

DW^{The} Wood Duck

Volume 64 Number 5

January 2011



One Red-headed Woodpecker was noted in August's Noteworthy Bird Records. For all the August bird records, see page 110.

Photo: Tom Thomas

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Celebrating and Learning About Biodiversity in the Hamilton Area

by Glenn Barrett



Photo: Funereal Duskywing at Kelso C.A. on 8 Oct. 2010 by Brenda Van Ryswyk

The United Nations declared 2010 to be the International Year of Biodiversity (www.cbd.int/2010/welcome/ or www.unep.org/iyb/), so now seemed to be a good time to reflect on the Hamilton Naturalists' Club (HNC) long history of recognizing, documenting and celebrating the importance of our area's rich biodiversity.

The Webster's On-line Dictionary (www.websters-online-dictionary.org) defines biodiversity as "The diversity of plant and animal life in a particular habitat (or in the world as a whole)". Showing leadership through initiatives such as Natural Area Inventories (NAI) for Hamilton and Halton, the HNC has assisted in the production of valuable publications and databases that track the status and diversity of plant and animal species in our region.

Past President Jim Stollard on the topic of NAIs; "The HNC has long recognized that citizens and local governments need to appreciate and protect the enormous heritage of biodiversity still present in their cities and regions. With that biodiversity documented and protected by city or regional planning policies, we can maintain critical habitats in our cities and thus maintain the biodiversity of our area. To achieve these aims the HNC has partnered with the local governments, the local conservation authorities, Royal Botanical Gardens (RBG) and the Ontario Ministry of Natural Resources to complete two NAIs in Hamilton and one in Halton. The reports and databases generated by these three NAIs tell us where many important species live and what

areas we must protect to ensure the continuation of these species." The HNC is currently undertaking a third NAI project for Hamilton and interested Club members should contact Jim for more information on how they can be a part of this exciting and important project.

Not to be underestimated is the important role that the five HNC nature sanctuary properties provide in protecting the biodiversity of life contained within their boundaries. HNC Land Trust Coordinator Jen Baker - "Through the Head-of-the-Lake Land Trust program, the HNC protects the region's rich biodiversity by acquiring and permanently protecting natural lands". Donations to the Clubs Sanctuary funds provide for the continued protection and expansion of these significant areas.

Each year the HNC also coordinates several "creature counts" (bird, butterfly and odonate (dragonfly/damselfly)), which further document the rich biodiversity of the Hamilton area. Examples include the Hamilton Fall Bird Count (37th count occurred on November 7, 2010), the Hamilton Christmas Bird Count (CBC) occurs each December 26 (first Hamilton CBC occurred back in 1921 for Hamilton area bird enthusiasts), and butterfly and odonate counts also occur each summer.

The HNC's Hamilton Study Area (HSA) covers a 25-mile (40.2 km) radius circle centred on Dundurn Castle in Hamilton, and so also includes parts of Halton, Brant, Haldimand, Norfolk, Peel, Waterloo, Wellington and Niagara. Past Club publications such as *The*

Reptiles and Amphibians of the Hamilton Area (1994) and the *Atlas of the Mammals of Hamilton* (2005) have documented the biodiversity of these species groups within the HSA, while the more recent publication, *Birds of Hamilton and Surrounding Areas* (2006; second edition 2007), has provided a rich resource of information on birds (all three publications are available in local libraries). Did you know that the HSA bird list contains 389 different species of birds that have been observed over the years!

During 2010 the price of *Birds of Hamilton* was reduced from \$60 to \$45 to make this important source of information on the biodiversity of birds in the Hamilton area even more affordable for those who want a copy for themselves. *Birds of Hamilton* is available for purchase from local bookstores, at monthly Club meetings and can also be shipped to purchasers who mail in order forms available on the Club's website.

The HNC is currently undertaking an odonata Atlas project to better document the biodiversity of dragonflies and damselflies within the region, and provide a much needed reference document on these charismatic insects. The Hamilton Odonata Atlas is an effort to try to compile all the odonata records in the study area into one place and map these records. It is hoped that this will not only give us a better understanding of the odonata diversity and distribution in the region but that it will also raise awareness of these interesting creatures and encourage more people to study them. Brenda Van Ryswyk is the coor-

dinator of this important biodiversity initiative and reports, "current data shows we have 111 "ode" species in the HAS. However, right now our biggest need is for more sightings to be submitted!"

Many HNC members are also active in their pursuit of this region's colourful diversity of butterfly species. A comprehensive atlas of butterflies for the HSA does not currently exist but HNC President Bill Lamond has records showing at least "92 species recorded in the HSA". Brenda Van Ryswyk had arguably the best butterfly sighting within the HSA for 2010. She found a Funereal Duskywing in Kelso Conservation Area on October 8. This is the first time a Funereal Duskywing has been seen in the HSA and one of very few records of this species in Ontario outside of Point Pelee.

David Galbraith from RBG provides some insights into the biodiversity of plants found in the Hamilton/Burlington area; "RBG's properties now have a total checklist of about 1,170 vascular plant species recorded, but some are now locally extirpated. This number of plant species is extraordinary. We are right now putting the finishing touches on a paper that shows that this is the plant biodiversity hotspot in Canada. Essentially, this area is home to about 38% of all of the vascular plants of Ontario, and more than 23% of the flora of Canada."

I hope you will agree that the HNC has an impressive roster of biodiversity related accomplishments, and I have no doubt that our Club will continue to be an active participant in the documentation and protection of biodiversity within the Hamilton area.

Update of Birders' Life HSA Bird List Totals

By Rob Dobos

It has been a few years since we have printed a summary of local birders' bird species life list totals for the Hamilton Study Area (HSA). I would like to update this summary for publication in the February issue of the Wood Duck, to include any additions to the end of 2010. I would encourage all long time birders, as well as newer ones that have made the threshold (see below), to send in their totals for listing.

The criteria for reporting totals are as follows:

1. They must include live bird species positively identified by you, by sight or sound. (Since your list will not be checked, we rely on your honesty.)
2. They must include birds encountered in the Hamilton Study Area (within a circle with a radius of 25 miles [40.2 km] centred at Dundurn Castle, Hamilton).
3. They must be species included on the official Hamilton Area Bird Checklist (2007 edition, plus the new species seen since then, i.e. White-faced Ibis, Painted Bunting, Sulphur-bellied Flycatcher). No exotic escapees (e.g. Whooper Swan, Northern Shelduck, Ringed Turtle-Dove, etc.) or obviously introduced birds which are not locally established (e.g. Chukar). Note that Trumpeter Swans are now considered to have established wild populations in Ontario and therefore are now countable in the HSA.
4. Include your totals up to December 31, 2010 only.
5. The threshold for reporting will be 235 species (roughly 60% of the checklist total of 389 species).

Please note that adherence to these criteria is important in order for reported totals to be comparable, and is not intended to imply that you did not see a particular bird if it is not on the official checklist.

Send your Hamilton list totals, along with your name and address, by January 15 to: Rob Dobos, 21 Sunrise Cres., Dundas, Ont., L9H 3S1; or e-mail: rdo-bos@cogeco.ca

Bruce Duncan Memorial Lecture Series

by Gord McNulty

Fans of the Niagara escarpment, and there are many, will enjoy the Bruce Duncan Memorial Lecture Series resuming in February. The lectures are presented by the Giant's Rib Discovery Centre (www.giantsrib.ca), an active, not-for-profit organization dedicated to increasing awareness and protection of the Niagara escarpment World Biosphere Reserve. Many different aspects of the escarpment, focusing on its natural heritage and rich wildlife, are covered in the lectures. Geographical, geological, historical, agricultural, cultural and other features are highlighted. The series is named in recognition of Bruce Duncan (1946-2006), the esteemed environmentalist who was general manager of the Hamilton Conservation Authority at the time of his death in a tragic traffic accident. Of course Bruce has his name on the HNC's President's Paddle as he was a former President from 1984-85.

Lectures are held on Sunday afternoons from 2 p.m. to 3 p.m. in the theatre of the former Parks Canada Discovery Centre at the foot of Discovery Drive in Hamilton's west harbour. Admission is one toonie. Tea, coffee and cookies are provided.

Here is the schedule through the spring of 2011:

Sunday, February 6

Healthy Hamilton's Watershed Action Plan

Speaker: Jaime Overy, Hamilton-Halton Watershed Stewardship Program.

Sunday, March 6

Battles Along the Niagara escarpment During the War of 1812

Speaker: James E. Elliott, author of the award-winning book, *Strange Fatality: The Battle of Stoney Creek, 1813*

Sunday, April 10

The Ugly but Beautiful Turkey Vultures of the Niagara escarpment

Speaker: Chris Hamilton, community relations information officer, Hamilton Conservation Authority

Sunday, May 15

Discovering the Spring Wildflowers in Hamilton's Natural Areas

Speaker: Dean Gugler, Hamilton Naturalists' Club

The 2010 season closed in November with a wide-ranging presentation on Conservation Halton's parks, by Norm Miller, communications advisor for Conservation Halton. The series is highly recommended. For further details, contact Ken Hall at 905-627-1320 or orkenjoan75@sympatico.ca.



Photo: Orchard Oriole by Tom Thomas



Photo: Red-breasted Nuthatch by Tom Thomas

The Life of a Star

By Mario Carr



I would like to dedicate this month's column to my grandfather Ovideo Celeste. His love of the New Brunswick outdoors inspired my interest in nature, which led to a passion in astronomy. He recently died at 98.

