



Canadian Food
Inspection Agency

Agence canadienne
d'inspection des aliments

Plant Protection Survey Report

2014–2015

Canada 

PREFACE

Plant protection surveys are required to maintain a claim of "pest-free" status for an area, to detect new populations of quarantine pests, and to delimit populations of quarantine pests with limited distributions in Canada. Pest surveys are also an integral part of control and eradication programs. Surveys provide information in support of all regulatory programs: import, export, and domestic. In all cases, reliable and accurate pest distribution data provides the basis for sound regulatory decisions.

The Plant Health Surveillance Unit is responsible for planning, coordinating, and administering the national survey program. The Survey Unit also plays a lead role in the design of new surveys and is responsible for the refinement of ongoing survey techniques and tools as new methodologies develop. Other areas of work include the development of information systems to collect, organize, and store survey data and mapping of regulated pest distributions.

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1. FOREST PEST SURVEYS

1.1 Asian longhorned beetle (*Anoplophora glabripennis*)

Background

The Asian longhorned beetle (ALHB) is an invasive insect that attacks and kills a wide variety of deciduous tree species. This beetle was detected for the first time in Canada in September, 2003. The infestation occurred in an area along the municipal border between the cities of Vaughan and Toronto, Ontario. An eradication program was launched November, 2003 by the CFIA in cooperation with municipal, regional and provincial agencies as well as Natural Resources Canada-Canadian Forest Service (NRCan-CFS). On February 15, 2013, after 5 years of negative survey data and in accordance with international phytosanitary standards, ALHB was declared eradicated, and the regulated area in Toronto-Vaughan was removed by repealing the ALHB Ministerial Order.

However, in August 2013, ALHB was detected outside of the eradicated area, in an industrial area near Pearson International Airport in Mississauga, Ontario. The CFIA established a regulated area in Mississauga and Toronto in December 2013, prohibiting the movement of a variety of articles (firewood, trees, nursery stock, logs, etc.) in an effort to prevent the spread of the beetle. Intensive detection and eradication efforts are underway in cooperation with municipal, regional and provincial agencies as well as NRCan-CFS.

In addition to the intensive detection work within the Mississauga-Toronto area, the CFIA conducts systematic grid surveys in a number of municipalities and rural areas across Canada. The primary goal of this survey is to ensure that there are no established populations of ALHB in target urban and rural centres.

Methodology

Currently, there is no attractant or lure available that could be used to detect adult populations of ALHB. The most reliable detection technique involves the visual inspection of host trees for signs and symptoms of the beetle.

A methodical grid-based survey was developed in collaboration with NRCan-CFS to support a systematic approach for targeting trees for inspection. Each city is surveyed using a triangular grid consisting of contiguous survey points. The objective is to detect an infestation with a radius of 750 m or larger in any of the target areas. This grid model was utilized to ensure a high probability of detecting an infestation the approximate size of the 2003 core infestation in Greater Toronto Area. Host material present at each site was inspected for signs of ALHB and citrus longhorned beetle (CLHB) infestation.

Results

The ALHB survey was conducted in 9 provinces for a total of 1346 sites (Table 1). No signs or symptoms of ALHB were observed during these surveys.

Table 1. Asian longhorned beetle detection grid survey results for 2014–2015.

Province	Municipality	Sites
Alberta	Edmonton, Lethbridge, and Red Deer.	70
British Columbia	Belcarra, Colwood, Delta, Esquimalt, Kelowna, Langford, Nanaimo, North Vancouver, Oak Bay, Port Coquitlam, Port Moody, Saanich, Summerland, Vernon, Victoria, View Royal, and Westbank.	337
Manitoba	Winnipeg, Brandon	60
New Brunswick	Cap-Pelé, Dieppe, Florenceville-Bristol, Hampton, Hartland, Minto, Nackawic, and Quispamsis.	73
Newfoundland and Labrador	St. John's and Corner Brook.	33
Nova Scotia	Amherst Shore, Bedford, Cheticamp, Fall River, Georges River, Kingston, North Sydney, Oxford, Sackville, Springhill, and Windsor.	100
Ontario	Hamilton, Barrie, Markham, Windsor.	345
Prince Edward Island	Murray River, Tignish, and Kensington.	24
Québec	4 of the amalgamated municipalities on the Island of Montreal, Longueuil, St-Jean-sur-Richelieu, Shawinigan, Drummondville, Brossard and Lévis.	284
Saskatchewan	Regina, Saskatoon.	20

N.B. Includes sites in the predetermined grid survey that were either not accessible or did not contain host trees (maples).

Maps showing surveyed sites for Asian longhorned beetle (ALHB):

- Survey map for *A. glabripennis*, Alberta
- Survey map for *A. glabripennis*, British Columbia
- Survey map for *A. glabripennis*, Manitoba
- Survey map for *A. glabripennis*, New Brunswick
- Survey map for *A. glabripennis*, Nova Scotia
- Survey map for *A. glabripennis*, Ontario
- Survey map for *A. glabripennis*, Prince Edward Island
- Survey map for *A. glabripennis*, Québec
- Survey map for *A. glabripennis*, Saskatchewan

1.2 Emerald ash borer (*Agrilus planipennis*)

Background

The emerald ash borer (EAB) was first detected in Canada in Windsor, Ontario in July 2002. Since the initial detection, this species has been found in numerous locations throughout Ontario and also in Québec. The primary goal of this survey is to detect populations of EAB and provide information in support of regulatory programs that aim to limit the human-assisted spread of EAB in Canada (CFIA policy directive D-03-08: “*Phytosanitary requirements to prevent the introduction into and spread within Canada of the emerald ash borer, Agrilus planipennis (Fairmaire)*”). Detection surveys are conducted to determine whether EAB is present in areas not known to be infested. Additional background information on the pest and regulatory updates can be found on the CFIA Forestry page at: www.inspection.gc.ca/english/plaveg/for/fore.shtml

Methodology

A number of strategies were employed for EAB detection in Canada, including scouting for broad-scale ash decline, visual inspection, and trapping using green prism traps baited with two synergistic lures: a green leaf volatile, (Z)-3-hexenol, and a pheromone, (3Z)-lactone. Target sites for this survey include areas showing broad-scale ash decline and high risk sites where the pest is most likely to have been introduced through human activities, such as campgrounds, firewood dealers, rest stops along major transportation corridors, urban areas recently planted with host material, sawmills, and holiday destinations. Traps were also deployed within select urban centres using a grid-based approach.

Results

The survey was conducted in all provinces for a total of 489 sites (Table 2). New detections were recorded in Québec, in Notre-Dame-du-Laus in regional county municipality (MRC) Antroine-Labelle.

Table 2. Emerald ash borer survey results for 2014–2015.

Province	Sites	Results
Alberta	49	No detections.
British Columbia	20	No detections.
Manitoba	40	No detections.
New Brunswick	37	No detections.
Newfoundland and Labrador	8	No detections.
Nova Scotia	40	No detections.
Ontario	65	No new detections.
Prince Edward Island	10	No detections.
Québec	200	One positive municipality : Notre-Dame-du-Laus in MRC Antoine-Labelle.
Saskatchewan	20	No detections.

N.B. Includes some survey sites delivered by external partners.

Maps showing surveyed sites for emerald ash borer (EAB):

- Survey map for *A. planipennis*, Alberta
- Survey map for *A. planipennis*, British Columbia
- Survey map for *A. planipennis*, Manitoba
- Survey map for *A. planipennis*, New Brunswick
- Survey map for *A. planipennis*, Newfoundland and Labrador
- Survey map for *A. planipennis*, Nova Scotia
- Survey map for *A. planipennis*, Ontario
- Survey map for *A. planipennis*, Prince Edward Island
- Survey map for *A. planipennis*, Québec
- Survey map for *A. planipennis*, Saskatchewan

1.3 Invasive alien forest insect surveys

Background

The invasive alien forest insect surveys (IAS) are pathway-based surveys designed to detect a broad range of wood borers and bark beetles. The surveys focus on urban areas where the risk of invasive alien insects moved with international wood packaging and dunnage is greatest. There are two components to these surveys. The first survey is a semiochemical trapping program, which targets a variety of wood borers such as those from the following taxa: Scolytinae, Siricidae, Buprestidae and Cerambycidae. The second survey consists of rearing insects collected from declining trees in urban environments. The rearing survey complements the trapping surveys for species or groups of insects that do not readily respond to commercially available semiochemicals, particularly insect borers of hardwoods.

The primary goal of these surveys is to detect new introductions of non-indigenous species not known to be present in Canada. These surveys complement policies directed at the prevention of invasive alien forest insects that may enter North America on commodities that use non-manufactured wood packaging and marine cargo supported by loose wood dunnage (CFIA policy directive D-98-08: “*Entry requirements for wood packaging material into Canada*”).

Methodology

IAS Trapping Survey

From 2002 to 2011, traps were baited with three types of lures: the Contech Inc exotic bark beetle lure (2-methyl-3-buten-2-ol, cis-verbenol, racemic ipsdienol); ultra high release ethanol and ultra high release alpha-pinene; or ultra high release ethanol by itself. Based on multiple years of field research by NRCan-CFS in Canada and overseas, the exotic bark beetle and ultra high release ethanol lures were replaced with C6 and C8 ketol lures in 2012. Although these chemicals are pheromones for longhorned beetles belonging to the Cerambycinae subfamily, they will also capture other wood boring insects. The rationale for implementing different lures is three-fold: non-indigenous longhorned beetles are frequently intercepted in international wood packaging material; these new chemicals were scientifically field tested in Europe and Asia demonstrating attraction to pests which could be introduced into Canada; and after ten years of using the same lures, similar insects were repeatedly captured in the IAS traps. Due to the high costs associated with synthesizing the ketols, the number of traps per site decreased from nine in previous years to six in 2012.

In 2014, 12 unit Lindgren traps were placed in forested areas within 5 km of high risk sites, including industrial zones receiving large volumes of international commodities, industrial and municipal disposal facilities/landfills, wood packaging disposal facilities, international ports and terminals and freight forwarding facilities. At each site three traps were baited with ultra-high release ethanol + ultra-high release alpha-pinene and three traps were baited with C6 ketol + C8 ketol + ultra-high release ethanol. Traps are placed beginning in March and collected at the end of September.

IAS Rearing Survey

The rearing survey consists of obtaining two log sections from a tree that is targeted for removal by a city’s hazard tree removal program. Trees are selected for sampling based on a pre-determined set of criteria based on signs of decline. Logs are placed in a custom designed rearing facility for up to two years under climate-controlled conditions. Emerging insects are regularly collected from the bolts. Rearing facilities are located in the cities of North Vancouver, Toronto, Halifax Regional Municipality and Montreal.

Results

The IAS trapping survey was conducted in 6 provinces for a total of 67 sites (Table 3).

As part of the IAS rearing survey, adult *Xyleborinus saxeseni* (Coleoptera: Scolytinae) emerged from logs collected from Coquitlam, British Columbia. This non-indigenous ambrosia beetle has been previously recorded from British Columbia, Ontario, Quebec, New Brunswick and Nova Scotia. *Scolytus rugulosus* (Coleoptera: Scolytinae) was reared from logs collected in North Vancouver, British Columbia. This is a European species introduced into the US in the 1870’s. Previously known from BC and also occurs in SK, ON, QC, NB, NS, PE.

In Alberta, the IAS trapping survey was conducted by StopDED, Alberta Sustainable Resource Development and various municipalities in collaboration with CFIA. No new invasive forest pest species were detected during this survey.

Table 3. Invasive Alien Forest Insects Trapping Survey results for 2014–2015.

Province	Sites	Results
British Columbia	14	No new detections of regulated pests. <i>Hylastes opacus</i> (Coleoptera: Scolytinae) was detected in Coquitlam and Pitt Meadows.
New Brunswick	5	No new detections of regulated pests.
Newfoundland and Labrador	3	No new detections of regulated pests.
Nova Scotia	10	No new detections of regulated pests. <i>Tetropium fuscum</i> (Coleoptera: Cerambycidae) was detected in Darmouth.
Ontario	20	No new detections of regulated pests. <i>Agrilus planipennis</i> (Coleoptera: Buprestidae) (Brampton, Port Colborne, Vaughan, Watford, Welland), <i>Arhopalus rusticus</i> (Coleoptera: Cerambycidae) (Watford), <i>Phymatodes testaceus</i> (Coleoptera: Cerambycidae) (Welland), <i>Tomicus piniperda</i> (Coleoptera: Scolytinae) (Brampton, Brantford, Elgin County, Markham, Mississauga, Newmarket, Vaughan, Watford), <i>Xylosandrus crassiusculus</i> (Coleoptera: Scolytinae) (Elgin County), <i>Popillia japonica</i> (Coleoptera: Scarabaeidae) (Markham) were detected.
Québec	15	No new detections of regulated pests. <i>Hylastes opacus</i> (Québec), <i>Tomicus piniperda</i> (Champlain, St. Pamphile, Windsor) and <i>Popillia japonica</i> (Brossard, Dorval, Montreal) were detected.

Maps showing surveyed sites for the invasive alien forest trapping survey:

- Survey map for the invasive alien forest insects, British Columbia
- Survey map for the invasive alien forest insects, New Brunswick
- Survey map for the invasive alien forest insects, Newfoundland and Labrador
- Survey map for the invasive alien forest insects, Nova Scotia
- Survey map for the invasive alien forest insects, Ontario
- Survey map for the invasive alien forest insects, Québec

For additional information concerning the rearing survey, contact the Plant Health Surveillance Unit (surveillance@inspection.gc.ca).

1.4 Asian gypsy moth (*Lymantria dispar asiatica* or *Lymantria dispar japonica*)

Background

Asian gypsy moth (AGM) has been introduced into North America on several occasions, but eradication programs have prevented populations from establishing. This survey is being conducted in support of CFIA policy directive D-95-03: “*Plant protection policy for marine vessels arriving in Canada from areas regulated for Asian gypsy moth (*Lymantria dispar*, *Lymantria albescens*, *Lymantria postalba*, *Lymantria umbrosa*)*”. Asian gypsy moth is defined for regulatory purposes as those gypsy moth subspecies of *Lymantria dispar* in which the females are capable of sustained directed flight, whereas European gypsy moth includes females not capable of flight.

Methodology

The AGM trapping survey targets high risk sites of potential introduction linked to vessel and container pathways, e.g. international ports/terminals, container storage yards, intermodal terminals, industrial zones and international auto terminals. Trapping is performed using sticky Delta traps baited with + disparlure pheromone. In addition to specific AGM trapping, all moths captured in provinces with no gypsy moth regulated areas (BC, AB, SK, MB, NL) in the European Gypsy Moth Survey (see section 1.5) are subjected to DNA analysis to determine whether they should be considered Asian gypsy moth or European gypsy moth (i.e. biotype). A subset of moths collected from the European Gypsy Moth Survey in provinces that are partially regulated for gypsy moth (ON, QC, NB, PE, and NS) were tested using molecular analysis to determine biotype.

Results

The AGM specific survey was conducted in 5 provinces for a total of 114 sites (Table 4).

Table 4. Asian gypsy moth survey results for 2014–2015.

Province	Sites	Results
Alberta	1	No detections.
British Columbia	85	No detections.
New Brunswick	5	No detections (Port of Belledune).
Nova Scotia	18	No detections (Chedabucto Bay).
Saskatchewan	5	No detections.

Maps showing surveyed sites for Asian gypsy moth:

- Survey map for *L. dispar asiatica* or *japonica*, Alberta
- Survey map for *L. dispar asiatica* or *japonica*, British Columbia
- Survey map for *L. dispar asiatica* or *japonica*, New Brunswick
- Survey map for *L. dispar asiatica* or *japonica*, Nova Scotia
- Survey map for *L. dispar asiatica* or *japonica*, Saskatchewan

1.5 European gypsy moth (*Lymantria dispar dispar*)

Background

The European gypsy moth is established in southern areas of Ontario and Québec, southwestern areas of New Brunswick and Nova Scotia, and in Charlottetown and Summerside, Prince Edward Island. Pheromone-based monitoring surveys are conducted annually in non-regulated areas of Canada. Surveys are also conducted to verify eradication of the insect in areas where eradication programs have been undertaken. This survey provides information in support of a number of regulatory programs and policies (e.g. CFIA policy directive D-98-09:

“Comprehensive policy to control the spread of North American gypsy moth, Lymantria dispar in Canada and the United States”.

Methodology

Trapping was performed using Delta traps baited with (+)-disparlure pheromone. Two systems of trapping can be used depending on the status of the area to survey. Detection trapping is used to determine if European gypsy moth is present in an area currently considered free from the pest, and delimitation trapping is used to determine the extent of a population once a detection has been confirmed. The two systems use different trapping densities. Trapping is focussed on areas where risk of introduction is greatest, e.g., urban and suburban areas, tourist destinations, campsites, provincial parks and some transportation corridors.

Results

The survey was conducted in all provinces for a total of 7600 sites (Table 5).

Table 5. European gypsy moth survey results for 2014–2015.

Province	Sites	Results
Alberta	563	One moth was detected southeast of Fort McMurray.
British Columbia	4491	A total of 224 moths were collected at 59 positive sites. Detections were made in Colwood, Saanich, Coombs, Comox-Strathcona, Trail, Maple Ridge, Cloverdale, Langley, Delta and in Surrey, where there were 39 positive sites.
Manitoba	728	Detections were made in Lac du Bonnet (10 moths) and Winnipeg (1 moth).
New Brunswick	191	A total of 40 moths were collected in 27 positive traps.
Newfoundland & Labrador	255	A total of 22 moths were collected in 8 positive traps, all located in St. John's. One spent egg mass (laid in 2013 or earlier) was detected in June at the same location of the 2013 egg mass detection.
Nova Scotia	172	A total of 222 moths were collected in 56 positive traps. Detections were made in the Antigonish area, Guysborough County, in the Highlands National Park, and in Sydney where 175 moths were collected in 27 traps. The Nova Scotia Department of Natural Resources had a total of 97 sites with 18 moths collected at 15 sites.
Ontario	200	Detections were made in Thunder Bay at 3 positive sites, each with one moth.
Prince Edward Island	307	A total of 2275 moths were collected at 240 positive sites.
Québec	200	A total of 69 moths were collected at 37 positive sites. Detections were made in 3 MRCs: Kamouraska, Rivière du Loup and Témiscouata. One spent egg mass (laid in 2013 or earlier) was detected in Saint-Pascal (MRC Kamouraska).
Saskatchewan	493	No detections.

