# Butterflies

#### Painted Lady - Vanessa cardui Distribution: Across Canada.

**Adult:** (Wingspan 50 to 65 millimetres.) The painted lady is orange with a rosy tinge, black and white marbling, and a row of four or five small eyespots on the underside of its hindwings. Two similar species are the American lady, *V. virginiensis*, almost identical but with only two eyespots on the underside of its hindwings, and the west coast lady, *V. annabella*, which has only one white bar and one orange bar on its forewings, instead of the painted lady's two white bars.

**Caterpillar:** Painted lady larvae range in colour from yellow-green, light purple or brownish-grey with yellow vertical stripes, to mostly black. The caterpillar is covered in branched spines that may be light-coloured with black

c. The caterpillar is covered in branched spines that may be light-coloured with black tips or, more usually, completely black. It has a broken yellow stripe down each side of its body. Identification can be aided by looking for the silken leaf nest it forms on the surface of its food plant. Painted lady caterpillars feed on composites, such as thistle, everlasting and sunflower.

#### Swallowtails

There are many species of swallowtail in Canada. They can be quite similar and difficult to distinguish from each other. However, no butterfly poster would be complete without them, so we have included two swallowtail species — the tiger and the black. Most other swallowtails closely resemble one of the two species illustrated. The exact species can often be determined by the location of the sighting.

#### Canadian Tiger Swallowtail – Papilio canadensis

Distribution: From the Yukon south to British Columbia and east to Newfoundland.

Adult: (Wingspan 100-150 mm.) This big, beautiful butterfly is yellow with black tiger-like stripes. Closely related species may vary in their degree of yellowness, the thickness of their stripes and the number of tails on their hindwings.

**Caterpillar:** When newly hatched, the tiger swallowtail caterpillar is brown and white, and resembles bird droppings. However, it soon develops into a smooth green caterpillar with an enlarged area behind the head that sports two eyespots. Tiger swallowtail caterpillars like to feed in the treetops of tulip trees, cherry, willow and ash, among other species.

#### White Admiral – *Limenitis arthemis* Distribution: Across Canada.

Adult: (Wingspan 80-85 mm.) This large butterfly can be identified by the prominent white bands running down its fore- and hindwings. The bluish markings on its wing tips as well as the red spots vary among individuals. The undersides of its wings are a pale reddish brown with a repeat of the patterning and the addition of red spots along the outer margin and near the base. Two similar species occur in limited areas of western Canada: Weidemeyer's admiral, *L. weidemeyerii*, and the Lorquin's admiral,

L. lorquini. Both have much more white on their wings than the white admiral. **Caterpillar:** This caterpillar resembles bird droppings. It's brown or greenish with a white saddle and thickly branched horns. This mimicry protects it from predators. It feeds on willow, aspen, poplar and birch.



#### Black Swallowtail - Papilio polyxenes

**Distribution:** Southern Manitoba, Ontario and southern Quebec east to Prince Edward Island. **Adult:** (Wingspan 70-90 mm.) The wings of this butterfly are mostly black with orange and yellow markings. Closely related species vary in the length of their tails and the number and colour (yellow to orange) of their markings.

**Caterpillar:** Young black swallowtail caterpillars are black with a whitish saddle, but they quickly transform into smooth green caterpillars with bands of black and yellow spots. Also known as the parsley caterpillar, this larva has a preference for plants of the parsley family, including Queen Anne's lace, carrot, parsley, dill and celery.

#### Milbert's Tortoiseshell – Nymphalis milberti Distribution: Across Canada.

**Adult:** (Wingspan 35-60 mm.) Milbert's tortoiseshell is a rather unique butterfly with brown wings, a broad orange to yellow band that runs close to its irregular wing margins, and two orange patches on the forewing. Its hindwing has blue spots between the orange band and the wing margin. The undersides of its wings are dark brown with lighter colouring near the margins.

## Arctic Skipper – Carterocephalus palaemon Distribution: Yukon south to British Columbia and east to Newfoundland. Adult: (Wingspan 20-30 mm.) The Arctic skipper is a small brown and orange butterfly. The patterning on its upper side is brown with rectangular orange spots. This is reversed on its underside as dark brown spots on orange. The hindwings on the underside are beige with oval white spots rimmed in brown.

Caterpillar: This caterpillar is pale green or cream-coloured with a faint white stripe down

its back and one or two paler stripes below this. It has a round green head. This colouring provides camouflage when it feeds on grasses, its larval host plants.

### **Caterpillar:** The Milbert's tortoiseshell caterpillar is spiny, black and covered in lots of tiny white dots. It also has greenish-yellow stripes along each side. It feed on nettles.

