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Newsletter of the Halton / North Peel Naturalist Club

Volume 43, Number 5

May June 2009

Club Activities

Indoor: Meetings begin at 7:30 pm on the second Tuesday of the month, October to June at St. Andrew's United Church, 89 Mountainview Road South (at Sinclair) in Georgetown, unless stated otherwise.

June 9: Round table discussion on the club's future direction. This meeting starts at 7:00 at Limehouse Memorial Hall. If time permits a walk will follow.

Sept. 8: Research and Rehabilitation of the Puma in Ontario. Stuart Kenn, President, Ontario Puma Foundation will be giving this presentation.

Outdoor: Trips begin at the Niagara Escarpment Commission (NEC) parking lot at Guelphand Mountainview Road, Georgetown unless stated otherwise. If you would like to meet the group at the trip site, please speak to the trip leader for the location and directions to the starting point.

May 17: Spring Birding at Thickson Wood, Lynde Shores Conservation Area, and Cranberry Marsh. This cluster of very good birding locations provides a wide variety of habitats including mature forests, meadows, marshes, swamps, scrub land, and Lake Ontario and its shoreline. As a result, a diverse collection of birds can be seen in this area, especially during spring migration. This outing is scheduled for the Sunday of the Victoria Day weekend to minimize the effect of traffic on the drive to and from this Whitby birding "Mecca." Bring warm layers of clothing, binoculars, scopes, water, lunch, hat, and sunscreen. Call Ray Blower (519) 853-0171 up to 10:00 pm Friday, May 15th to arrange meeting times and carpooling.

May 30: Heronry Outing. Meet 9 am at Laurie Reed's 11331 15 Sideroad. This is an exceptional opportunity to observe a heronry and wetland from a viewing platform. Directions: from Trafalgar Road in Stewarttown (at the Stewarttown school) take 15 Side Road west to Speyside, cross the traffic lights and continue about 6 km west on 15 Side Road passing Town Line, 6th, and 5th Lines. At 4th Line go right (north) to # 11331 on the east side. There is a stone house and a barn set back from the road, and dead trees of the swamp are visible. For more information call Mike Davis, (905) 877-9665.

Jun 14: Grindstone Creek: Meet 1:00 pm at Hidden Valley Park. Walk along Grindstone Creek towards the ponds at the Royal Botanical Gardens. Kelly and Andrew will be leading.

July 5: Paddle in Cootes Paradise Marsh, Hamilton. Meet at Princess Point at 9 am as we look for turtles, water birds and recovering water vegetation. Kelly Bowen and Andrew Kellman will be leading this outing.

President's Message

Spring is the time of renewal in the natural world. Birds return, flowers bloom, trees burst forth new leaves and the seeds that survived the winter germinate. Things get bigger, brighter and better all around with new life.

The message that has been received by me has been that people would like to see the club continue to exist and we have attracted some new people this past year. People enjoy the outings and the monthly meetings. Some wish for more local outings other are happy with the mixture we have. The biggest thing is the venue for meetings. St. Andrew's United Church has started construction of the senior's residence. We can still use the basement hall but should we look for a different venue? The main complaints about where we currently meet are that it is hard to find for newcomers and the fact it is in the basement. When the work is complete we have been informed there will be an elevator.

The issue that is more pressing is executive members. We need someone, preferably one that knows about local events and issues in Halton Hills and Brampton, to be in either president or vice-president. Being in Burlington does not lend itself to knowing what is going on in those areas. Not to mention finding the time to devote to club activities along with commuting to work and raising a two year old.

Kelly and I would like to thank the other members of the executive for helping out, especially Christine Williams for not only doing membership but also promoting the club in local papers and putting up posters for speakers. We also extend a big thank you to Gerda Potzel for putting together the newsletter, even with me not getting material to her until the last minute.

Please plan to attend the June meeting in Limehouse for some further discussion of the club's future. The meeting will start at 7 pm and if time permits we can go for a walk around Limehouse.

If you have ideas for outings in your area or speakers that we would like to hear please e-mail or send a letter to the club's mailbox with your thoughts. We are always looking for new places to explore or rediscover old places we have forgotten about.

We still have plenty of outings planned for this spring/summer - check out the last page for the Monday evening walk schedule with the South Peel Naturalist Club. Post it on your fridge and explore all that nature has to offer you.