As last year ends, 2011 begins. Death brings life, which is a constant theme throughout nature and to the billions of stars in the universe. Though stars seem immortal they're not.

Stars begin their lives in interstellar gas cloud nurseries called nebulae when hydrogen atoms clump together to form protostars. As these protostars grow in size they become hotter. If they become big enough, nuclear fusion will transform hydrogen into helium, releasing energy and a star is born. If these protostars don't grow big enough to create heat for fusion they remain as brown dwarfs.

One of the grand daddies of all stars is Eta Carinae, which is about 8,000 light years away and is about 3 million years old. It's 150 times more massive and burns 4 million times brighter than our Sun. Because it's quickly burning through its hydrogen fuel, astronomers think that it will only live for another 100,000 years. Some astronomers predict that it will blow up as a super nova sometime soon.

The remnants of a super nova are so massive they can collapse to form a black hole. Gravity in a black hole is

so intense it becomes a huge interstellar vacuum cleaner sucking up everything around it including light.

For the first time in history last November, astronomers witnessed the creation of a black hole about 50 million light years away. The super nova that created it was actually discovered by an amateur astronomer from West Maryland back in 1979.

Our Sun, which is an average star, is about 5 billion years old and could live for another 5 billion years. At that time, it will consume all its hydrogen and will expand in our solar system to the orbit of Jupiter as a red giant. Then it will shrink to the size of the Earth as a white dwarf.

Smaller stars 50 per cent less massive than our Sun are called red dwarfs. Since they are smaller they consume less fuel and not as bright. They could live for an amazing 10 trillion years. That's longer than the age of the universe.

During this month, Jupiter will set in the west around 10 p.m. and Saturn will rise in the east after 1 a.m. Mercury and Venus can be seen in the SE during morning twilight. Mercury will be low in the sky.

Here are some important dates for January stargazers. Most events are listed in the Hamilton Amateur Astronomers (HAA) calendar.

Jan. 1-5 – The Quadrantids meteor

shower is best seen after midnight Jan. 3. Up to 40 per hour can be seen.

Jan. 3 – Believe it or not the Earth will be closer to the Sun or at perihelion than at any other time of the year. So why is it so cold? Well you can thank the tilt of the Earth for that.

Jan. 10 – Moon at apogee or furthest from the Earth at 404,975 km.

Jan. 14 – H.A.A. meeting at 7:30 p.m., Hamilton Spectator building, 44 Frid St., Hamilton. Feature speaker will be science journalist Dan Falk whose topic will be *Time*. He is the author of two books; *Universe on a T-Shirt* and *In Search of Time*. Falk has also written for numerous publications and made documentaries for CBC Radio.

Jan. 19 – The full Moon this month is known as the Wolf Moon.

Jan. 22 – Moon at perigee or closet to the Earth at 362,792 km.

Jan. 29 – The Moon nears Venus in the morning sky.

For more information, please see the Hamilton Amateur Astronomers web site at www.amateurastronomy.org or call (905) 627-4323.

Mario Carr, the author of the report, is the director of public education, Hamilton Amateur Astronomers. He is also a member of the Hamilton Naturalists' Club and can be reached at mariocarr@cogeco.ca.

Fire in the Pines Project at the Spooky Hollow Nature Sanctuary

by Jen Baker

The 166 acre Spooky Hollow Nature Sanctuary (SHNS) was the first property to be permanently protected by the Club in 1961 and made the Hamilton Naturalists' Club the first non-governmental organization in Ontario to purchase land for the protection of natural habitat. It is a mature Carolinian forest, rich in biodiversity and situated close to the shores of Lake Erie (1.5 km) and Turkey Point Provincial Park in Norfolk County. The sanctuary is part of a large natural core area within the internationally recognized Long Point Biosphere Reserve and is part of the provincially designated Spooky Hollow Area of Natural and Scientific Interest. It protects several species at risk, including birds such as the Acadian Flycatcher and Hooded Warbler, trees such as the American Chestnut and Eastern Flowering Dogwood, and reptiles such as the Eastern Hognose Snake. The property also features provincially significant wetlands and one of the healthiest cold water streams in the watershed (Fisher's Creek) which flows through the property to Lake Erie.

The uplands in the northern part of the SHNS are located on the Norfolk Sand Plain which was historically dominated by prairie, savannah and open woodlands. These areas would have been drought and fire prone, maintained historically by Native North Americans' frequent use of fire. Development in southern Ontario has reduced the remnant areas of prairie, woodland and savannah to less than three percent of the pre-settlement extent of prairie and savannah in this region, making all of these communities among the most imperilled vegetation communities in

Ontario with oak savannah being recognized as globally imperilled.

The uplands of the SHNS are currently dominated by a pine plantation that was planted in the 1960s. Forty-four prairie affinity species persist on the site providing a glimpse to the historic savannah ecosystem that had once been present at the site.

In 2000, the HNC began an extensive restoration project to try to restore this rare habitat. The expert-directed, volunteer-run project has involved removing trees from the pine plantations. HNC Sanctuary Land Trust Committee volunteers cut or girdle the trees, remove lower branches, and then either burn the brush, or leave logs piled to create wildlife habitat. By removing pines, light is able to reach the forest floor, which is encouraging the species associated with oak savannah habitat to grow. Unfortunately, invasive plant species are also quickly becoming established and are a direct threat to this significant restoration project. The HNC has been working to control the invasive species but further action is needed to allow the native species to become firmly established.

The HNC will be conducting a low-intensity prescribed burn in the clearings that have been made by cutting and girdling pines, approximately 5 acres. A prescribed burn is needed for three primary reasons, 1) to provide the right conditions for fire adapted oak savannah species to thrive, 2) to protect species at risk and their habitat, and 3) to reduce competition to the oak savannah ecosystem from the overgrowth of

invasive shrubs such as Autumn Olive and Common Buckthorn, while the native oak savannah species become established.

The prescribed burn will be conducted in the early spring by experts from **Lands & Forests Consulting** who have experience with hundreds of burns. They will develop a prescribed burn plan, prepare the site and conduct the burn. The burn plan will provide the HNC with details about communicating with the local municipality and neighbouring landowners, as well as details to ensure the burn is carried out safely. Preparing the site involves ploughing the soil to create fire breaks to prevent the fire from spreading. The HNC will establish monitoring plots to evaluate the growth of native oak savannah species as well as to determine if invasive species are returning.

Special thanks to the generous funders who are making this project possible: TD Friends of the Environment, RBC, Shell Environmental Fund and donations from HNC members.

Stay tuned over the winter for more details about the project. If you have any questions please contact Jen Baker, HNC's Land Trust Coordinator, at 905-524-3339 or land@hamiltonnature.org.

RBG Public Programs for January

by Liz Rabishaw

See www.rbg.ca for details and online registration, or call (905) 527-1158 ext 270.

HOME-SCHOOLER'S AFTER-NOONS

January 11, Winter Birds, Nature Centre
January 25, Snowshoeing (weather permitting), Nature Centre
February 8, Animal Tracking, Nature Centre
February 22, Wild Music, RBG Centre
1p.m. to 3p.m.
Fee: \$7.50/student. Pre-registration required — online at www.rbg.ca or call 905-527-1158 ext. 270 at least one week prior.

WINTER BIRDS

Saturday, January 15; 10 a.m. to noon at the Nature Centre.
Members: \$8 (family membership rate \$20);
Non-members: \$10 (family rate \$25)
A guided hike focusing on birds that brave our Ontario winters; how they survive, what they eat and what you can do in your own backyard to help their survival.
MAXIMUM 20. PRE-REGISTER BY JANUARY 6

RBG GEO-QUEST

Sundays, January 16-February 13: 2 to 4 p.m. at the Nature Centre.
Members: \$10.50/person (family membership rate \$29);
Non-members: \$13.50/person (family rate \$38)
Your team receives a tutorial on the supplied GPS unit, and then heads outdoors on a high-tech treasure hunt. Suitable for children aged five and up. Dress for the outdoors.

MAXIMUM 28. PRE-REGISTER BY JANUARY 7 or FEBRUARY 4.

SNOWSHOEING/WINTER WALK AT THE GARDENS

Saturdays, January 22, February 5, 19; 2 to 4 p.m. at the Nature Centre.
Members: \$10.50/class (family membership rate \$29);
Non-members: \$13.50/class (family rate \$38)
If you can put one foot in front of the other, you're well on your way to having fun on snowshoes! We head out on a nature walk if conditions aren't suitable for snowshoeing.
MAXIMUM 15. PRE-REGISTER BY JANUARY 13, 28, FEBRUARY 10.

SHARING NATURE WITH KIDS THROUGH THE SEASONS

January 22 (nature in winter, part of a series)
1 to 4:30 p.m. at the Nature Centre.
Members: \$23.50; Non-members: \$28
Do you work with children at a school / camp / church or other setting? Join our nature education experts for an afternoon of simple tips and tricks geared to involving children in exploring the natural world around them. Our staff is also available to offer these programs at your site — call us for details, 905-527-1158.

CHANGING THE CLIMATE ON CLIMATE CHANGE

Friday, January 28; 7 to 8:15 p.m. at RBG Centre.
Free
Grant Linney examines human-induced climate change as well as our reasons for continuing disagreement on this issue.

