
- Warbler, Tennessee
- Warbler, Wilson's
- Warbler, Yellow
- Warbler, Yellow-rumped
- ~~Waterthrush~~, Northern
- Yellowthroat, Common
- Tanager, Scarlet
- Cardinal, Northern
- Grosbeak, Rose-breasted
- Bunting, Indigo
- Towhee, Eastern
- Sparrow, Chipping
- Sparrow, Clay-coloured
- Sparrow, Field
- Sparrow, Grasshopper
- Sparrow, Savannah
- Sparrow, Song
- Sparrow, Swamp
- Sparrow, Vesper
- Sparrow, White-crowned
- Sparrow, White-throated
- Blackbird, Red-winged
- Bobolink
- Cowbird, Brown-headed
- Grackle, Common
- Meadowlark, Eastern
- Oriole, Baltimore
- Oriole, Orchard
- Finch, House
- Finch, Purple
- Goldfinch, American
- Siskin, Pine
- Sparrow, House

- Species
- Loon, Common
- Loon, Red-throated
- Grebe, Pied-billed
- Cormorant, Double-crested
- Bittern, American
- Bittern, Least
- Heron, Great Blue
- Swan, Mute
- Swan, Trumpeter
- Goose, Canada
- Duck, American Black
- Duck, Wood
- Gadwall
- Mallard
- Pintail, Northern
- ~~Shoveler~~, Northern
- Teal, Blue-winged
- Teal, Green-winged
- ~~Wigeon~~, American
- Bufflehead
- Duck, Ring-necked
- Long-tailed Duck
- Merganser, Common
- Merganser, Hooded
- Merganser, Red-breasted
- Redhead
- ~~Scaup~~, Lesser
- Vulture, Turkey
- Osprey
- Falcon, Peregrine
- Harrier, Northern
- Hawk, Broad-winged
- Hawk, Red-tailed
- Kestrel, American
- Grouse, Ruffed
- Grouse, Spruce
- Turkey, Wild
- Moorhen, Common
- Rail, Virginia
- ~~Dowitcher~~, Short-billed
- Dunlin
- Killdeer
- Plover, Black-bellied
- Plover, Piping
- Plover, ~~Semipalmated~~
- Sandpiper, Least
- Sandpiper, ~~Semipalmated~~
- Spotted Sandpiper

- Sandpiper, Upland
- Snipe, Wilson's
- Turnstone, Ruddy
- Whimbrel
- Woodcock, American
- Yellowlegs, Lesser
- Gull, Bonaparte's
- Gull, Herring
- Gull, Little
- Gull, Ring-billed
- Tern, Black
- Tern, Caspian
- Tern, Common
- Dove, Mourning
- Pigeon, Rock
- Cuckoo, Black-billed
- Owl, Barred
- Owl, Eastern Screech
- Owl, Long-eared
- Owl, Northern Saw-whet
- Nighthawk, Common
- Whip-poor-will
- Swift, Chimney
- Hummingbird, Ruby-throated
- Kingfisher, Belted
- Flicker, Northern
- Sapsucker, Yellow-bellied
- Woodpecker, Downy
- Woodpecker, Hairy
- Woodpecker, Pileated
- Woodpecker, Red-bellied
- Flycatcher, Acadian
- Flycatcher, Alder
- Flycatcher, Great-crested
- Flycatcher, Least
- Flycatcher, Willow
- Kingbird, Eastern
- Phoebe, Eastern
- Wood-Pewee, Eastern
- Shrike, Loggerhead
- Starling
- Vireo, Blue-headed
- Vireo, Red-eyed
- Vireo, Warbling
- Lark, Horned
- Martin, Purple
- Swallow, Bank
- Swallow, Barn
- Swallow, Cliff
- Swallow, Northern Rough-winged

Kid's Corner

Exploring your Local Pond

by Cara Gregory

Summer is finally here! What better time to head down to your local pond with the young people in your family and explore. All you need is a net, a bucket, a container with a lid and a magnifying glass. The dollar store has some great containers with ventilated tops and a magnifier lid that you

can purchase, as well as nets and separate magnifying glasses. Old cleaned out yogurt containers can work well too, as the white background is helpful in seeing what you have caught more easily.