We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect. – Aldo Leopold

ANDREW KELLMAN

Halton/North Peel Naturalist Club, Box 115, Georgetown, Ontario L7G 4T1

Executive

President: Andrew Kellman	(905) 681-3701
Past President Kelly Bowen	(905) 702-1132
Vice-President: Vacant	(905) 681-3701
Secretary: Janice Sukhiani	(905) 693-8227
Treasurer: Marg Wilkes	(905) 878-6255

Appointments

Membership: Christine Williams	(905) 877-1539
Newsletter: Gerda Potzel	(905) 702-1681
Ontario Nature Representative:	Vacant
Public Relations:	Vacant
Young Naturalists: Nancy Kovacs	(905) 702-1132
Webmaster	Andrew Kellman
Crozier Property Steward	Mary Wilke
Hardy Property Steward	Ray Blower

Membership for one year: \$20 Single; \$30 Family
The Halton/North Peel Naturalist Club is an affiliated member of Ontario Nature
Email submissions/questions/concerns to: gpotzel@sympatico.ca

www.hnpnc.com

Revised Taxonomy of Chickadees

While you were sleeping, the taxonomists were hard at work. This time, they were looking at the chickadee or titmice family (Family Paridae). What did they find out and what does this mean for us?

In the new Sibley-Ahlquist taxonomy, the Paridae family is much enlarged. It now includes with the typical titmice group, as well as the penduline tits and long-tailed tits, groups that were once considered as separate families (Remizidae and Aegithalidae, respectively). This means that the family now includes sixty species on a world-wide basis. Many of these were formerly in the genus *Parus*. As an example, our black-capped chickadee used to be *Parus atricapillus* and almost all existing reference books and field guides will show the name that way. Fortunately, the new *Breeding Bird Atlas* for Ontario reflects the new name changes so it is quite up-to-date.

Why was the change necessary? In recent years, taxonomy of all sorts of organisms in general has been utilizing genetic information to delineate

species and the relationships between them. Sometimes, species can appear similar and related on the outside, but internally, the genetic codes show a different situation. Often, the inner and outer characteristics do correspond quite well and all can be left in peace. At other times, there is a need to make changes that reflect phylogenetic relationships. Such was the case with the chickadees.

In recent years, it was realized that the large genus *Parus* group needed to be split up to better reflect the reality of the evolutionary relationships among its members. Several genera were created to accommodate those relationships following strict, internationally-recognized rules for naming species. Based on laboratory testing of the genetic make-up of the species involved, specifically using mtDNA cytochrome *b* sequence analysis, nine genera of titmice have been recognized. Only two of the genera are found in our area but all four species involved have been transferred out of the former genus *Parus*. The new scientific names for affected titmice species in our area are:

Boreal Chickadee - *Poecile hudsonicus* (Forster, 1772)

Black-capped Chickadee - *Poecile atricapillus* (Linnaeus, 1766)

Carolina Chickadee - *Poecile carolinensis* (Audubon, 1834)

Tufted Titmouse - *Baeolophus bicolor* (Linnaeus, 1766)

W.D. McIlveen

Calling all Paddlers! Canoe the Credit on Sunday, May 24th

Sunday May 24 the [CVC Foundation](#) is hosting the 2nd Annual *Canoe the Credit* fundraiser for CVC's very own [Conservation Youth Corps](#) and we'd love to see as many of you out as possible for this year's event. In fact there are 6 different ways you can participate, go to www.canoethecredit.ca to register online and take your pick.

OPTIONS:

Register online as a volunteer Register online; collect pledges as a paddler (and partner) for the Erindale Park Route Register online and collect pledges as a paddler (and partner) for 1 of 3 different flat water routes from the Mississauga Canoe Club (for more novice paddlers and/or families)

Register a team of 8 paddlers and collect pledges for the team challenge and compete head to head against other teams in 500m heats paddling in traditional (replica) 26' North Canoes (courtesy of the City of Toronto Parks, Forestry and Recreation) Dress up like a Voyageur too, why not. Currently there are no prizes for best costume, but don't let that stop you!

Details on the various canoe routes and all other related information can also be found on the website www.canoethecredit.ca. For those of you familiar with this great event some important changes from last year to keep in mind – please check the website!