Maps showing surveyed sites for *L. dispar dispar*:

- Survey map for *L. dispar dispar*, Alberta
- Survey map for *L. dispar dispar*, British Columbia
- Survey map for *L. dispar dispar*, Manitoba
- Survey map for *L. dispar dispar*, New Brunswick
- Survey map for *L. dispar dispar*, Newfoundland and Labrador
- Survey map for *L. dispar dispar*, Nova Scotia
- Survey map for *L. dispar dispar*, Ontario
- Survey map for *L. dispar dispar*, Prince Edward Island
- Survey map for *L. dispar dispar*, Québec
- Survey map for *L. dispar dispar*, Saskatchewan

1.6 Pink gypsy moth (*Lymantria mathura*)

Background

Pink gypsy moth is considered a potential threat to North American forests. In 2008, pink gypsy moth egg masses were intercepted on vessels entering North America on several occasions. The primary goal of this survey is the early detection of this quarantine pest throughout Canada. This survey supports regulatory programs, including CFIA policy directives D-98-08 (“*Entry requirements for wood packaging material into Canada*”), D-01-12 (“*Phytosanitary requirements for the importation and domestic movement of firewood*”), and D-02-12 (“*Import requirements for non-processed wood and other non-propagative wood products, except solid wood packaging material, from all areas other than the continental United States*”).

Methodology

This survey targets the vessel and container pathway and is designed for early detection of pink gypsy moth should populations reach Canadian shores under the current increased population pressures. Trapping is performed using sticky Delta traps baited with pink gypsy moth pheromone (mathuralure).

Results

The survey was conducted in British Columbia at 43 sites (Table 6).

Table 6. Pink gypsy moth survey results for 2014–2015.

Province	Sites	Results
British Columbia	43	No detections.

Maps showing surveyed sites for pink gypsy moth:

- Survey map for *L. mathura*, British Columbia

1.7 Brown spruce longhorn beetle (*Tetropium fuscum*)

Background

The brown spruce longhorn beetle (BSLB), *Tetropium fuscum* (Fabricius), an introduced wood boring pest, is native to north and central Europe and Japan, where it uses stressed and dying conifers as hosts, most notably Norway spruce (*Picea abies*). In 1999, the beetle was detected in Point Pleasant Park, Halifax, Nova Scotia, and subsequent investigations confirmed that beetles collected in the park as early as 1990 were, in fact, *Tetropium fuscum*. Based on pest risk assessment, BSLB is considered to be a pest of quarantine significance in Canada and is regulated under the Plant Protection Act by the CFIA. This survey targets areas where BSLB is not known to occur in support of the *Brown Spruce Longhorn Beetle Infested Places Order* and related policies and programs.

Methodology

Panel traps baited with host volatiles and a pheromone are used for this survey. All traps were baited with a combination of two ultra-high-release host-volatile lures and a BSLB pheromone lure “fuscumol” developed by NRCan-CFS. Trapping was conducted at two types of sites:

priority sites such as sawmills, pulpmills, campgrounds and ports with three traps per site and general forested areas with one trap per site.

Detection Surveys

In 2014, the detection survey for BSLB included extensive trapping in Eastern Canada. The CFIA carried out this survey to determine the extent of the beetle's distribution within Nova Scotia and confirm that it had not spread to other provinces. In Nova Scotia, staff with the Nova Scotia Department of Natural Resources (NSDNR) and NRCan-CFS assisted CFIA with the trapping effort that occurred primarily at priority and general forested sites located outside the BSLB regulated area.

Follow-up Trapping Survey – Kouchibouguac National Park, NB

In 2011, a single BSLB was detected at Kouchibouguac National Park, New Brunswick. This was the first detection outside of Nova Scotia. Surveys in 2012 and 2013 did not detect any BSLB. In 2014 CFIA, with strong cooperation from Parks Canada and NRCan-CFS, continued extensive trapping within the park in order to determine if there was an infestation present. Intensive trapping sites were set in Côte-à-Fabien Campground and at the positive site Salt Marsh Trail. Trap spacing was increased to avoid possible impacts from trap competition. Four intensive trapping sites were also set in the South Kouchibouguac Campground. Three of the sites had 5-trap grids and one had 8. Additionally, 16 other sites within the park were targeted with either one or two traps/site.

Survey Results

The survey results are summarized in Table 7. There were 5 new positive locations in Nova Scotia outside of the regulated area in the counties of Colchester (2), Pictou (1), and Guysborough (2). In New Brunswick there were 2 new positive locations. A site within the South Kouchibouguac Campground located about 2 km from the 2011 was positive with 1 beetle. Additionally there was 1 beetle collected at a site in Memramcook, Westmorland County. There are now a total of 109 sites where BSLB has been detected outside the BSLB regulated area.

As follow-up to the two New Brunswick finds, visual surveys were completed in the fall of 2014. The areas surveyed included spruce forests within 300 m of the positive traps. There were 9 trees targeted for sampling at South Kouchibouguac Campground. Wood bolts had been obtained from these trees and placed in cages for rearing. Results from the rearing are negative for BSLB.

Table 7. 2014 BSLB survey summary.

Province	Total Sites	Number of BSLB Positive Sites	Number of Beetles Caught
New Brunswick	225	2	2
Newfoundland and Labrador	20	0	0
Nova Scotia	295	16	59
Prince Edward Island	37	0	0
Québec	30	0	0
Totals	607	18	61

Maps showing surveyed sites for brown spruce longhorn beetle:

- Survey map for *T. fuscum*, Eastern Canada
- Survey map for *T. fuscum*, Eastern Canada, 2006–2014

1.8 Hemlock woolly adelgid (*Adelges tsugae*)

Background

Hemlock woolly adelgid (HWA) is a destructive pest of susceptible species of hemlock (*Tsuga* spp.) that is native to India, Japan, Taiwan, and China. HWA was first reported in North America in British Columbia in 1919, and can now be found in Alaska, Washington, Oregon, and California, resulting in minor damage to both western hemlock (*T. heterophylla*) and mountain hemlock (*T. mertensiana*). HWA was first identified in the eastern United States in Virginia in 1951. Since this time it has steadily spread and is now reported from 20 eastern states. In the eastern U.S., HWA has resulted in significant mortality of both eastern hemlock, (*T. canadensis*) and Carolina hemlock, (*T. caroliniana*). HWA threatens the existence of these two species in many locations.

In 2012, HWA was detected on four small landscape trees at a private residence in Etobicoke, ON. In 2013, HWA was detected on a single tree in a natural area in Niagara Falls, ON.

Following each detection, delimitation surveys were conducted to determine the extent of the population and all infested trees were destroyed. Follow-up surveys are ongoing at both sites to verify eradication efforts and inform policy decisions.

Surveys for HWA are conducted in support of CFIA Policy Directive D-07-05: “*Phytosanitary requirements to prevent the introduction and spread of the hemlock woolly adelgid (*Adelges tsugae* Annand) from the United States and within Canada*”.

Methodology

This survey was conducted between November and June to visually assess hemlock trees for signs and symptoms of attack. Given that HWA is most likely to spread through natural dispersal (wind, water, birds and small mammals) and through infested nursery stock, target sites included nurseries, urban parks and greenspaces, and hemlock forest stands within 100 km of the U.S. border.

Results

This survey was conducted at 127 sites in 4 provinces (Table 9). Hemlock woolly adelgid was detected in Niagara Falls and Etobicoke.

Table 9. Hemlock woolly adelgid survey results for 2014–2015.

Province	Sites	Results
New Brunswick	25	No detections.
Nova Scotia	24	No detections.
Ontario	48	Detections in Niagara Falls and Etobicoke.
Québec	30	No detections.

Maps showing surveyed sites for *A. tsugae*:

- Survey map for *A. tsugae*, New Brunswick
- Survey map for *A. tsugae*, Nova Scotia
- Survey map for *A. tsugae*, Ontario
- Survey map for *A. tsugae*, Québec

1.9 Beech leaf-mining weevil (*Orchestes fagi*)

Background

The beech leaf-mining weevil (BLW, *Orchestes fagi* L.) is primarily a pest of beech (*Fagus* spp.) that can also feed on fruit trees such as apple, peach, and cherry (*Malus* and *Prunus* spp.). BLW is native to Europe where its distribution is widespread and population levels are usually below economic thresholds. However, periodic outbreaks of the pest do occur and can result in defoliation of beech trees and damage to tree fruits by newly emerged adults.

The primary goal of this survey is to determine the distribution of BLW in Canada to help inform the CFIA on regulatory decisions regarding the pest.

Methodology

Adults, larvae and signs of BLW attack were all targeted in this survey. Visual surveys were used to detect signs and symptoms of a BLW infestation, whereas branch beating was used to detect adult beetle specimens. Areas that contained at least 6 beech trees in forest stands, urban parks, and municipal street locations were selected as survey sites. Surveys were conducted from May to the end of July.

Results

This survey was conducted at 61 sites in the three Maritime Provinces. Previous survey activities found BLW to be established in the vicinities of Halifax, Chester Grant, Wolfville, and

Sydney, Nova Scotia. It is believed that BLW has been present in the Halifax area since at least 2006, based on observations of beech tree defoliation and related mortality.

Table 10. Beech leaf-mining weevil survey results for 2014–2015.

Province	Sites	Results
New Brunswick	23	No detections.
Nova Scotia	26	Three detections in Cape Breton County (Georges River, Eskasoni, and Boisdale).
Prince Edward Island	12	No detections.

Maps showing surveyed sites for *O. fagi*:

- Survey map for *O. fagi*

2. INVASIVE PLANTS SURVEYS

2.1 Woolly cupgrass (*Eriochloa villosa*)

Background

Woolly cupgrass is an invasive plant that competes with field crops, such as corn and soybeans. It has become well established in the mid-western United States, where it is an economic concern to corn and soybean farmers due to the reduction in crop yields. Woolly cupgrass was first discovered in Canada in 2000 in an experimental test plot close to St-Hyacinthe, Québec. Since then, its occurrence has been reported in 14 municipalities of Québec (St-Hyacinthe, St-Césaire, Bedford, Standbridge Station, St-Denis-sur-Richelieu, Notre-Dame-de-Stanbridge, Pike River, St-Armand, St-Sébastien, Ste-Élisabeth, Maskinongé, Ste-Ursule, St-Justin and Henryville).

This survey was conducted to detect and delimit populations of woolly cupgrass in Canada.

Methodology

Delimitation surveys were conducted at sites woolly cupgrass had been confirmed in neighboring fields and ditches, as well as in fields that are cultivated using farm equipment that has also been used in contaminated fields. Detection surveys were also conducted based on targeting of priority crops. These crops included corn and soybean, followed by millet and sorghum. Fields that employed agricultural contractors (e.g. custom combine) from the United States (U.S.) as well as fields close to the U.S. border were also targeted. Visual inspection was carried out along field edges / perimeter, field gateways, farm lanes leading to the field and ditches running parallel to the field.

Results

This survey was conducted in nine provinces for a total of 695 sites (Table 11). Detections were made in one field each in two municipalities, Saint-Alexandre (MRC Le Haut-Richelieu) and St-Alexis (MRC Montcalm).

Table 11. Woolly cupgrass survey results for 2014–2015.

Province	Sites	Results
Alberta	36	No detections.
British Columbia	19	No detections.
Manitoba	41	No detections.
New Brunswick	15	No detections.
Nova Scotia	20	No detections.
Ontario	61	No detections.
Prince Edward Island	5	No detections.
Québec	459	Detections were made in one field in St-Alexandre and one field in St-Alexis.
Saskatchewan	39	No detections.

Maps showing surveyed sites for *E. villosa*:

- Survey map for *E. villosa*, Alberta
- Survey map for *E. villosa*, British Columbia
- Survey map for *E. villosa*, Manitoba
- Survey map for *E. villosa*, New Brunswick
- Survey map for *E. villosa*, Nova Scotia
- Survey map for *E. villosa*, Ontario
- Survey map for *E. villosa*, Prince Edward Island
- Survey map for *E. villosa*, Québec
- Survey map for *E. villosa*, Saskatchewan

2.2 Invasive plant survey – Seed and grain handling facilities

Background

The Invasive Alien Species program within the CFIA has increased efforts to regulate many plants as pests in the same way that insects and diseases are regulated. A number of plant species have been added to the *List of Pests Regulated by Canada* under the Plant Protection Act. The Invasive Plants Program is described under Directive D-12-01, “*Phytosanitary requirements to prevent the introduction of plants regulated as pests in Canada*”, which also lists prohibited plant species under Appendix 1. One of the major pathways of introduction of these invasive plants into Canada is through unintentionally contaminated lots of imported seed and grain.

The main objectives of this survey are to detect new populations of the target plant species and to provide information in support of the development and implementation of the invasive plants program.

Methodology

Visual surveys were conducted in both early (June) and late summer (August to early September) to maximize the periods when plant inflorescences were present, allowing for more successful detection of the targeted plant species. Jointed goatgrass (*Aegilops cylindrica*) was targeted in early summer. In late summer, the targeted species were slender foxtail (*Alopecurus myosuroides*), Iberian starthistle (*Centaurea iberica*), yellow starthistle (*Centaurea solstitialis*), common crupina (*Crupina vulgaris*), woolly cupgrass (*Eriochloa villosa*), serrated tussock (*Nassella trichotoma*), Dallis grass (*Paspalum dilatatum*), and silverleaf nightshade (*Solanum eleagnifolium*).

Target sites for this survey included facilities storing, handling or processing imported seed and grain (e.g. elevators, flour mills, oil crushers, seed cleaners, feed mills including bird seed, etc.), as well as the ditches and waste areas adjacent to those sites. Surveys at target sites included visual inspection of areas where auger or conveyer belt dust and debris have settled, in loading and unloading areas, and in composting/disposal areas, as well as along driveways and railway tracks, where applicable.

Results

The survey was conducted at 130 sites in 9 provinces (Table 13).

Table 13. Invasive plant survey results for 2014–2015.

Province	Sites	Results
Alberta	15	No detections.
British Columbia	11	No detections.
Manitoba	15	No detections.
New Brunswick	7	No detections.
Nova Scotia	4	No detections.
Ontario	26	No detections.
Prince Edward Island	2	No detections.
Québec	25	No detections.
Saskatchewan	25	No detections.

3. HORTICULTURE PEST SURVEYS

3.1 Ramorum blight (*Phytophthora ramorum*) - National detection survey

Background

Since 2003, ramorum blight has been detected in a number of retail/wholesale nurseries in the southern coastal area of British Columbia. The primary goal of this survey is to provide information on the national status of ramorum blight in Canadian nurseries. More specifically, monitoring of ramorum blight is required to support eradication programs and detect new populations.

Methodology

The national survey targeted propagation nurseries in British Columbia, Ontario, Québec, and Nova Scotia. In addition to those selected for the national survey, facilities where ramorum blight was previously found were monitored according to post-eradication protocols PI-010 (“*Eradication protocol for propagation nurseries confirmed with Phytophthora ramorum*”) and PI-011 (“*Eradication protocol for retail nurseries confirmed with Phytophthora ramorum*”).

The national ramorum blight survey was conducted from May to November (depending on survey location), with the majority of the inspection conducted during the spring months. The survey covered 30% to 100% of the production and wholesale nurseries in each province depending on the size of the industry. This survey focused primarily on symptomatic high-risk hosts from the genera: *Rhododendron* (includes azalea), *Camellia*, *Pieris*, *Kalmia*, and *Viburnum*. Where there were few or no plants of these five genera present at the facility, host species listed in Appendix 1 of CFIA Policy Directive D-01-01: “*Phytosanitary requirements to prevent the entry and spread of Phytophthora ramorum*” were inspected.

Results

The ramorum blight survey was conducted in 4 provinces for a total of 181 sites (Table 14).

Table 14. Ramorum blight survey results for 2014–2015.

Province	Sites	Samples	Results
British Columbia	136	2101	9 positive sites.
Nova Scotia	1	1	No detection.
Ontario	41	116	No detections.
Québec	3	12	No detections.

Maps showing surveyed sites for ramorum blight:

- Survey map for *P. ramorum*, British Columbia
- Survey map for *P. ramorum*, Nova Scotia
- Survey map for *P. ramorum*, Ontario
- Survey map for *P. ramorum*, Québec

3.2 Oriental fruit moth (*Grapholita molesta*)

Background

The oriental fruit moth is native to China and Korea. It was first detected in Ontario in 1925. It was intercepted and eradicated in 1957 in British Columbia and annual surveys since that time have been negative for this pest. The oriental fruit moth likely spreads to other countries in cocoons on dormant trees or in infested fruit. The principle host is *Prunus* spp.

Methodology

Surveys were conducted in orchards, hobby farms, ornamental nurseries and wholesale fruit handlers where target hosts were present (*Prunus persica*, *P. amygdalus*, *P. armeniaca*, *P. avium*, *P. domestica*, other *Prunus* spp., *Malus* spp., and *Cydonia oblonga*). Adult oriental fruit moths were surveyed using pheromone-baited Delta traps (Pherocon controlled-release septa). Traps were placed on target hosts by June 15th and were removed by September 20th, or the first frost, whichever date was earliest. Target hosts were also visually inspected for visible signs of damage and for presence of larval specimens.

Results

This survey was conducted at 125 sites in British Columbia. There were no detections.

Map showing surveyed sites for *Grapholita molesta*

- Survey map for *G. molesta*, British Columbia

3.3 Japanese beetle (*Popillia japonica*)

Background

The Japanese beetle has been present in Canada since 1939. This species of beetle affects more than 300 plant species, including many economically important commodity plants such as fruit trees, ornamental shrubs and roses, field crops, turf grasses, and sod. This survey was conducted to monitor changes in the distribution of Japanese beetles for regulatory purposes (CFIA Policy Directive D-96-15: “*Phytosanitary requirements to prevent the spread of Japanese beetle, Popillia japonica, in Canada and the United States*”). The main goal of this survey was pest detection in non-infested areas.

Methodology

Surveys for Japanese beetle were conducted in high risk areas such as nurseries, sod farms, golf courses, cemeteries, public parks and gardens, food terminals, truck and rail compounds/terminals, airports and border points. Emphasis was placed on sites which import soil or sod from areas known to be infested with Japanese beetle. Japanese beetle adults were

surveyed in grassy areas using a specialized funnel trap, baited with a pheromone and an aromatic floral lure. Traps were placed in the field from mid-June to mid-September.

Results

This survey was conducted at 447 sites in British Columbia and Newfoundland & Labrador (Table 15).

Table 15. Japanese beetle survey results for 2014–2015.

Province	Sites	Results
British Columbia	367	No detections.
Newfoundland & Labrador	80	Two detections of 1 beetle each were made in St. John's and Portugal Cove.

Maps showing surveyed sites for *Popillia japonica*:

- Survey map for *P. japonica*, British Columbia
- Survey map for *P. japonica*, Newfoundland & Labrador

3.4 Blueberry maggot (*Rhagoletis mendax*)

Background

Blueberry maggot is an indigenous pest of commercially grown lowbush and highbush blueberries in the Canadian Maritime Provinces. It is not found in Newfoundland and Labrador or in western Canada. This survey is being conducted in support of policies and programs related to CFIA Policy Directive D-02-04: “*Phytosanitary requirements for the importation from the continental United States and for domestic movement of commodities regulated for blueberry maggot*”.

Methodology

Trapping surveys were conducted in areas not regulated for blueberry maggot within blueberry plantations and wild sites containing host species. Pherocon AM traps, baited with ammonium acetate, were suspended in an inverted “V” shape and placed at 10 to 15 cm above lowbush plants within wild blueberry sites or at mid-canopy height within highbush blueberry plantations. Traps were in place prior to the flight period in late-June and were collected at the end of harvest (commercial plantations) or fruit drop (wild sites) in late August or early September.

