

A Good Year For Bugs

Story and photos by Geoffrey Carpentier

In the recent past going outside wasn't very rewarding if one wanted to see bugs. Well if you like mosquitoes you were okay, but all else was in scarce supply. This year seemed very different – at least at my place in Scugog. Crickets, leafhoppers, grasshoppers, dragonflies and myriad butterflies seemed to be here in good



numbers. I even had a Walking Stick here one day! I have a tiny meadow that I foster at the back of our property and it seems to be paying off as many caterpillars and spiders are populating it. The native weeds are of course coming in as well, but that's okay as that is partially why I've let it go



wild. Flying ant swarms were present the past few weeks and shortly before that a massive flight of some kind of small dipterid (e.g. fly) swarmed high above our house. The migrating swallows and nighthawks worked them over as did the Ring-billed Gulls. Fireflies were here in good numbers as well in June and early July. I'm not great on my moths, but a Luna, Polyphemus and Cecropia spent a short time here as they looked for a mate! But the star here and elsewhere seemed to be the Monarch. They were everywhere. A

small patch of milkweed that thrives in my lawn hosted at least 16 caterpillars all of which hopefully became adults and will head to Mexico soon.

Make It Snappy

Helping the Snapping Turtle

By Derek Connelly

Photo of turtle digging nest (below) by S. Snodden. Female laying eggs by Geoff Carpentier (right) and baby Snapper by Derek Connelly (next page)



Timing is everything for a photographer, conservationist and nature itself.

My co-trail captain of the Countryside Preserve was walking the trail by the dam and came across this Snapping Turtle laying her eggs. He sent me a text and photo and I was able to locate the spot later that day. As many trail users know the

Snapping Turtle's nest doesn't last long with predators about. Raccoons, skunks, foxes, mink and more pick up the snappers scent and dig up the eggs for food.

Snapping Turtles are a species at risk even though for Durham residents they are not uncommon especially when it's breeding time and the turtles are looking for a gravelly area to nest. A female snapper however must survive 4 to 7 years before



she can lay eggs and survival of the young is less than 1% even though she may lay 40 -50 eggs. Temperature determines when the eggs hatch in 60 -100 days and whether the young will be male or female. Many adults are killed on our roads but rescues do happen and the Turtle Conservation Centre in Peterborough has made great progress in assisting injured adults and incubating eggs and releasing newborn turtles back to their habitat.

But what about the nest in the Preserve? Well I couldn't just let it get dug up by a predator or even a dog passing by. I decided to cover it up and attempt to stop anything from digging. I used chicken wire and rocks and was successful in that nothing disturbed it for 55 days. I then removed the wire and rocks so that any emerging turtles would have nothing inhibiting their escape. My theory is that the scent should be gone and so digging may not occur now.



Predation on the baby turtles as they emerge and head for the pond of course is still possible. When will they emerge? Very hard to predict . All I can say now is when they do head for the pond they better make it snappy !

Native Plant Spotlight

Grasses For Your Garden

Photos and story by Brenda Near

Last year I started a predominantly native garden. I planted a variety of grasses with native flowers, or “forbs” mingled amongst them to create a natural meadow/prairie. The grasses I planted have grown very well in my extremely dry and sandy soil. And with the exception of the Side Oats



Side Oats Grama, *Bouteloua curtipendula*

Gramma, which has self-seeded here and there, they are behaving well. Mine is a more natural style garden so I don't really mind if they “misbehave”, but it is nice that none have



Big Blue Stem, *Andropogon gerardii*. Also known as Turkey' foot due to its flowers shape

become invasive thugs. The greatest joy is watching the sparrows eat the seed heads of the Bluestems. They land on the grass stem and hop along it until it is on the ground and then they proceed to eat the seeds. They win a garden Emmy for most adorable and entertaining. I planted the Big Blue Stem in a mass on one side of the



Canada Wild Rye, *Elymus canadensis*

garden to create an enclosed effect and this 5-6 foot grass with its purple blue flower heads is simply beautiful to watch moving in the wind. As an added bonus, Poverty Oats Grass, Big Bluestem, Little Bluestem, and Indian grass are all host plants for a variety of Skipper butterflies.

