



Monarch Teacher  
Network of Canada

Le Réseau Canadien des  
Enseignants Monarques

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**RE: Ministry of Natural Resources Wildlife Scientific Collector's Authorization #1076879, as approved for the Monarch Teacher Network of Canada.**

To Valerie Griffin,

We are very pleased to have been approved for our Wildlife Scientific Collector's Authorization by the Ontario Ministry of Natural Resources (MNR). Please read all of the attached information carefully so that you are knowledgeable with all expectations and commitments of this permit. To use this permit, you must abide by all expectations of this permit. This permit is for the period between present and September 30, 2016.

Please note that this authorization:

- Is not valid in provincial parks, park reserves, national parks, conservation areas, crown game preserves or sanctuaries established under the Migratory Birds Convention Act without written permission from the authorized person in charge of the area concerned.
- Does not allow access to any property without permission of the landowner.
- Does not allow for propagation, buying or selling of species.
- Covers only the species and numbers listed, which does not include any species at risk in Ontario.

As part of this permit, we are required to report on your collecting, rearing and releasing practices. Note that data reporting is important and that we are asking you to assist by providing us with your data once per year. Data collection sheets for 2014-2016 are provided (see attached sheets for each year of this permit and submission process).

Please note that you must have this permit with you at any time you are collecting, rearing and/or releasing of the Monarch Butterfly species (*Danaus Plexippus*).

Our permit number with the MNR is #1076879, while your individual number as registered with Toronto and Region Conservation (TRCA) is #14-07-2930-009. You are not entitled to share this permit with any other individuals.

If you have any questions or concerns, please contact Vicky An, Coordinator - Education Program Services at [van@trca.on.ca](mailto:van@trca.on.ca) or 289 268-3915.



Toronto and Region  
**Conservation**  
for The Living City®



Ministry of  
Natural Resources  
Ministère des  
Richesses naturelles

# Wildlife Scientific Collector's Authorization

## Autorisation pour faire la collecte scientifique d'animaux sauvages

Authorization No. N° d'autorisation	1076879
Local Reference No. N° de référence local	
Issuer Account No. N° de compte du dévreur de permis	10002974

This authorization is issued under Section 39 of the Fish and Wildlife Conservation Act, 1997 to:  
Cette autorisation est délivrée en vertu de l'article 39 de la Loi sur la protection du poisson et de la faune de 1997 à:

Name of Authorization holder Nom du titulaire de l'autorisation	Last Name / Nom de famille Ms. An	First Name / Prénom Vicky	Middle Name / Second Prénom
Name of Business/Organization/Affiliation (if applicable) Nom de l'entreprise/de l'organisme/de l'affiliation (le cas échéant) Monarch Teacher Network of Canada			

Mailing address of Authorization holder Adresse postale du titulaire de l'autorisation	Street Name & No./PO Box/RR#/Gen. Del./N° rue/C.P./R./poste restante 5 Shoreham Dr.	City/Town/Municipality / Ville/village/municipalité Toronto	Province/State Province/État ON	Postal Code/Zip Code Code Postal/Zip M3N 1S4
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This authorization permits the above-named person to:  
Cette autorisation permet à la personne nommée ci-haut de:

- Capture wildlife of the species and sex, in the numbers, and in the area set out below.  
Capturer les espèces d'animaux sauvages selon le nombre et le sexe indiqués ci-dessous dans les lieux indiqués ci-dessous and/or / et/ou
- Keep game wildlife or specially protected wildlife in captivity for the purposes of education or science.  
Garder des animaux sauvages spécialement protégés et du gibier sauvage en captivité à des fins éducatives et scientifiques
- Release the captured wildlife in the area of capture, if the captured wildlife is not to be removed from that area.  
Remettre en liberté les animaux sauvages capturés dans la zone de capture si les animaux capturés ne doivent pas être enlevés de cette zone

OR / OU

- Capture and kill wildlife of the species and sex, in the numbers, and in the area set out below.  
Capturer et tuer les espèces d'animaux sauvages selon le nombre et le sexe indiqués ci-dessous dans les lieux indiqués ci-dessous

Species / Espèces	Sex Sexe	Numbers Nombre	Location / Endroit
danaus Plexippus		40	Peterborough District, Brighton
danaus Plexippus		80	Aurora District, York Region, Toronto
danaus Plexippus		40	Midhurst District, Meaford

Yes/Out  Additional list attached / Liste additionnelle ci-jointe

Authorization Dates / Dates d'autorisation	Effective Date / Date d'entrée en vigueur (YYYY-MM-DD) 2014-06-05	Expiry Date / Date d'expiration (YYYY-MM-DD) 2016-09-30
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Authorization conditions: This authorization is subject to the conditions contained in Schedule A if included. / Cette autorisation doit respecter les conditions de l'annexe A si celle-ci est jointe.