GET BACK TO NATURE Hike

Sundays, 2 to 3:30 p.m., various locations at RBG (exception: no hike on holiday Sundays)
Free (donations welcome)
Hikes are guided, dress for the weather, call 905-527-1158 ext 270 or visit the website for locations. In the event of inclement weather, call our update line at 905-527-1158, ext. 404; cancellation messages will be posted by 1 p.m.

COMING THIS WINTER

January 29 to April 10, 2011

Camilla and Peter Dalglish Atrium, RBG Centre
Long before the advent of iTunes, the musical instinct ran deep. Whales compose, bullfrogs chorus, songbirds greet the dawn, and people everywhere sing and dance.
Wild Music is a 4000 square-foot exhibit that explores the biological origins of music through highly interactive exhibits and exceptional sound experiences.

Wild Music: Sounds and Songs of Life is a production of the Science Museum of Minnesota, the University of North Carolina at Greensboro, and the Association of Science-Technology Centers. Major funding from the National Science Foundation, with additional support from Harman International Industries, Inc. and NEC Foundation of America.

Getting Around Environmental Rules

reprinted from Citizens At City Hall (C.A.T.C.H.)

City officials have endorsed construction of 65 houses on part of the Tiffany Creek Headwaters Environmentally Significant Area (ESA). The move approved by council on December 15 removes 20 acres from a provincially significant wetland because after being designated they were cleared of vegetation and used for agriculture.

The affected property is on Garner Road, just where it turns into Rymal, and is owned by two numbered companies. Nearly all the houses will be built on cul-de-sacs that extend finger-like into the remaining wetland or alongside nearly six acres of new stormwater ponds being built to handle runoff from this development and a 525-unit neighbouring one.

City planning staff also agreed to a narrower buffer between the new housing and the remaining wetland and ESA.

“Policy 2.5.10 [of the official plan] directs that Provincially Significant Wetlands would require a 30m vegetation protection zone from the boundary of the wetland, and that Significant Woodlands (ESA Boundary) would require a 15m vegetation protection zone from the drip-line or edge of the woodland,” noted the staff report. “In light of this new policy direction, the recommended buffer widths of 10m to the ESA (woodland) and 15m to the Provincially Significant Wetland are considered to be acceptable to ESAIEG and the Hamilton Conservation Authority.”

ESAIEG (Environmentally Significant

Areas Impact Evaluation Group) is a volunteer committee that advises the city’s planning department. It discussed the proposal three times during 2005-2008, a period when the group was mainly composed of consultants.

The staff report said the “the ESA and buffer lands have experienced degradation through agricultural use over at least a 10-year period and through the effects of gradual urbanization to the east and northeast” of the site. As a result, ESAIEG decided the 20 acres are no longer considered wetlands and “there was no requirement for their protection or restoration under the Provincial Policy Statement.”

When the proposal was discussed by the planning committee in September, Brian McHattie suggested “someone drained the wetland for quote unquote agricultural use” and argued this was “because they knew they wanted to develop it in the near future” for housing.

“And now we’re saying it’s not a wetland, but the soils are still there and the wetland soils are still there. They’ve been there for millennia. Just because you drain the area for agriculture doesn’t mean it’s not a wetland anymore.”

The city’s natural heritage planner, Cathy Plosz, responded that the 1976 ESA designation was renewed in 1994 and that 1999 air photos showed little change, but “when you look at the 2002 air photo, it ha[d] been cleared.” When staff visited the site after the development application in 2005, it was “in crop” and the wetland was no longer

visible.

“And the problem is in the Provincial Policy Statement, under the definition for wetland,” she explained. “If a wetland has been removed for agricultural purposes and displays none of the characteristics of a wetland which is hydrophilic soils and the vegetation, then it would no longer be considered a wetland.”

Terry Whitehead asked how land could be cleared when it was supposed to be protected, and was told “that would be dealt with through a tree cutting bylaw.” A staff recommendation to establish a bylaw was rejected last year by the committee.

Ed Fothergill, the planner representing the developer, praised staff for a “very thorough job” and called the plan “a reasonable compromise” that balances development interests and environmental protection and “is one of these cases where a development application can actually enhance existing natural features”

The new planning committee – that doesn’t include McHattie – approved the proposal on December 7 despite a letter from the Hamilton Naturalists’ Club and a detailed verbal presentation by Past President Jim Stollard. Ancaster councillor Lloyd Ferguson unsuccessfully opposed hearing from Stollard, and only newly-elected councillor Brenda Johnson ended up opposing the development.

Missing: Forty-seven Species of Bees

reprinted from USGS Patuxent Wildlife Research Center

The following article is a summary of a paper entitled:

A Summary of the Facts and Patterns Associated with 47 Species of Bees not Detected in the Past 20 Years in Eastern North America (1990 – 2009)

Authors*: M. Arduser, J. S. Ascher, J. Cane, S. Colla, M. Deyrup, S. Droege**, J. Gibbs, T. Griswold, G. Hall, C. Henne, H. Ikerd, A. Mayor, J. Neff, R. Jean, M. Rightmyer, C. Sheffield, M. Veit, A. Wolf, D. Yanega *Authors include anyone who submitted information regarding the status of a species and are presented in alphabetical order, actual contributions varied greatly. **Corresponding author is Sam Droege (sdroege@usgs.gov)

This article was authored by Sam Droege and has been edited by Bill Lamond.

There are approximately 800 recorded species of bees in eastern North America that have occurred east of the Mississippi River in the United States and from Ontario eastwards in Canada. Of this total, 47 species (6%) have become so uncommon that they have not been recorded in the last 20 years (1990-2009). This list of 47 species has been compiled by the very small world of all known North American bee experts and by utilizing individual state and provincial records. The original report above, was compiled by the lead author Sam Droege to stimulate more in-depth investigations of population status and to initiate lists of conversation concern among regional and national con-

servation and management groups.

These 47 missing species are not a random assemblage of all bee species, but a group with strong associations with certain categories or guilds. All these species can be said to have been rare to uncommon in collections and thus, at minimum, have always been uncommon species. Some are known only from single specimens, others from but a few. Nineteen species are known to be nest parasites of other species. Within the East, certain patterns emerge regarding the geographic distributions of the species on the missing list. Only a few species are restricted to the middle latitudes, while over half (25) are from the Deep South and, of those, eight have only been collected from within the comparatively small landmass of the Florida peninsula. A few species have a distribution primarily from the Great Plains and to the west, and nine species are northerly in distribution. Such geographic patterns are likely a reflection of both true patterns of rarity (often associated with sandy areas) and lack of recent collection activity in these areas. It should be noted however that a number of species are members of poorly studied genera, have been found only once, or their identification is difficult or controversial. Their existence on this list may simply be due to lack of scrutiny. This is suspected to be the case for approximately 10 species.

As most of these species were rare to

begin with, little is directly known of their associations with plant genera. That said, many of the non-parasitic species are members of bee genera that commonly restrict themselves to collecting pollen only from a limited number of plant species. Thus, if those plants species are rare, or collectors do not happen to collect from those plants, then species may go undetected for long periods of time.

Now for some good news: No species of bee that could, in the past, be called common or abundant appears on the list of missing species; a consolation to a small degree that any recent changes to bee populations has not been so dramatic as to cause our common bees to disappear. The only exception to this is the disappearance or near disappearance of several bumblebee species. While all the bumblebee species have been detected in the last 20 years, catastrophic declines have been demonstrated only within the last 10 years. (See the recent *ON NATURE* Vol. 50 No. 4 pg. 10 on the Rusty-patched Bumblebee, recently designated as Endangered in Ontario). That these declines were detectable creates the hope that at least for other common bee species, large scale declines would be noticed.

Clearly it is possible that many of these missing species may still be present but simply not detected. Evidence for that comes from the reasonably large number of the species that were detected but

only occurred as single individuals. The high numbers of missing Deep South and Florida species mirrors the general lack of collecting in these regions during the last 20 years. In the past, museums, collections, and their staff within states, provinces, and academic institutes functioned as regional sources of information about bee populations and status. Currently, there is a grave outright loss of these collections and, for those that remain, we know of none that are supported even to the level they were in the previous century.

What is desperately needed is the creation of some type of tracking mechanism. While there is no formal monitoring system in place for bees, it is needed because 1) drastic declines can occur (e.g., the crash of bumblebee populations), 2) bees are incredibly important to agricultural security and the propagation of native plants, and 3) the overall interest in this group of species, argues for the creation of some form or inventory to monitor population status.

Rare and uncommon bees are unlikely to be regularly captured in a monitoring scheme. Monitoring schemes usually fix placement of survey traps and tend to favor the tracking of common species over the detection of rare ones. Rare bees are best captured by people specifically looking for rare bees. Large geographic coverage and specialized habitats (e.g., deep sand or bogs) need to be purposefully searched via regional inventories. Rare bees are found by capturing and processing large numbers of bees and having those bees identified by experts. To facilitate the detection of rare bees is to facilitate those who would capture, process, curate, and identify those bees. These activities

have waned over the past 100 years as people have moved indoors and universities have emphasized molecular work over traditional morphological revisions. This is a very widespread problem in almost all aspects of natural history research in universities today. This must be reversed. As a start, it would be very useful to create a society similar to that in the United Kingdom that promotes the collecting and the detection and tracking of rare species; create up-to-date regional and national annotated lists of bees; develop bee identification tools; create courses that teach people how to identify bee species; databases existing collections of native bees; and create new tracking and reporting databases for bees currently being collected.