Standing on the water's edge, looking into the pond, waiting for a critter to swim by, you may feel discouraged. These water creatures are clever. They have many ways to keep themselves hidden, so that they don't become a meal for another animal. It is best that you drag your net back and forth through the water plants, where much pond life stays hidden, then pull your net out of the water and put your sample into your bucket. Make sure that your bucket is filled half way with water, as most of the life that you are catching will require the water to breathe. You will be surprised by how much you will see swimming in your bucket!

You can then scoop up each of the



swimming creatures into the containers you brought, and observe them. Be careful to give fish and tadpoles (see photo above) a fair bit of water in their container, as they need more oxygen than the insects. If you are going to handle a frog, make sure that your hands are wet and don't have bug repellent or sunscreen on them that could make the frog sick, as they are very sensitive to chemicals.

A number of the insects that you catch will be in the aquatic stage of their lives, and will complete their life cycles as a flying terrestrial insect. Many people don't realize that dragonflies are one of these insects. Dragonfly eggs are deposited onto plant life under the water from the tip of the dragonfly's tail. They hatch into neat looking insects, with big eyes and thin legs, called a dragonfly nymph. Their wings are folded and carried on top of them like a back pack. They have an elbow like lower jaw that is lightning fast when they reach out and grab their prey. If you watch them carefully you may notice some movement in the water behind them when they move forward. The dragonfly nymph will pull water into its abdomen, take the oxygen in with gills inside the abdomen, and then push the water out to propel itself forward! After several months to a year, the dragonfly nymph will crawl up onto a piece of grass at the edge of the pond, shed its exoskeleton, pump fluid into its wings, and then fly into the air as it enters its last life stage as an adult dragonfly! The dragonfly will then pair up with another dragonfly, such as the Twelve-spotted Skimmer (see photo below) of the opposite gender, eggs will be laid and the cycle will begin again. When an insect morphs from an egg to a nymph then finally an adult, this cycle is called incomplete metamorphosis.



In complete metamorphosis, the stages are egg, larva, pupa and then adult. It is always fun to try and identify what you have caught. I recommend the *Lone Pine: Bugs of Ontario Guide*, and the *Golden Guide: Pond Life* book. The *Lone Pine* guide has detailed information about the life of the insect, not just its identification. The *Golden Guide* is quite comprehensive and will help to identify most aquatic life commonly found in a local pond.

Learning about the life in your local pond is a fun activity to share together as a family. There is something new to be discovered and learned by everyone!

Local News

Bird Box Report Spring 2016

by Derek Connelly

Cavity nesters rely on natural or man-made cavities for their nests. As humans develop communities and recreational areas, dead trees, which contain natural cavities, are often lost and with them suitable habitat for our native birds. Bird box projects can assist some species. We are helping Tree Swallows and to a smaller extent Eastern Bluebirds with our nest box projects. If you live on pasture or farmland you have a perfect opportunity to assist cavity nesters



too. Here's some information on our projects.

The Countryside Preserve is in Uxbridge behind Rona/ Walmart off highway 47 (Toronto Street).

Here 24 boxes are being used in this small 5 ha meadow area mixed with shrubs and small trees. The swallows took to these boxes readily so predator control structures were added to a number of boxes last year to better protect nesting birds. This year the wooden boxes have 11 active nests with two families of Eastern Bluebirds, and nine Tree Swallows. These parents had produced nine bluebird young and 23 swallow eggs as of May 24th. Wren activity has occurred in two boxes, which is always a concern since the birds are aggressive and will out-compete many other species. We will be watching the bluebird nests closely as during each year pairs struggle to be successful.

The Lafarge Regan Pit Restoration Site is on the Seventh Concession Road south of Goodwood Road.

Forty-eight boxes are spread out over a large recently planted area with small trees, new grasses and bare sand. The metal covered,

mouseproof boxes house 28 active nests including 1 chickadee, 6 Eastern Bluebirds, and 21 Tree Swallows. All have been productive yielding 90 Tree Swallow young, and 6 eggs, 12 Eastern Bluebird young and 16 eggs, and 5 chickadee young as of June 10th.

