

NORTH AMERICAN BUTTERFLY ASSOCIATION

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41st ANNUAL NABA BUTTERFLY COUNT - 2015 INSTRUCTIONS (CANADA)

Please report your 2015 count results directly to NABA through our online count form at www.naba.org. The online form allows compilers to enter all data for their counts through the Web and also allows the regional editors to review and edit the reports more efficiently. Most importantly, Butterfly Count information will be entered and stored in a database which in the future will allow it to be available online to NABA members and the public. All compilers are now requested to enter the data for their counts through the online count form. If this presents any difficulty, please contact NABA for assistance.

COUNT PROGRAM OVERVIEW

In order to encourage increased participation in the NABA Butterfly Count Program and to encourage even more monitoring possibilities, the NABA Board of Directors authorized the introduction of Seasonal Butterfly Counts in 2007 for the United States and Mexico. While Seasonal Counts were originally considered for Canada, they were not feasible due to the short flight season. Canada's count program will remain as the traditional 1st of July Counts

TIMING OF THE COUNT

1st of July Counts may be held any day. Participants should select ONE DATE (one calendar day) on which to compile a list of butterflies observed during a period not longer than 24 hours. NABA 1st of July Butterfly Counts REQUIRE A MINIMUM of four adult observers AND 6 party-hours per count for all counts started after 2008, and, except in extenuating circumstances, ALL counts should expend at least 6 party-hours of effort.

DATE OF 2015 COUNT

Please contact NABA (at address/phone above, or e-mail to naba@naba.org) with the date of your 2015 count and information on how to contact the compiler. This information is given to people asking about counts in their area, and is entered on the website.

Count data must be entered online at <http://www.butterflycounts.org/>

Count forms can be downloaded from www.naba.org/counts.html. The count form can be filled in to use as a guide when submitting count data online.

COUNTERS & COUNT CIRCLES

Unless your count is an existing 1st of July count started before 2008, at least 4 adult observers must participate. One or more groups of counters always produce better results. It is usually desirable to visit several habitats and areas within a count circle, which may be done best by several parties. Since counts are open for public participation, we encourage you to publicize your count plans!

A count is held at one or more selected sites within a 15-mile diameter CIRCLE. Groups starting a new count MUST designate this 15-mile diameter circle. No count circles may overlap—that is, count centers must be a minimum of 15 miles apart. Groups repeating a count held a previous year MUST use the same circle, and count the same sites and habitats as before so far as practical.

The goal of the count is not to compete for the highest numbers, but rather to provide long-term data on trends in butterfly populations. Sites should be chosen for the likelihood that the count can be repeated year after year, not just for richness or rarities. Counts held only one year at distant localities are not as valuable. Most of the interest to counters comes from comparisons of annual results within their own count circle.

Starting in 2009, the category of garden watcher was discontinued. Additionally, children who participate in and contribute to a count are considered field observers.

RULES FOR CONDUCTING THE COUNT

- Count only within an area 7.5 miles in radius from a designated center (making a 15-mile diameter circle).
- For a given count, survey within the same circle every year. If any change is made to the count circle or center, notify NABA Vice President Jim Springer (springer@naba.org).
- Report only butterflies actually observed alive in the wild during a single, one-day period. Butterflies seen from cars or other conveyances may be counted.
- Species that are unusual for your location or date should be documented by photographs, if possible, which should be submitted online with your other count data..
- You may estimate the number of butterflies you ACTUALLY SEE (e.g. if there are a great number of American Snouts in a tree, you may count the number in a portion of the tree and extrapolate to generate an estimate of the total number you ACTUALLY SEE in the tree), but not the number of butterflies you think you would have seen had you covered more of the same habitat (e.g., do NOT

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multiply a count of 1 acre by the number of acres of similar habitat nearby or in the circle but not covered; do not estimate the number of butterflies in a field by walking through a portion of the field and estimating how many butterflies might be in the entire field; and do not multiply numbers seen during some time period by the number of similar time periods that you think butterflies would have been flying.). If you estimate numbers of butterflies that you actually saw, explain your method of estimating in Field Notes. Compilers should explain to all participants the need for reporting an estimation method.

- Keep an accurate record of miles covered on foot (to the nearest 1 mi.) and hours spent (to the nearest 0.5 hr.) by each party of counters, as a measure of census effort. If a party counts together some of the time but separates some of the time (to the point where they are counting different butterflies), report maximum number of parties that counted (e.g., for 1-4 parties, report 4), and add in the miles and hours spent by these separated parties to those spent while together.
- Please look over the forms carefully BEFORE the count so that you will be able to provide the information required. We recommend that you record count data on the paper form, then refer to that when filling in the online form.
- A MINIMUM of 6 party-hours per count is REQUIRED for new counts, and (except in extenuating circumstances) ALL counts should expend at least 6 party-hours.
- At least one person per existing 1st of July count, and four persons per new count, must be an adult field observer (over age 12).
- The compiler is the contact person for the count.