What do we do about the species currently on this list? First, it would make sense for state, provincial, and national Heritage departments to add these species to their Heritage ranking schemes. It would also make sense to perform specific surveys for these species to determine more fully their status and hopefully learn more about their Life History. One should assume for now that these species are still present somewhere and hopefully not extinct. At minimum, a literature and specimen review should be created that explores what is known about past geographic and times of occurrence, habitat preferences, hosts, and floral records for each of these species and from that gathering create a plan for further study and ultimately re-detection and conservation.



Photo: Wool Carder Bee by Bruce Marlin



Photo: Bumblebee by Tracey Conley



Photo: White-breasted
Nuthatch by Tom Thomas

HNC's Land Trust Program's New Website

The HNC's Head-of-the-Lake Land Trust (HLT) program is pleased to announce our new website - www.headofthelake-landtrust.org! Visit the website to learn more about the HLT's work to protect land and to deliver a hands-on environmental education program. If you have comments or questions about the site, please contact Jen Baker at land@hamiltonnature.org or 905-524-3339.



Photo: Red Crossbill by Tom
Thomas

CORRECTION

The article "*Ontario's 3 Billion Year Geologic Journey*" appearing in the November issue of *The Wood Duck* should have been attributed to Louise Unitt.

We apologize for the error.

Dragon's Den

Arrow Clubtail in Waterworks Park Brantford - Part 1

Monday September 6/2010 seemed too overcast and cool to look for insects so I decided to go birding at Waterworks Park along the Grand River in Brantford. I wasn't seeing much of anything bird-wise although I was seeing the odd dragonfly and damselfly as well as a few butterflies. So I decided to check out the three acre old-field adjacent to the soccer field there. It has lots of flowers and I thought it might contain some interesting butterflies.

Upon entering the field from the woodland I flushed a dragonfly that looped around me and landed on the top of a 2m shrub. As I watched it fly, I assumed it would be a "Blue Darner" species (*Aeshna* sp.) although it looked smallish. Anyways, I got my binoculars on it and I was excited to see it was a clubtail. I quickly ascertained that it was not a Zebra Clubtail, but which species was it? I figured it had to be either a Riverine, Arrow or Laura's. I suspected that this would be an Arrow Clubtail as I remembered Peter Burke asking me if I had ever seen this species along the Grand River. He had observed them a few years ago along the Grand, although downriver somewhat.

I was totally unequipped. No net, no field guide and no close-focus binoculars. This was the best look I was going to have, so I decided to study the dragonfly. I got as close as my binoculars would focus and I could

see a lot of detail. I was committing all the detail I could to memory when it struck me; I could run home and get "my stuff" and the beast might remain as it was so cool and overcast. So I immediately made a 500m dash back to the car and drove home in five minutes. With gear in tow, I was back in the car and I flipped open *The Dragonflies and Damselflies of Algonquin Park* and determined that it was indeed a female Arrow Clubtail (*Stylurus spiniceps*).

I arrived back at Waterworks Park and parked at a much closer location and ran out with my net. I got to where I thought the shrub was but I was panicked to see this wasn't the spot. I was totally confused. I then ran along the edge of the woods and after 100m or so, I saw the shrub. It was nowhere near where I thought it was. Anyways I attempted to catch my breath and see if the clubtail was still there. After a few seconds I saw it. The Sun was then starting to come out and I knew I had to act quick as the dragonfly would likely fly with the Sun's warmth. I debated getting a closer look with the close-focus binoculars but I decided instead to try to net it, as a hand-held photo with my macro lens seemed so appealing. I approached from the rear and dropped down, and started to creep closer. At this point I really thought I had the "dragon" blinded to my presence as I couldn't see its head so I assumed it couldn't see me. I kept creeping closer

and closer and I was hoping to swing the net over it from below. To make a long story short, the clubtail then began to fly, very slowly at first, initially to another branch but then it swung around towards the woodland and then into the trees never to be seen again. I was "ticked" but I kind of laughed off the circumstances and realized I was pretty lucky to encounter this very uncommon species on such a lousy day.

Dragon's Den will be a monthly column about dragonflies and damselflies. We encourage all those with interesting stories about these fascinating creatures to submit articles for publication - photos are most welcome too.



Photo: Autumn Meadowhawk
by Bill Lamond

Noteworthy Bird Records - August 2010

by Rob Dobos



Total number of species recorded in the HSA during 2010 to August 31: **259**. Underlined species or dates require documentation by the Hamilton Bird Records Committee. Capitalized species require documentation by the Ontario Bird Records Committee. For species marked with "#", all reported records are listed. For all other species, only highlights are listed. Note that the species order follows the most recent American Ornithologists' Union checklist and supplements.

Observers: Jennifer Bock (JBo), Jacob Bruxer (JBr), Barb Charlton (BC), Barry Cheriére (BCh), Helen Colvin (HCo), Jim Cram (JC), Martin Daly (MD), Rob Dobos (RD), Andrew Don (AD), Dave R. Don (DD), Cheryl Edgecombe (CE), Nancy Furber (NF), Jim Heslop (JH), Brandon Holden (BH), Eric Holden (EH), Kyle Horner (KH), Jean Iron (JI), Mark Jennings (MJ), Bill Lamond (BL), Scott Lathe (SL), Cody Law (CL), Rick Ludkin (RL), Christine Madliger (CMA), Sean Male (SMa), Kevin McLaughlin (KM), Diane Mills (DM), Matt Mills (MM), Joe Minor (JMr), Dave Moore (DMo), Bill Morden (BMo), Ron Pittaway (RP), Wayne Renaud (WR), Elaine Serena (ES), Paul Smith (PS), Chris Street (CS), Tom Thomas (TT), Jim Watt (JWa), Angie Williams (AWi), Ken Williams (KWi), many observers (m.obs.).

Legend:

* - first occurrence for the year
F - first occurrence for the migration
L - last occurrence for the migration
HSA - Hamilton Study Area
terr. - territorial bird
SM - singing male

Plumages, etc.:

m. - male
f. - female
ad. - adult
ba. - basic
alt. - alternate
imm. - immature
juv. - juvenile
1st yr. - first year

Counties/Regions/Cities:

Brant [BR]
Haldimand [HD]
Halton [HL]
Hamilton [HM]
Niagara [NG]
Peel [PL]
Waterloo [WT]
Wellington [WL]

American Wigeon: One at Windermere Basin [HM] Aug 9 (RD); one at Grimsby Sewage Ponds [NG] Aug 17 (KM); one at NE Shore of Harbour [HM] Aug 24 (RD).

Blue-winged Teal: Five at Grimsby Sewage Ponds Aug 17 (KM).

Northern Pintail: One at Grimsby Sewage Ponds Aug 17 (KM); two past Van Wagners Beach [HM] Aug 22 (RD, BCh).

Green-winged Teal: 12 at Dundas Marsh [HM] Aug 7 (RD); nine at Van Wagners Beach Aug 12 (RD, CE); 26 at Grimsby Sewage Ponds Aug 17 (KM).

Canvasback: One at Windermere Basin Aug 7 (KM).

Redhead: Two at Windermere Basin Aug 7-9 (KM; RD); three at Grimsby Sewage Ponds Aug 17 (KM).

Ring-necked Duck: One m. at Windermere Basin Aug 7-9 (KM; RD).

Greater Scaup: Two m. at Windermere Basin Aug 7

(KM).

Lesser Scaup: Two m. at Windermere Basin Aug 7 (KM); one m. past Van Wagners Beach Aug 20 F (RD *et al.*).

White-winged Scoter: One past Van Wagners Beach Aug 23 F (RD *et al.*).

Long-tailed Duck: Ten off Van Wagners Beach Aug 18 (RD).

Bufflehead: One f. at Windermere Basin Aug 7-19 (KM; RD).

Ruddy Duck: Five at Windermere Basin Aug 7-19 (KM; RD).

Ruffed Grouse#: One Westover Rd N of Conc 8 [HM] Aug 31 (PS).

Wild Turkey: Three ad. + five juv. at Conc 4 E of Ofield Rd [HM] Aug 8 (RD).

Red-throated Loon#: One off Van Wagners Beach Aug 23 (BH *et al.*) was likely a summering bird.

Common Loon: One ad. past Fifty Rd [HM] Aug 17 F (KM); 30 past Van Wagners Beach Aug 23 (BH *et al.*).

Pied-billed Grebe: One at Desjardins Canal, Dundas [HM] Aug 1 (RD); one at Clappison's Corners Wetland [HM] Aug 9-28 (ES *et al.*; TT).

Red-necked Grebe: 110 off Rattray Marsh [PL] Aug 22 (WR); five off Shoreacres [HL] Aug 27 (RD); one off Fifty Point C.A. [HM/NG] Aug 27 F (BCh).

American Bittern#: One at Green Lane Wetland, Paris [BR] Aug 13 (BL,KM).

Great Blue Heron: 12 past St. Augustines Cemetery, Dundas [HM] Aug 5 (MM).

Great Egret#: One at Valley Inn [HL] Aug 2 (RD,BC); one at Windermere Basin Aug 7 (KM); two at Dundas Marsh Aug 7 (RD); one at Brant Park, Brantford [BR] Aug 13 (BL); one at Red Hill Expressway & QEW Stormwater Pond [HM] Aug 10-30 (RD; m.obs.), and two there Aug 13 (JBr); two at Rattray Marsh Aug 22 (WR); 21 roosting at Carroll's Point [HM] Aug 27 (DMo).