Butterfly News

Durham Region Butterfly Counts in 2019

Text and photos by James Kamstra

Two butterfly counts were conducted in portions of North Durham attended by members of Durham Field Naturalists and North Durham Nature as well as other lepidopteran enthusiasts. The Oshawa count extends from the north side of Oshawa to north of Port Perry, while the Sunderland count includes parts of Uxbridge and Brock Townships in north Durham, and part of Georgina Township in York Region. All of the butterfly individuals encountered within a 25 km² on the count day were recorded and tallied, similar to a Christmas Bird Count. This was the 25th year for the Oshawa count and the 23rd year for Sunderland.

The Sunderland count recorded 48 species which is somewhat lower than the long term average of 54. The Oshawa count was originally scheduled for June 30 but was postponed by two weeks since I had to be away. This delay helped the species total since the unusually late spring delayed the spring emergence of many butterflies by one or two weeks. By mid-July all species had emerged. Oshawa had 53 species, the second highest and well above the average of 45 species, although the number of individuals was lower than average for both counts.

The Oshawa count highlight was a fresh Hickory Hairstreak that I observed near Utica. This was new to the count and a very rare species in Durham with few records. Others rarely encountered at Oshawa were a Compton's Tortoiseshell by

It is important to understand that there are cool weather and warm weather grasses. The cool weather grasses are the first to emerge in the spring and will flower in very early summer. Then they will become almost dormant so you may want to plant flowers that will cover up their later lackluster appearance. Poverty Oats Grass is a cool season grass and is a very short bloomer in the spring. Warm weather grasses such as the Blue Stems, Ryes and Indian Grass will not

fill in until later summer and bloom late August/September. I have not had to stake the Big Bluestem but the Canada and Virginia Wild Ryes do tend to fall over and need some staking. Poverty Oats grass at 2' is lovely gracefully arcing over a pathway and has a pretty brilliant orange flower. Consider creating a small meadow patch in your garden next year, starting with some of these beautiful grasses!

For more info:
(https://www.wildflower.org/plants/result.php?id_plant=sonu2; Conservation of Halton Native Herbaceous Vegetation List)

Indian Grass, *Sorghastrum nutans*.
Small yellow flowers adorn the seed head in late August/September



Steve Laforest, Baltimore Checkerspot by Tom Mason and Dion Skipper by Susan Blayney. The rarest find at Sunderland was an Indian Skipper found by Susan Blayney. Although it is the 3rd time on this count, it is a more northern species that is rare in Durham.



Hickory hairstreak

At Sunderland late emerging species such as hairstreaks or Sedge Skippers were present in very low numbers or absent, but early species such as Silvery Blue, Common Ringlet and Hobomok Skippers were in higher than normal numbers. Oshawa being a week later recorded the late fliers. Overall numbers of many species were lower than average, a disturbing trend over the past few years.

The migrant species, Red Admiral and Monarchs, were in good numbers, especially at the later Oshawa count. Only 2001 had more Red Admirals, and only 2007 and 2012 had more Monarchs. Question Marks, another migrant, were very low this year.

Record high species on the Sunderland count were Silvery Blue, Dreamy Duskywing and Northern Cloudywing.

The swallowtails present an ID challenge since both Canadian and Eastern Tiger Swallowtails are present in Durham. The Canadians are smaller, single-brooded and

the underside of the forewing border is a yellow band, while Easterns are larger, double brooded and the underside of the forewing border is a yellow row of spots. On the counts few of the fast flying Tigers are caught or viewed closely but most are assumed to be Easterns since they appear large and freshly emerged. Several of the individuals that were observed closely however had integrate characteristics indicating that they are probably hybrids, which brings up the question whether they are valid separate species.

The results of the two counts are shown on the table below and the participants are listed below that.

BUTTERFLIES OBSERVED ON THE DURHAM COUNTS IN 2019

SPECIES	Sunderland	Oshawa
	07-Jul	14-Jul
Black Swallowtail	3	3
Canadian Tiger Swallowtail		1
Eastern Tiger Swallowtail	55	65
Mustard White	5	16
Cabbage White	106	109
Common Sulfur	7	11
Alfalfa Orange		1
American Copper	1	1
Bronze Copper	10	11
Coral Hairstreak	4	1
Acadian Hairstreak		1
Banded Hairstreak		3
Hickory Hairstreak		1
Eastern Tailed Blue		3