Results

This survey was conducted at 108 sites in 4 provinces within Canada (Table 16). Blueberry maggot was detected at 2 new sites within Ontario.

Table 16. Blueberry maggot survey results for 2014–2015.

Province	Sites	Results
British Columbia	27	No detections.
Newfoundland & Labrador	22	No detections.
Ontario	38	Two new detections were made in the Niagara Region, prior to the expansion of the regulated area.
Québec	21	No detections.

Maps showing surveyed sites for *Rhagoletis mendax*:

- Survey map for *R. mendax*, British Columbia
- Survey map for *R. mendax*, Newfoundland & Labrador
- Survey map for *R. mendax*, Ontario
- Survey map for *R. mendax*, Québec

3.5 Apple maggot (*Rhagoletis pomonella*)

Background

Apple maggot is an indigenous pest of apples in Canada. The B.C. Interior is the last major apple growing area of North America free of this pest. The objective of this survey is the early detection of apple maggot in the B.C. Interior and to facilitate eradication should this pest be found. This survey is being conducted in support of policies and programs related to CFIA Policy Directive D-00-07: “*Import and domestic phytosanitary requirements to prevent the introduction and spread of apple maggot (*Rhagoletis pomonella* spp. (Walsh))*”.

Methodology

Host trees in organic orchards and on landowner property, as well as wild host trees along transportation routes, were primarily targeted for surveying since they do not receive insecticidal sprays. Trapping for adult flies was conducted with sticky red spheres baited with 10 g of ammonium carbonate crystals (an apple maggot attractant). Traps were placed in host trees from June 15th to October 3rd.

Results

Traps for apple maggot were placed at 436 sites in the Okanagan and Creston Valleys and other areas of the southern interior of B.C. No apple maggot specimens were captured in 2014–2015.

Map showing surveyed sites for *Rhagoletis pomonella*:

- Survey map for *R. pomonella*, British Columbia

3.6 Tobacco blue mold (*Peronspora hyoscyami* f.sp. *tabacina*)

Background

Tobacco blue mold (TBM) is a serious disease of solanaceous plants including tobacco, peppers, tomato and eggplant. TBM is only reported from Eastern Canada, although there was one report of the disease in Washington State in the 1950's. This pathogen is not known to overwinter in Canada but may be blown in as spores from the South Eastern US.

Methodology

This survey was conducted in cooperation with Agriculture and Agri-Food Canada (AAFC). Visual surveys were conducted on indicator plants (TBM-sensitive tobacco, *Nicotiana tabacum*) at three sites in southwestern BC.

Results

There were no detections of TBM in 2014–2015.

3.7 Plum pox virus

In Ontario, samples from PPV-susceptible species were collected along the south and west edge of the plum pox quarantine area to determine if PPV is spreading. In 2014–2015, no PPV detections were identified.

4 POTATO PEST SURVEYS

4.1 Potato cyst nematode (*Globodera rostochiensis*, *G. pallida*)

Soil sampling is conducted each year across Canada to monitor this pest. For information on this pest visit the CFIA golden nematode page at the link below:

www.inspection.gc.ca/english/plaveg/pestrava/gloros/glorose.shtml

APPENDIX 1 – SURVEY MAPS

Asian longhorned beetle | *Anoplophora glabripennis* | Longicorne asiatique

Alberta | 2014–2015



Edmonton

Red Deer

ALBERTA

SASKATCHEWAN

Calgary

BRITISH COLUMBIA

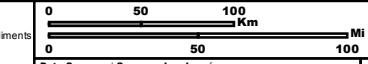
Lethbridge

Canada



Negative Site | Site négatif

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WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

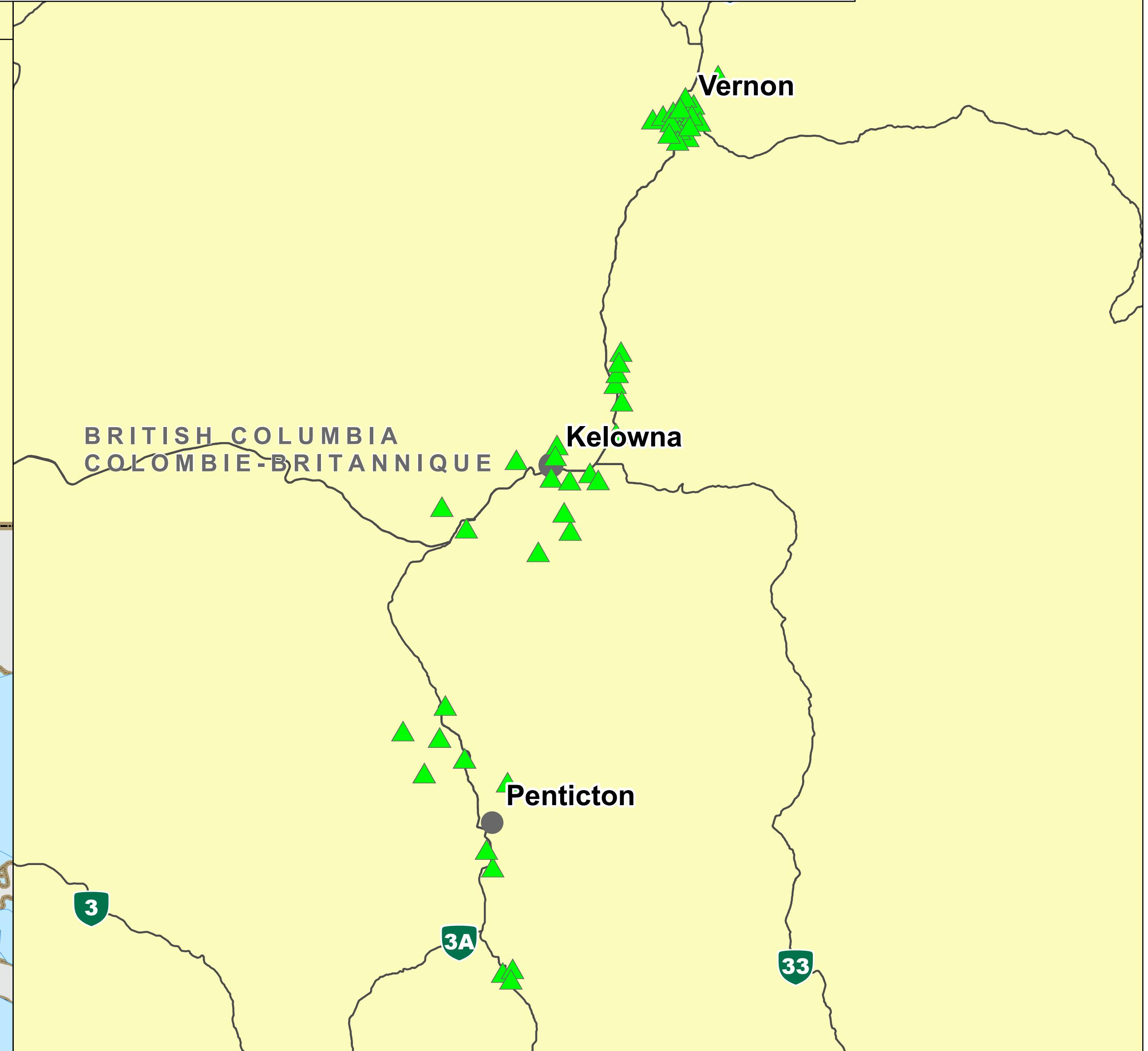


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2015 | 10 | 16

Asian longhorned beetle | *Anoplophora glabripennis* | Longicorne asiatique

British Columbia | 2014–2015 | Colombie-Britannique



 Negative Site | Site négatif

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Plant Health Surveillance Unit, Ottawa, Ontario.
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Préparée par l'Agence canadienne d'inspection des aliments,
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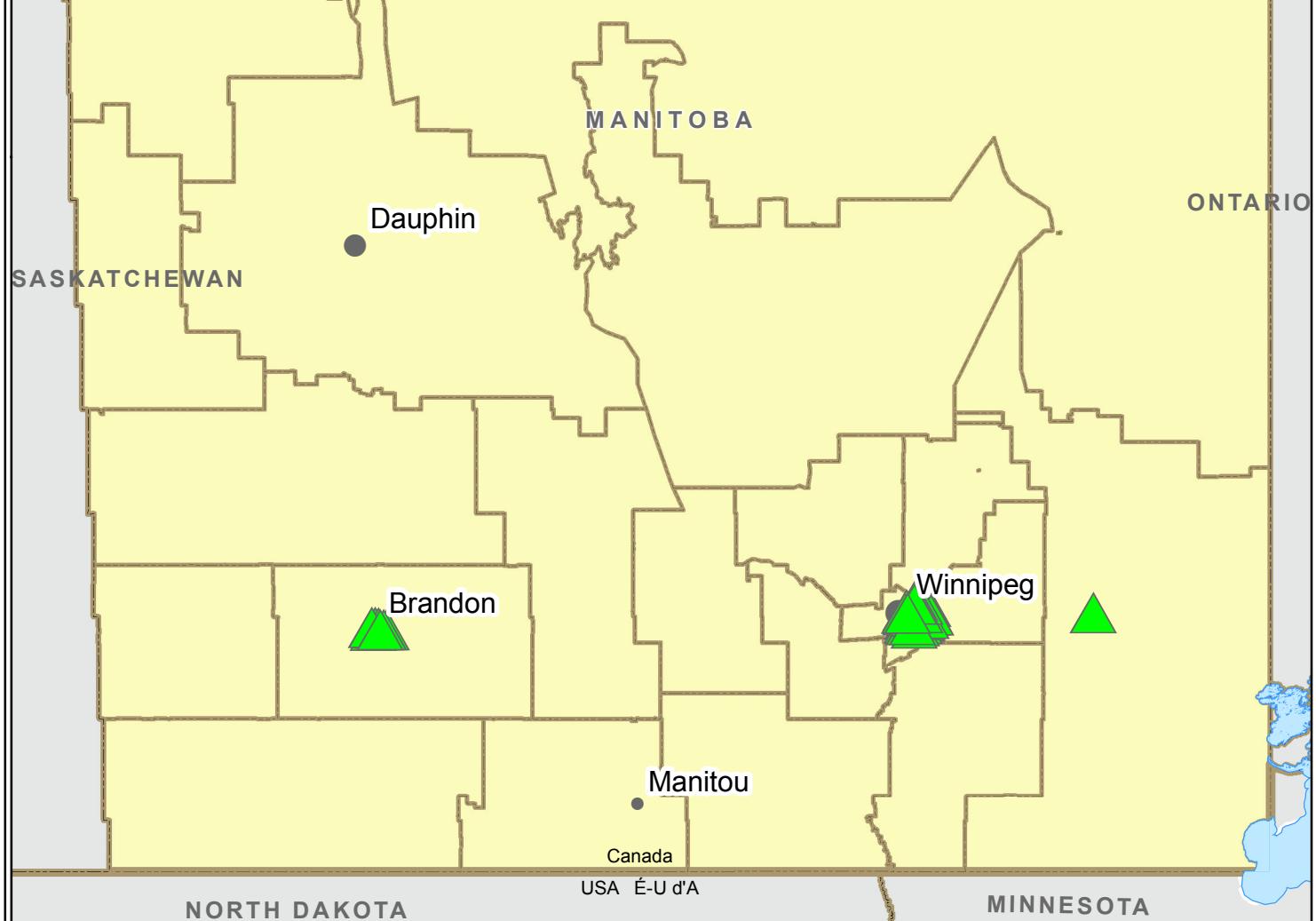
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Asian longhorned beetle | *Anoplophora glabripennis* | Longicorne asiatique

Manitoba | 2014–2015



▲ Negative Site | Site négatif

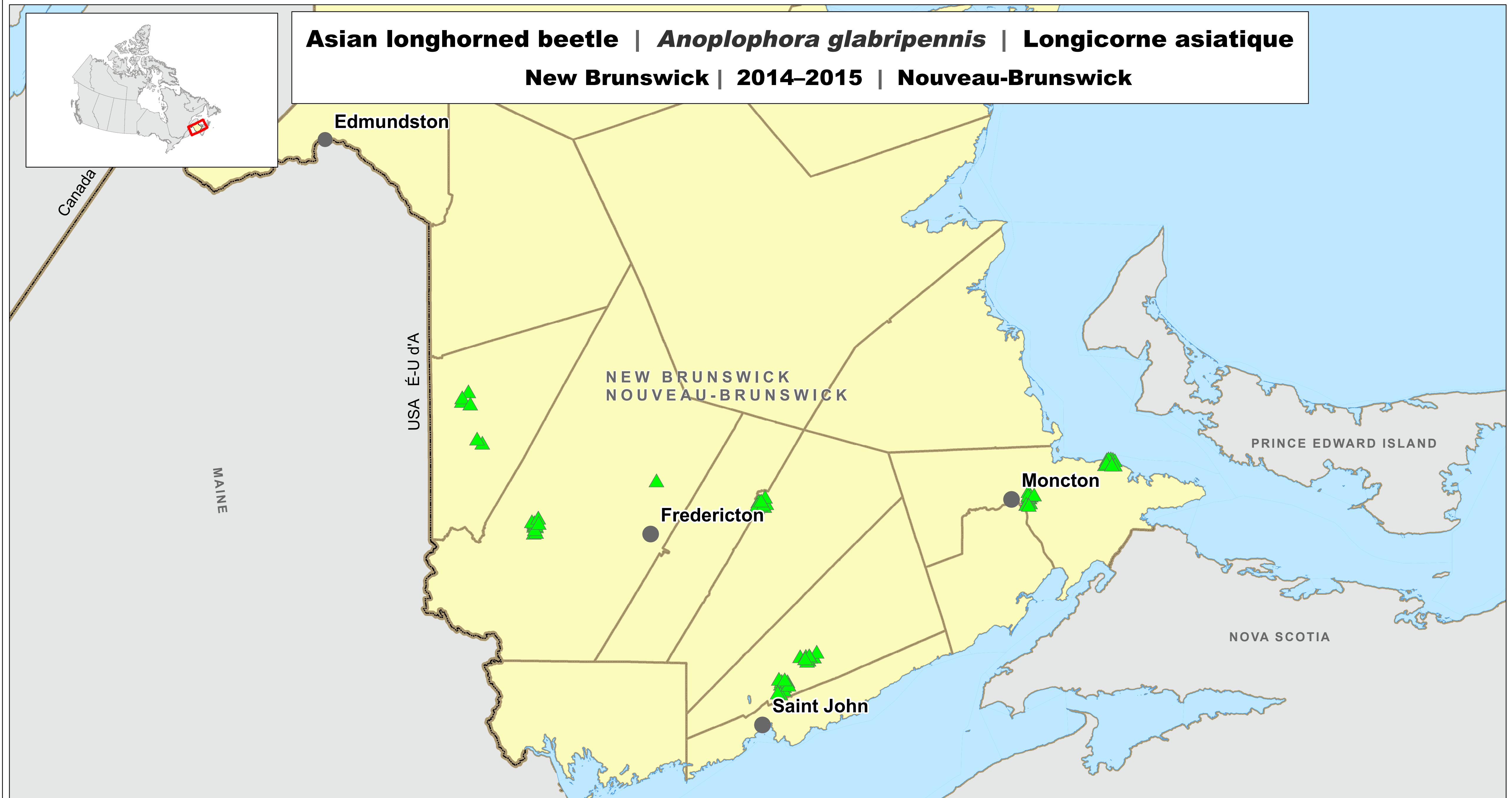
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Asian longhorned beetle | *Anoplophora glabripennis* | Longicorne asiatique

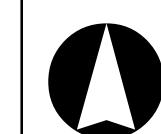
New Brunswick | 2014–2015 | Nouveau-Brunswick



 Negative Site | Site négatif

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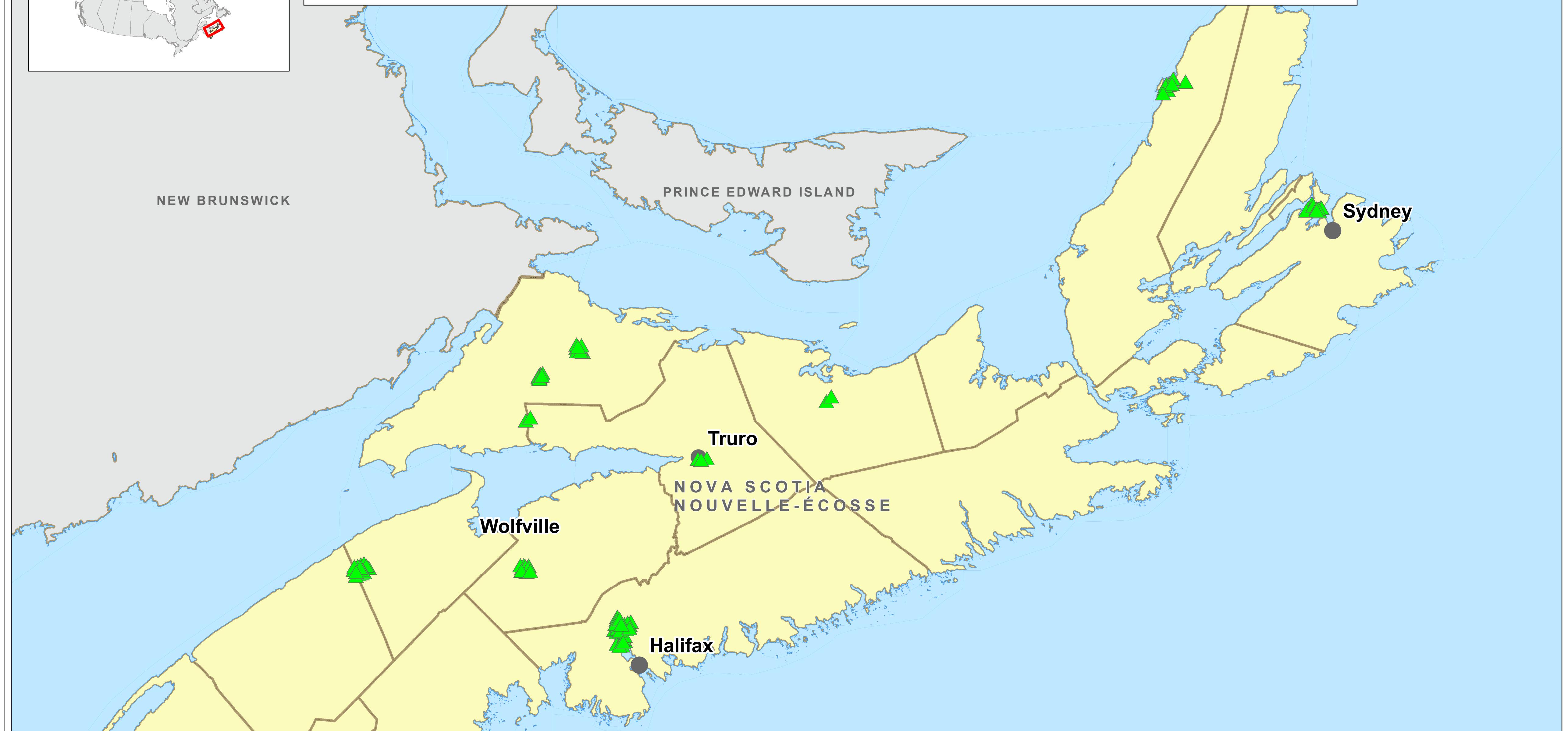
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Asian longhorned beetle | *Anoplophora glabripennis* | Longicorne asiatique