REPORTING BUTTERFLIES OBSERVED

- The count form lists the butterflies' scientific and English names as given in NABA's checklist (available for download or for sale at www.naba.org/pubs/checklst.html). The 2nd edition of this checklist was published in spring 2001, and NABA will periodically review and revise it. Other butterfly publications may use different species concepts and names.
- Record the total ADULT individuals of each species seen on your count. Do not break totals down by separate sites within the count circle.
- Use the Unlisted Species section of the online form to enter species observed but not included on the count form or online list, using the English or scientific names from NABA's checklist.
- Do NOT specify subspecies UNLESS, in the opinion of the compiler more than one subspecies of a particular species occurs within, or close to, the count circle.
- Use the Unidentified Species section of the online form to enter individuals seen but not identified to species, e.g., 9 *Satyrrium* sp., 2 Grass-Skipper sp. Please enter all Unidentified species in the form "Satyrrium sp.," "Fritillary sp.," "Nymphalidae sp.," etc. NOT "Satyrrium," "Fritillaries" or "Nymphalids."
- Record totals of immature forms (eggs, caterpillars, pupas) in the Immature Butterflies section of the online form. These do NOT count in totals for individuals and species.
- Each different ADULT butterfly identified to species counts as a species. If more than one subspecies is reported, count them as only one species.

- A butterfly not identified to species does not count toward your species total UNLESS that is the only entry reported for that type of butterfly. (E.g., *Satyrrium* sp. counts as a species ONLY if no other *Satyrrium* hairstreak seen on the count was identified to species.)
- Count only ADULT butterflies in the totals for individuals and species. All unidentified adult individuals should be added to the total of individuals.
- Non-butterflies should be mentioned in the Field Notes section only to the extent that they help illuminate butterfly species occurrence or abundance. For example, "gypsy moth infestation may have affected oak-feeding hairstreak abundance." or "many species nectaring at abundant common milkweed."
- On the Butterfly Review/Unusual Sightings page of the online count form, check off any butterfly species that are noteworthy for your location as to species, number, timing, etc., AND include a brief explanation in the Unusual Sighting Notes field. The species will then be boldfaced in the Count Report, and your explanation will appear as a footnote to your count summary.

FILLING OUT THE PAPER COUNT FORM

- While count data must be submitted online, the paper count forms are used for field records. Filling out a paper count form prior to starting online data entry makes the process smoother and faster. Some hints are:
- Please estimate the percentage of time in the AM and PM (during which you actually counted) that the sun was shining, and the temperature range, and the wind speed, during the count.
- Number of parties: A "party" may consist of 1 person or a group of people who are butterflying together—meaning that while butterflying they remain in visual or auditory contact.

Party-hours: A party, as defined above, that spends one hour in the field actively butterflying on foot is equivalent to one party-hour. For example, if you had three groups of butterflyers and group A, consisting of two people, counted butterflies for 3 hours; group B, consisting of one person, counted butterflies for 5 hours; and group C, consisting of three people, counted butterflies for 4 hours, the total party-hours would be $3 + 5 + 4 = 12$. **Total party-hours cannot exceed the number of hours of the count x the number of parties.** Parties that temporarily separate to count different butterflies become separate parties with separate party-hours during the time of separation. E.g., if a party of 3 counts for 3 hours as a single party, breaks up into 3 sub-parties for 2 hours to count separate butterflies, then counts together for 2 more hours, you should report 3 parties (the maximum number at one time) totaling 11 party-hours (1 party x 3 hours + 3 parties x 2 hours + 1 party x 2 hours). Exclude time when butterfly counting did not occur.

- Party-miles = The total miles traveled **on foot** observing butterflies by each field party as a whole. E.g., 4 observers in 1 party walking 2 miles in the field = 2 party-miles (**NOT 8**). Add up party-miles of all parties on the count to determine total party-miles. Party-miles for temporarily separated parties are counted in the same manner as described for party-hours above. Butterflies identified from cars or other conveyances may be counted, but the miles are not.