Green Heron: Two at Green Lane Wetland, Paris Aug 13 (BL,KM).

Black-crowned Night-Heron: One juv. at Brant Park, Brantford Aug 13 (BL).

Osprey: Two at Valley Inn Aug 6 (RD); two past Van Wagners Beach Aug 22 (RD,BCh); three past St. Augustines Cemetery Aug 26 (MM).

Bald Eagle: One ad. + one juv. at Dundas Marsh Aug 7 (RD); one ad. over St. George St, Brantford [BR] Aug 20 (BL); one ad. at Ruthven Park, Cayuga [HD] Aug 26 (NF); two past St. Augustines Cemetery Aug 27 (MM).

Northern Harrier: One at 10th Rd E & Dofasco Trail [HM] Aug 10 (CL).

Sharp-shinned Hawk: One past St. Augustines Cemetery Aug 27 F (MM).

Broad-winged Hawk: One past Woodland Cemetery (RD) and one at Ruthven Park (NF) Aug 26 F; five past St. Augustines Cemetery Aug 27 (MM).

American Kestrel: Two past St. Augustines Cemetery Aug 26 F (MM).

Merlin#: One over Clappisons Corners Wetland Aug 28 F (TT); two at St. Augustines Cemetery Aug 29-31 (MM).

Peregrine Falcon#: One juv. at Van Wagners Beach Aug 22 (RD,BCh); one past Clappisons Corners Wetland Aug 28 (TT).

American Coot: Two at Windermere Basin Aug 7F-9 (KM; RD).

Semipalmated Plover: Two at Windermere Basin Aug 9 (RD); one juv. at NE Shore of Harbour Aug 16 (RD).

Solitary Sandpiper: Five at Bronte Marsh [HL] May 1 * (MJ), and 15 there May 15 (MJ); eight at Monaghan Mushroom Farm, Guelph Line [HL] Aug 8 (RD).

Greater Yellowlegs: One at Great Lakes & Rebecca Stormwater Pond [HL] May 14 L (MJ); two at QEW & Guelph Line Stormwater Pond [HL] Jul 12 F (MJ); three juv. at Red Hill Expressway & QEW Stormwater Pond Aug 10 (RD).

Lesser Yellowlegs: One at Great Lakes & Rebecca Stormwater Pond May 30 L (MJ); five at QEW & Guelph Line Stormwater Pond Jul 12 (MJ); 10 at Windermere Basin Aug 7 (KM), and 31 there Aug 14 (CE); 34 at Red Hill Expressway & QEW Stormwater Pond Aug 20 (JBr); 28 at Monaghan Mushroom Farm, Guelph Line Aug 24 (CE).

Upland Sandpiper#: Five at White Church & Ferris Rds [HM] Aug 19 (JC).

Ruddy Turnstone: Two ad. at NE Shore of Harbour Aug 12-16 (RD; m.obs.), and one there Aug 18-23 (CE,CS); one at Tollgate Pond [HM] Aug 19 (JBr).

Sanderling: Two at Windermere Basin Aug 11 * (KWi,AWi), and one ad. there Aug 16 (DD); birds at Van Wagners Beach: 1ad. -Aug 12 (RD,CE), 2ad. + 1juv. -Aug 20 (RD *et al.*), 5 -Aug 22 (RD,BCh), 5 -Aug 23 (BH *et al.*); four at NE Shore of Harbour Aug 18 (RD), and two there Aug 19 (RD); eight at Rattray Marsh Aug 22 (WR).

Semipalmated Sandpiper: Birds at Windermere Basin: 1juv. -Aug 3 (RD), 50 -Aug 19 (RD,CE), 1 leucistic -Aug 20-21 (TT; m.obs.); seven at Monaghan Mushroom Farm, Guelph Line Aug 24 (CE); 30 at Red Hill Expressway & QEW Stormwater Pond Aug 30 (DD).

Least Sandpiper: 18 at Hwy 407 & Britannia Stormwater Pond [PL] Aug 8 (RD); 35 at Windermere Basin Aug 19 (RD,CE); 23 at Monaghan Mushroom Farm, Guelph Line Aug 24 (CE); 10 at Red Hill Expressway & QEW Stormwater Pond Aug 30 (DD).

Baird's Sandpiper#: One juv. at Windermere Basin Aug 7 * (KM), and one there Aug 14 (CE); one juv. at Red Hill Expressway & QEW Stormwater Pond Aug 20 (JBr), and two there Aug 30 (KWi,AWi); three juv. at White Church & Ferris Rds Aug 21 (BH).

Pectoral Sandpiper: Two ad. at Windermere Basin Aug 7 F (KM); four at Monaghan Mushroom Farm, Guelph Line Aug 8 (RD); seven at Rattray Marsh Aug 22 (WR).

Stilt Sandpiper: One ad. at Red Hill Expressway & QEW Stormwater Pond Aug 4 * (JBr), and two juv. there Aug 30 (KWi,AWi; DD); one at Rattray Marsh Aug 22 (WR).

Buff-breasted Sandpiper#: Two juv. at Unity Rd W of

Hwy 6 [HD] Aug 21 * (JH; m.obs.).

Short-billed Dowitcher: One juv. at Hwy 407 & Britannia Stormwater Pond Aug 8 (RD); two at Red Hill Expressway & QEW Stormwater Pond Aug 20 (JBr), and three juv. there Aug 30 (DD).

Wilson's Snipe: One at Rattray Marsh Aug 22 F (WR).

Wilson's Phalarope#: One juv. at Windermere Basin Aug 19 (JBr; RD).

Red-necked Phalarope#: Birds off Van Wagners Beach: 8 –Aug 18 * (CE,BCh), 9 –Aug 23 (BH *et al.*), 4 –Aug 24 (RD); birds from a boat on Lake Ontario off Fifty Point: 2 –Aug 27 (BH), 3 –Aug 28 (BH,JBo,KH), 26 –Aug 30 (BH,EH) provided a record high count for the HSA; three off Murray St Park, Grimsby [NG] Aug 30 (CL).

Bonaparte's Gull: Birds off Van Wagners Beach: 2ad. –Aug 1 (RD,MM), 15 –Aug 12 (RD,CE), 10 –Aug 18 (RD), 8 –Aug 22 (RD,BCh), 6 –Aug 23 (BH *et al.*); 2ad. + 6juv. at Windermere Basin Aug 9 (RD); four ad. past Fifty Rd Aug 17 (KM); three at Tollgate Pond Aug 19 (JBr).

Lesser Black-backed Gull#: One 2nd alt. off Van Wagners Beach Aug 1 (RD,MM).

Great Black-backed Gull: One juv. off Van Wagners Beach Aug 1 (RD,MM).

Black Tern#: Birds off Van Wagners Beach: 7 –Aug 18 F (BCh), 4 –Aug 22 (RD,BCh), 2 –Aug 23 (BH *et al.*), 5 –Aug 24 (RD); one from a boat on Lake Ontario off Fifty Point Aug 30 (BH,EH).

Common Tern: 40 from a boat on Lake Ontario off Fifty Point Aug 30 (BH,EH).

Forster's Tern#: One at Bronte May 13 (MJ).

Parasitic Jaeger#: Birds off Van Wagners Beach: 1ad. –Aug 21 * (JI,RP), 1juv. –Aug 23 (BH *et al.*), 3juv. –Aug 24 (RD).

Jaeger species#: Birds off Van Wagners Beach: 3 –Aug 23 (BH *et al.*), 1 –Aug 24 (RD); two from a boat on Lake Ontario off Fifty Point Aug 27 (BH,JBo), and one there Aug 30 (BH,EH).

Long-tailed Jaeger#: Birds off Van Wagners Beach: 1juv. –Aug 22 * (RD,BCh), 1 dark juv. –Aug 23 (BH *et al.*), 1ad. –Aug 23 (BH *et al.*).

Black-billed Cuckoo#: One at Ruthven Park Aug 11 (RL).

Common Nighthawk: Three at Brantford Casino [BR] Aug 1 (AD) were likely local breeders; one over Sunrise Cres, Dundas [HM] (RD) and four over St. George St, Brantford (BL) Aug 14 F; three at Sherwood High School, Hamilton Mountain [HM] Aug 20 (SMa) were likely from a local breeding pair; 17 over University Plaza, Dundas

[HM] Aug 29 (MM).

Chimney Swift: Eight at N Shore of Cootes Paradise [HM] Aug 7 (RD); 20 at Gage Park, Hamilton [HM] Aug 8 (RD,BC); 100 past Van Wagners Beach Aug 23 (BH *et al.*); 15 at CCIW [HL] Aug 23 (RD); 15 past St. Augustines Cemetery Aug 26 (MM).

Ruby-throated Hummingbird: One at Shoreacres Aug 6 F (RD,CE).

Red-headed Woodpecker#: One at Milborough Line [HM] Aug 16 (HCo).

Olive-sided Flycatcher#: One at Brant Park, Brantford Aug 13 * (BL); two at Courtcliffe Park [HM] Aug 16 (TT); one at Clappisons Corners Wetland Aug 28 (TT; CS); one at North Waterdown Wetland Trails [HM] Aug 30 (TT).

Eastern Wood-Pewee: Four at North Waterdown Wetland Trails Aug 31 (RD,CE).

Yellow-bellied Flycatcher: One at Ruthven Park Aug 6 F (RL).