Last year the event raised an amazing \$24,000 and we have high hopes for this year so come on out and enjoy the river we all work so hard to take care of. For more information about the benefactors of your generosity, the Conservation Youth Corps, go to www.creditvalleyca.ca/cyc (go to "About CYC" and check out the video)

The Peppered Moth Story Update

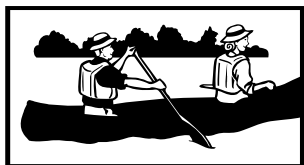
For years, the story of the peppered moth (*Biston betularia*; Geometridae) has been told and retold in biology books and science classes. It has been used as the classic example of evolution in progress in a highly visual way. The story told is how the ordinary light-coloured form *Biston betularia* f. *typica* was gradually replaced by an inky-black form *Biston betularia* f. *carbonaria* in the presence of industrial pollution. The first known specimen of the dark or melanistic form was discovered in Manchester England in 1848. Subsequent to that discovery, the dark moths appeared all over Britain and eventually made up about 90% of the population. In more recent years, the dark forms have declined to only about 10% of the specimens.

The change in population composition towards dark moths mostly coincided with the progress of the industrial revolution. During the early periods, air quality was a major problem as sooty deposits accumulated on tree bark and lichens were killed to expose the dark tree bark beneath. The belief was that the dark forms of the moth were now less conspicuous than the light forms and so the dark forms gained a significant advantage, at least in areas where industrial pollution was changing the environment for the moths. This theory of the association between the change in population of the different colour morphs and air pollution was proposed in 1896 by J.W. Tutt. It remained in vogue

for another fifty years and was touted as clear evidence that Darwin's natural selection theory was working. It should be mentioned though that the decline in the melanistic moth population predates the very significant improvements in air quality in recent times.

In 1953, H.B.D. Kettlewell conducted the first field experiment to determine whether in fact, there was a selective preference by predators of the moths that were more conspicuous against background bark. The first experiment was carried out in an industrially-impacted site near Birmingham. He put out both dark and light coloured moths on trees and observed the rates of survival measured as numbers of each form that survived. As predicted, the dark forms appeared to survive better in the polluted environment. In 1955, he repeated the experiment in a clean environment in Dorset where the lichen growth was luxuriant because air quality was not an issue at this location. In this case, he also got the predicted results where the light forms survived better. These experiments were heralded as proof that the Darwinian Theory was correct. Some birds were seen eating the moths in the first experiment and they were photographed doing so in the second experiment. So birds were declared the agent that was driving the selection process. All seemed well for the proponents of the theory and it was written about in countless biology books.

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Credit Valley Conservation - Check out the new version of our Stewardship Calendar online!

Underneath that last bit of snow, the green grass is just itching to grow! This means the Stewardship staff at CVC is also itching to get out and work with you on all of the great workdays and volunteer opportunities that we have planned for this season! To make things simple, we've created a new way for you to view all of our events. Go to <http://www.creditvalleyca.ca/bulletin/events.htm> where you can see and click on all of our events for more information. You can also access it via our homepage by clicking on 'Main Calendar' under Upcoming Events.

COOL ITEM ALERT: Just above the calendar there is a drop down menu which allows you to filter out the type of events you want to see. So if you want to see all of our events or just the volunteer opportunities, you get to choose!

The other great thing about this new calendar is that online registration for our events will soon be available! Keep checking for updates as we're always adding new workdays and exciting events!

Holly Nadalin, Credit Valley Conservation Program Assistant, Stewardship

Tel: 905-670-1615 ext 449 **New!** Email: hnadalin@creditvalleyca.ca **New!** www.creditvalleyca.ca

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But there was a snag. No one that tried could really confirm Kettlewell's findings in any meaningful way. Skeptics appeared and questioned what was really at work. There is no disputing that the populations of the different coloured forms had shifted and are now changing back to the typical form. So what was happening? With the benefit of hindsight, there were a number of significant flaws in the methodology that Kettlewell employed. The specific criticisms include the fact that peppered moths do not normally rest on tree trunks as the texts and photographs suggest. The photographs that were published were staged, often using dead specimens. Bird vision is not like humans so what appears as cryptic colouring to humans may be less so for birds.