- List first initial and last name of all field observers on the online count form. It is the compiler's responsibility to obtain the correct names of all participants.
- Imminent threats to habitat, Habitat changes since last year, and Field Notes (such as weather, or explanations of unusual species) should be brief and relevant to the count's butterfly observations. Do NOT include weather in Habitat changes. Do NOT include organisms other than butterflies in Field Notes, except for a limited mention of plants or animals that may have affected butterflies. If there are no imminent threats or habitat changes, please leave these fields blank.
- **DOUBLE CHECK** paper forms for accuracy, and completeness before entering the information online. **After you have entered your data online, check that the count summary that is generated matches the data on your paper form.**

TIPS FOR FIRST-YEAR COUNTS

- Read instructions and forms carefully BEFORE count day.
- All counts are required to submit results online at www.butterflycounts.org
- New counts should pre-register with NABA to ensure that their proposed count circle does not overlap with other count circles. When you pre-register, please submit a map showing the new count circle. Pre-registered counts will also be advertised by NABA. Visit <http://www.naba.org/counts/start.html> for information.
- It's a good idea to practice how to do the count BEFORE your first count date.
- It's important that at least one counter in each party can identify all butterflies likely to be found in the count area, and that each party carries at least one butterfly field guide.
- Along with your count form, please submit a map showing the new count circle.
- Within your count circle, try to cover as many areas and habitats as possible.
- Consult www.naba.org or last year's Count Report for information on existing count circles.

PUBLIC PARTICIPATION

All counts published in the annual report must be open to public participation. If a person wishes to participate in a count, it must be possible for him/her to find out from the compiler, or other designated contact person, the date of the count, where he/she may go within the circle to count, and how to submit results and fees to the compiler. Compilers and counting parties are not obliged to include anyone in their particular counting activities, although cooperation and assistance to new counters are encouraged. If a compiler does not operate within the spirit of this policy (within constraints of unforeseen weather delays), NABA may, at its discretion, not accept the count.

FEES

- A fee of **U.S. \$3.00** is required for each field observer on each count (whether or not they want their names published in the Count Report) to help defray program costs.

- NABA WILL NOT accept or publish your count unless the full fee is paid.
- **It is the compiler's responsibility to inform participants ahead of time that they must pay a fee for participation, and to ensure that all fees are paid upon count submission.**

WHEN, WHERE, & HOW TO SUBMIT COUNTS

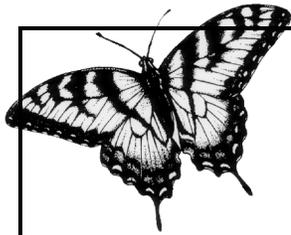
- DEADLINE for count submission to be received by NABA or completed online: **September 2, 2015**
- Compilers submit count data online at www.butterflycounts.org. Once submitted online, please print the participants list and mail along with full fee payment (in ONE check or money order) to NABA, 4 Delaware Road, Morristown, NJ 07960. Do not send NABA copies of counts submitted online, but do send fee payment and participants list.
- It is the responsibility of the count compiler to get an acceptable count submitted online with appropriate fee sent to NABA by the DEADLINE.
- Counts submitted or paid late will be held for publishing in the following year's Count Report.
- Please keep a copy of your count forms or online count summary for your records, AND keep details of unusual species sightings, as you may be contacted for confirmatory information by a NABA editor. **Please set your email program to accept messages with NABA in the subject line, so that messages from the editors will reach you.**
- NABA retains full editorial control over the content of the Count Report, including butterfly species reports.

SUBMITTING COUNT PHOTOS

We strongly encourage compilers to submit photographs taken on a count of interesting butterflies or of butterflies whose identification is not 100% certain. Interesting, good-quality photos may be published in the Count Report or on the NABA website, and the NABA staff may be able to help with those uncertain IDs. You may upload photos to your online count form, along with information including name of photographer, subject, and its significance. **Please, no email attachments.**

VOLUNTEER OPPORTUNITIES

Publication of the Count Report depends upon many volunteers (editors, artists, etc.). For more information, contact Count Report Editor Sharon Wander at wander@naba.org.



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PRESS RELEASE

THE 41st ANNUAL NABA BUTTERFLY COUNT

Butterflies are one of the most beautiful elements of the natural world, and scientists now recognize that they can also serve an important indicator of the health of ecosystems. A dedicated group of local naturalists will soon be both enjoying their beauty and contributing to a nationwide program that conducts long-term monitoring of butterfly populations. They welcome public participation, and while knowledge of butterflies is a plus, it is not necessary.

The _____ NABA Butterfly Count will be held on _____
(name of count)
_____, _____, 2015. Counters will meet at _____ at _____
(day of week) (date) (time)
_____. The count will last until about _____,
(location) (time)
weather permitting. This butterfly count has been held since _____. For more information please contact _____
(first year)
_____ at _____ during the: day / evening / weekend
(name of count compiler) (phone number/email) (circle appropriate time)

The NABA Butterfly Count Program has been held annually since 1975, when only 29 counts were held. In 2014, 439 counts were held in the U.S. and Canada. Volunteers around North America select a count area 15 miles in diameter and conduct a one-day census of all butterflies observed within that circle. Spring Seasonal counts are held prior to June, 4th of July counts are held in June or July, and Fall Seasonal counts are held after July. The best timing for butterfly observation in each count circle varies. The count program is intended to promote interest in butterflies and provide results useful for scientific monitoring of this beautiful and fascinating group of insects.