"Trail's" Flycatcher: One at North Waterdown Wetland Trails Aug 31 (RD,CE).

Least Flycatcher: One at Shoreacres Aug 6 F (RD,CE); four at Woodland Cemetery Aug 22 (RD).

Great Crested Flycatcher: Two at North Waterdown Wetland Trails Aug 31 (RD,CE).

Eastern Kingbird: Three past Dunning Ct, Dundas [HM] Aug 13 F (MM).

Yellow-throated Vireo#: One ad. f. + one juv. at Ruthven Park Aug 24 (NF,CMa).

Warbling Vireo: Three at Shoreacres Aug 16 F (CE,DD).

Philadelphia Vireo: Two at Bronte May 9 * (MJ); one at Woodland Cemetery Aug 22 F (RD).

Red-eyed Vireo: Two at Shoreacres Aug 16 F (CE,DD).

Purple Martin#: 19 at Ruthven Park Aug 11 (RL); one past Woodland Cemetery Aug 14 F (RD,CE).

Bank Swallow: 75 at St. George St, Brantford Aug 2 (BL); birds past Ruthven Park: 700 –Aug 15 (RL,NF), 700 –Aug 17 (NF), 1000 –Aug 19 (NF).

Cliff Swallow: 40 at PetroCanada Pier, Bronte [HL] May 14 (MJ).

Tufted Titmouse#: One at Ruthven Park Aug 13-26 (CMa,NF).

Red-breasted Nuthatch: Two at St. Augustines Cemetery Aug 27 (MM).

Marsh Wren#: One at Bronte Marsh May 15 (MJ); two SM at N Shore of Cootes Paradise Aug 7 (RD); two at Brant Park, Brantford Aug 13 (BL).

Swainson's Thrush: One at Shoreacres Aug 27 (RD).

Wood Thrush: One at Ruthven Park Aug 17 F (CMa),

and three there Aug 26 (NF).

Blue-winged Warbler: Five at Ruthven Park Aug 15 (RL), and one there Aug 31 (NF); one at North Waterdown Wetland Trails Aug 18 (TT).

“Brewster’s” Warbler#: One at Ruthven Park Aug 11-26L (RL,NF).

Tennessee Warbler: One at North Waterdown Wetland Trails Aug 17 F (TT).

Nashville Warbler: One at Bronte Creek Prov. Park [HL] Aug 16 F (BMo); six at St. Augustines Cemetery Aug 27 (MM).

Yellow Warbler: One at Osler Ct, Dundas [HM] Aug 6 F (MM,DM); one at North Waterdown Wetland Trails Aug 31 (RD,CE).

Chestnut-sided Warbler: Three at Woodland Cemetery Aug 22 (RD).

Magnolia Warbler: One at Hendrie Valley [HL] Aug 14 F (CS); nine at Woodland Cemetery Aug 22 (RD); seven at North Waterdown Wetland Trails Aug 31 (RD,CE); 11 at Ruthven Park Aug 31 (NF).

Cape May Warbler: One at Ruthven Park Aug 24 F (NF,CMa).

Black-throated Blue Warbler: One at North Waterdown Wetland Trails Aug 31 F (KWi,AWi).

Black-throated Green Warbler: One at North Waterdown Wetlands Trails Aug 23 F (TT); three at Woodland Cemetery Aug 26 (RD).

Blackburnian Warbler: One at Shoreacres Aug 16 F (CE,DD); five at Woodland Cemetery Aug 22 (RD).

Palm Warbler#: One at Woodland Cemetery Aug 26 F (RD) tied the second earliest fall record for the HSA.

Bay-breasted Warbler: One at Lakeside Park, Mississauga [PL] Aug 21 (JWa); four at Ruthven Park Aug 31 (NF).

Blackpoll Warbler: One at Ruthven Park Aug 13 F (CMa); three at Woodland Cemetery Aug 26 (RD).

Black-and-white Warbler: One SM at Westover Rd N of Conc 8 Aug 5-28 (PS); three at North Waterdown Wetland Trails Aug 31 (RD,CE).

American Redstart: Six at Shoreacres Aug 16 (CE,DD); seven at North Waterdown Wetland Trails Aug 31 (RD,CE).

Ovenbird: One at North Waterdown Wetland Trails (TT) and one at Appleby Creek S of Spruce Ave [HL] (ES) Aug 18 F.

Northern Waterthrush: One at North Waterdown Wetland Trails Aug 18 (TT).

Mourning Warbler#: One at Ruthven Park Aug 17 F (CMa), and one there Aug 24 (NF,CMa).

Common Yellowthroat: One at Shoreacres Aug 27 F (RD).

Wilson’s Warbler: One at North Waterdown Wetland Trails Aug 18 F (TT), and five there Aug 31 (RD,CE).

Canada Warbler: One at Overfield Dr, Dundas [HM] Aug 7 F (MD); two at Shoreacres Aug 16 (CE,DD).

Scarlet Tanager: One at Ruthven Park Aug 11 F (RL), and four there Aug 26 (NF).

Bobolink: One past Woodland Cemetery Aug 14 F (RD); 30 over St. George St, Brantford Aug 15 (BL); 40 past St. Augustines Cemetery Aug 25 (MM).

Common Grackle: 1000 at Ruthven Park Aug 15 (RL,NF).

Orchard Oriole#: Two juv. at Eramosa Karst C.A. [HM] Aug 3 (JMr); one at 10th Rd E & Dofasco Trail Aug 10 (CL).

Purple Finch: Two imm. at North Waterdown Wetland Trails Aug 30 F (TT).

Yellow-fronted Canary: One at a Caledonia yard [HD] Aug 14-15 (SL) was unquestionably an escaped cagebird (the species is native to Africa).

Please send your bird records for Sep-Oct 2010 by Jan 10 to: Rob Dobos, 21 Sunrise Cres., Dundas, Ont., L9H 3S1; ph: (905) 628-0297; e-mail: rdobos@cogeco.ca



Photo:Golden-crowned Kinglet
by Tom Thomas

The Bird Detective

by Louise Unitt



Photo: Bridget Stutchbury with male Hooded Warbler

At our December general meeting, the Club was pleased to welcome ornithologist Bridget Stutchbury as our keynote speaker. After earning her MSc. at Queen's University and a Ph D. at Yale University, Dr. Stutchbury became a research associate at the Smithsonian Institution. She is currently a biology professor at Toronto's York University, where she holds the post of Canada Research Chair in Ecology and Conservation Biology. An international birding expert, she also manages the University's Stutchbury Lab of Behavioural and Conservation Ecology. Dr. Stutchbury is the author of *The Silence of the Songbirds*, which was a Governor General's Award finalist in 2007. Her research subjects are passerines (songbirds), including warblers, tanagers, flycatchers, vireos and swallows. Proceeds from her latest book, *The Bird Detective: Investigating the Secret Lives of Birds*, will be used to fund bird conservation research.

Over the course of a career spent delving into the private lives of birds, Dr. Stutchbury has made a number of surprising discoveries. Perhaps none are as intriguing as the insight she has gained into their sexual habits.

There's no arguing against the prevalence of "social monogamy" in the avian world. The term refers to the obvious pair bond between a female and the male with whom she shares a territory and care of the young. Based on this visible relationship, ornitholo-

gists once assumed that the majority of migratory songbirds mated exclusively with their professed partner. Although true genetic monogamy does exist, most of the songbirds that Dr. Stutchbury has studied were found to indulge in "rampant cuckoldry." Once DNA testing became popular in early '90s, the notion of permanent "marriage" was exposed as largely mythical. As it turns out, about half the females cheat on their mates and produce offspring sired by an extra-pair male, who lives elsewhere and provides no care for the young.

Conveniently for Dr. Stutchbury's purposes, a population of Hooded Warblers makes its home in a forested area behind the Pennsylvania farmhouse where she and her family spend their summers. Assisted by radio telemetry, a student of hers set out to examine the sexual habits of these birds, by monitoring the movements of females. To the casual eye, a female Hoodie would appear to be faithful to her partner. However, tiny radio transmitters mounted on their backs told a different story, unveiling high rates of cuckoldry. Radio-tracked females left their territory every two hours to "sneak in quick sex with neighbouring males." Did an extra-pair male's appearance influence a female to choose him over a competitor? The possibility was tested by measuring the size of a male's dark hood and yellow mask, as well as the brightness of his plumage.

Comparison between males who sired

young with those who didn't, showed no connection between a male's looks and a female's choice. The key factor turned out to be auditory rather than visual. "Winners" had a higher song rate (number of songs per minute) than "losers." This makes sense, because singing consumes a lot of energy and is therefore a good indicator of fitness. "Females are looking for the highest quality male so that their own offspring will be high quality."

As with Hooded Warblers, any observer peering through binoculars would assume that monogamy rules among Purple Martins. In order to learn whether females were truly faithful to their partners, Dr. Stutchbury and her students studied a colony in a nearby town to her Pennsylvania farmhouse. Students removed the birds from their lakeside apartment house, banded them, and drew blood samples from the entire colony—over 500 adults and 1,200 nestlings. Older males form social pairs with older females; younger males pair up with younger females. However, DNA testing showed that 38% of females were cheating. A female who was socially paired with an older male stayed faithful, but young females sought out adult males—two years of age and up—for illicit sex. The reason was that age signals male quality. Survival for two to four years is proof of a certain degree of fitness, whereas young males are an unknown quantity, as yet

untested. Parasitic infections kill many young birds, and half of migratory songbirds die annually as a result of their “long, arduous journey.” A female can readily identify an adult male by his “iridescent steel blue” plumage.