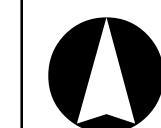
Nova Scotia | 2014–2015 | Nouvelle-Écosse



 Negative Site | Site négatif

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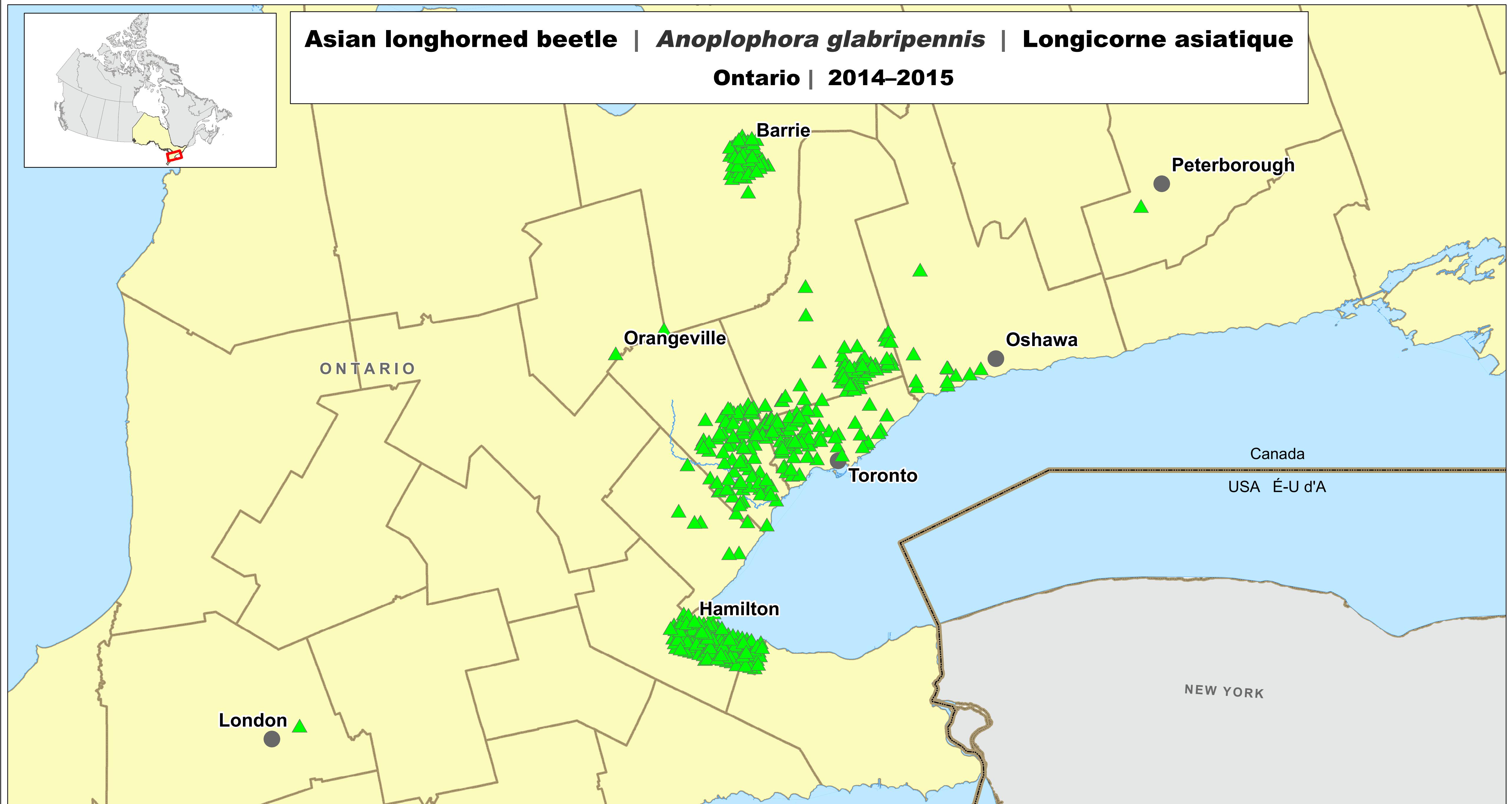


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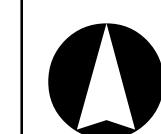
Asian longhorned beetle | *Anoplophora glabripennis* | Longicorne asiatique

Ontario | 2014–2015



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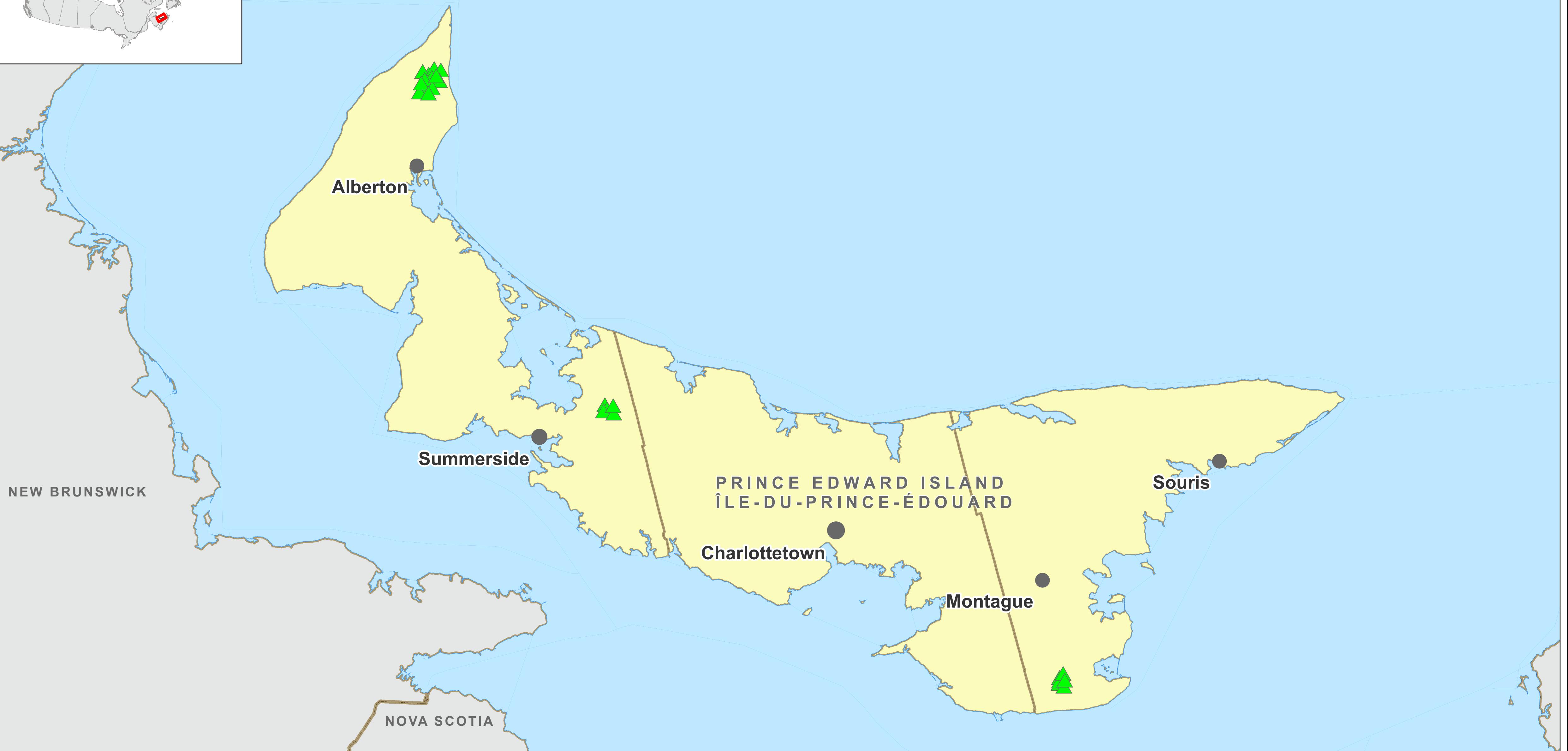


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Asian longhorned beetle | *Anoplophora glabripennis* | Longicorne asiatique

Prince Edward Island | 2014–2015 | Île-du-Prince-Édouard



▲ Negative Site | Site négatif

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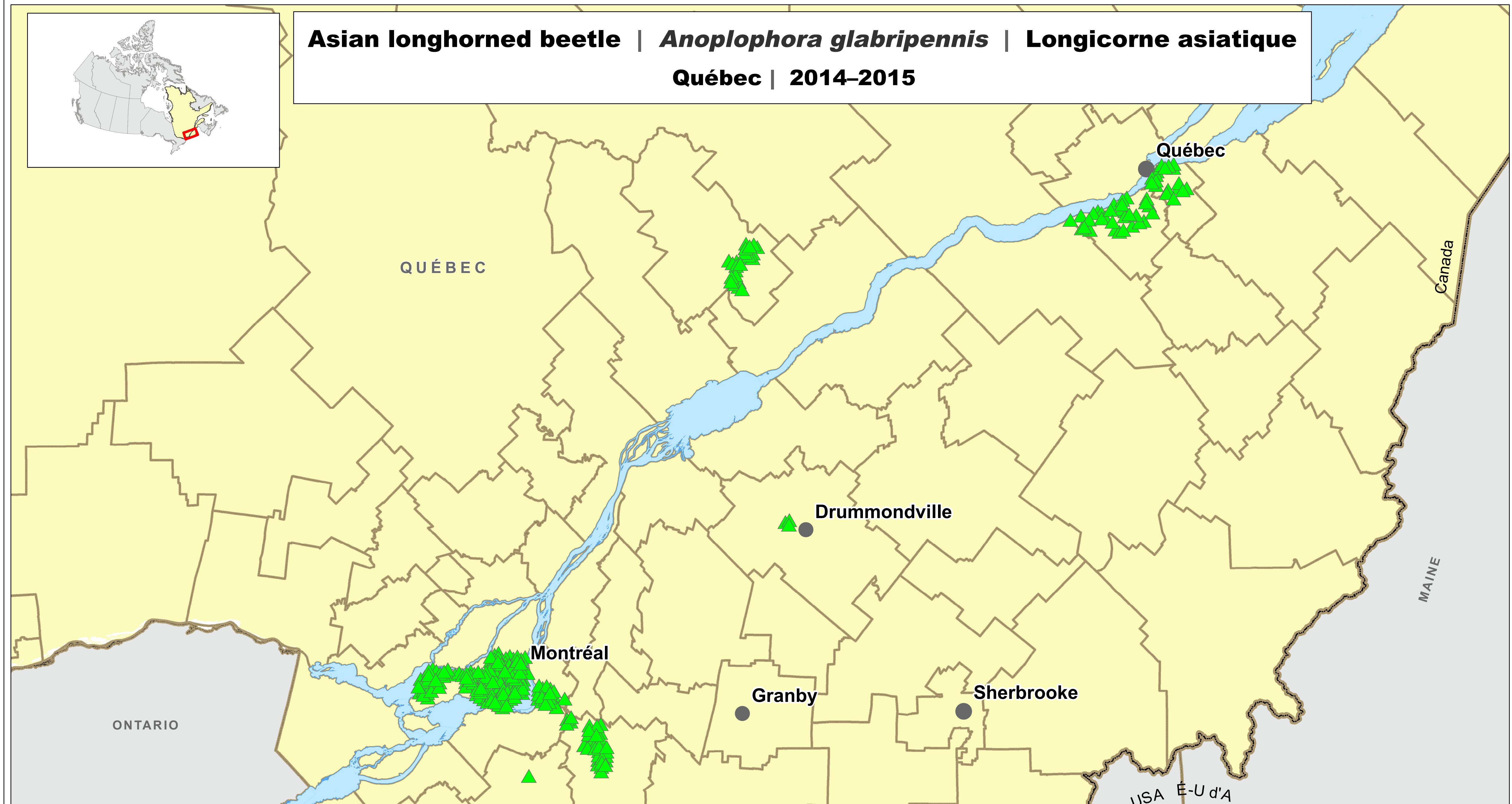
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2015 | 10 | 16

Asian longhorned beetle | *Anoplophora glabripennis* | Longicorne asiatique

Québec | 2014–2015



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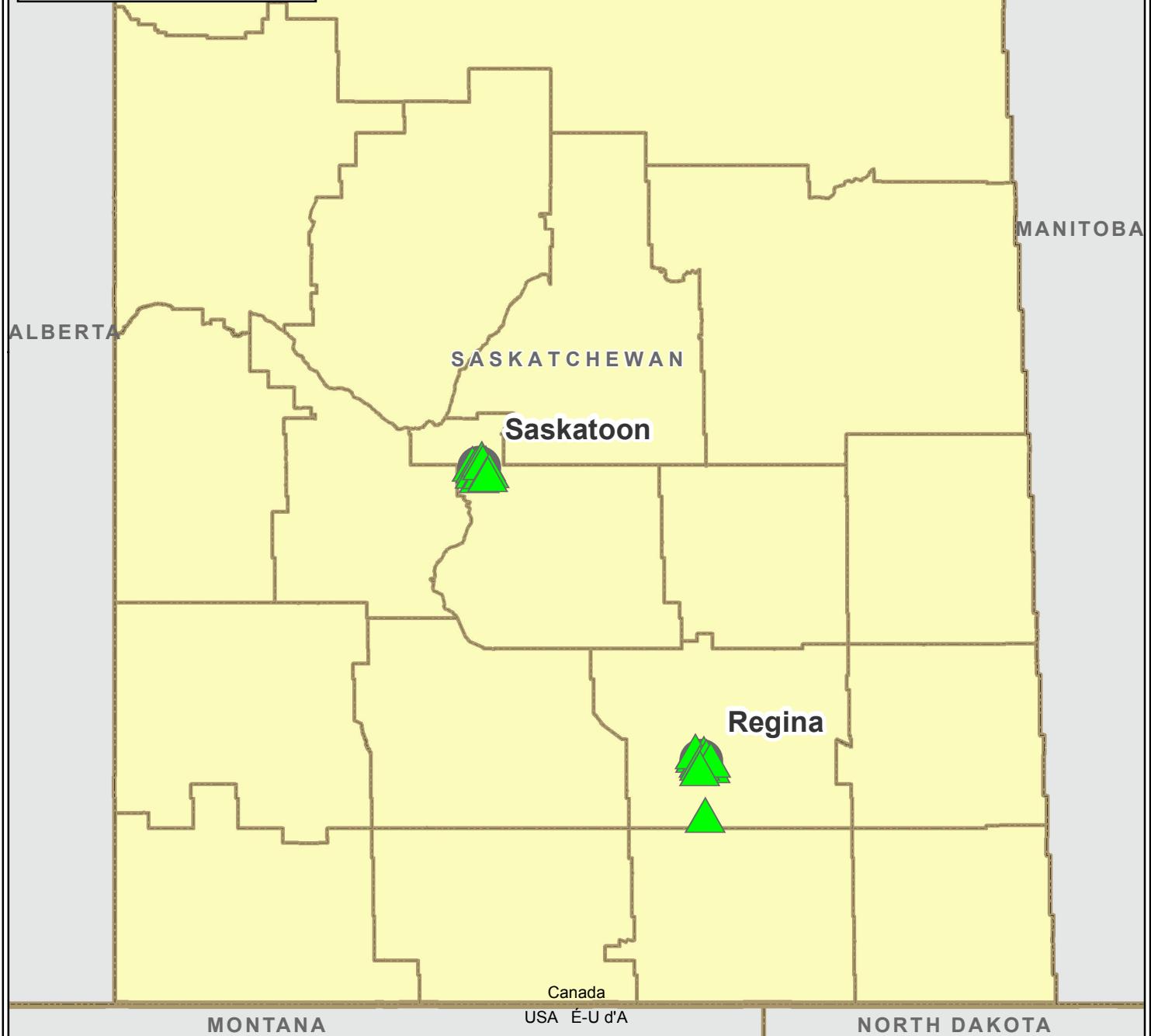
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2015 | 10 | 16



Asian longhorned beetle | *Anoplophora glabripennis* | Longicorne asiatique
Saskatchewan | 2014–2015



 **Negative Site | Site négatif**

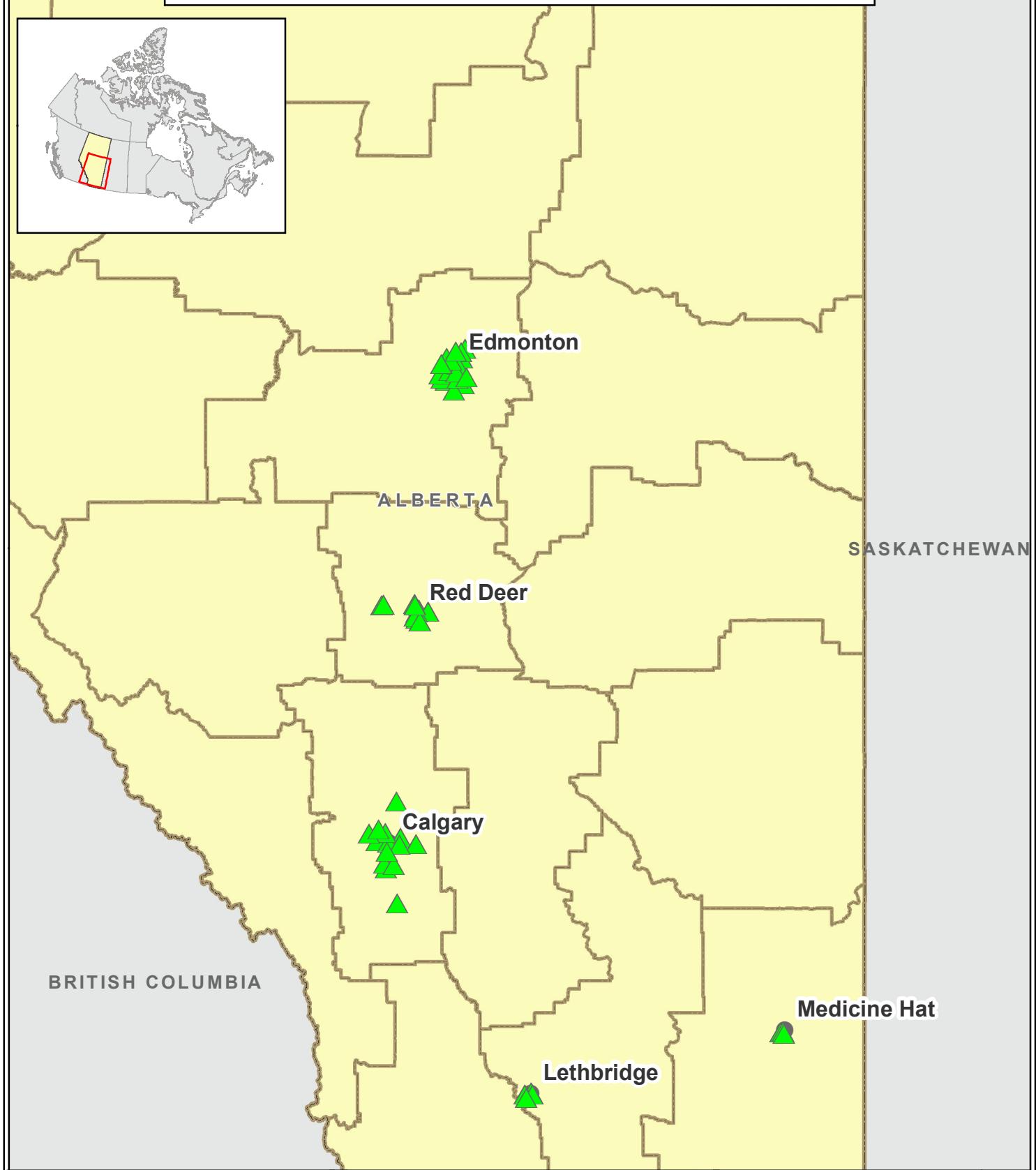
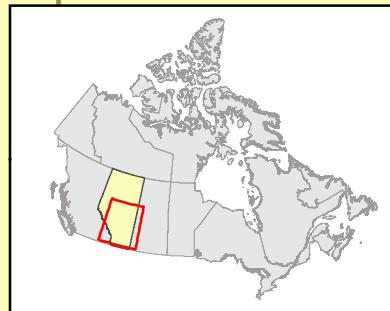
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2015 | 10 | 16