Summer Azure	2	26
Silvery Blue	24	1
Great Spangled Fritillary	10	26
Silver-bordered Fritillary	3	
Meadow Fritillary	4	1
Pearl Crescent	14	4
Northern Crescent	579	305
Baltimore Checkerspot	79	1
Question Mark	2	3
Eastern Comma	10	3
Gray Comma	6	9
<i>Polygona</i> sp.	2	
Mourning Cloak	2	4
Milbert's Tortoiseshell	4	
Compton's Tortoiseshell		1
American Painted Lady	9	14
Painted Lady	12	2
Red Admiral	64	166
White Admiral	40	78
Red-spotted Purple		5
Viceroy	22	10
Northern Pearly-Eye	17	86
Eyed Brown	208	55
Appalachian Brown	4	1
Little Wood Satyr	35	20
Common Wood Nymph	4	85
Inornate Ringlet	154	2
Monarch	90	266

Silver-spotted Skipper	21	87
Northern Cloudywing	34	4
Dreamy Duskywing	4	1
Arctic Skipper	2	
Least Skipper	40	28
European Skipper	1079	181
Indian Skipper	1	
Peck's Skipper	39	12
Tawny-edged Skipper	107	12
Crossline Skipper	13	4
Long Dash Skipper	233	38
Northern Broken Dash		7
Little Glassywing	2	
Delaware Skipper	2	21
Hobomok Skipper	22	8
Broad-winged Skipper	2	2
Dion Skipper		2
Dun Skipper	21	17
TOTAL SPECIES	49	53
TOTAL INDIVIDUALS	3212	1825
TOTAL INDIVIDUALS	2027	1535
No. of Participants	23	14
No. of Parties	11	8
Km. on foot	91	56
Total Hours	81.5	52.5

Question Mark



Participants

Oshawa: Dennis Barry, Susan Blayney, Dan Bone, Geoff Carpentier, Margaret Carney, Derek Connelly, Karen DeGroot, Cathy Galberg, James & Lynda Kamstra, Steve Laforest, Tom Mason, Greg Moon, Maria Prisciak, Rayfield Pye.

Sunderland: Dennis Barry, Susan Blayney, Dan Bone, Derek Connelly, Paul & Debbie Harpley, Brian Henshaw, Simon Henshaw, Jim Hopkins, James & Lynda Kamstra, Steve LaForest, Craig & Kathryn Lloyd, Tom Mason, Ginny Moore, Dave Paddock, Ed Poropat, Maria Prisciak, Rayfield Pye, Kim Stephens, Bob & Karen Yukich.

Butterflies in Durham Summer 2019

Story and butterfly photos by James Kamstra. Milkweed by Geoffrey Carpentier

Now that summer has sadly passed us by, it is a good time to reflect on the butterflies that we were able to see and appreciate. Every year is different as far as butterfly populations are concerned due to weather patterns and other unknown factors.

The spring of 2019 arrived late and proceeded to be cooler and wetter than

normal. Butterflies mostly overwinter as eggs, larvae or pupae. They need the warmth of spring to hatch, feed and develop. In a cool spring, hatching is delayed, larvae grow more slowly, and development in the pupa takes longer. Consequently, most butterfly species emerged one to two weeks later than normal this past summer. Crescents, blues, hairstreaks, fritillaries, wood nymphs and skippers all appeared behind schedule. The good news was that species could be seen later in the season. Butterflies normally seen only in June were still on the wing well into July.

There was some promising news on the butterfly front. Monarchs had a very good season. Following high numbers in 2018, large numbers migrated northward in late spring and the warm summer produced a bumper crop of both milkweeds and the striped caterpillars that feed on them. Monarch caterpillars were easier to find than ever, often several individuals could be seen on a single plant. In my yard, some milkweeds were completely stripped of leaves. From mid-August and through September, southbound Monarchs could be seen almost everywhere. You may remember that Monarch numbers from 2013-16 were so low that there was a real concern that the North American population would collapse. Good to know that the species has the ability to rebound when conditions are favourable.

Some of the other migrants also had an exceptional year. Red Admirals, Painted Ladies and American Ladies had major movements and a successful breeding season. Painted Ladies are uncommon most years but could be seen in nearly every flower garden in 2019. Question Mark, another migrant, did not have such a good year as there were fewer than average of those.