The **North American Butterfly Association (NABA)** organizes the counts and publishes their annual reports. For more information on NABA and the count program, please send a self-addressed, stamped business envelope to: **NABA, 4 Delaware Road, Morristown, NJ 07960**. Or check out our website at www.naba.org.

Instructions to Count Compilers:

- Please fill in the above press release. Make as many photocopies as you need to send to the news organizations that serve your area, including newspapers, radio stations, and local-access TV stations.
- You may also follow-up with these media contacts after your count by making your own press release providing interesting results and photos from your butterfly count.

President: Jeffrey Glassberg; Vice-President: James Springer; Secretary/Treasurer: Jane V. Scott
Directors: Fred Heath, Yvonne Homeyer, Dennis Olle, Robert Robbins,
Patricia Sutton & the aforementioned officers

NABA BUTTERFLY COUNT – 2015 PARTICIPANTS LIST - CANADA

PLEASE NOTE: **ALL count submissions MUST include a participants list.** You may use this form to record the participants on your count prior to entering this information online. THANK YOU!

- This form is for accounting only. PLEASE, NO notes pertaining to butterfly observations or butterfly count form here.
- The count fee is **U.S.\$3.00** and is required for EACH field observer, regardless of age on EACH count (regardless of how many counts a participant attends, and whether or not participants want their names published). Each count must have at least one paying participant..
- The cost of a hard copy the 2015 Count Report is **U.S.\$7.00** for NABA members and **U.S.\$11** for non-members.
- For each person buying the report, please list their name AND FULL MAILING ADDRESS to which the report should be sent in SPRING 2016.
- **Make payment for this count with a single check or money order in U.S. dollars payable to NABA.**
- Make payment, if desired, for annual NABA membership dues with a separate check or money order in U.S. dollars payable to NABA. **NABA ANNUAL DUES:** U.S.\$35 for single, U.S.\$45 for family (U.S.\$70/90 outside U.S., Canada, Mexico).
- An email notice that count forms for 2016 are available for download will be sent to the compiler at the email address listed below in SPRING 2016.
- Please attach additional sheet(s) if needed.
- Please print the completed online participants list and mail it with appropriate fee to: **NABA, 4 Delaware Road, Morristown, New Jersey, USA 07960**
- Please do not send your participants list via registered mail, as this can add much delay. Your cancelled check is your receipt.

2015 Count Name, Province: _____

Planned date for 2016 Count: _____

NAME/ADDRESS	FEE	Report	Donation	TOTAL
1 Compiler: _____ Address: _____ City: _____ State, Zip Code: _____ email (for NABA use only): _____ phone (for NABA use only): _____ (home or work?)	_____	_____	_____	_____
2 _____ _____	_____	_____	_____	_____
3 _____ _____	_____	_____	_____	_____
4 _____ _____	_____	_____	_____	_____
5 _____ _____	_____	_____	_____	_____
6 _____ _____	_____	_____	_____	_____
7 _____ _____	_____	_____	_____	_____
8 _____ _____	_____	_____	_____	_____
9 _____ _____	_____	_____	_____	_____
TOTALS / SUBTOTALS	_____	_____	_____	_____

Count Name, Province: _____

SUBTOTALS FROM PRECEDING PAGE

	FEE	Report	Donation	TOTAL
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
TOTAL				

2015 BUTTERFLY COUNT FORM - CANADA
***** REQUIRED INFORMATION *****

DEADLINE for complete, online submission and fees to be received by NABA: **September 2, 2015.**

Count Name(as it appears in the Count Report), Province:

Year of count (1st, 5th, etc.): _____

DATE held in 2015: _____

TIME (military, to nearest 0.5 hr): _____ to _____
 (which equals ___ hours)

Weather:

1. % sunshine in AM: ___ ≤10% ___ 11-25% ___ 26-50%
 ___ 51-75% ___ 76-100% ___ Data not recorded
2. % sunshine in PM: ___ ≤10% ___ 11-25% ___ 26-50%
 ___ 51-75% ___ 76-100% ___ Data not recorded
3. Temperature: ___ to ___ °F ___ Data not recorded
4. Wind: ___ to ___ mph ___ Data not recorded

Participants:

1. Number of field observers: _____
2. Number of field parties (report maximum number—e.g., for 1-4 parties, report 4): _____
3. Total number of party-hours by field parties: _____
(Total party-hours cannot exceed the number of hours of the count x the number of parties.)
4. Total party-miles on foot by field parties (to nearest 1 mile only): _____

Compiler's name: _____

Address: _____

City: _____

Province: _____ **Postal Code :** _____

Email address (please include so that Count Report editors may contact you if necessary. It will **NOT** be published in the Count Report without your permission.):

_____ **OK** to publish ___ **Do NOT** publish
Phone (for NABA use only, will **NOT** be published):

Check here if compiler was NOT also a field observer.