A third example illustrated a quite different approach to marital relations: DNA testing has shown monogamy in the Blue-headed Vireo to be genuine. The male you see feeding young is also their genetic father. He participates fully in all aspects of parenting, doing “everything but lay eggs.” His mate’s fidelity ensures that he is not wasting his efforts raising unrelated young. There is, however, a twist to the story. Researchers noticed that when the young fledged at 14 days, the female was nowhere to be seen, and the male was left to take care of all the “teenagers” by himself. It was assumed that his mate had been killed by a raptor, until she was spotted consorting with a new male. Here was a case of “premeditated divorce.” While still caring for her first family, she had managed to fit in two or three daily scouting missions in search of a bachelor. As soon as the first family fledged, she made a clean break and began a new family. Had she stuck with her original mate, she would have had to wait two or three weeks (until the young were independent) before being free to re-nest. Instead, she was sitting on eggs within a week of moving on. While divorce is a regular occurrence in many species, the Blue-headed Vireo alone is known to engage in premeditated divorce.

Having given us a glimpse into birds’ behind-the-scenes activities, Dr. Stutchbury turned her attention to one of the greatest mysteries in the avian world—where birds go during migra-

tion. Until recently, there was no way to track songbirds during the eight months of the year when they are off their breeding grounds. The development of geolocators has addressed the problem. Weighing no more than a dime, these tiny devices are light enough for songbirds to wear like a backpack, with loops going around the legs. A bird’s geographical location can be determined, because “the timing of Sunrise and Sunset is known for everywhere on the planet, every day of the year.” When a bird returns in the spring, data downloaded from the device allows researchers to reconstruct its route, stopover locations, and the journey’s timelines.

Purple Martins were the first birds to test-drive this new technology. When a female set off from Pennsylvania at the end of August, it was thought that weeks would pass before she reached the tropics. To everyone’s surprise, she landed on Mexico’s Yucatan Peninsula within five days. (For reasons unknown, she and most Purple Martins lingered there for two or three weeks before moving on.) By mid-October she had settled in at her final destination in Brazil’s Amazon Rainforest. This individual was an exceptionally fast bird, later completing her northbound journey in 13 days. Most others of her species averaged three weeks for the return trip, which was still much faster than anticipated.

The Wood Thrush is another species whose migration has been tracked by geocator. One particularly fast individual that wintered in northern Honduras made the return trip to Pennsylvania in 12 days; most Wood Thrushes arrived home within two or three weeks. There was, however, the occasional anomaly. For example, one

bird chose a flight path around the Gulf, thus delaying her arrival home until May 26. By then, her neighbours were already laying or incubating.

Only half the songbirds you see in your back yard during the summer will be back the following spring. During migration, many perish in storms or simply run out of energy. Now that we know which breeding populations depend on which winter sites, it is imperative that we direct our conservation efforts to target these critical areas. “Birds are highly sensitive to pollution, habitat loss, and climate change.” Dr. Stutchbury worries whether birds will be able to adapt to the many challenges of our time, including the conversion of North America’s forests to farmland, and that of tropical forests to “pastures, banana plantations, and soybean fields.”

The audience clearly appreciated this fascinating peek behind the curtain, at the “sex, adultery, betrayal and divorce right in our own back yard!” According to Dr. Stutchbury, “Birds are way more complicated than we can possibly imagine,” with private lives that are “surprisingly rich and complex.” She quoted ornithologist Margaret Morse Nice, who wrote the following in 1937:

I thought of my friends who never take walks...

“for there was nothing to see.”

I was amazed and grieved at their blindness.

*I longed to open their eyes to the wonders around them;
to persuade people to love and cherish nature.*

Bird Study Group Meeting Summary - November 2010

Small Gull Identification with Kevin McLaughlin
by Michael Rowlands



Photo: Laughing Gull by Dick Daniels

Most of November's Bird Study Group (BSG) meeting was devoted to a presentation on the identification of small gulls by our own "leading authority on gulls" (as emcee George Holland described him), Kevin McLaughlin. Kevin used a PowerPoint presentation of excellent photographs from Barry Cheriére, Jean Iron, Willie D'Anna and a few others to get us familiar with the distinguishing features of nine species of smaller gulls.

It takes a keen eye to observe and identify gulls, especially when they are in huge mixed flocks and each species comes in various plumages; but that's a challenge that the best birders will accept. There's also the thrill of spotting rarities when observing them in detail at close range. Fortunately for us, the Hamilton Study Area (HSA) and the nearby Niagara River offer excellent opportunities for birders from the BSG to see many species of gulls, including all nine species described in Kevin's talk, especially in early winter.

First of all, Kevin told us that two excellent reference books for gull information and identification are *Birds of Hamilton and Surrounding Areas* by Bob Curry and the newly published *Niagara Birds* by John Black and Kayo Roy. [There are also some good sites on the Internet for helping with gull identification, including the Ontario Field Ornithologists' "Gull Watching

Guide" at this URL:
<http://www.ofo.ca/reportsandarticles/gulls.php>.]

As the talk progressed, we soon appreciated that understanding the plumages and moulting sequences of gulls goes a long way in helping to correctly identify the various species! It may take from two to four years for gulls to reach maturity and attain their full breeding plumage, but for most of the small gulls discussed, it takes just two or three years.

Gulls go through two head and body plumage moults a year, once in late summer and fall, and again in late winter and spring, so adult gulls of the same species will look different in the summer and winter. The wing and tail feathers are generally replaced only once per year, in the late summer moult, and are subject to fading from their original colours due to wear and exposure to the elements. There is also a great deal of variation in the moults so two birds of the same species and age will not necessarily look identical. (We even saw a few pictures of leucistic gulls, whose feathers are washed out and do not have the normal colour for a particular plumage.) Finally, we learned that it's important to observe the birds in flight to see some of the best field marks on the wings and tails, areas that are not apparent in resting birds with their wings folded.

Young or juvenile gulls first have a

juvenile plumage, which they keep until they replace some of their feathers with what is called their first winter (or basic) plumage. During the summer and fall of their second calendar year, most gulls replace all their feathers in what is called the second prebasic moult. Most small gulls attain their definitive basic (adult winter) plumage in their second year and hence are known as 2-year gulls. After the next moult, in the spring of their third calendar year, they develop their definitive alternate or summer (adult breeding) plumage. These adult plumages – definitive basic (adult winter) and definitive alternate (adult breeding) – are then repeated for life. Field guides usually show pictures of 1st winter, winter adult, and breeding adult plumages of gulls so that birders can recognize a gull in whatever stage it happens to be.

The first gull Kevin described was **Bonaparte's Gull**, which is common in migration in the HSA and abundant along the Niagara River. He says he uses it as a measuring stick for other gulls: when Bonaparte's are abundant, other gulls will also be abundant. The breeding adult has a slate black hood with white crescents above and below the eyes. It has a black bill, gray mantle with black wingtips that are pale on the underside, and orange-red legs. When flying, it displays a wedge of white on its wings. The 1st winter Bonaparte's Gull has no hood, just black streaking on its head, an auricular spot, a dark brown carpal bar on

the leading edge of its wings, a trailing black edge to its secondary feathers, and a black tail band. The winter adult lacks the carpal band, tail band and trailing black edge to its secondaries.

Next was the **Black-headed Gull**, which resembles the Bonaparte's Gull in adult breeding plumage but has a dark brown hood, and maroon-red bill and legs. Kevin focussed on the 1st winter and adult winter birds. The 1st winter bird's dark brown carpal bar is not as pronounced as a Bonaparte's and it can be distinguished from a Bonaparte's Gull by its paler and black-tipped bill. In addition, the first two or two-and-a-half primary feathers of the underwing are white and the rest black in the winter plumage.

The third gull was the **Little Gull**, the world's smallest gull. With blood-red legs and a black bill, its rounded wings are pale gray above and dark gray to black below, with a white trailing edge on top and bottom. It has no eye crescents like the Bonaparte's or Black-headed Gulls. Seen on the water, the Little Gull has white wingtips whereas the Bonaparte's are black. The Little Gull will take three years, not two, to reach full breeding plumage. In its 2nd winter it will lose its dark brown carpal bars and tail bar and have a blackish cap and black spots on its outer primaries and alula (elbow).

Fourth on the list was another 3-year gull, **Franklin's Gull**. The breeding adult has a black hood, red bill, large eye crescents, white underparts sometimes tinged with pink, and red legs. It has a white primary bar between its black-and-white wing tip and the gray of the wing. Spots on the tip of its pri-

maries separate it from the Laughing Gull. In its first calendar year, it has a half-hood and white neck, a black bill (thicker than a Bonaparte's) and legs, a gray mantle with a trailing edge of black secondaries, no carpal bar or primary bar and an incomplete tail band (outermost tail feather white).

Next we saw the **Laughing Gull**, which is also a 3-year gull. Kevin said this gull used to be rare in Ontario but now vagrants are seen sporadically in the HSA, although he has never seen one on the Niagara River. It is known by its laughing call. It has a black head in breeding plumage that is pale in non-breeding plumage with a smudge of dark gray across its eye and neck. Its eye crescents are a little narrower than those of the other small gulls; it has long legs and a long droopy bill that is reddish when breeding and dark when non-breeding. Its wingtips are black and free of white spots.