The biggest butterfly surprise of the summer was an invasion of American

Snout Butterflies. This is a southern migrant whose larvae feed upon Hackberry, a tree that does not naturally occur in Durham but is being planted more frequently. Snouts regularly appear in the Carolinian zone of extreme southwestern Ontario but are virtually unheard of beyond there. In 2019 however, large numbers of Snouts were documented from Toronto and York Region and many other locations near Lake Ontario. I observed two American Snouts in a flower garden along Bowmanville Creek in Bowmanville on August 2, while Dennis Barry reported several in his garden at Thicksen Woods in late August. Margaret Carney discovered two of the fast flying butterflies in a garden at Parkwood Estate in Oshawa. Others were reported at Wilmot Creek in Newcastle. I have not heard of any reports in north Durham so please let me know if you saw one.



American Snouts are quite small (5 cm wingspan) with scalloped wings with a bold pattern of orange and black with white spots. Most unusual is the long pointed 'nose'. They fly fast and erratically making them hard to follow, but if you see one land, they often can be approached for a close look.

Another butterfly which is appearing more frequently in Durham is the Giant Swallowtail, Canada's largest. It too is a more southern species but has expanded its range in recent decades. Their larval food

plants are Hop-tree and Prickly-ash, which are both rare in Durham, so the butterfly is unlikely to ever become common. I have seen them in my yard on occasion, but more frequently this year. One day my wife Lynda watched one of the fluttering black and yellow winged wonders laying eggs on some Prickly-ash in our yard. We



scrutinized the leaves of the plants finding many eggs, all laid singly. A week later, tiny brown caterpillars were feeding on the leaves. Due to the lateness of the season it is doubtful that the caterpillars had enough time to grow and pupate before the plants drop their leaves.

Those were some of the butterfly highlights that I know of. Perhaps you had interesting butterfly observations in your garden or on



your hikes. Please let me know if you observed American Snouts, Giant Swallowtails or any other uncommon butterflies in Durham.

Cavity Nesters at Lafarge Pit (Uxbridge)

Raising cavity nesting birds at Lafarge Gravel Pit in Uxbridge

by Derek Connelly

Six Years of Success

In 2013 we entered into a three year contract with Lafarge to create and monitor fifty bird boxes for cavity nesting birds in a gravel pit destined for reclamation. Habitat restoration began with tree planting the following summer, while our boxes entertained their first feathered tenants of Tree Swallows, Eastern Bluebirds and Black-capped Chickadees. After the first year the word (or should I say chirp?) was out and the occupancy rate jumped from 51% to now over 85%. This year we estimate 29 Eastern Bluebirds, 123 Tree Swallows and over 7 House Wrens were fledged. Over the six years, over 600 swallows, 150 bluebirds, 15 chickadees and 30 wrens have fledged. Finding an old tree with a suitable cavity to nest in is difficult for birds and it's one factor where we can help by providing an artificial tree cavity - the bird box. Weather, food shortage and predation are some of the challenges birds face, which we can't control. We estimate this has caused the 10% fluctuation in nest box occupancy and 40% fluctuation in fledging success over the years.

Challenges ahead

House Wrens were discovered in 2 boxes after our first year and this year 5 boxes had evidence of nest building. House Wrens are an aggressive species that can kill other bird's eggs and young, but prefer a thicket habitat rather than an open

grassland or meadow. Their presence indicates the changing habitat. The restoration plan is to encourage natural succession through tree planting to create a forest linking to the surrounding forests. Once the site becomes a forest, the Eastern Bluebirds and Tree Swallows will no longer find their food preferences and the habitat will not be suitable for their survival. Our monitoring of the occupancy rates will assist in determining when these bird houses are no longer needed in the decades to come. We hope to continue monitoring the birds for Lafarge and would welcome more involvement with their future restoration plans of this land.

Thanks to John and Lee Fisher and David Taylor and Liz Calvin who have consistently volunteered their time to this project since 2013. If you would like to help next year let us know!