Town Trails

The Barton Trail has two boxes near the pond - one is empty and the other has a Tree Swallow nest with three young. Off Elgin Park Road just past the pond facing toward a field adjacent to Ewen Trail are two more boxes recently erected and eagerly awaiting new tenants. In the Quaker Commons and toward the Historical Centre are six more boxes soon to be monitored by the Quaker School Eco-kids.

Hey families! Would you like to be a Bird Box Buddie and help out our cavity nesters? Choose a regular trail or area you frequent and contact us. Maybe it's a good place for a box or perhaps there is already a box there that needs a landlord. Introducing children to nature by showing them how we can help survival of one type of bird opens their eyes to so much more that we can protect.

Thanks to the local residents and members who help with the monitoring. Stay tuned for the fall results in a subsequent newsletter.

If you are interested in helping out or would like to know more contact Derek Connelly at dconn50@powergate.ca

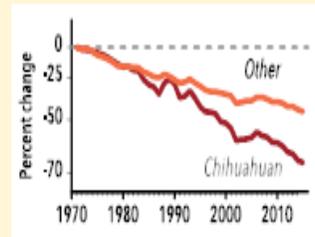
Nifty Nature Notes

State of North American Birds (2016) Report

The 2016 report is just out hot off the presses and once again the news is gloomy. In a nutshell: boreal species are faring well as 80% of the boreal forest remains intact. Likewise marshland birds are also doing well across their range in North America. For temperate forests (like those that surround us) 19% of the bird species are on the watch list and many are in jeopardy.

Status: Birds and habitat are disappearing fast

ONE-THIRD OF ALL GRASSLAND BIRD SPECIES are on the Watch List due to steeply declining populations and threats to habitat. Birds that breed in the Great Plains of Canada and the U.S. and winter in Mexico's Chihuahuan grasslands are experiencing exceptionally steep declines, a nearly 70% loss since 1970. Other temperate grassland birds have declined by 33% in that time.



Populations of Chihuahuan grassland migrants have declined twice as much as other temperate grassland birds.

For grassland species the outlook is increasingly gloomy (see inset above) as most are in steep decline.

For the complete story check out the report online at:

http://www.stateofthebirds.org/2016/wp-content/uploads/2016/05/SotB_16-04-26-ENGLISH-BEST.pdf

Quiz: Who am I?

Willa Worsley photographed this lovely little critter in her garden in Uxbridge recently. What is it?



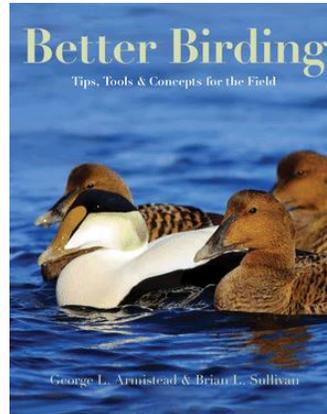
Here's a hint ... even though it is green, its name doesn't reflect that. It likes trees, but not always!

Book Reviews

There are so many great books coming out lately that it's hard to keep track, but here are my first impressions of a few from Princeton University Press.

Better Birding; Tips, Tools and Concepts for the Field. George L. Armistead and Brian Sullivan. Princeton University Press 2016. Softcover. 318 Pages \$29.95 USD ISBN: 9780691129662

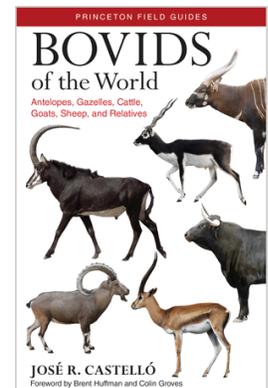
Have you ever wanted to unravel the mystery of bird watching? I had the pleasure of spending time with Brian Sullivan in Antarctica a few years ago and was more than impressed with his enthusiasm and skill level. I was



Tips and techniques to becoming a better birder abound as photos and text combine to paint clear pictures of what it takes to improve your birding skills. A great read full of great info!

Bovids of the World. Jose R. Castello. Princeton University Press 2016. Softcover. 664 Pages \$35.00 USD ISBN: 9780691167176

I often wonder why there hasn't been any really good books dealing with the antelopes, wild cattle, sheep, gazelles and goats of the world. Well I guess I need wonder no more. With the publication of Castello's new book, I have found a resource that will be invaluable as I travel in search of wildlife.