Moving away from gulls with black heads, we looked at the **Black-legged Kittiwake** next, a pelagic 3-year gull. One of its distinguishing features is its solid black wingtips that go almost straight across "as if dipped in ink," according to the Peterson field guides. It has a yellow bill and short, black legs. Juveniles have a black collar, carpal bar and tail band. This gull is commonly seen in the fall migration in the HAS and only rarely on the Niagara River.

We then moved on to **Sabine's Gull**, a 2-year gull with a dark gray hood in breeding plumage, Kevin said it was the only small gull with a forked tail. It has black outer wedges on its wings and a triangular white wing patch. The rest of the back is gray-brown. In the non-breeding plumage there is no

distinct auricular patch; rather there is a shading of the back of the head.

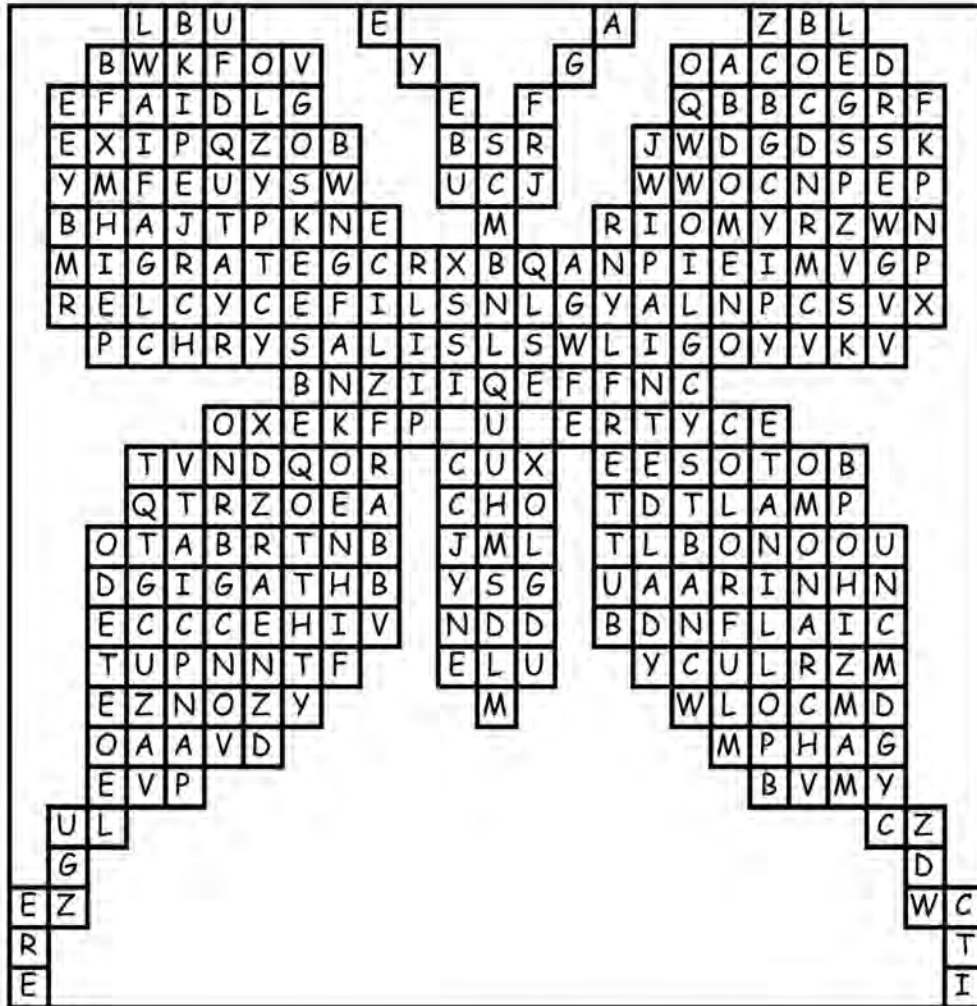
The next gull was the **Ivory Gull**, a 2-year Arctic gull with a two-tone bill that is bluish at the base with a yellow tip. The adult is the only all-white gull with black legs. Only about five have been seen in the HSA, Kevin noted, and the last one seen here unfortunately collided with power lines on Hamilton Beach in January 2001 and is now a specimen in the Royal Ontario Museum. Immature birds have a dirty smudgy look on their face and spots on their bodies and the tips of their primaries for the first two years and don't completely moult until the next fall.

Our final species of small 2-year gulls was the very rare **Ross's Gull**, which has not been recorded in the HSA, but has been reported in the Niagara region five or six times. Its long wings have a broad white trailing edge and a dark underside almost as dark as the Little Gull's. The body is chunky with a bulbous head and a smudgy looking eye; there is a thin ring around the neck that is visible in breeding plumage. During breeding, the underparts have a pink hue to them; its legs are blood red and the short bill is black.

Kevin's talk and photographs were just a small and fascinating glimpse into the wonderful world of gull watching. While listening and watching, we certainly became more aware of the features that made each of the nine species different from one another so we can only hope these things will come to mind the next time we are faced with a flock of gulls in the real world. Thanks Kevin for helping to illuminate a sometimes dark subject, difficult for many of us to grasp.

Junior Naturalists' Page

Word Search: Butterfly



- | | | | | | |
|-------------|--------------|-----------|--------|------------|---------|
| BUTTERFLY | WINGS | ANTENNAE | EYES | LEGS | ABDOMEN |
| CATERPILLAR | COLORFUL | FLOWERS | GARDEN | LIFE CYCLE | MIGRATE |
| MONARCH | PAINTED LADY | POLLINATE | PUPA | CHRYSLIS | SPRING |

Regular Meetings

Monday, January 10 , 7:30 p.m.

“Insects and Pollination”

Peter Kevan

For 40 years, Dr. Kevan a respected expert on pollination, has been spreading the message that the busy workforce of bees, flies, beetles, butterflies and other pollinators such as hummingbirds and bats, is critically important to us and to the health of the planet. Many of these creatures are now threatened and Dr.

Kevan notes that without them, food sources for humans and animals could be severely impacted and many other plants would be unable to sustain themselves resulting in soil erosion and loss in nature's nutrient cycle.



Next Month: Feb. 14
Life of Amphibians
Brian Wylie

Sanc. Land Trust Committee

Join us at an informal monthly meeting to find out about the activities of the land trust program to protect land in our area and to steward our nature sanctuaries. All are welcome! We meet the evening of the 3rd Tuesday of each month. Contact Jen Baker, land trust coordinator, for details (905) 524 3339 or land@hamiltonnature.org.

Bird Study Group

Monday, January 17, 7:30 p.m.

Location: Burlington Senior's Center
2285 New Street,
Burlington
7:00-7:30: Decaf shade-grown coffee and snacks
7:30-9:30: Meeting, Auditorium B.
Contact: George Holland
905 945-3962

This is an informal meeting featuring a discussion of recent bird sightings, an identification session and a workshop or slides about some aspect of birding. If you are a beginning birder, come out to learn more about birds. If you are an experienced birder, come out to share your knowledge and enthusiasm.

This Month
Birds of Newfoundland
Brandon Holden

All of our hike leaders are volunteers who give their time and expertise freely. Participants are encouraged to share their knowledge and enthusiasm. Remember to bring along items you might need such as water, field guides, binoculars, insect repellent, etc. Some walks will be more rigorous than others, so please assess your ability and check with the hike leader if unsure.

No dogs please, as they startle wildlife, damage nests and plants and interfere with the enjoyment of other participants.

The Hamilton Naturalists' Club accepts no responsibility for injuries of any kind sustained by anyone as a result of participating in any of these events.

Upcoming Events

Sunday, January 30, 2011, 1:30 p.m.

IDENTIFYING WILDFLOWER REMAINS IN WINTER

A remarkable number of wild flowers can still be identified at this time of the year. Meet Dean Gugler and Fleur-Ange Lamothe at Sanctuary Park in Dundas at 1.30p.m. The parking lot is off Sanctuary Drive in Dundas.
Leaders: Dean Gugler and Fleur-Ange Lamothe, Call (519) 647 2371 for details

Saturday, February 12, 2011, 11:00 a.m.

WINTER HAWKS AND OWLS

Join Ken and Angie Williams to look for a variety of hawks and owls around the side roads of Haldimand. Last February the group was thrilled to find 54 hawks and owls, but also saw Snow Buntings, Horned Larks, Bluebirds, a Red-bellied Woodpecker and many other species of winter birds . It was an exciting day out! The plan is to meet at Tim Horton's in Hagersville at 11am. Bring a lunch, as the outing will continue through the afternoon. In the event of stormy weather, it will be deferred to Sunday.
Leaders: Ken Williams (905)547 8580

Saturday, February 26, 2011, 10:00 a.m.

GREEN VENTURE ECOHOUSE TOUR

Visit a century old stone farmhouse in East Hamilton where Green Venture demonstrates ways to conserve energy and water, reduce waste and pollution, and support people in their efforts to adopt sustainable living practices and retrofitting their homes. You will find all sorts of innovative ideas here. A donation of \$5 would be appreciated, as this is a non-profit organisation The tour goes from 10am – 12 noon at 22 Veevers Drive Hamilton, (off King St., west of Nash and Centennial Parkway.)
.Check the website: www.greenventure.ca
Phone: (905) 540 8787



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Photo: Glenn Barrett

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