Useful information requested from all counts:

Imminent threats to specific butterfly habitats (new, specific information only; please do not repeat generalities year after year, e.g., development, pesticide spraying). If none, leave blank:

Information required from 1st-year counts only

Center in decimal degrees at (latitude) _____ . _____
 (longitude) _____ . _____

For information on reporting and mapping count circle centers please see:
http://www.naba.org/count_center.html

Center at (describe in words, as exactly as possible, e.g., "at intersection of *A* St. and *B* Rd. in Town of *C, D* Count." This description must match the coordinates above.): _____

Elevation (range that is actually counted): _____ to _____ ft.

Includes (any significant named areas in circle that are counted, e.g., "*X* County Park, *XX* Wildlife Management Area, and *XXX* Preserve"):

Habitats actually covered on the count:

Uses of land within the count circle:

Please mail a map of the count circle to NABA

Changes to butterfly habitats noticed since last year (do NOT include weather/climate). If none, leave blank:

2015 COUNT NAME, Province: _____

*** **ADULT BUTTERFLIES** ***

If a species is not listed, write it in at end of form. If subspecies are observed, do NOT include these numbers in the line for the full species. Do NOT check off a subspecies if only one for that species occurs in your area

PAPILIONIDAE - Swallowtails

- ___ *Parnassius clodius* Clodius Parnassian
- ___ *P. phoebus* Phoebus Parnassian
- ___ (*P. p. smintheus*) 'Rocky Mountain' Phoebus Parnassian
- ___ *Battus philenor* Pipevine Swallowtail
- ___ *Eurytides marcellus* Zebra Swallowtail
- ___ *Papilio polyxenes* Black Swallowtail
- ___ *Papilio machaon* Old World Swallowtail
- ___ (*P. m. bairdii*) 'Baird's' Old World Swallowtail
- ___ *Papilio zelicaon* Anise Swallowtail
- ___ *Papilio indra* Indra Swallowtail
- ___ *Papilio cresphontes* Giant Swallowtail
- ___ *Papilio glaucus* Eastern Tiger Swallowtail
- ___ *Papilio canadensis* Canadian Tiger Swallowtail
- ___ *Papilio rutulus* Western Tiger Swallowtail
- ___ *Papilio multicaudata* Two-tailed Swallowtail
- ___ *Papilio eurymedon* Pale Swallowtail
- ___ *Papilio troilus* Spicebush Swallowtail

PIERIDAE - Whites & Sulphurs

- ___ *Neophasia menapia* Pine White
- ___ *Pontia beckerii* Becker's White
- ___ *Pontia sisymbrii* Spring White
- ___ *Pontia protodice* Checkered White
- ___ *Pontia occidentalis* Western White
- ___ *Pieris napi* Mustard White
- ___ (*P. n. oleracea*) 'Veined' Mustard White
- ___ (*P. n. marginalis*) 'Margined' Mustard White
- ___ *Pieris rapae* Cabbage White
- ___ *Ascia monuste* Great Southern White
- ___ *Euchloe ausonides* Large Marble
- ___ *Euchloe creusa* Northern Marble
- ___ *Euchloe hyantis* Pearly Marble
- ___ (*E. h. lotta*) 'Desert' Pearly Marble
- ___ *Euchloe olympia* Olympia Marble
- ___ *Anthocharis sara* Sara Orangetip
- ___ (*A. s. stella*) 'Stella' Sara Orangetip
- ___ *Colias philodice* Clouded Sulphur
- ___ *Colias eurytheme* Orange Sulphur
- ___ *Colias occidentalis* Western Sulphur
- ___ *Colias christina* Christina's Sulphur
- ___ *Colias alexandra* Queen Alexandra's Sulphur
- ___ *Colias meadii* Mead's Sulphur
- ___ *Colias canadensis* Canadian Sulphur
- ___ *Colias nastes* Labrador Sulphur
- ___ *Colias gigantea* Giant Sulphur
- ___ *Colias pelidne* Pelidne Sulphur
- ___ *Colias interior* Pink-edged Sulphur
- ___ *Colias palaeno* Palaeno Sulphur
- ___ *Colias cesonia* Southern Dogface
- ___ *Phoebis sennae* Cloudless Sulphur
- ___ *Phoebis philea* Orange-barred Sulphur
- ___ *Eurema mexicana* Mexican Yellow
- ___ *Eurema lisa* Little Yellow
- ___ *Eurema nicippe* Sleepy Orange
- ___ *Nathalis iole* Dainty Sulphur