Derek Connelly ndnature7@gmail.com

Table 1: Bird Occupancy in Nest Boxes at Lafarge Gravel Pit

YEAR	2014	2015	2016	2017	2018	2019
TREE SWALLOW	19	25	29	26	26	26
EASTERN BLUEBIRD	5	7	9	9	9	8
HOUSE WREN	0	2	0	0	3	5
BLACK-CAPPED CHICKADEE	1	0	1	1	0	0
TOTAL OCCUPIED	25	34	39	36	38	41
PERCENT	52	71	81	75	79	85

Nasty Nature News

25 Million Birds Slaughtered in Southern Europe Every Year!

Every year millions of birds are killed for sport and food in Europe. But they are not the traditional birds we think of when we talk about hunting. These are songbirds and pelicans and herons and more. BirdLife International carried out a study called “The Killing” which summarizes the numbers of birds killed illegally country-by-country across parts of northern Africa and Europe. Trapping techniques are archaic and indiscriminatory. Glue sticks, nets, lures and guns take millions of birds out of the ecosystems annually. Many of these illegal activities are tolerated or ignored in jurisdictions where laws forbid these. France recently enacted a program that would allow hundreds of thousands of birds to be taken by these means in the name of traditional hunting. This is akin to saying it is okay to kill endangered or protected species simply because we



always did. Some tribes used to be headhunters. Should we likewise allow this barbaric hunting technology in the name of tradition?

The map above shows the estimated numbers of birds killed illegally each year across the region.

The *Committee Against Bird Slaughter* (CABS) runs regular bird migration camps in Italy, France and Spain and on Cyprus and Malta, yielding tens of thousands of confiscated illegal traps and nets. Working with police units and wardens, it also catches hundreds of poachers red-handed every year.

Indiscriminate hunting has become commonplace with a large number of migratory species caught as illegal incidental catches during legal trapping of quail.

In Italy, an estimated 5.6 million birds are killed illegally each year. Syria and Lebanon are located on the second most important avian flyway in the world, which poses a serious issue given the lack of enforcement of hunting laws in the country, making it an ideal place for illegal hunters from around the region. In Syria, hunting has always been a traditional pastime, however, it has now become widespread. While a hunting ban exists in the country, lack of enforcement has led to a new generation of hunters who hunt indiscriminately and waste much of what they shoot. Illegal shooting and trapping has become an extremely popular pastime in Lebanon. As a result, the mean estimated number of illegally killed birds in Lebanon is more than 2,600,000 annually.

Cyprus is reportedly even worse, where the Famagusta District of Cyprus is seen as the worst in the Mediterranean with respect to illegally killed birds each year. Laws forbidding trapping have been in place

since 1974, but these are typically ignored. Many birds are illegally sold as ‘delicacies’ for consumption – in particular, Blackcap, Song Thrush, and the endangered Lesser Whitethroat. The estimated number of illegally killed birds each year in Greece exceeds 704,000. Presently, of the 345 species of birds assessed in Greece, 32 per cent of species are being killed illegally in significant numbers. In France, an estimated 149,000 to 895,000 birds are illegally killed each year. In the name of tradition, many regions get away with illegally trapping small birds with many non-target species getting caught in the process. France has just announced increased hunting quotas in many areas so the problem will become even worse. Of the 349 species of birds assessed in France, around 32 per cent of them are killed illegally in significant numbers. The Ortolan Bunting is frequently served as an expensive “delicacy” – it was a rite of passage for centuries for French gourmets to eat this bird.

Meanwhile in Croatia, the mean number of birds killed illegally is estimated to be more than 500,000 each year. Of the 306 species of birds assessed in Croatia, around 32 per cent of these are being killed illegally in significant numbers. In Libya, it is estimated that around half a million birds are killed illegally each year. Of the Mediterranean countries, Libya is the only one currently without any legal framework to regulate hunting and trapping and prevent illegal killing. In terms of numbers, of the 266 species of birds assessed in Libya, 23 per cent were reported to be killed illegally in significant numbers. The mean estimated number of individual birds illegally killed in Albania is around 265,000 annually, where of the 296 species of birds assessed there, 32 per cent are killed illegally in significant numbers.

These practices are not sustainable and the EU really should take a more forceful approach to this type of hunting. It is surprising that, when the environment is on everybody’s mind regarding climate, we are so blind to the other facts that occur around us!

Adapted from article published online by Focussing on Wildlife

Nature Quiz

Okay I’m aquatic or I just fell in the water LOL. No, I actually do live in the water. My weird mouthparts are designed to suck mud and detritus from the bottom of lakes so I can sift the tasty food morsels out of the dirt. I live all across North America and am either loved or hated by whoever comes into contact with me. What am I?

