The final season of the Atlas is upon us! There are a number of species that haven't been well documented so far. Many of these have short flight periods or specific habitat requirements that make them difficult to detect during general surveys. In this document you'll find guidance on how to find some of the most under-sampled species. If you go looking for these targets you're bound to encounter many other species as well!

Hoary Elfin (Callophrys polios)

Full species profile Map More pictures

Flight period: Late April to mid June.

Where to look: Throughout the Maritimes on wood roads and trails where its host plant, Mayflower (*Epigaea repens*) occurs. It is also found in barrens, especially in southern Nova Scotia, where another host plant, Bearberry (*Arctostaphylos uva-ursi*), occurs.

Comments: Watch for these small, dark butterflies as you walk trails in the spring. They are often only noticed after they have taken to the air, but their flights are typically short so try to follow them until they land. All elfin species are undersampled - check out their profiles for surveying hints.



Meadow Fritillary (Boloria bellona)

Full species profile Map More pictures

Flight period: Mid May to Mid June and mid July to mid September.

Where to look: Meadows and pastures with relatively rich soils and other open early successional habitats with grasses and a good supply of violets.

Comments: Meadow Fritillary is known to be widespread in New Brunswick, but relatively few records have been submitted during the atlas period. Suitable habitat exists in Nova Scotia and Prince Edward Island, though the species has never been documented there (the Nova Scotia record in the book Butterflies of Canada is erroneous).



Pepper and Salt Skipper (Amblyscirtes hegon)

Full species profile Map More pictures

Flight period: Late May to early July.

Where to look: Typically found in wet forest openings, including partially shaded paths and trails through these areas, often in the same habitats as the Northern Pearly-Eye. It is expected that this species is widespread and fairly common in Nova Scotia, so please look for it throughout the province. It may also occur on Prince Edward Island, though it has never been recorded there.



Common Roadside Skipper (Amblyscirtes vialis)

Full species profile Map More pictures

Flight period: Late May to mid July.

Where to look: Common Roadside Skipper is found typically found along woods roads and trails through wooded areas. It usually occurs in more open sites than the very similar Pepper and Salt Skipper. Watch for this small, dark butterfly to flush as you walk along your route. It is expected that this species is widespread and fairly common in Nova Scotia, though there are few Atlas records so far. It may also occur on Prince Edward Island, though it has never been recorded there.



Two-spotted Skipper (*Euphyes bimacula*)

Full species profile Map More pictures

Flight period: Mid June to mid July.

Where to look: Sedge-dominated marshes and fens. To find it one must go into the middle of the marsh (get your feet wet) and look for perching males or flush females. It can also be found puddling along dirt roads that pass through or near marshes. It is generally present in low numbers, making it easy to miss.

Comments: In 2013, it was discovered for first time in Nova Scotia. It is likely widespread throughout the Maritimes, so take a look wherever suitable habitat is present.



Harvester (Feniseca tarquinius)

Full species profile Map More pictures

Flight period: All season.

Where to look: The Harvester is our only carnivorous butterflies, and caterpillars can be found amonst their prey: Woolly Alder Aphids. Look for adults in wet areas with alders, and examine woolly aphid colonies for caterpillars (see blog write-up). The caterpillars are easiest to find from mid August into October. Look for aphid mass that appears to have areas with webbing and frass (insect droppings). There will often be adjacent areas on branches where only remains of aphids and frass are found. Photographs showing larvae and chrysalises are an excellent way to document the species for the Atlas.



Comments: This species has been found at a number of sites in NB and NS during the Atlas period, but so far only at one location on PEI. If you're surveying in PEI be sure to check alders for aphids! Aphids should be removed from around the Harvester larvae or the larvae should be removed before it is photographed. Some fly larvae are similar looking and often occur in the same aphid masses.

Silvery Checkerspot (Chlosyne nycteis)

Full species profile Map More pictures

Flight period: Early June to early July.

Where to look: Generally found near streams in drier forest types including blueberry barrens. It is often overlooked because it co-occurs with the similar and much more common Harris's Checkerspot. It usually starts flying a week earlier than Harris's, so check early fliers carefully.

Comments: There are only two records ever from Nova Scotia; it was taken in 1934 and then again in 1951 at South Millford. Suitable habitat exists throughout the province, so it should be found again.



Baltimore Checkerspot (Chlosyne phaeton)

Full species profile Map More pictures

Flight period: Mid June to early August.

Where to look: Wet meadows and roadsides with White Turtlehead (*Chelone glabra*), the species' larval hostplant.

Comments: Baltimore Checkerspot has been found at many sites in New Brunswick and PEI during the Atlas, but only at two sites in Nova Scotia, where it is assumed to be widespread. Special effort should be made to find this species throughout Nova Scotia.



Acadian Hairstreak (Satyrium acadica)

Full species profile Map More pictures

Flight period: Early July to mid August.

Where to look: Acadian Hairstreak is found in areas with willow, especially isolated willows in sedge marshes, blueberry fields, and salt marsh margins. Tap the willows and the adults will fly off. This species should be sought throughout the Maritimes.



Arctic Fritillary (Boloria chariclea)

Full species profile Map More pictures

Flight period: There is evidence of a population in the Christmas Mountains that flies early to mid July. Populations with similar flight seasons occur in northern Maine and Québec near the border with NB. Other populations in NB, and those in Cape Breton, fly from late July into September.

Where to look: This highly colonial species is found in coniferous dominated forest, particularly dry upland Black Spruce /Jack Pine woodlands with open grown trees and bog-like ground vegetation. Adults frequently nectar on goldenrod in open areas and roadsides near these habitats. It is most common in our more



boreal sites (northern NB and Cape Breton Highlands). There are several pre-Atlas records of the species from Westmorland County, NB, and Cumberland County, NS, but it has not been found there during the Atlas.