The method of releasing the moths was likely inappropriate with respect to timing and numbers placed per tree (Kettlewell used 4/tree). Peppered moths are not at all abundant so placing what appears to be a modest number still amounts to creating feeding stations for birds. Birds soon learned to recognize a good thing and took advantage of it, creating the illusion that they regularly fed on the moths when in reality they did not do that. As well, Kettlewell felt intense pressure to deliver results of the experiment for his benefactor, Henry Ford, Head of the Oxford School of Ecological Genetics. It is not to suggest that Kettlewell deliberately forged any of his data but it appears that unintended biases crept into his assessments so as to get the results he desired. While we can see the many flaws in the methodology now, at the time they were conducted the work was ground-breaking and very difficult to complete.

Unfortunately, the whole peppered moth saga has had other consequences. Many well-respected scientists and authors had claimed for years that the appearance of the dark form of the moths as the best and clearest evidence of evolution and natural selection at work. When the cherished evidence was found wanting, the Creationists were delighted. Here was something that

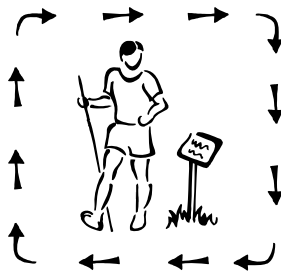
they could point to and say if that is your best evidence and it is wrong, clearly the whole idea of evolution is wrong and therefore all of Darwin's ideas are wrong. Unfortunately, Creationists never provide any substantiating proof that their own theory has validity but merely spend time trying to debunk any other theories regarding evolution. If they can find a flaw in something, they contend that since that is wrong, then their case is right. Any sensible person can see that they employ faulty logic and that they only see what they believe.

Despite the fact that there are many other bits of information that show evolution is ongoing, the heavy reliance on the peppered moth story to prove that natural selection is taking place, has impeded the overall proof of the theory. Too much time gets wasted trying to argue with the Creationists. Too much pressure was placed on one case to demonstrate rapid evolutionary change. Most evolutionary change takes place very slowly or only in small spurts, often taking many human generations of time to complete even a modest advance. Humans should be more patient and not expect noticeable changes to happen as quickly as that which happened with the peppered moth.

The peppered moth is not alone in the development of melanistic forms. In fact, melanistic forms have been found in about 70 moth species. The factors that have caused the appearance of such forms include such things as the chemical composition of the food the caterpillars ingest (e.g. pollutants taken up into the food plants) or other environmental changes such as temperature changes. Clearly, there is still a huge amount of work needed to sort out all of the facts. The story of the peppered moth will live on though it has fallen from its lofty position in the annals of science.

Anyone wishing to get more complete details of the story is advised to read the book "*Of Moths and Men: an Evolutionary Tale*" by Judith Hooper.

W.D. McIlveen



STOP THE QUARRY – SAVE LUTHER MARSH, Inc.

PRESENTS: 'Friends of Luther Marsh' **Naturalists speaking about birds and other important issues!**

Thursday, May 21, Arboretum Centre, University of Guelph, Talks start at 6:30 p.m.

Guest Speakers: Dr. Bridget Stutchbury, York University, Author, and 'Silence of the Songbirds'; Mr. David Lamble, Fergus, Birdbander extraordinaire and Mr. Paul General, Environmental Director, Six Nations First Nations

Bridget Stutchbury is a professor and Canada Research Chair in Ecology and Conservation Biology at York University, Toronto. Since the 1980's, she has followed songbirds to their wintering grounds in Latin America and back to their breeding grounds in North America to understand their behaviour, ecology and conservation. She is author of the book '*Silence of the Songbirds*'. **David Lamble** is an ardent and keen ornithologist who has banded over 100,000 birds in the Luther Marsh area, and **Paul General**, a recent recipient of an Ontario Citizenship Award, has been a historical voice on Luther Marsh and associated First Nations lands.

The event is a fund raiser to raise awareness about the need for protecting the Luther Marsh (a Provincially Significant Wetland and Important Bird Area, designated by BirdLife International) from development threats, including a proposed limestone quarry. We are a registered not-for-profit community group working with others to protect the Marsh.

TICKETS: \$30 in advance, \$35 at the door - dessert and coffee/tea included.
Tickets and Information: 519-848-6463 or 519-848-3908.

Mother's Day outing to Leslie Spit

Our first time to Leslie Spit was a wonderful day. Ray, Bette-Ann, and Valerie joined Kelly, Sierra and I as we ventured out on Sierra's first birding trip with the club. Leslie Spit was perfect for that venture because we could take the bike trailer with us and protect her from the wind with books to read and food to eat.