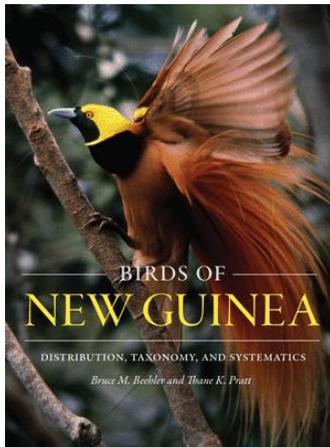


It certainly supplements some of the other books I have but more importantly surpasses them for detail, inclusivity and sheer factual value. All 279 species that occur across the globe are featured. Maps and over 1500 photos make this a book one you'll want to use time and again, whether

spellbound!
His contributions to this book are clear (to me at least) and I have read the volume with an appetite I can't quite satisfy.

it is to help ID something you saw or simply to answer a pressing question you heard at a party! As with other Princeton guides, the layout is eye-pleasing and the text factual, informative and inclusive. Ranges, habitats, descriptions, subspecies and behaviour are covered for every species.

Birds of New Guinea: Distribution, Taxonomy, and Systematics. Bruce M. Beehler and Thane K. Pratt. Princeton University Press 2016. hardcover. 672 Pages \$75.00 USD ISBN: 9780691164243.



I wonder if I will ever get to Papua New Guinea, the home to most of World's species of Birds of Paradise. Well if I do, this is one of the books I would

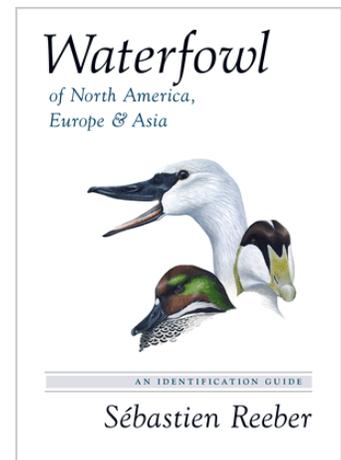
want to use, but I doubt if I'll carry it in my luggage for it is heavy and hard to use in the field. It is a companion piece to a field friendly volume called Birds of New Guinea also from Princeton. This book is a reference volume that will be used by the serious birder who wants to know everything about the 800 species of birds known to occur in New Guinea. It takes the known science about New Guinean avifauna and brings it up-to-date with the addition of 75 species new to the region!

And finally

Waterfowl of North America, Europe and Asia. Sebastien Reeber. Princeton University Press 2016. hard cover. 656 Pages \$45.00 USD ISBN: 9780691162669

Okay finally this is the one I've been waiting for ... not since Kortwright (1942), Bellrose (1942) and Madge & Burn (1987) did their classic books on North American and global waterfowl has such a great book been produced. Much has happened in the last 30 years and much new knowledge has been gained. Reeber now brings us up-to-date with his thorough coverage of this large family of birds.

So let's take a few minutes to explore the book. It covers 84 species of waterfowl (ducks, geese and swans) from around the world, using over 900 illustrations and 72 colour plates to show us what to look for and how to compare one to another. Details about taxonomy, identification, aging, geographical variation, moult, life cycles and behaviour fill the pages.



An interesting inclusion was a large amount of information on hybridization between species. I have, over the years, seen several hybrid waterfowl from the relatively common Black-Mallard complex to rare forms like a Pintail crossed with a Mallard.

Reeber adds details of myriad other hybrids many of which I've never even known to exist. For this reason alone you may love the book.



Male Mallard x Northern Pintail hybrid – Duffin's Creek STP Pickering. January 2014

Within the book, recent splits, such as the Velvet vs. White-winged Scoter and the Common vs. Black Scoter are well-described and will certainly help the traveller differentiate between these very similar species. All through the book this level of detail and extensive knowledge are shared. This is one I think you should own if you have a passion for waterfowl like I do!

Answer to Quiz

It is a Gray Tree Frog (*Hyla versicolor*) and is one of two "tree frogs" found in Ontario – the other is the Spring Peeper (*Pseudacris crucifer*). The Gray Tree Frog can change colour depending on where it sits so that it can camouflage itself and hide from predators. Suction cups on its feet help it climb vertical surfaces. Its haunting song is often heard but it is seldom seen. Here's what it looks like when it's wearing gray ...



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