LYCAENIDAE - Harvester & Coppers

- ___ *Feniseca tarquinius* Harvester
- ___ *Lycaena phlaeas* American Copper
- ___ *Lycaena cupreus* Lustrous Copper
- ___ *Lycaena dione* Gray Copper
- ___ *Lycaena hyllus* Bronze Copper
- ___ *Lycaena rubidus* Ruddy Copper
- ___ *Lycaena heteronea* Blue Copper
- ___ *Lycaena epixanthe* Bog Copper
- ___ *Lycaena dorcas* Dorcas Copper
- ___ *Lycaena helloides* Purplish Copper
- ___ *Lycaena nivalis* Lilac-bordered Copper
- ___ *Lycaena mariposa* Mariposa Copper

LYCAENIDAE - Hairstreaks

- ___ *Satyrium titus* Coral Hairstreak
- ___ *Satyrium behrii* Behr's Hairstreak
- ___ *Satyrium fuliginosum* Sooty Hairstreak
- ___ *Satyrium acadica* Acadian Hairstreak
- ___ *Satyrium californica* California Hairstreak
- ___ *Satyrium sylvinus* Sylvan Hairstreak
- ___ *Satyrium edwardsii* Edwards' Hairstreak
- ___ *Satyrium calanus* Banded Hairstreak
- ___ *Satyrium caryaevorum* Hickory Hairstreak
- ___ *Satyrium liparops* Striped Hairstreak
- ___ *Satyrium saepium* Hedgerow Hairstreak
- ___ *Satyrium favonius* Oak Hairstreak
- ___ (*S. f. ontario*) 'Northern' Oak Hairstreak
- ___ *Callophrys dumetorum* Bramble Hairstreak
- ___ *Callophrys sheridanii* Sheridan's Hairstreak
- ___ *Callophrys augustinus* Brown Elfin
- ___ *Callophrys mossii* Moss' Elfin
- ___ *Callophrys polios* Hoary Elfin
- ___ *Callophrys irus* Frosted Elfin
- ___ *Callophrys henrici* Henry's Elfin
- ___ *Callophrys niphon* Eastern Pine Elfin
- ___ *Callophrys eryphon* Western Pine Elfin
- ___ *Callophrys spinetorum* Thicket Hairstreak
- ___ *Callophrys johnsoni* Johnson's Hairstreak
- ___ *Callophrys gryneus* Juniper Hairstreak
- ___ (*C. g. gryneus*) 'Olive' Juniper Hairstreak
- ___ (*C. g. siva*) 'Siva' Juniper Hairstreak
- ___ *Parrhasius m-album* White M Hairstreak
- ___ *Strymon melinus* Gray Hairstreak
- ___ *Calycopis cecrops* Red-banded Hairstreak
- ___ *Eroria laeta* Early Hairstreak

LYCAENIDAE - Blues

- ___ *Leptotes marina* Marine Blue
- ___ *Hemiargus isola* Reakirt's Blue
- ___ *Everes comyntas* Eastern Tailed-Blue
- ___ *Everes amyntula* Western Tailed-Blue
- ___ *Celastrina ladon* Spring Azure
- ___ (*C. l. ladon*) 'Spring' Spring Azure
- ___ (*C. l. neglecta*) 'Summer' Spring Azure
- ___ *Euphilotes battoides* Square-spotted Blue
- ___ *Euphilotes enoptes* Dotted Blue (includes *ancilla*)
- ___ *Glaucopsyche piasus* Arrowhead Blue

