

Maritimes Butterfly Atlas

Photo by Denis Doucet

2012 Newsletter

Highlights from the 2011 field season

The second year of the Maritimes Butterfly Atlas (MBA) was a great success, with 3,564 records (1,885 photographs, 1,679 specimens) submitted by 126 contributors. This is a significant increase from the 2,821 records submitted to date for 2010, despite the poor weather conditions experienced in 2011!

In the first two years of the Atlas, 80 butterfly species have been documented. This represents 91% of the 88 species that have ever been recorded in the Maritimes. Only two regularly occurring species, Greenish Blue and Early Hairstreak, have yet to be recorded. Greenish Blue is most likely to be found on clover dominated road embankments in northern New Brunswick. It flies from early June to mid July. Early Hairstreak is associated with large stands of mature American Beech. The species is very rarely recorded, and it is known from only a handful of locations in the Maritimes. Early Hairstreak flies from mid May to mid June.

The most significant finding of the year was the discovery of two Salt Marsh Copper populations in Cape Breton, as detailed below.

Many other excellent discoveries were made in all three Maritimes provinces. Baltimore Checkerspot was found at two new locations in Prince County, PEI, by Rosemary Curley and Dwayne Oakley. Jutta Arctic was discovered by Richard Mash in Guysborough County, NS, nearly 150km from the nearest known NS population. Roy LaPointe documented the Atlas' first record of Eastern Tailed-Blue at Kent Island, Charlotte County, NB.

The Atlas continues to produce records for rare species¹. The table below lists the number of rare species recorded for each province in 2011, followed by the number of specimens or photographs of these species received.

	NB	NS	PE
Number of rare species recorded	19	24	11
Number of records of rare species	67	209	32

Salt Marsh Copper - First Cape Breton Records

Salt Marsh Copper is a Canadian endemic (*i.e.*, it is found in Canada and nowhere else), previously known only from coastal sites on the Gulf of the St. Lawrence in the Gaspé and the three Maritimes provinces. In Nova Scotia, the



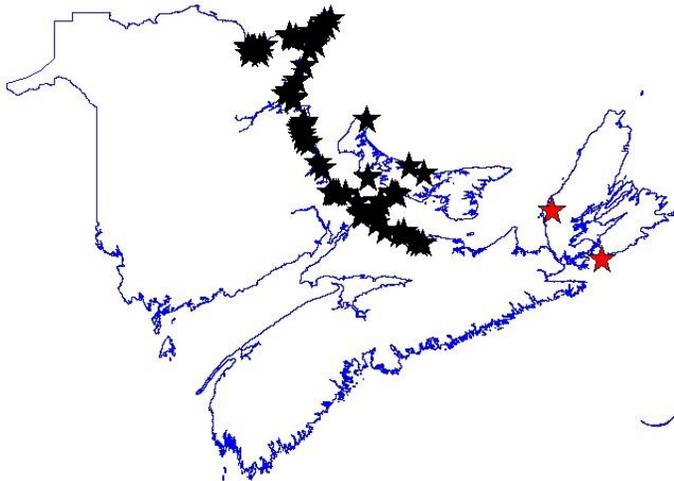
Salt Marsh Copper. Photograph taken near Point Michaud by Rita Viau.

¹ Rare species are those with a provincial rank below S4 (visit <http://www.accdc.com/butterflyatlas/Checklist.html> for the provincial ranks of Maritimes species and rank definitions)



species was previously known from the Northumberland coast from the New Brunswick border to Tatamagouche.

In 2011, the species was found twice on Cape Breton. The initial discovery was made by Don Anderson near Mabou on August 12. The species was then discovered at a site near Point Michaud by Rita Viau on August 30 (see map). The Mabou site is 120km from the nearest previously known population. The River Bourgeois site is 190km from the nearest previously known population, and it is the first record for the species away from the Gulf of the St. Lawrence!



Maritimes distribution of Salt Marsh Copper. Black stars indicate previously known sites. Red stars indicate new Cape Breton records.