Emerald ash borer | *Agrilus planipennis* | Agrile du frêne
Alberta | 2014–2015



▲ Negative Site | Site négatif

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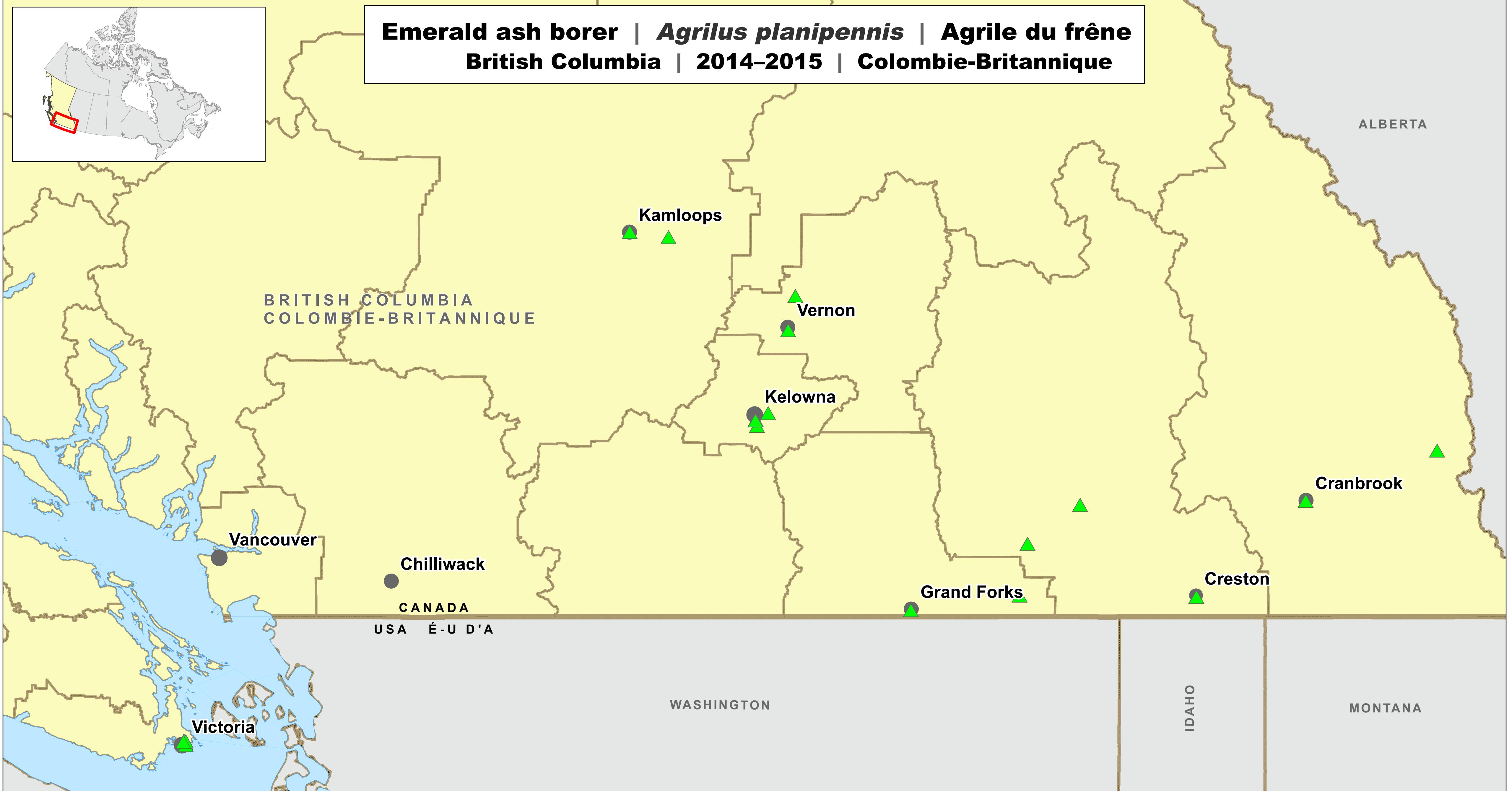
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2015 | 08 | 31



Emerald ash borer | *Agrilus planipennis* | Agrile du frêne British Columbia | 2014–2015 | Colombie-Britannique



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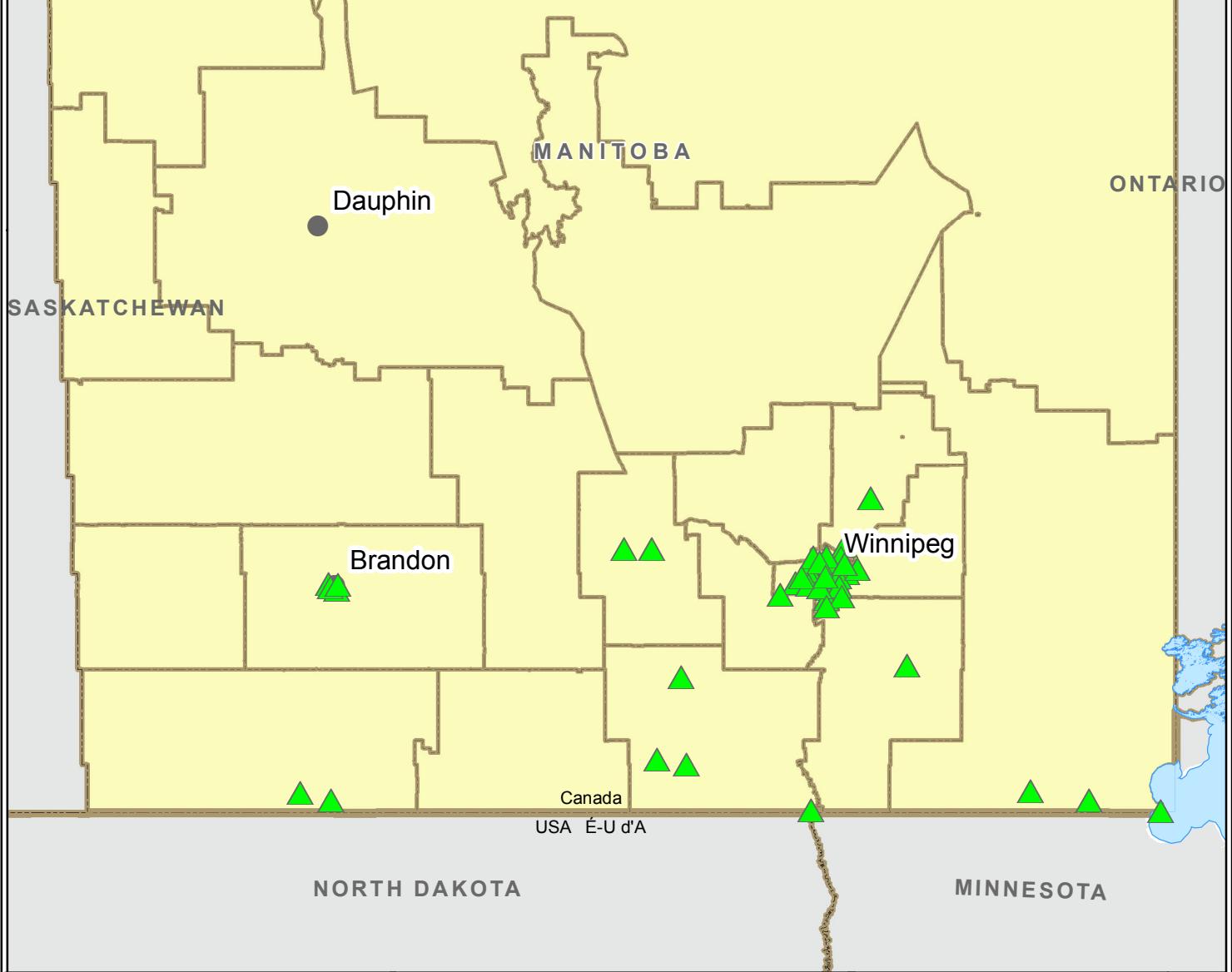
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2015 | 08 | 31

Emerald ash borer | *Agrilus planipennis* | Agrile du frêne

Manitoba | 2014–2015



▲ Negative Site | Site négatif

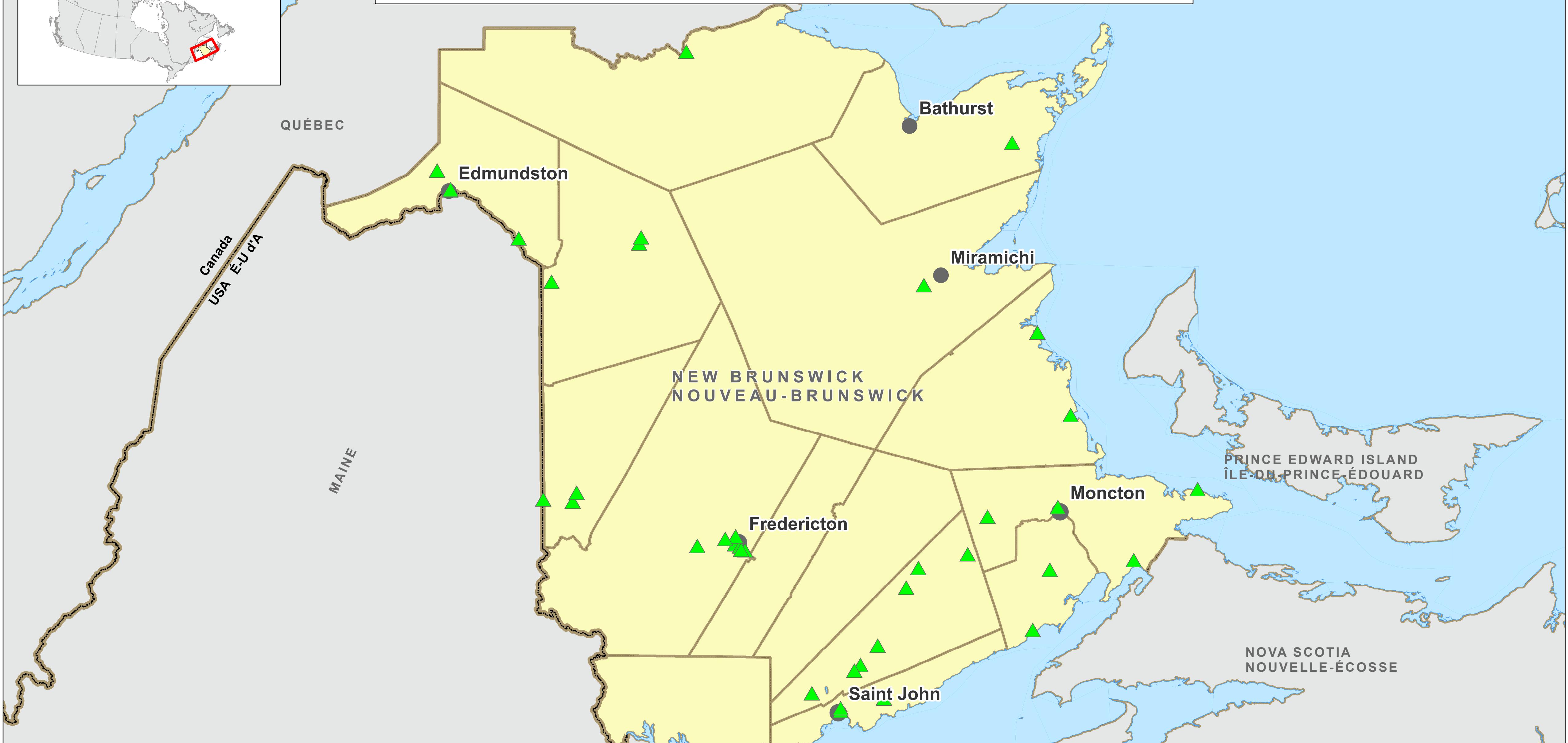
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2015 | 08 | 31

Emerald ash borer | *Agrilus planipennis* | Agrile du frêne

New Brunswick | 2014–2015 | Nouveau-Brunswick



 Negative Site | Site négatif

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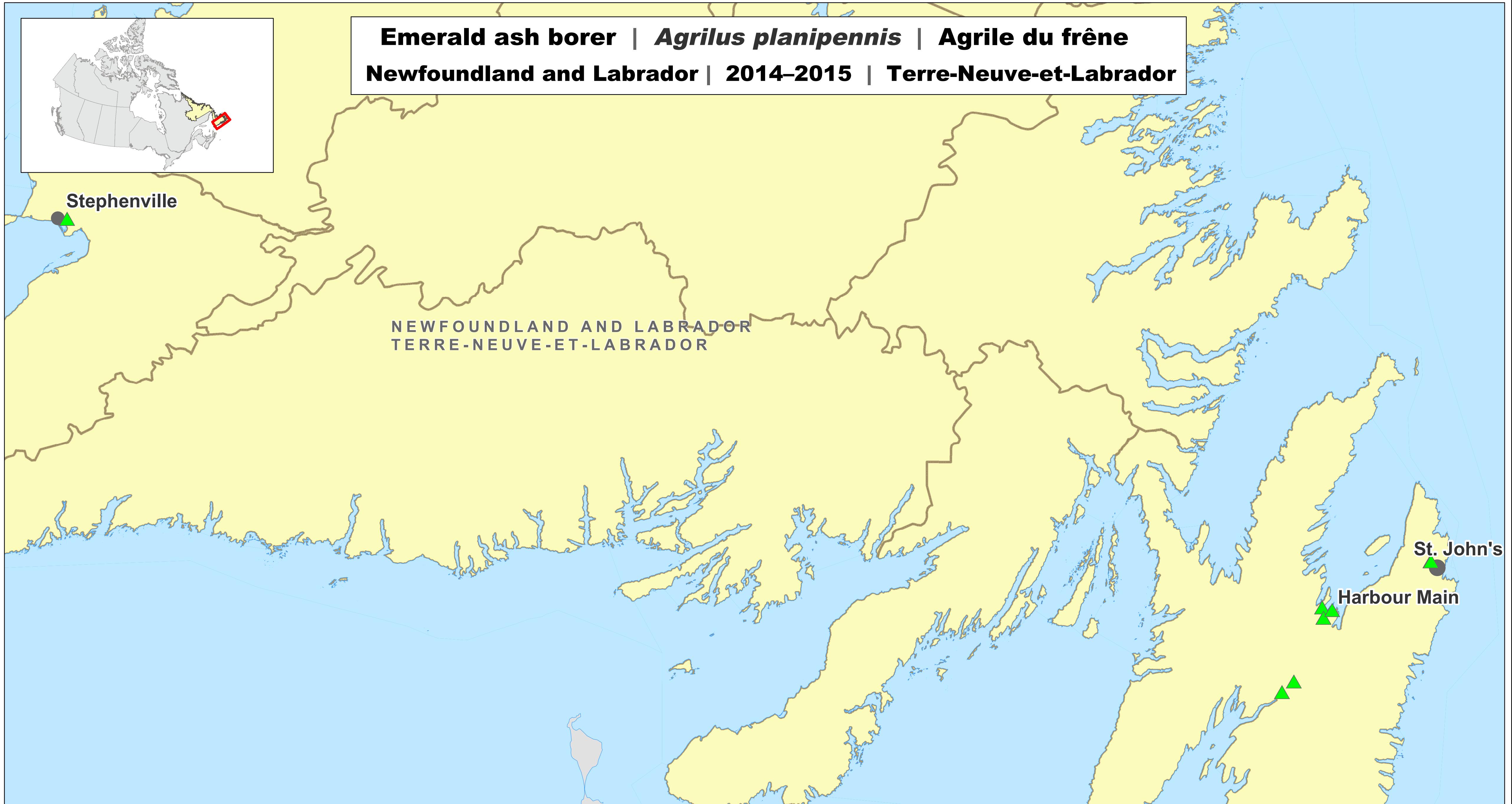
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2016 | 06 | 16



Emerald ash borer | *Agrilus planipennis* | Agrile du frêne
Newfoundland and Labrador | 2014–2015 | Terre-Neuve-et-Labrador



 **Negative Site | Site négatif**

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparé par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