2015 COUNT NAME, Province: _____

___ *Glaucopsyche lygdamus* Silvery Blue
 ___ *Lycaeides idas* Northern Blue
 ___ *Lycaeides melissa* Melissa Blue
 ___ *Plebejus saepiolus* Greenish Blue
 ___ *Plebejus icarioides* Boisduval's Blue
 ___ *Plebejus shasta* Shasta Blue
 ___ *Plebejus acmon* Acmon Blue
 ___ *Plebejus optilete* Cranberry Blue
 ___ *Agriades glandon* Arctic Blue
 ___ (*A. g. franklinii*) 'Mountain' Arctic Blue
 ___ (*A. g. rusticus*) 'Rustic' Arctic Blue
 RIODINIDAE - Metalmarks
 ___ *Apodemia mormo* Mormon Metalmark
 NYMPHALIDAE - Brushfoots
 ___ *Libytheana carinenta* American Snout
 ___ *Agraulis vanillae* Gulf Fritillary
 ___ *Euptoieta claudia* Variegated Fritillary
 ___ *Euptoieta hegesia* Mexican Fritillary
 ___ *Speyeria cybele* Great Spangled Fritillary
 ___ *Speyeria aphrodite* Aphrodite Fritillary
 ___ *Speyeria idalia* Regal Fritillary
 ___ *Speyeria edwardsii* Edwards' Fritillary
 ___ *Speyeria zerene* Zerene Fritillary
 ___ *Speyeria callippe* Callippe Fritillary
 ___ *Speyeria atlantis* Atlantis Fritillary
 ___ (*S. a. atlantis*) 'Atlantis' Atlantis Fritillary
 ___ (*S. a. hesperis*) 'Hesperis' Atlantis Fritillary
 ___ *Speyeria hydaspe* Hydaspe Fritillary
 ___ *Speyeria mormonia* Mormon Fritillary
 ___ *Boloria eunomia* Bog Fritillary
 ___ *Boloria selene* Silver-bordered Fritillary
 ___ *Boloria bellona* Meadow Fritillary
 ___ *Boloria frigga* Frigga Fritillary
 ___ *Boloria improba* Dingy Fritillary
 ___ *Boloria epithore* Pacific Fritillary
 ___ *Boloria freija* Freija Fritillary
 ___ *Boloria montinus* Purplish Fritillary (formerly *titania*)
 ___ *Boloria chariclea* Arctic Fritillary
 (see also *Boloria montinus* Purplish Fritillary)
 ___ *Chlosyne gorgone* Gorgone Checkerspot
 ___ *Chlosyne nycteis* Silvery Checkerspot
 ___ *Chlosyne harrisii* Harris' Checkerspot
 ___ *Chlosyne palla* Northern Checkerspot
 ___ *Chlosyne whitneyi* Rockslide Checkerspot
 ___ *Chlosyne acastus* Sagebrush Checkerspot
 ___ *Chlosyne hoffmanni* Hoffman's Checkerspot
 ___ *Phyciodes tharos* Pearl Crescent
 ___ *Phyciodes selenis* Northern Crescent
 ___ *Phyciodes batesii* Tawny Crescent
 ___ *Phyciodes campestris* Field Crescent
 ___ *Phyciodes pallida* Pale Crescent
 ___ *Phyciodes mylitta* Mylitta Crescent
 ___ *Euphydryas chalcedona* Variable Checkerspot
 ___ (*E. c. anicia*) 'Anicia' Variable Checkerspot
 ___ *Euphydryas editha* Edith's Checkerspot
 ___ *Euphydryas phaeton* Baltimore Checkerspot
 ___ *Polygonia interrogationis* Question Mark
 ___ *Polygonia comma* Eastern Comma
 ___ *Polygonia satyrus* Satyr Comma
 ___ *Polygonia faunus* Green Comma

___ *Polygonia gracilis* Hoary Comma
 ___ (*P. g. zephyrus*) 'Zephyr' Hoary Comma
 ___ *Polygonia oreas* Oreas Comma
 ___ *Polygonia progne* Gray Comma
 ___ *Nymphalis vaualbum* Compton Tortoiseshell
 ___ *Nymphalis californica* California Tortoiseshell
 ___ *Nymphalis antiopa* Mourning Cloak
 ___ *Nymphalis milberti* Milbert's Tortoiseshell
 ___ *Vanessa virginiensis* American Lady
 ___ *Vanessa cardui* Painted Lady
 ___ *Vanessa annabella* West Coast Lady
 ___ *Vanessa atalanta* Red Admiral
 ___ *Junonia coenia* Common Buckeye
 ___ *Limenitis arthemis* Red-spotted Admiral
 ___ (*L. a. arthemis*) White Admiral
 ___ (*L. a. astyanax*) Red-spotted Purple
 ___ *Limenitis archippus* Viceroy
 ___ *Limenitis weidemeyerii* Weidemeyer's Admiral
 ___ *Limenitis lorquini* Lorquin's Admiral
 ___ *Asterocampa celtis* Hackberry Emperor
 ___ *Asterocampa clyton* Tawny Emperor
 NYMPHALIDAE - Satyrs
 ___ *Enodia anthedon* Northern Pearly-eye
 ___ *Satyrodes eurydice* Eyed Brown
 ___ *Satyrodes appalachia* Appalachian Brown
 ___ *Megisto cymela* Little Wood-Satyr
 ___ *Coenonympha tullia* Common Ringlet
 ___ (*C. tullia inornata*) 'Inornate' Common Ringlet
 ___ (*C. tullia nipisiquit*) 'Salt Marsh' Common Ringlet
 ___ *Cercyonis pegala* Common Wood-Nymph
 ___ *Cercyonis sthenele* Great Basin Wood-Nymph
 ___ *Cercyonis oetus* Small Wood-Nymph
 ___ *Erebia disa* Disa Alpine
 ___ *Erebia mancinus* Taiga Alpine
 ___ *Erebia discoidalis* Red-disked Alpine
 ___ *Erebia theano* Theano Alpine
 ___ *Erebia epipsodea* Common Alpine
 ___ *Neominois ridingsii* Riding's Satyr
 ___ *Oeneis nevadensis* Great Arctic
 ___ *Oeneis macounii* Macoun's Arctic
 ___ *Oeneis chryxus* Chryxus Arctic
 ___ *Oeneis uhleri* Uhler's Arctic
 ___ *Oeneis alberta* Alberta Arctic
 ___ *Oeneis taygete* White-veined Arctic
 ___ *Oeneis jutta* Jutta Arctic
 ___ *Oeneis melissa* Melissa Arctic
 ___ *Oeneis polixenes* Polixenes Arctic
 NYMPHALIDAE - Milkweed Butterflies
 ___ *Danaus plexippus* Monarch
 HESPERIIDAE - Spreadwing Skippers
 ___ *Epargyreus clarus* Silver-spotted skipper
 ___ *Urbanus proteus* Long-tailed Skipper
 ___ *Achalarus lyciades* Hoary Edge
 ___ *Thorybes bathyllus* Southern Cloudywing
 ___ *Thorybes pylades* Northern Cloudywing
 ___ *Staphylus hayhurstii* Hayhurst's Scallopwing
 ___ *Erynnis icelus* Dreamy Duskywing
 ___ *Erynnis brizo* Sleepy Duskywing
 ___ *Erynnis juvenalis* Juvenal's Duskywing
 ___ *Erynnis propertius* Propertius Duskywing
 ___ *Erynnis horatius* Horace's Duskywing