Salt Marsh Copper has a short and interesting history. The species, originally described as a subspecies of Dorcas Copper, was discovered at Bathurst in 1939 by J. McDunnough, but was documented at no new locations until 1979 when A. Thomas found it at several salt marshes in Gloucester county and northern Northumberland counties, and on the Gaspé peninsula. In the 1990s, the species was found at many more locations, including salt marshes on PEI and in Kent and Westmorland counties. In the 2000s, the species was discovered at multiple salt marshes in Cumberland and Colchester counties.

It is unclear if this increase in known range is because the species' range is truly expanding, or if it is the result of the species simply being overlooked in the past. Certainly, it was always more widespread than the salt marshes of

Bathurst, but without good baseline data, it is impossible to know where the boundaries of the species' distribution were previously.

The frontier for the species is now the eastern and southern shores of Nova Scotia. Surveys should be undertaken in the salt marshes of this coastline to identify the current distribution of the species. If it is already widespread along this coast then it was probably always present, a 400km range expansion down to Yarmouth likely couldn't have occurred in the past couple of decades. If, however, the species is absent, or is found only in the northeast, then the stage is set for documenting the possible ongoing expansion. Future surveys will then be able to determine if the range is static or expanding.

If you live near salt marshes on the Eastern or Southern Shore of Nova Scotia consider looking for Salt Marsh Copper. The species flies from mid July to mid August, and it is typically abundant at sites where it occurs. If you are keen to survey multiple marshes contact John Klymko at jklymko@mta.ca so that your efforts can be maximized.

A New Hairstreak for PEI!

On July 20, 2008, Canadian butterfly expert Ross Layberry was waiting for his ride to a meeting on rare and endangered species. With him in a residential yard in Charlottetown, PEI, were other expert biologists from across Canada. As they waited, they noticed a small grey



Banded Hairstreak. Photograph by Jim Edsall.



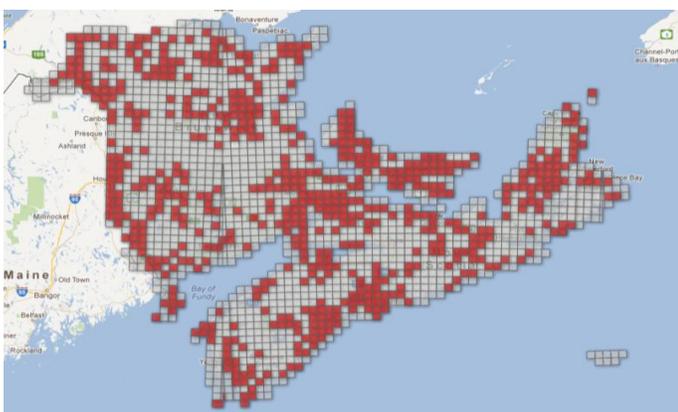
butterfly. Upon closer examination, they realized they were looking at a Banded Hairstreak, a species that had never been recorded on the Island! This past winter, Ross shared his large database of Maritimes butterfly records with the Atlantic Canada Conservation Data Centre, bringing our attention to this amazing record.

So all PEI atlassers should keep their eyes out for this rare species. There are still no photographic or specimen records for the species from PEI, so yours could be the first!

New Mapping Online

Along with the tabular data from 2010 and 2011 that has been recently posted online, you'll also find a new mapping program that allows you to view the results from the past two years spatially. The maps were created using Google Maps, and a whole lot of programming developed by Alan McNaughton of the Ontario Butterfly Atlas. With the new mapping tools you can see the squares that each species has been discovered in. You can also click on individual squares to get a list of all species recorded so far in the square, and a list of top five contributors for that square. Data for these maps are updated annually —right now the 2010 and 2011 data is displayed, 2012 data will be loaded next spring.

These maps are a great tool for planning your butterfly outings. All are encouraged to find their home square and see what species have been recorded. You might be surprised to see that some common species are still missing from the list!



Map showing all squares with at least one record. Check out all the atlas maps on the Atlas website.

Check out the mapping at

http://accdc.com/butterflyatlas/atlas_online_mba.html.

Launch of eButterfly

eButterfly, a nationwide butterfly records databasing project similar to eBird, was launched this spring. This online endeavour allows butterfly enthusiasts to record, map, track, and share their butterfly observations (photographs, specimens, or sightings), and to explore the records submitted by others. Check out eButterfly at <http://www.ebutterfly.ca>.