#### Polyphemus Moth - Antheraea polyphemus

**Distribution:** From British Columbia across to Nova Scotia, not in Newfoundland. **Adult:** (Wingspan 90-140 mm.) This large moth is brownish orange with black and white irregular lines running down its forewings. It has two large eyespots on its hindwings and two smaller ones on its forewings.

> **Caterpillar:** This smooth caterpillar is green with many red, orange or yellow knobs with protruding short hairs. The spiracles (or breathing holes) are red and are followed by a vertical yellow line. Polyphemus moth larvae prefer oak, but will also feed on maple, birch or elm.

#### **Cabbage White - Pieris rapae**

Distribution: Into the Northwest Territories and from British Columbia east to Newfoundland. Adult: (Wingspan 30-45 mm.) The cabbage white butterfly, though not native to North America, is widespread and common, often one of the easiest butterflies to spot. The upperside of the wings are white with black wing tips, and there is a black patch on the leading edge of each hindwing. Males of this species have one black spot on the forewing, while females have two black spots. The undersides of the wings are a pale yellow. Caterpillar: The bluish-green colouring of this caterpillar enables it to blend in well with its host plants, though it does have a faint yellow stripe on its back and yellow dashes low along each side. True to its name, it feeds on cabbage, but also broccoli, toothwort and others in the mustard family.



#### Monarch – Danaus plexippus

**Distribution:** Adult butterflies are found from British Columbia east to Newfoundland. **Adult:** (Wingspan 90-105 mm.) The monarch is famous for its spectacular migration to overwintering sites in Mexico and California, a trip of up to 4,000 kilometres. Monarch populations are probably declining due to land use changes, climate change, the spread of invasive plants and destruction of overwintering sites. The shortage of wildflowers for the adult and a lack of healthy milkweed populations also play a role in population fluctuations. Be sure not to confuse the monarch with the viceroy, *Limenitis archippus*, which can be distinguished by the narrow, curved black line running down its hindwings, and its smaller size.

**Caterpillar:** This colourful larva is covered in bands of white, yellow and black. It has a pair of black filaments at its head and tail. Monarch caterpillars are found only

on milkweeds, their sole larval food plants in Canada. The milkweed toxins make them distasteful to birds, with the exception of a few species at the overwintering sites in Mexico.

#### Viceroy – Limenitis archippus

Distribution: Alberta east to Nova Scotia. Historical records from southern interior British Columbia.
 Adult: (Wingspan 50-80 mm.) The viceroy butterfly is famous only for its resemblance to the much-loved monarch butterfly. Like the monarch, it's dark orange with contrasting black lines.



The difference is in the black line that runs across the veins in the hindwing. The viceroy also has a single row of white spots in the black wing borders in contrast to the monarch's double row. Its underside is a paler version of its upper side. **Caterpillar:** The viceroy caterpillar looks somewhat like a creature out of science fiction, with its humpbacked, lumpy profile. It is olive green with a pinkish white saddle on its back and two short blackish horns. The viceroy caterpillar feeds on trees, preferring willows and poplars.

#### Luna Moth - Actias luna

Distribution: Saskatchewan east to Nova Scotia and Prince Edward Island.
Adult: (Wingspan 80-115 mm.) This large and beautiful moth is pale green with purple margins and eye spots. The long tails on its hindwings give it a very distinctive shape.
Caterpillar: The caterpillar of the luna moth is a smooth, translucent pale green with a light yellow line running the length of each side. It has red-orange knobs with protruding fine hairs and a brown or green head. It prefers hickory, but will also feed on walnut, willow, maple, oak and some other trees.



Isabella Tiger Moth – Pyrrharctia isabella

**Distribution:** From British Columbia east to Labrador and Prince Edward Island. **Adult:** (Wingspan 40-60 mm.) Being a medium-sized, fuzzy-bodied moth of muted orange-yellow to orange-brown, the Isabella tiger moth is not the most flamboyant of our native moth species. It's really the caterpillar that's more likely to draw notice.

**Caterpillar:** Affectionately known as the woolly bear, these bristly reddish brown and black banded caterpillars are easily recognized. Folklore has it that the relative length of the brown and black bands can

foretell the severity of the coming winter. In reality, the lengths of these bands depend on several factors, one of which is the age of the caterpillar — older larvae have more brown. These caterpillars feed on dandelions, plantains and other lowgrowing weeds.



Northern Pearly Eye - Enodia anthedon
 Distribution: East-central Alberta east to Nova Scotia.
 Adult: (Wingspan 40-55 mm.) The northern pearly eye has scalloped, purplish-brown
wings with four pale-bordered spots on the forewings, of which the second spot is always much smaller and
sometimes even absent. The hindwings have five spots. On the underside, these spots have white pupils
and there is a sixth spot on the hindwings with a double pupil.
 Caterpillar: The caterpillar of the northern pearly-eye is yellowish green with alternate green and
yellow lengthwise stripes. It is covered in very short hairs and has a pinkish forked tail and
red-tipped, horn-like projections on its head. Its somewhat angular shape allows it to hide among grasses,

Red Admiral – Vanessa atalanta Distribution: Across Canada.