Conditions de l'autorisation: Yes/Oui  No/Non  Schedule A Included. / Annexe A ci-jointe

Authorized by (please print) Autorisé par (veuillez écrire en caractères d'imprimerie) Sharon Rew	Signature of Authorizer / Signature de la personne chargée d'autoriser 	Date of Issue / Date de délivrance (YYYY-MM-DD) 2014-06-10
Signature of Authorization holder / Signature du titulaire de l'autorisation 		Date (YYYY-MM-DD) 2014-06-10

Personal information contained on this form is collected under the authority of the Fish and Wildlife Conservation Act, 1997 and will be used for the purpose of licensing, identification, enforcement, resource management and customer service surveys. Please direct further inquiries to the District Manager of the MNR issuing district.  
Les renseignements personnels dans ce formulaire sont recueillis conformément à la Loi sur la protection du poisson et de la faune, 1997, et ils seront utilisés aux fins de délivrance de permis, d'identification, d'application des règlements, de gestion des ressources et de sondage sur les services à la clientèle. Veuillez communiquer avec le chef du district du MRN qui délivre le permis si vous avez des questions.

## Collection, Rearing and Release Data 2014 || *Danaus Plexippus*

Under the Authorization #1076879, we are required to record and submit all data related to the Monarch collection, rearing and release activities. Please return all data to Vicky An at [van@trca.on.ca](mailto:van@trca.on.ca) for compilation under the Authorization #1076879, by November 2014. To reach Vicky An by telephone, please call (289) 268-3915.

<b>Date of collection</b>						
<b>Location of collection site (e.g. lot and concession, address or GPS coordinates)</b>						
<b>Description of collection site</b>						
<b>Method of collection</b>						
<b>Number and species of individuals targeted and collected</b>						
<b>Disposition of individuals targeted and collected (e.g. Died in captivity, kept temporarily and released)</b>						
<b>Name of collector</b>						

## Collection, Rearing and Release Data 2015 || *Danaus Plexippus*

Under the Authorization #1076879, we are required to record and submit all data related to the Monarch collection, rearing and release activities. Please return all data to Vicky An at [van@trca.on.ca](mailto:van@trca.on.ca) for compilation under the Authorization #1076879, by November 2015. To reach Vicky An by telephone, please call (289) 268-3915.

<b>Date of collection</b>						
<b>Location of collection site (e.g. lot and concession, address or GPS coordinates)</b>						
<b>Description of collection site</b>						
<b>Method of collection</b>						
<b>Number and species of individuals targeted and collected</b>						
<b>Disposition of individuals targeted and collected (e.g. Died in captivity, kept temporarily and released)</b>						
<b>Name of collector</b>						

## Collection, Rearing and Release Data 2016 || *Danaus Plexippus*

Under the Authorization #1076879, we are required to record and submit all data related to the Monarch collection, rearing and release activities. Please return all data to Vicky An at [van@trca.on.ca](mailto:van@trca.on.ca) for compilation under the Authorization #1076879, by August 2016. To reach Vicky An by telephone, please call (289) 268-3915.

<b>Date of collection</b>						
<b>Location of collection site (e.g. lot and concession, address or GPS coordinates)</b>						
<b>Description of collection site</b>						
<b>Method of collection</b>						
<b>Number and species of individuals targeted and collected</b>						
<b>Disposition of individuals targeted and collected (e.g. Died in captivity, kept temporarily and released)</b>						
<b>Name of collector</b>						

## ANIMAL CARE & HANDLING PROTOCOL: MONARCH TEACHER NETWORK OF CANADA/TRCA

### *Danaus plexippus Specimen Collection and Care (Standard)*

#### HANDLING PROTOCOL

Handling of livestock at any stage should be minimized. If handling is necessary, the please follow the protocol below:

***For all life stages, ensure that your hands are free from lotions, repellants, and/or soaps as these are often impactful to the Monarch. Wash and dry your hands well.***

#### EGG STAGE

***Never touch the egg directly.*** Remove the leaf upon which it is sitting (from the Milkweed plant) and transport it to a container where it can sit undisturbed until it hatches. Ensure that the stem of the leaf is wrapped in paper towel and kept moist.