The Maritimes Butterfly Atlas (MBA) is collaborating with eButterfly. All photograph and specimen records from Maritimes submitted to eButterfly will contribute to the MBA database.

eButterfly's data entry portal has been designed to be compatible with the MBA, so if you have been submitting your data through the MBA's online data entry portal you'll hopefully find eButterfly easy to use. There are some definite perks to eButterfly's data entry portal. You can click on a Google Map to indicate your location, you can save locations you've visited previously, and you can upload your photos directly on the site.

All Maritimes records submitted to eButterfly are going to be confirmed by either Jim Edsall or John Klymko. Confirmations will be ongoing, so you'll get much more rapid feedback on the identifications of the photos you submit. The existing MBA data portal will remain operational, but you are encouraged to submit your records through the eButterfly portal. Please note that records submitted to eButterfly don't need to be submitted through the Atlas' data portal.

For records to be accepted by the MBA you must submit either a photograph or a specimen. This ensures the MBA's dataset is of the highest possible quality. Sight records submitted to eButterfly will not be incorporated into the MBA database.

Collecting Site Selection and Timing

The data from the first two years of the Atlas shows a bias toward species of open meadows and fields. Field species



like Clouded Sulphur, and Northern Crescent have been comparatively well sampled, while forest species like commas and bog species like Bog Copper are comparatively poorly sampled. The early fliers, in particular the elfins, are also undersampled. Certainly data on common field species is welcome, but documenting records for the harder to get species is encouraged.

To maximize the number of species you are encountering, it is necessary to visit a variety of habitats over the course of the year. In May and early June elfins can be encountered in a variety of habitats, including bogs and trails through wet coniferous and dry pine woods. Bogs are also just about the only place you will encounter Jutta Arctic and Bog Copper, the former flies from mid May until the end of June, the latter from mid June to early August. Woodland trails are a great place for the Maritimes' five comma species, as well as Mourning Cloak and, if you're lucky, Compton or Milbert's Tortoiseshell. The best time to find these woodland denizens is August and early September, though they are present throughout the season. Grass-lined woodland roads and trails are also where you will find Common Roadside and Pepper and Salt Skipper. Both these species fly from mid May into July; they are fairly common in NB, rare in NS, and unrecorded but quite possible in PEI. Salt marshes and

dunes are where to go for Short-tailed Swallowtail and Salt Marsh Copper. Short-tailed Swallowtail has yet to be recorded from mainland Nova Scotia or Prince Edward Island, but the species is possible anywhere along the coast on PEI and the North Shore of NS. It flies from late May to early July, then again in late summer. As detailed above, Salt Marsh Copper may be present well outside of its known range of the Gulf of the Saint Lawrence.

It's not too late to submit 2010 or 2011 data!

If you have data you collected in the past two years it is not too late to submit it! If you have questions about how to submit your data contact John Klymko at jklymko@mta.ca or (506) 364-2660.

Maritimes Butterfly Atlas Funders

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2010-2011 Atlas Participants - Thank You!

*= those who have submitted 50 or more records

Darrell Abolit	Sean Basquill	Marlene Bolger	James Clifford	Joan Czapaly
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Pascal Giasson	Sam MacDonald	Laura Pitts	Becky Stewart	
Don Gibson	Angus MacLean	Nelson Poirier	E. Stewart	
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Matt Hackett	Scott Makepeace	Sheila Pugsley	Anthony Thomas	
Sam Hackett	Ally Manthorne	Chantal Raillard	Cliff Thornley	
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James Hirtle*	Sonya Martin	Lewnanny Richarson	Rita Viau*	
Beth Hoar	Richard Mash*	John Robart	Ron Walsh	
Danielle Horn	Blake Maybank	Sue Robertson	Owen Washburn	
Margaret Jennings	David Mazerolle	Étienne Robichaud	Peggy Weatherson	
B. Johnstone	Donald McAlpine	Kimberly Robichaud-	Reginald Webster	
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Jeff Klein	Ken McKenna*	Sarah Robinson*	Angela Wilson	
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