Adult: (Wingspan 50-60 mm.) This dark butterfly can be distinguished by the curved, bright orange

its food plants.

red bands on its forewings. There are a number of white spots on the tips of its forewings, while the underside of the hindwing is a mottled grey. It is unique in its colouring and unlikely that you'll confuse it with another species.

**Caterpillar:** Red admiral caterpillars vary greatly in their colouring, ranging from black to yellowish green with yellow interrupted stripes. The branched spines can be orange or yellowish at the base. Young larvae



are entirely black. Due to their great variability and habit of hiding in "tents" made from the leaves they are eating, these caterpillars are best identified by their choice of food plants — members of the nettle family, such as stinging nettle and wood nettle.

#### Mourning Cloak - Nymphalis antiopa Distribution: Across Canada.

Adult: (Wingspan 70-85 mm.) The mourning cloak has large, yellow borders on the edges of its wings, which contrast strikingly with the darker colours on the rest of its wings.
 Caterpillar: The caterpillar is black with tiny white dots and black-branched spines. It has a row of red marks on its back between the bases of these spines. Mourning cloak



larvae feed on a variety of trees, such as elm, willow, cottonwood and hackberry.

The brilliance of our many butterflies adds beauty to any garden. The vibrant orange and black of monarchs or the dazzling tiger stripes of swallowtails add contrast among the blooms. Other species may lack some of this glamour but are welcome visitors none the less for the gentle cheer they bring. Canada's butterfly species number almost 300, so their diversity is quite extensive.

Moths are very closely related to butterflies. Both belong to the order Lepidoptera, yet their reputations are completely different. Butterflies are associated with colour, beauty and sunshine, while moths are connected with night, the destruction of trees and clothes, and getting caught in people's hair. That's hardly a fair comparison between creatures that are often difficult to tell apart. Quite a few butterflies are cloaked in drab browns or greys, while a lot of moths are vibrantly coloured. Some moths are pests, but most are harmless.

Most people are aware that caterpillars are one of the early life stages of butterflies. Yet, despite the lovely charm of their later winged form, they are often overlooked or even despised. However, if you hope to invite butterflies to your garden, it is important to consider the needs of their larvae. Once you start to pay attention to these crawling creatures, you'll discover that caterpillars are fascinating in their own right.

Manicured lawns, pesticides and the replacement of native vegetation with exotic plants all limit the chances of survival for moths and butterflies. Conserving healthy habitat is the key to conserving their populations. To help them in their struggle for survival, gardeners should remember to cultivate the larval food plants of butterflies and moths common to their area. While some caterpillars can avail of a wide variety of plants, others are quite particular about their food choices. Some are able to eat only a certain type of plant or are limited to one plant species.

For ideas on how you can welcome butterflies to your garden, contact CWF for a copy of our *Wild About Butterflies* handout, or check out our *Wild About Gardening* website at www.wildaboutgardening.org.

#### Hummingbird Clearwing - Hemaris thysbe

**Distribution:** From the Northwest Territories south into British Columbia and across to Newfoundland. **Adult:** (Wingspan 35-55 mm.) Often mistaken for a small hummingbird, this moth is regularly spotted on sunny days hovering in front of flowers sipping at nectar. Its narrow, pointed wings are edged in reddish-brown with transparent centres. Although it varies somewhat, it generally has an olive-green furry body with bands of red across the abdomen and tufts of feather-like hairs protruding from the tail end of males.

**Caterpillar:** This yellowish-green caterpillar has lines of darker green, reddish spots on its abdomen and a yellow horn-like projection at its tail. Hummingbird clearwing caterpillars will eat from a variety of plants including honeysuckle, viburnum, hawthorn and snowberry.

#### Garden Tiger Moth - Arctia caja

**Distribution:** British Columbia east to Newfoundland. **Adult:** (Wingspan 30-60 mm.) The garden tiger moth negates the myth that moths are dull and boring. Its front wings are boldly patterned in rich brown and white, while its back wings are a vibrant orange with dark bluish-black spots. To add to its colour, the garden tiger moth also has a bright red-orange abdomen. Though its colouring and pattern varies, it is always a flamboyant visitor.

**Caterpillar:** Dense and fuzzy reddish-orange hair and a band of long white hair down its back make the garden tiger moth caterpillar almost as showy as the adult butterfly. This fuzzy fellow feeds on a variety of plants, including plantain, dandelion, nettle, vetch and grasses.



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