2015 COUNT NAME, Province: _____

- ___ *Erynnis martialis* Mottled Duskywing
- ___ *Erynnis pacuvius* Pacuvius Duskywing
- ___ *Erynnis zarucco* Zarucco Duskywing
- ___ *Erynnis funeralis* Funereal Duskywing
- ___ *Erynnis lucilius* Columbine Duskywing
- ___ *Erynnis baptisiae* Wild Indigo Duskywing
- ___ *Erynnis afranius* Afranius Duskywing
- ___ *Erynnis persius* Persius Duskywing
- ___ *Pyrgus centaureae* Grizzled Skipper
- ___ *Pyrgus ruralis* Two-banded Checkered-Skipper
- ___ *Pyrgus scriptura* Small Checkered-Skipper
- ___ *Pyrgus communis* Common Checkered-Skipper
- ___ *Pholisora catullus* Common Sootywing
- HESPERIIDAE - Skipperlings
- ___ *Carterocephalus palaemon* Arctic Skipper
- HESPERIIDAE - Grass-Skippers
- ___ *Ancyloxypha numitor* Least Skipper
- ___ *Oarisma poweshiek* Poweshiek Skipperling
- ___ *Oarisma garita* Garita Skipperling
- ___ *Thymelicus lineola* European Skipper
- ___ *Hylephila phyleus* Fiery Skipper
- ___ *Hesperia uncas* Uncas Skipper
- ___ *Hesperia juba* Juba Skipper
- ___ *H. comma* Com. Branded Sk. (incl. *manitoba*, *assiniboia*, *colorado*)
- ___ *Hesperia ottoe* Ottoe Skipper
- ___ *Hesperia pahaska* Pahaska Skipper
- ___ *Hesperia dacotae* Dakota Skipper
- ___ *Hesperia sassacus* Indian Skipper
- ___ *Hesperia nevada* Nevada Skipper
- ___ *Polites peckius* Peck's Skipper
- ___ *Polites sabuleti* Sandhill Skipper
- ___ *Polites draco* Draco Skipper
- ___ *Polites themistocles* Tawny-edged Skipper
- ___ *Polites origenes* Crossline Skipper
- ___ *Polites mystic* Long Dash
- ___ *Polites sonora* Sonora Skipper
- ___ *Polites vibex* Whirlabout
- ___ *Wallengrenia egeremet* Northern Broken-Dash
- ___ *Pompeius verna* Little Glassywing
- ___ *Atalopedes campestris* Sachem
- ___ *Anatrytone logan* Delaware Skipper
- ___ *Ochlodes sylvanoides* Woodland Skipper
- ___ *Poanes massasoit* Mulberry Wing
- ___ *Poanes hobomok* Hobomok Skipper
- ___ *Poanes viator* Broad-winged Skipper
- ___ *Euphyes dion* Dion Skipper
- ___ *Euphyes dukesi* Duke's Skipper
- ___ *Euphyes conspicua* Black Dash
- ___ *Euphyes bimacula* Two-spotted Skipper
- ___ *Euphyes vestris* Dun Skipper
- ___ *Atrytonopsis hianna* Dusted Skipper
- ___ *Amblyscirtes simius* Simius Roadside-Skipper
- ___ *Amblyscirtes oslari* Oslar's Roadside-Skipper
- ___ *Amblyscirtes hegon* Pepper and Salt Skipper
- ___ *Amblyscirtes vialis* Common Roadside-Skipper
- ___ *Calpodus ethlius* Brazilian Skipper
- ___ *Panoquina ocola* Ocola Skipper