#### YOUNGEST INSTARS (*first, second, and even third*)

***These instars are very fragile!*** Touching them directly should be avoided for the safety of the caterpillar. Ensure that the instars always have fresh food milkweed. It is safest for the caterpillar to leave it on the leaf upon which it is stationed, and set fresh leaves into the container. Attempting to move a motionless caterpillar by prodding may disturb the molting process and injure the caterpillar – it is best to allow it to move on its own. Remove frass from the container daily.

#### OLDER INSTARS (*third, fourth, and fifth instars*)

These instars are hardier than the younger instars, ***but it is still best to minimize handling.*** It is not uncommon to see these larger caterpillars on “walk-a-bouts”, which may demand their retrieval. The safest way to collect them is to allow them to crawl onto a leaf or piece of paper, and then return them to the safety of their holding cage/container by allowing them to crawl off of the paper or leaf onto a milkweed plant. **Never** try to pick them up by rolling them or pinching them in your fingers.

#### PRE-PUPAE AND CHRYSALIS

***When the caterpillar is going into the “J”, be careful not to touch, move, or disturb it.***

If the chrysalis can remain safely where it has attached, leave it.

If it must be moved, create a slipknot in a piece of unflavoured dental floss, and slip it up to the point of attachment (where the cremaster hooks into the silk). Gently tighten and secure the knot. Do not tie the knot lower on the cremaster – touching the “silk” is best, and should ensure that there is not damage to the forming adult.

## ADULTS

**When adults emerge they are very fragile! DO NOT TOUCH or try to move them**, as they need time to expand their wings fully, dry, and “zip” together the two pieces of the proboscis. It is best not to handle them at all on their first day as an adult unless absolutely necessary.

When handling adults, (again, wait 24 hours after emergence) keep in mind that each contact will remove scales from the Monarch’s wings – handling should be minimized. To safely transfer the adult from one cage to another, cupping both hands around the adult is appropriate. For feeding the adult, you should use the *four-pinched-wings method* – gently pinching all four wings between the middle finger and thumb, and arch the first finger in front of the Monarch upon which it can crawl. If the butterfly is not in a position to crawl onto a finger, gently ease it from its perch – DO NOT PULL, as you could cause injury to legs or clasps on the feet. Hold the Monarch so that its feet are in the puddle of sugar water, which will prompt them to unfurl the proboscis and draw up the sugar water. Allow them to feed until they retract the proboscis naturally, typically about two minutes.

If Monarchs are not being released immediately (should be released within 24 hours so that they can feed naturally), you must be prepared to feed them twice per day, and provide water for puddling. Though fruits or flowering plants may provide the nutrients they need and can be left in the holding cages, a sugar water mixture can be prepared (5 parts water: 1 part sugar) for them.

### ADDITIONAL NOTES:

Ensure that adults are released in an area safe from cars, roads, or activities that could cause injury while they are re-orienting to the new environment.

	Stages and maximum quantity collected (wild)	Time in Captivity	Care Protocol
<b>Workshop</b>	Eggs (3-5), caterpillars (all instars (15)), chrysalids (2-5), adults (2-15)	1-2 weeks from collection to workshop (released on last day of workshop, or as the adults emerge)	Containment in rearing and holding cages, with appropriate space, air movement. Daily removal of frass. Daily replacement of fresh milkweed. Adults (bi-daily) feeding with appropriate sugar solution and/or fruit/nectar sources. Handling for training purposes only after proper instruction on appropriate handling techniques.
<b>Classroom</b>	Eggs (2-3), caterpillars (all instars (5)), chrysalids (1-2), adults (2-3) <i>*in most cases, teachers collect just 2-3 eggs and watch the complete metamorphosis with these specimens</i>	2- 5 weeks *released either as the adults emerge, or maintained through bi-daily feeding for tagging/group release	Containment in rearing and holding cages, with appropriate space, air movement. Daily removal of frass. Daily replacement of fresh milkweed. Adults (bi-daily) feeding with appropriate sugar solution and/or fruit/nectar sources (or immediate release). Restricted handling– primarily observation.