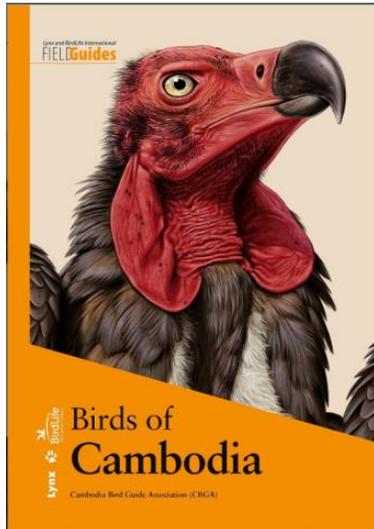


Book Reviews

by Geoff Carpentier

Birds of Cambodia. Cambodian Bird Guide Association. Lynx Edicions, Barcelona, Spain. 2018. \$58.40 CDN. 288 pages, hardcover. ISBN: 978-84-16726-21-3.

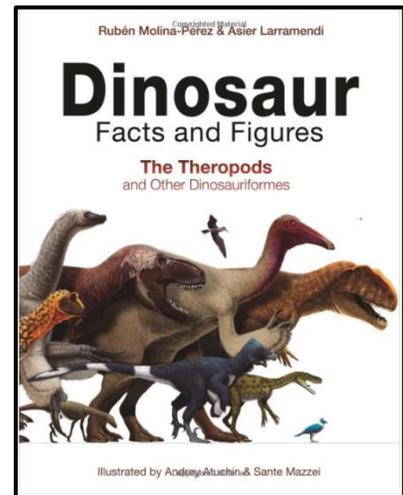
Cambodia is a small country that is not well explored from a natural history perspective. While much is known about its flora and fauna, more is yet to be discovered. Nestled between Vietnam and Thailand, it shares some of its avifauna with those two countries but has many unique species and subspecies of its own. This new guide shares the knowledge gathered by the Cambodian Guide Association members.



The format is pleasing and easy to read and use. Each species gets coverage with respect to its diagnostic features, including many subspecies and age classes, voice, comparisons to similar species and status. Every species also is accompanied with a QR code to allow free access to a wealth of free additional information. Finally, a free checklist of the birds of Cambodia is offered with each purchase. This is another excellent volume that the travelling birder must have!

Dinosaurs – Facts and Figures – The Theropods and Others. Rubén Molina-Pérez & Asier Larramendi. Princeton University Press, Princeton, N.J. 2019. 288 pages, hardcover. \$29.95. ISBN: 978-0-691-18031-1.

This might be the deal of the century at \$29.95! This beautifully illustrated book will tell you more about dinosaurs that you could imagine.



The book is broken into segments that include “put amazing Theropod facts at your fingertips”. *Comparing Species* is organized by taxonomic group and gives comparisons of the size of species, how long ago they lived, and when they were discovered. *Mesozoic Calendar* includes information showing the positions of the continents at different geological time periods and offers reconstructions of creatures from each period. *Prehistoric Puzzle* compares bones, teeth, and feathers while *Theropod Life* uses vivid, user-friendly graphics to answer questions such as which dinosaur was the smartest and which had the most powerful bite. “Other sections chart Theropod distribution on the contemporary world map, provide comprehensive illustrated listings of footprints, compile the physical specifications of all known Theropods and Mesozoic birds, and much more.”

But, first of all – what are Theropods? Theropods are a dinosaur suborder that is

characterized by hollow bones and three-toed limbs. In the beginning they were carnivorous, although a number of Theropod groups evolved to become herbivores, omnivores, piscivores, and insectivores.

So what might you learn in this book? Each species account (about 750 species in total) gives detailed information including scientific name, a specimen reference linked to a collection, length, body mass, hip height, what evidence exists, footprints, and relative size compared to something we might recognize, such as a person or a bird. Over 3000 records of specimens are outlined within the text in the various sections of the book. Illustrations number in the thousands as each species is given exhaustive treatment throughout the chapters.

As a teaching or learning tool, this book is amazing! Teaser: We all know what a Tyrannosaurus Rex is but did a Giganotosaurus ever exist? Answer: Yes it did and it was heavier than two Asian elephants!

Answers to Quiz

Well clearly I am a fish of some sort. Look carefully and you can see the scales on some of the fish in the photo near the upper left side. The swirling mass of fish might be a bit confusing at first, mostly because most of the fish are below the surface and we only see mostly ripples. The massing of the fish indicates that something behaviourally is going on and so it is. This is a mating frenzy. The fish were photographed in York Region recently and the fish are Carp. In the picture below you can see many more fish.



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