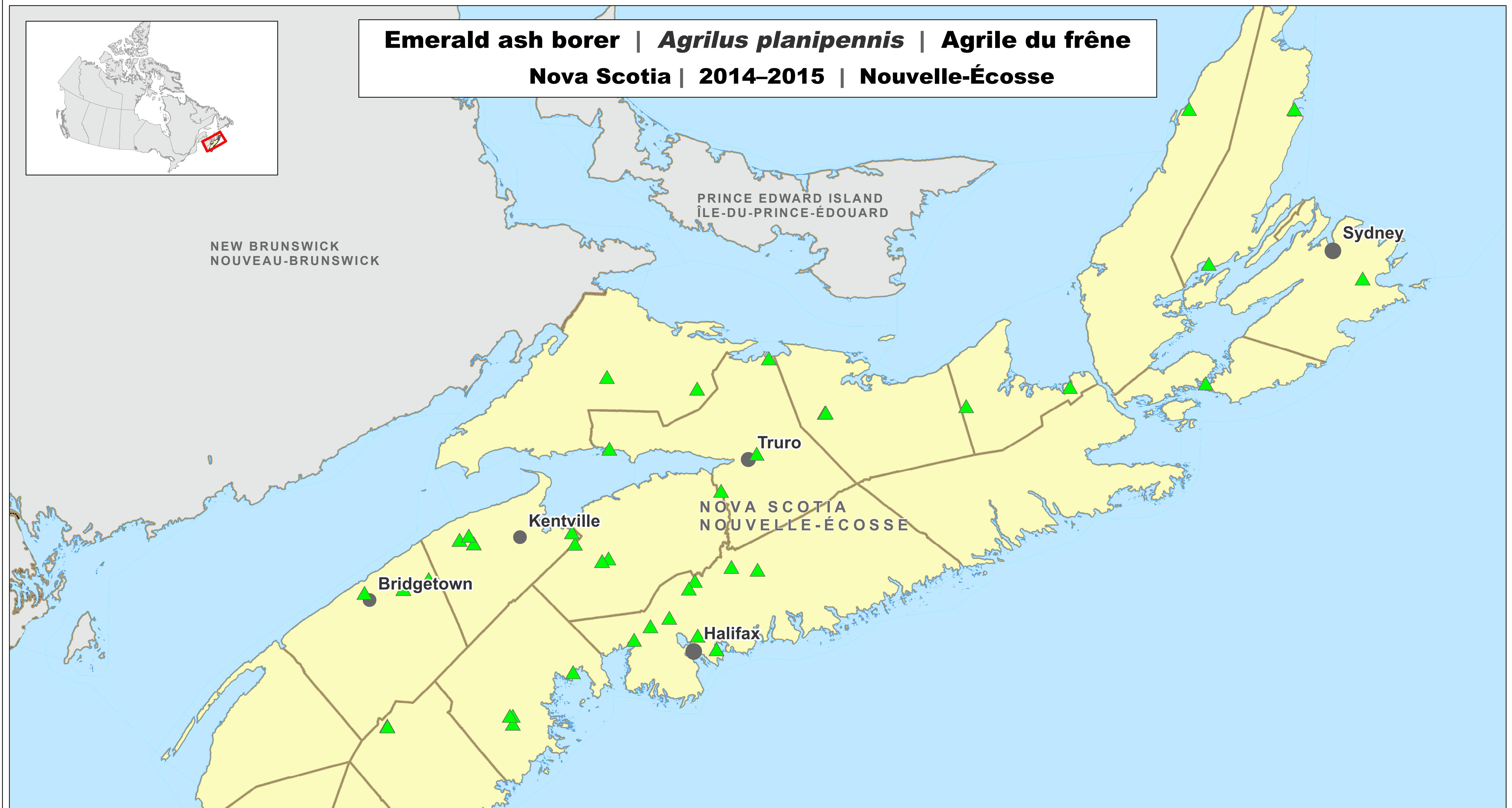
Data Sources | Sources des données:
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2015 | 09 | 01



Emerald ash borer | *Agrilus planipennis* | Agrile du frêne

Nova Scotia | 2014–2015 | Nouvelle-Écosse



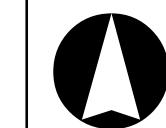
 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

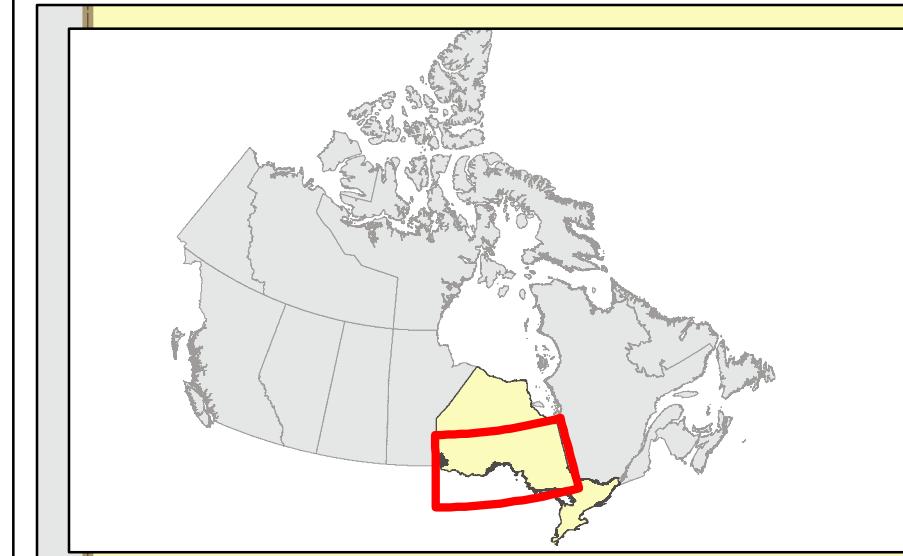
Data Sources | Sources des données:
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2015 | 09 | 01



Emerald ash borer | *Agrilus planipennis* | Agrile du frêne

Ontario | 2014–2015



MANITOBA

Kenora

ONTARIO

QUÉBEC

Thunder Bay

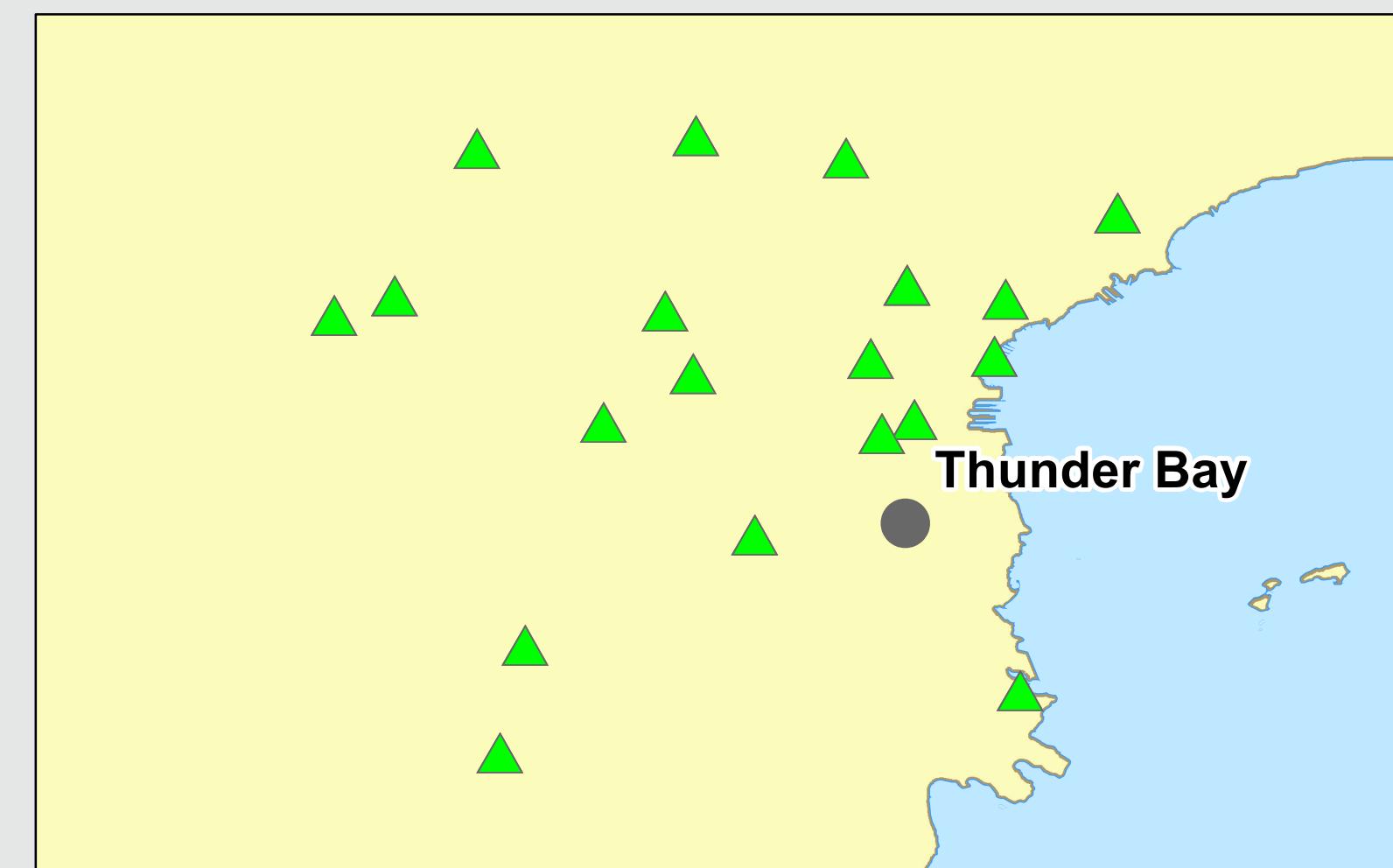
Canada
E-U d'A

MICHIGAN

Sault Ste. Marie

North Bay

NSIN



▲ Negative Site | Site négatif

■ Regulated Area | Région réglementée

Produced by the Canadian Food Inspection Agency,
Plant Health Surveillance Unit, Ottawa, Ontario.
Prepared by l'Agence canadienne d'inspection des aliments,
Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere.
WGS 1984 Web Mercator (sphère auxiliaire).

0 100 200 Km

Mi

0 100 200

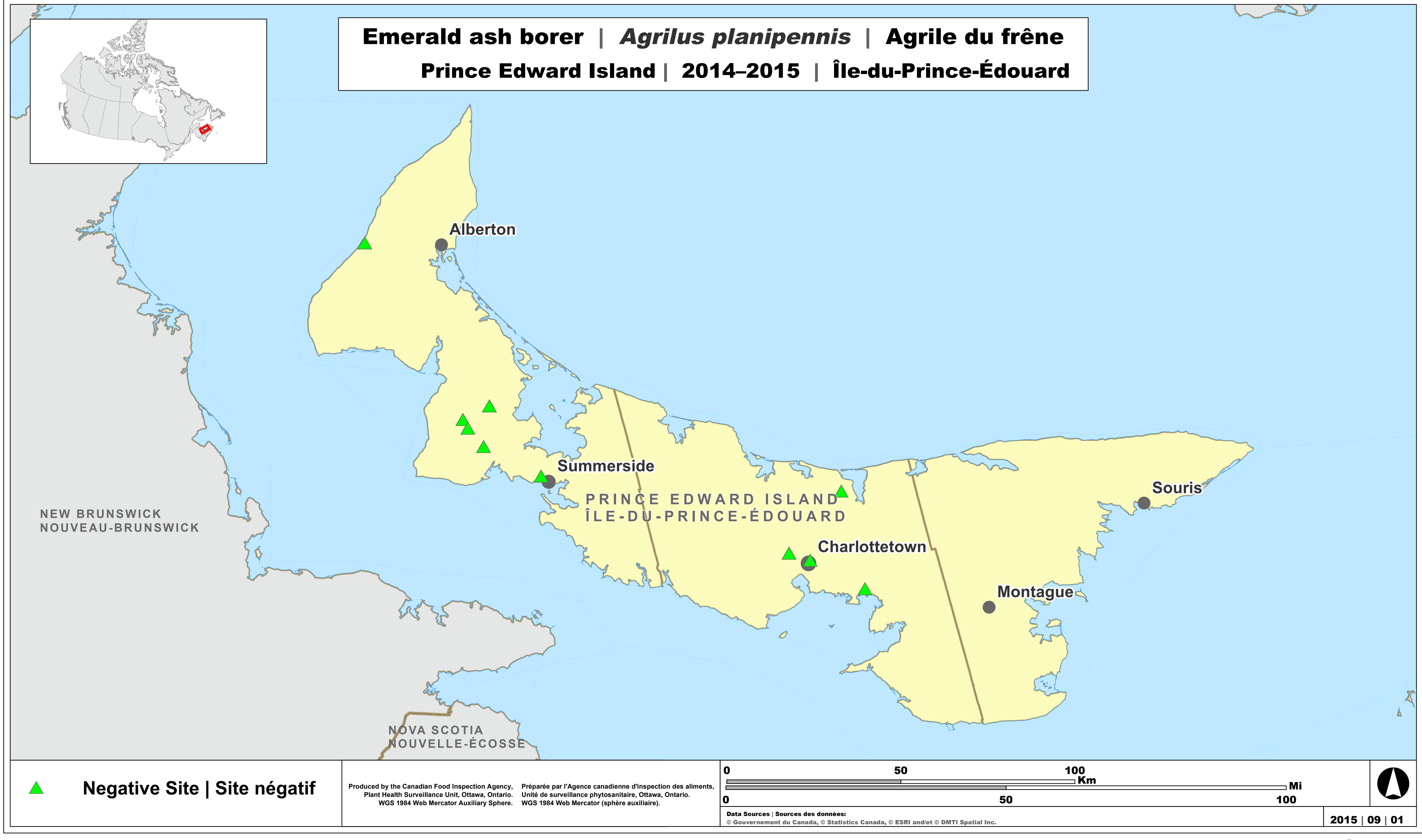


Data Sources | Sources des données:
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2015 | 08 | 05

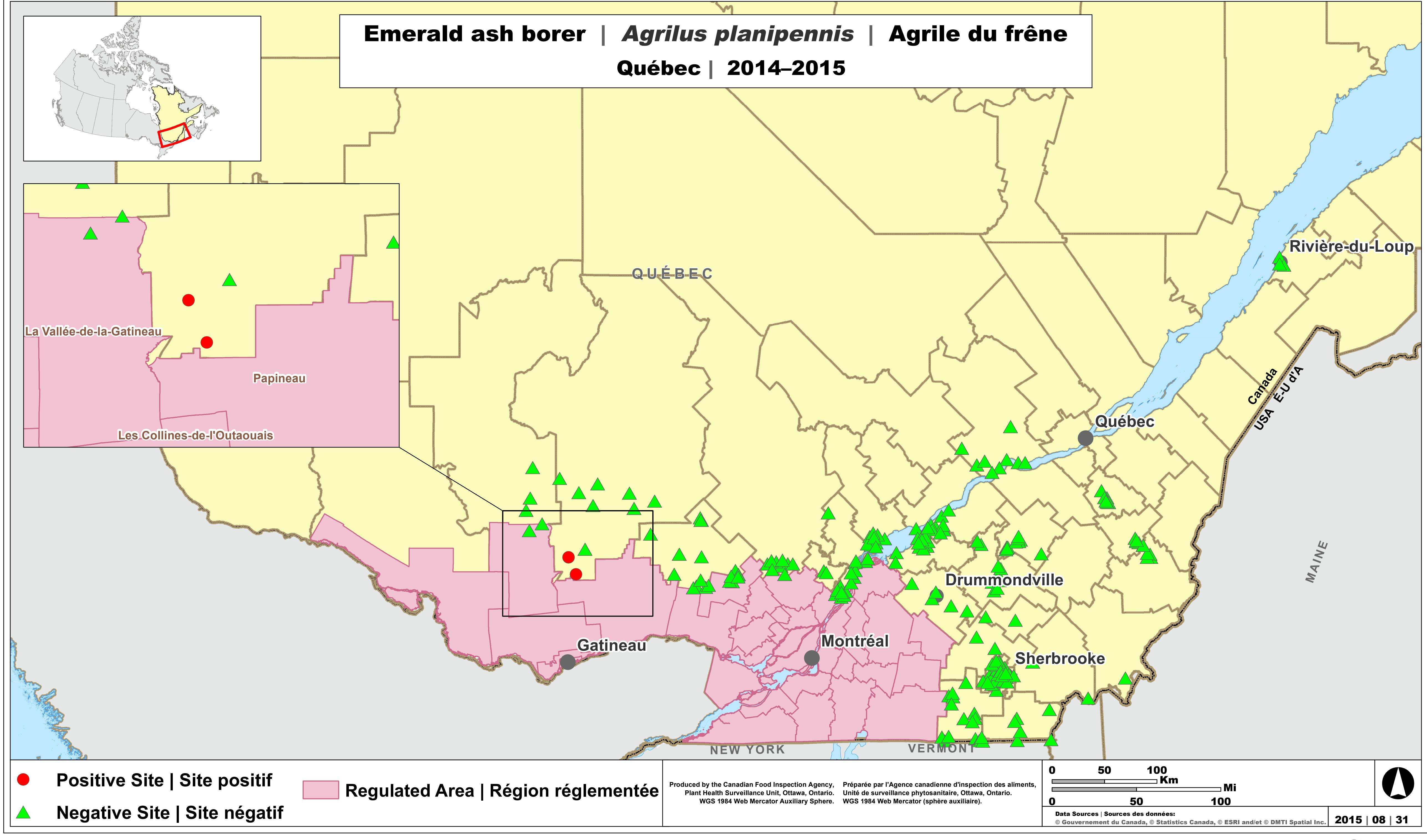
Emerald ash borer | *Agrilus planipennis* | Agrile du frêne

Prince Edward Island | 2014–2015 | Île-du-Prince-Édouard

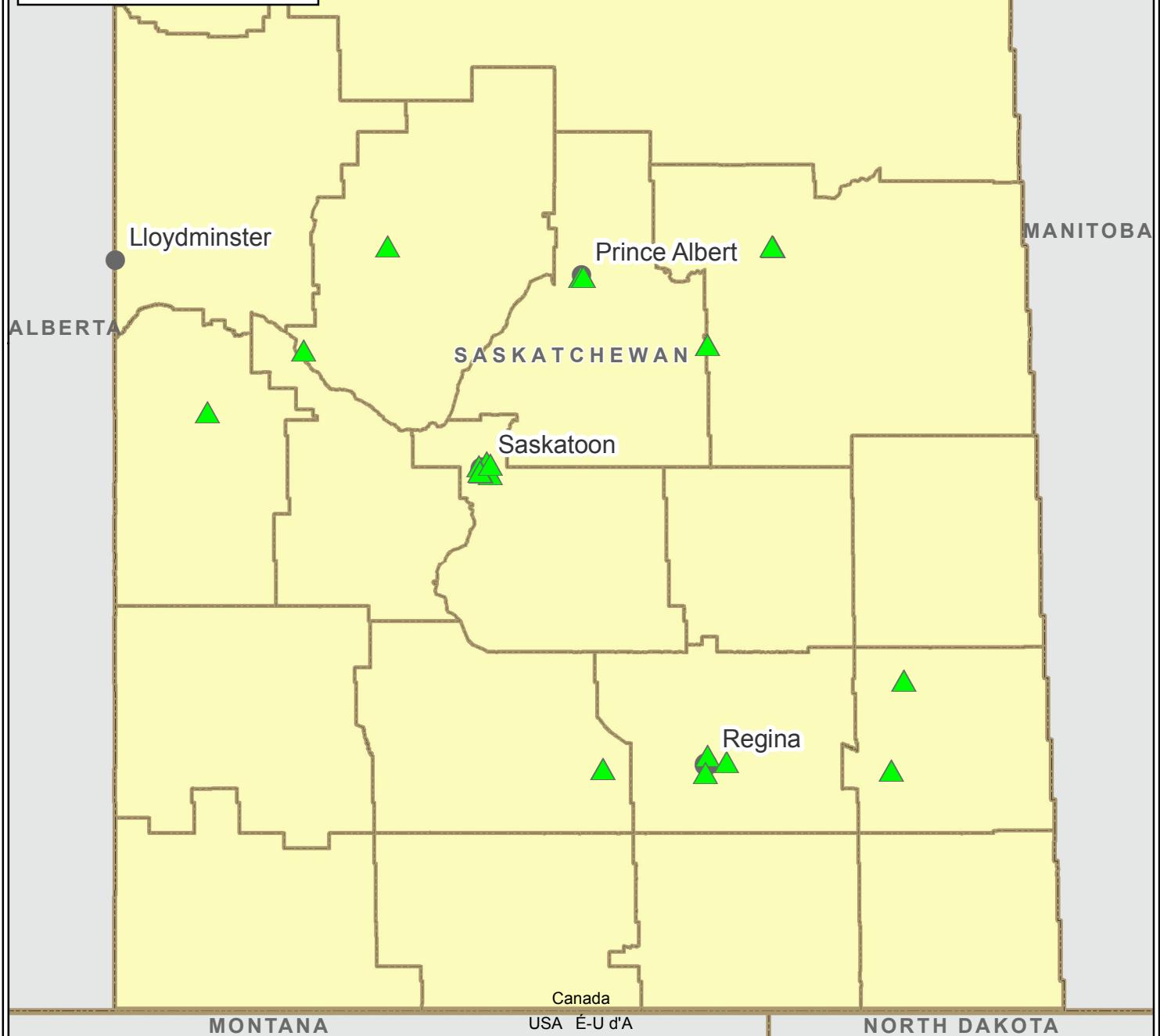
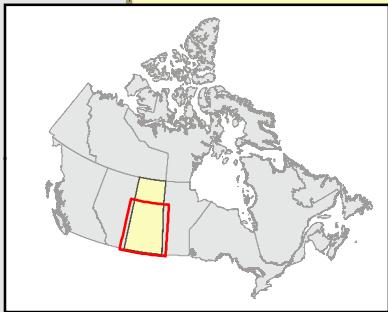