It was a slow day in terms of birds at the start with robins chirping away and lots of red winged blackbirds calling or protecting territory. The other predominate bird was the cormorant. They were everywhere, especially further down the spit where the nesting colony has taken over the tree stand near the lift bridge. It was down here we saw an egret trying to protect its nest from black crowned night herons.

The trek down to the lift bridge was full of surprises. At first we saw a few chimney swifts. As the morning got warmer and more insects emerged the more chimney swifts we saw as well as barn, tree, bank and cliff swallows.

As we went past the scale house and into the shrubbery we found cat birds and a few yellow

warblers and yellow rump warblers along with hearing a pee wee. We also found a few warbling vireos and brown thrashers.

While observing a couple of other birders we looked over and found an indigo bunting. This was more challenging to do when holding a child so it was good I could ask Ray to look for me at the blue thing was I saw. This is when the northern (Baltimore) orioles made there appearance.



We decided to head back to the cars after noon. To this point we had 37 species of birds which was good we thought. Sierra was hungry and tired and fell asleep on the way back to the car with a bottle in her mouth but not before we saw the other highlight of the day which was a couple of bob-o-links.

We only did less then half the area of Leslie Spit but the length to the tip and back would have been over 10 km. Sometime, we might do it and take the shuttle back or we take the bikes and enjoy the slow pace.

Andrew Kellman



Naturalist Club Evening Walks - Summer 2009

Halton/North Peel Naturalist and South Peel Naturalist Clubs

In 2009, our evening walks will continue to focus on green spaces within the Peel Natural Areas Inventory Study Area. This focus will help with data collection to support that project.

All walks are on Mondays and start at the meet location at 7:00pm sharp.

Please wear appropriate clothing and footwear and be prepared for biting insects.

Date	Destination	Leader	Meeting Location
18-May	Marie Curtis Park	W.D McIlveen	Marie Curtis Park
25-May	Meadowvale Station Woods	Dawn Renfrew	Mississauga Rd at Hwy 401
1-Jun	Ratray Marsh C.A.	Kirsten Burling	Green Glade School
8-Jun	Springbank Park	Audrey Oswald	QEW and Winston Churchill
15-Jun	Scotsdale Farm Trail	Dawn Renfrew	Trafalgar Road at Hwy 401
22-Jun	Silver Creek Trail	Dawn Renfrew	Trafalgar Road at Hwy 401
29-Jun	Riverwood Gardens	Audrey Oswald	Riverwood Gardens
6-Jul	Hungry Hollow, Georgetown	W.D McIlveen	Mississauga Rd at Hwy 401
13-Jul	Bob Baker Forest	W.D McIlveen	Mississauga Rd at Hwy 401
20-Jul	Limehouse Conservation Area	W.D McIlveen	Trafalgar Road at Hwy 401
27-Jul	Glen Williams Trail	W.D McIlveen	Mississauga Rd at Hwy 401
3-Aug	Georgetown Gellert Centre Park	W.D McIlveen	Trafalgar Road at Hwy 401
10-Aug	Ratray Marsh C.A.	Kirsten Burling	Green Glade School
17-Aug	Lake Aquitaine	W.D McIlveen	Meadowvale Community Centre
24-Aug	Etobicoke Creek Trail	W.D McIlveen	Marie Curtis Park

Meeting location descriptions: (In larger parking lots, we will try to meet at places nearest the entrance)

Marie Curtis Park – Parking area on west bank of Etobicoke Creek near footbridge

Mississauga Rd at Hwy 401 – Commuter parking lot west of Mississauga Rd and north of Hwy 401. Not conspicuous. Stop light at entrance

Meadowvale Community Centre – East of Glen Erin Drive south of Aquitaine Avenue

Trafalgar Road at Hwy 401– Commuter parking lot east of Trafalgar Road and north of Hwy 401

Riverwood Gardens - 1401 Burnhamthorpe West, north side of Burnhamthorpe east of Credit River

QEW and Winston Churchill - Commuter parking lot west of Winston Churchill and south of QEW

Green Glade School – Green Glade Drive off Meadowwood Drive, Clarkson

Not as advertised! Some destinations may change if preliminary site visits determine that a site lacks sufficient interesting items. In such cases, the meeting location will remain unchanged but the trip destination will be altered to a location nearby.

For more information, call Bill McIlveen (519) 853-3948 or cell (905) 867-9294 or June Chipp (416-640-5129)