Emerald ash borer | *Agrilus planipennis* | Agrile du frêne

Québec | 2014–2015



Emerald ash borer | *Agrilus planipennis* | Agrile du frêne
Saskatchewan | 2014-2015



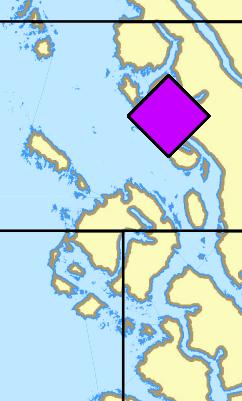
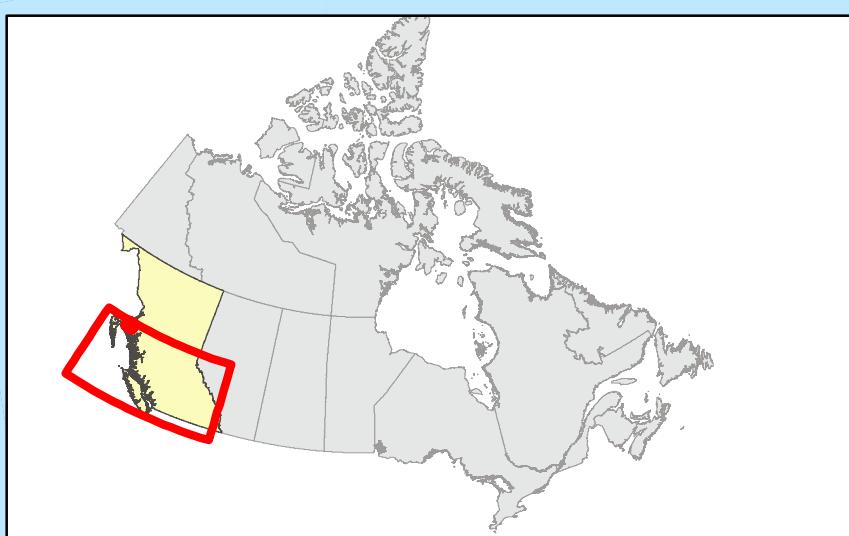
▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi
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2015 | 08 | 31

Invasive alien forest insect survey | Enquête EEE – Foresterie
Trapping | Piégeage
British Columbia | 2014–2015 | Colombie-Britannique



◆ Survey Site | Site d'enquête

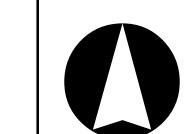
Produced by the Canadian Food Inspection Agency, Préparée par l'Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km

0 50 100 Mi

Data Sources | Sources des données:

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2014 | 10 | 31

ALBERTA

BRITISH COLUMBIA
COLOMBIE-BRITANNIQUE

Vernon

Summerland

Vancouver

Abbotsford
CANADA

Victoria

WASHINGTON

IDaho

MONTANA

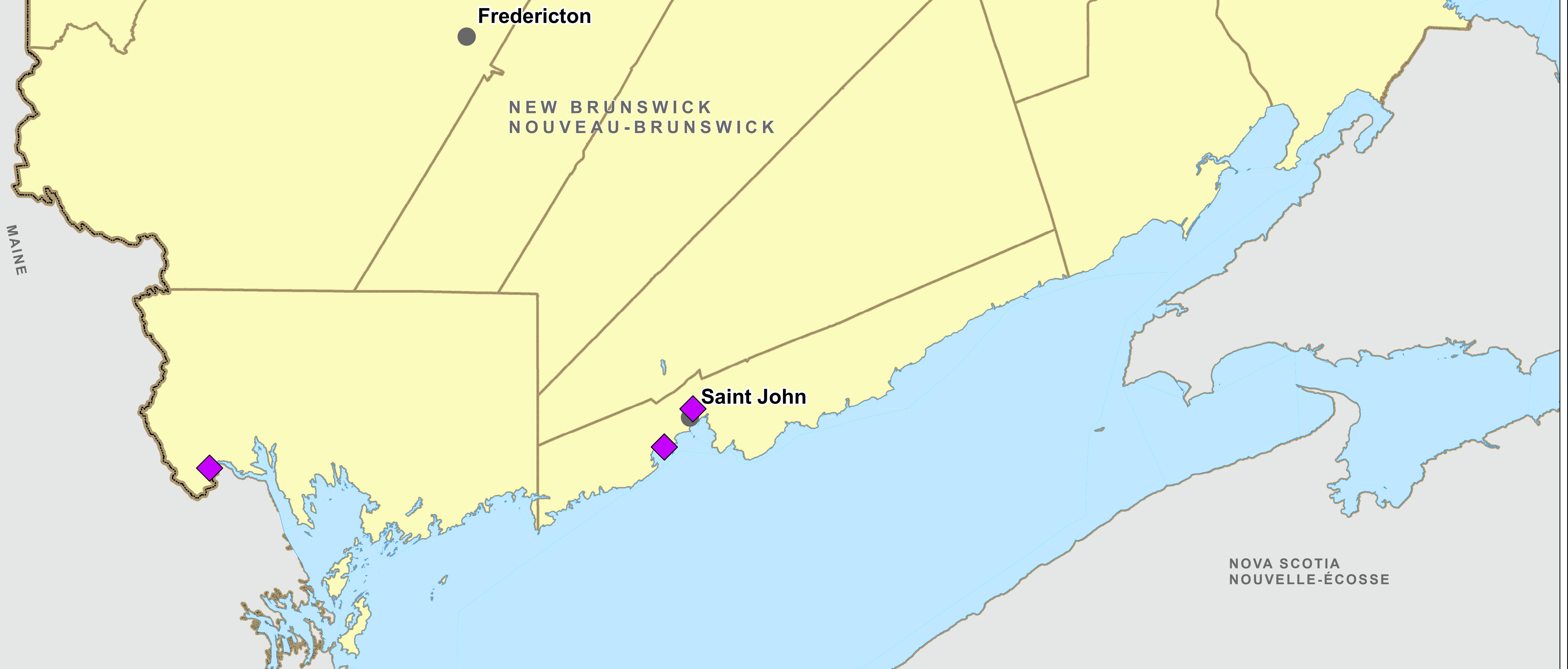
USA É-U-D'A

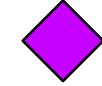
Canada

Invasive alien forest insect survey | Enquête EEE – Foresterie
Trapping | Piégeage
New Brunswick | 2014–2015 | Nouveau-Brunswick



PRINCE EDWARD ISLAND
ÎLE-DU-PRINCE-ÉDOUARD

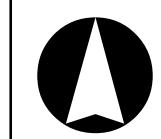


 Survey Site | Site d'enquête

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

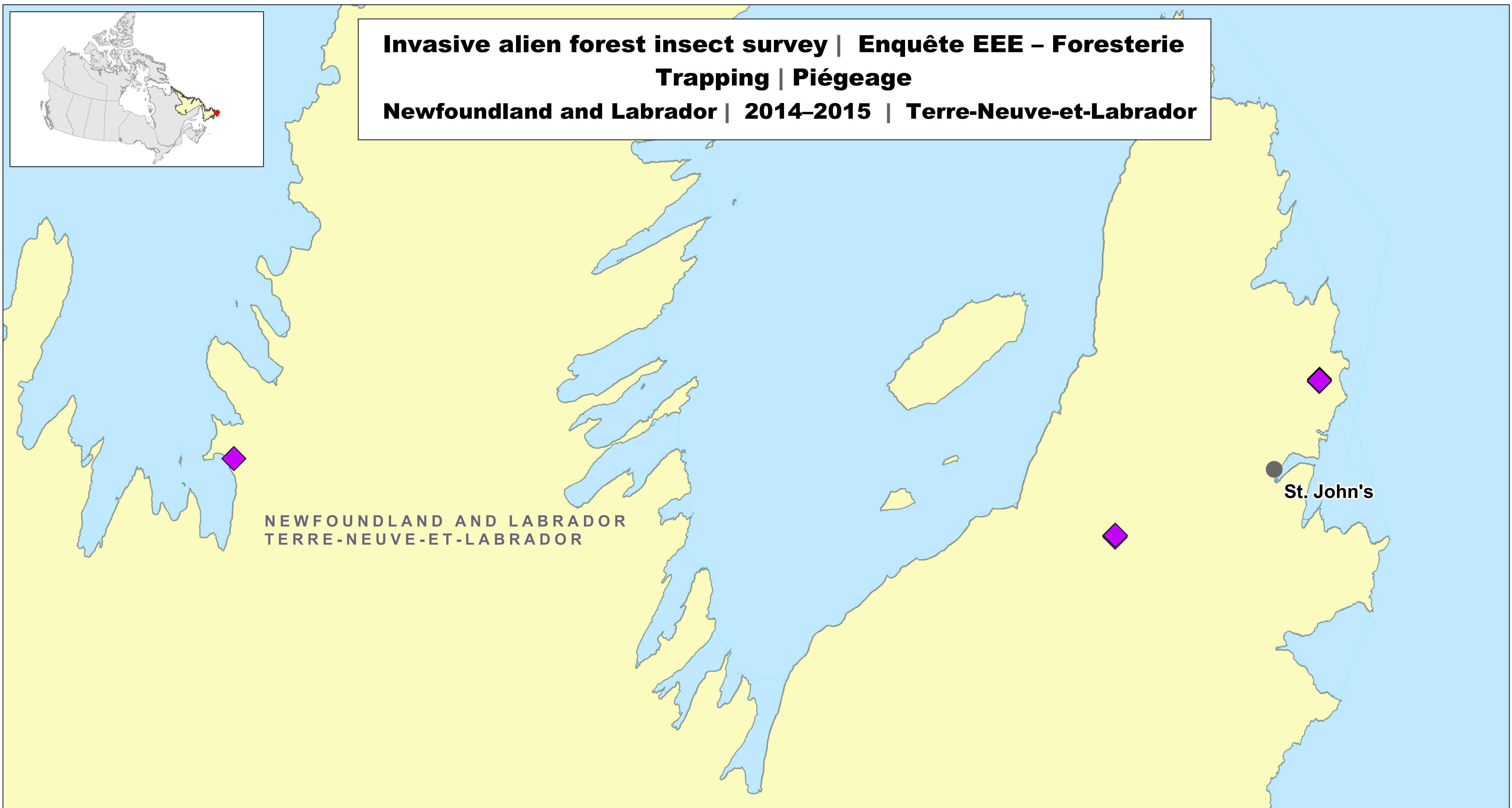
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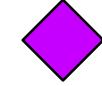
Data Sources | Sources des données:
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2014 | 10 | 30

Invasive alien forest insect survey | Enquête EEE – Foresterie
Trapping | Piégeage
Newfoundland and Labrador | 2014–2015 | Terre-Neuve-et-Labrador



 Survey Site | Site d'enquête

Produced by the Canadian Food Inspection Agency, Préparée par l'Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 10 20 Km
0 10 20 Mi

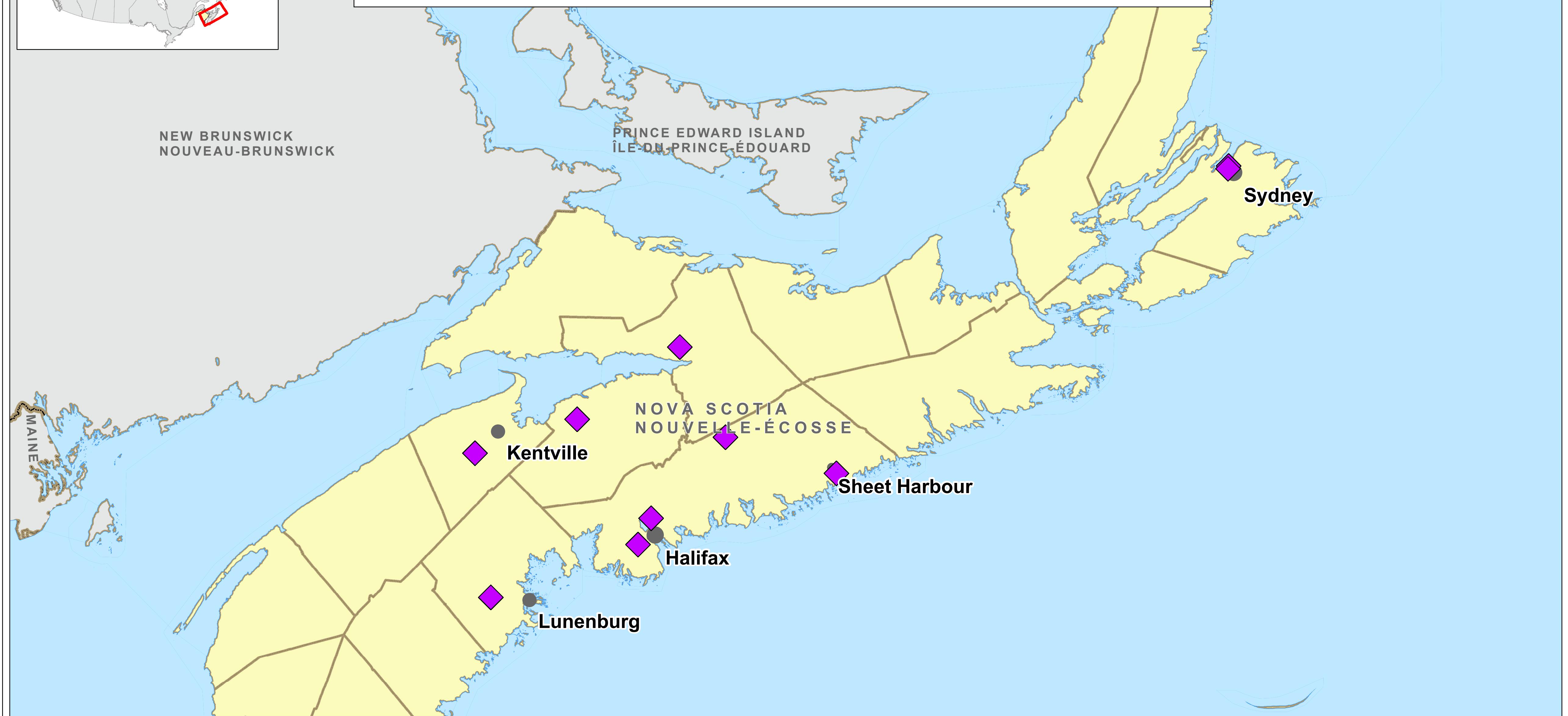
Data Sources | Sources des données:
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2014 | 10 | 30





Invasive alien forest insect survey | Enquête EEE – Foresterie
Trapping | Piégeage
Nova Scotia | 2014–2015 | Nouvelle-Écosse



◆ Survey Site | Site d'enquête

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

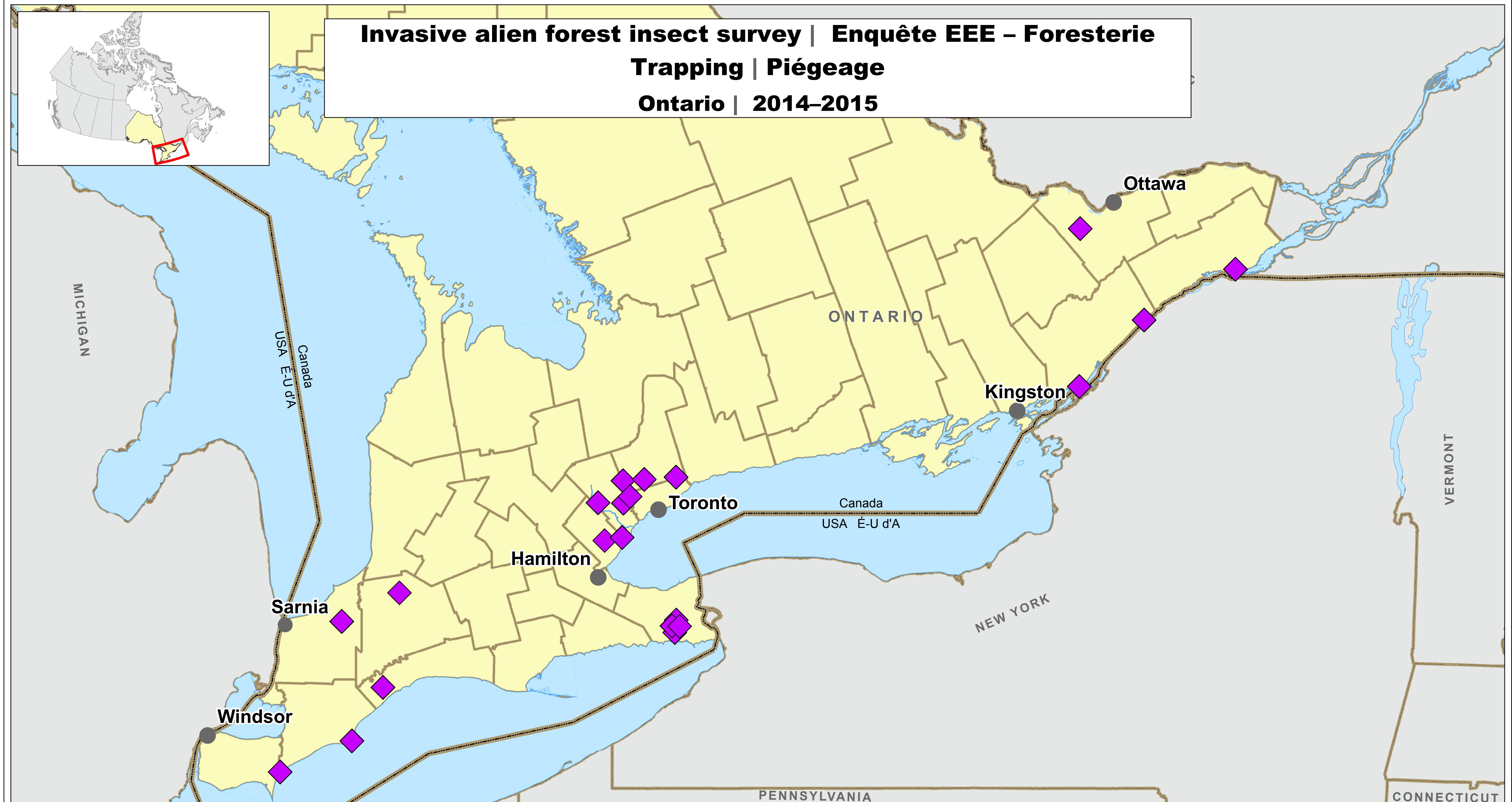
0 50 100 Km
0 50 100 Mi

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2014 | 10 | 31



Invasive alien forest insect survey | Enquête EEE – Foresterie Trapping | Piégeage Ontario | 2014–2015



◆ Survey Site | Site d'enquête

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere.

Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

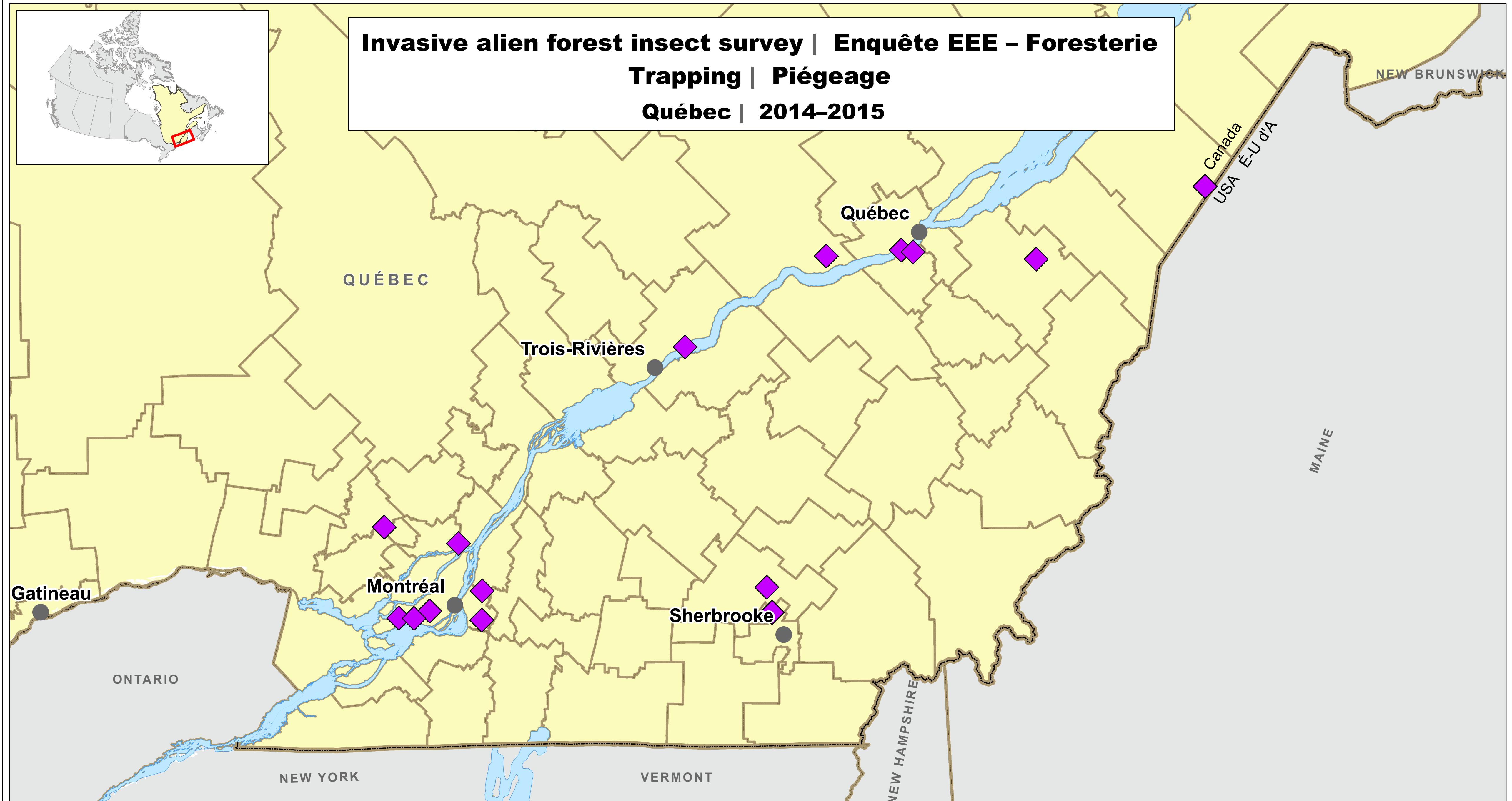
0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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2014 | 10 | 31



Invasive alien forest insect survey | Enquête EEE – Foresterie
Trapping | Piégeage
Québec | 2014–2015



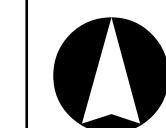
◆ Survey Site | Site d'enquête

Produced by the Canadian Food Inspection Agency, Préparée par l'Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

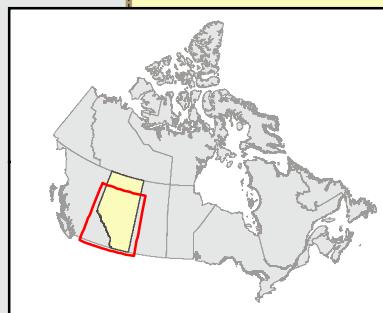
0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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2014 | 10 | 30



Asian gypsy moth | Spongieuse asiatique
Lymantria dispar asiatica* or / ou *Lymantria dispar japonica
Alberta | 2014–2015



 **Negative Site | Site négatif**

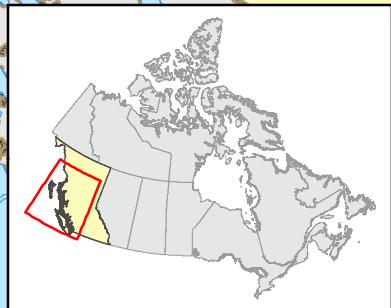
Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi
Data Sources | Sources des données:
© Gouvernement du Canada, © Statistics Canada,
© ESRI and/or © DMTI Spatial Inc.



2015 | 09 | 03

Asian gypsy moth | Spongieuse asiatique
Lymantria dispar asiatica* or/ou *Lymantria dispar japonica
British Columbia | 2014–2015 | Colombie-Britannique



 **Negative Site | Site négatif**

Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

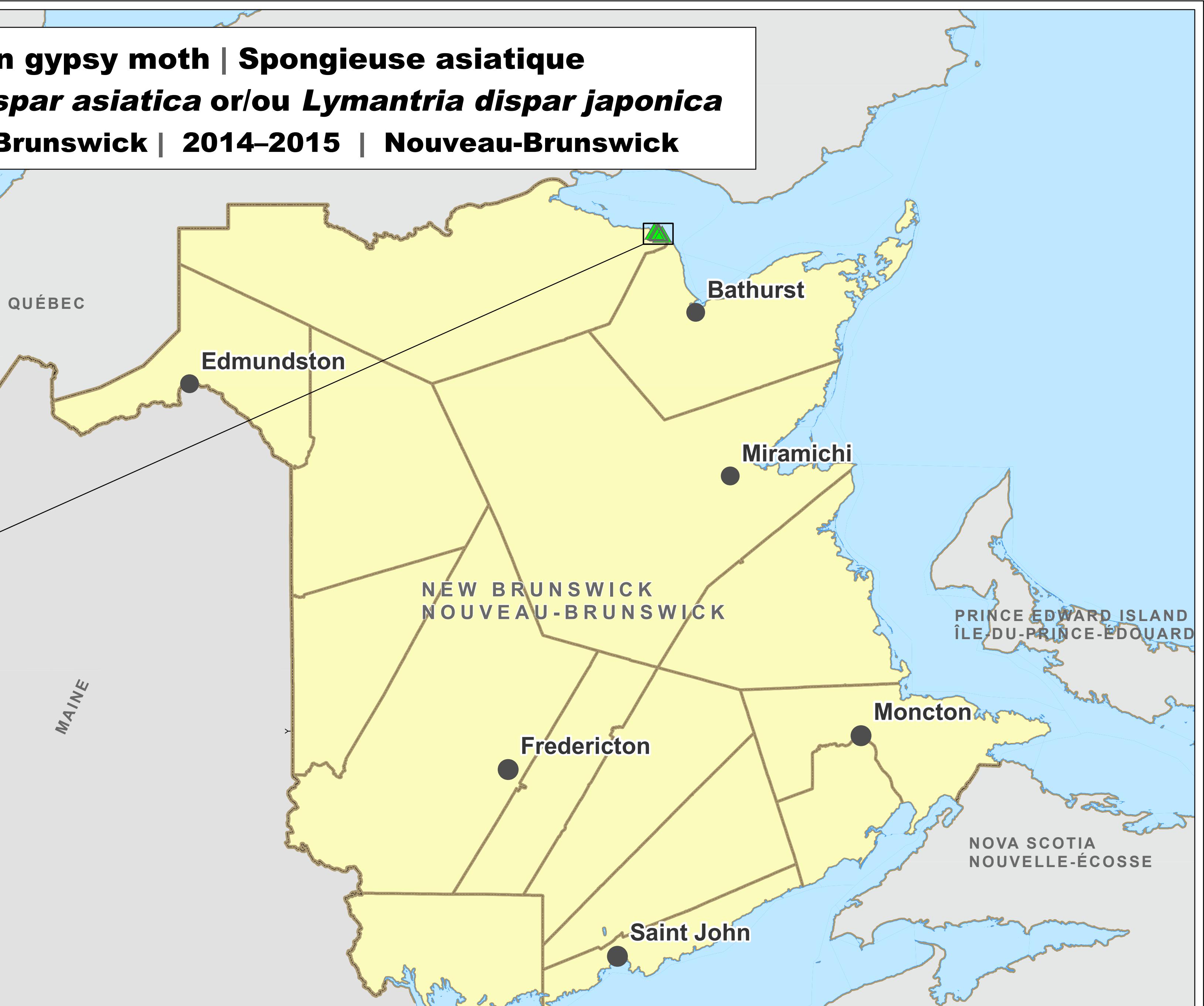
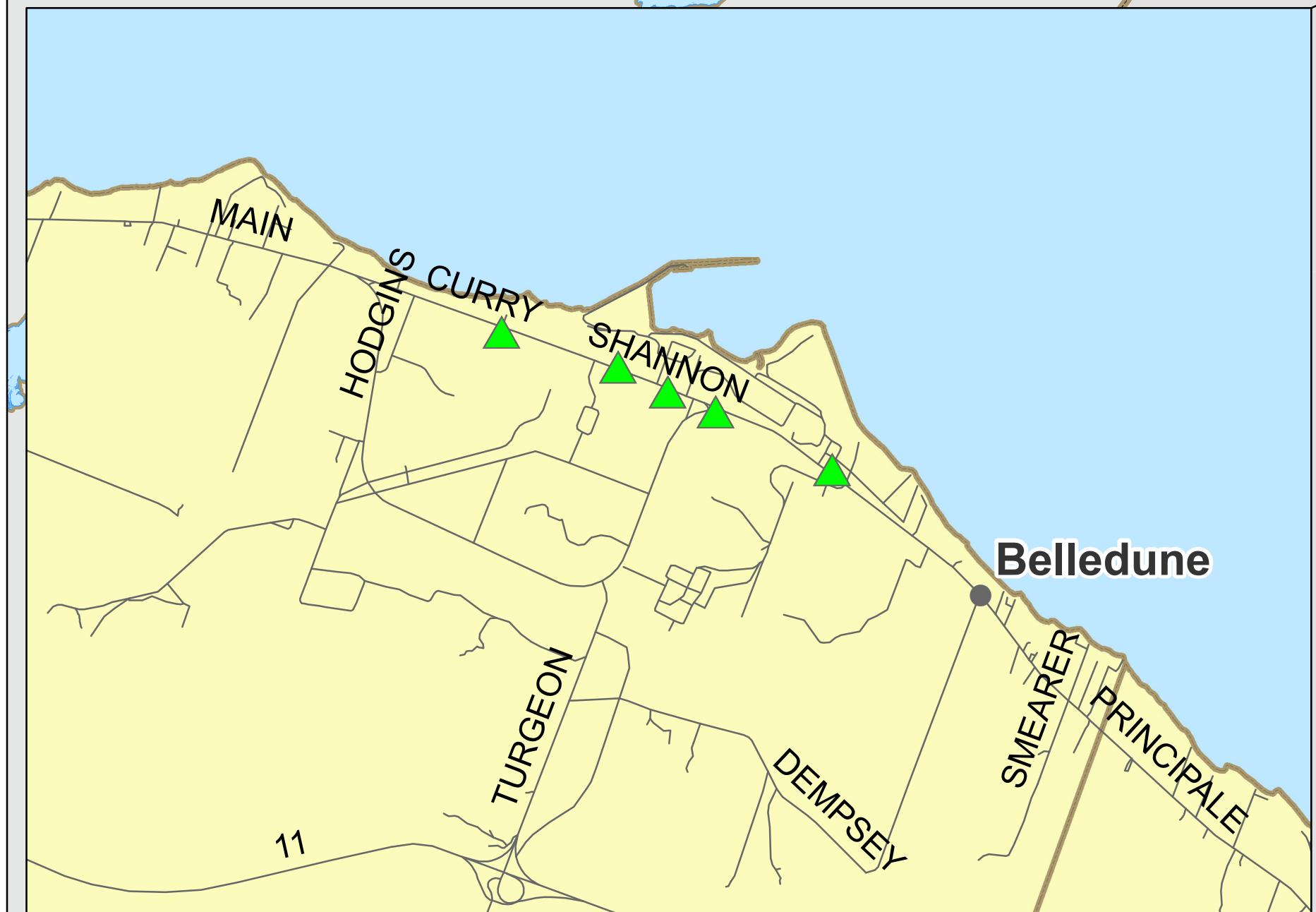
0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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2015 | 05 | 04



Asian gypsy moth | Spongieuse asiatique
Lymantria dispar asiatica* or/ou *Lymantria dispar japonica
New Brunswick | 2014–2015 | Nouveau-Brunswick



 **Negative Site | Site négatif**

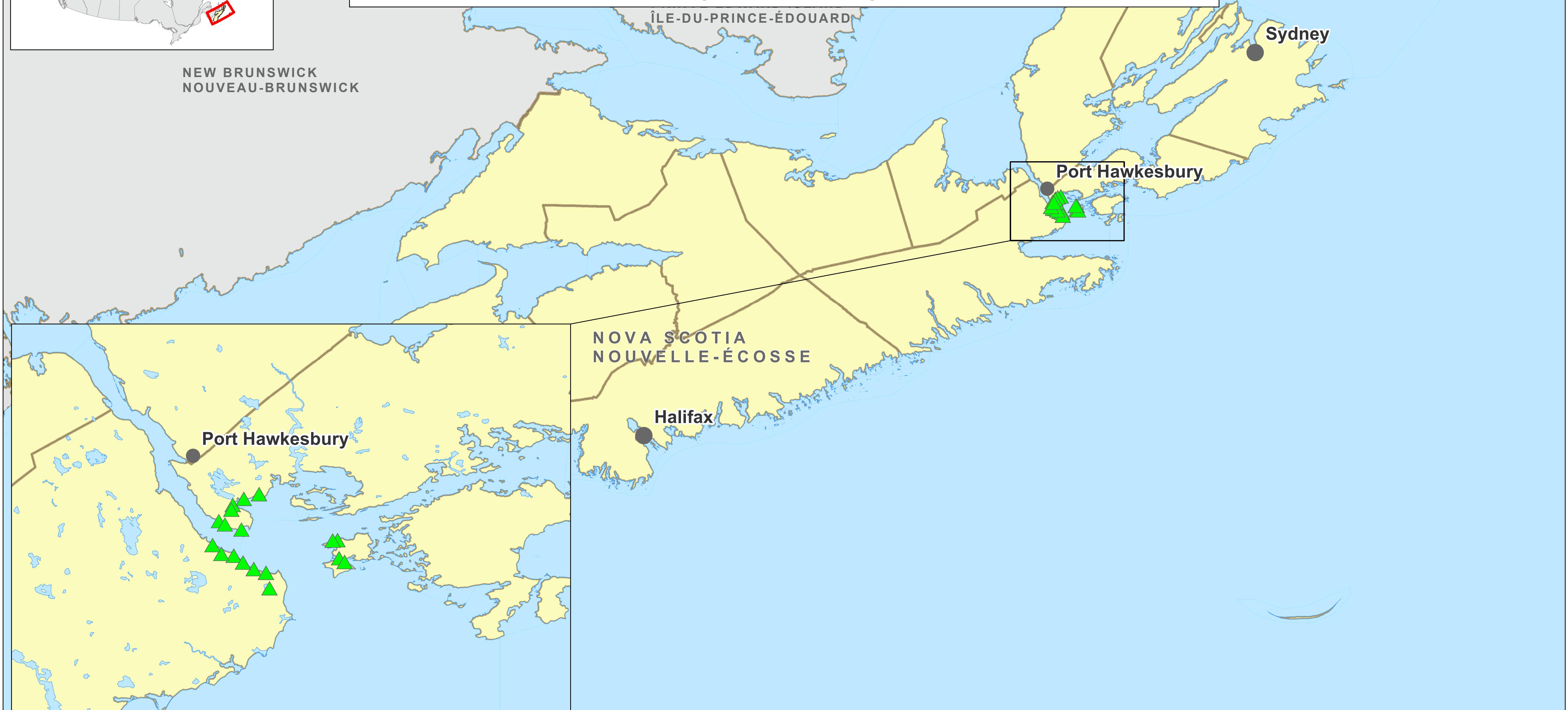
Produced by the Canadian Food Inspection Agency, Préparée par l'Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi
Data Sources | Sources des données:
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Asian gypsy moth | Spongieuse asiatique
Lymantria dispar asiatica* or / ou *Lymantria dispar japonica
Nova Scotia | 2014–2015 | Nouvelle-Écosse

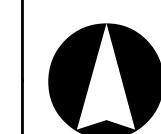


▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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2015 | 05 | 05

Canada

Asian gypsy moth | Spongieuse asiatique
Lymantria dispar asiatica* or / ou *Lymantria dispar japonica
Saskatchewan | 2014–2015



 **Negative Site | Site négatif**

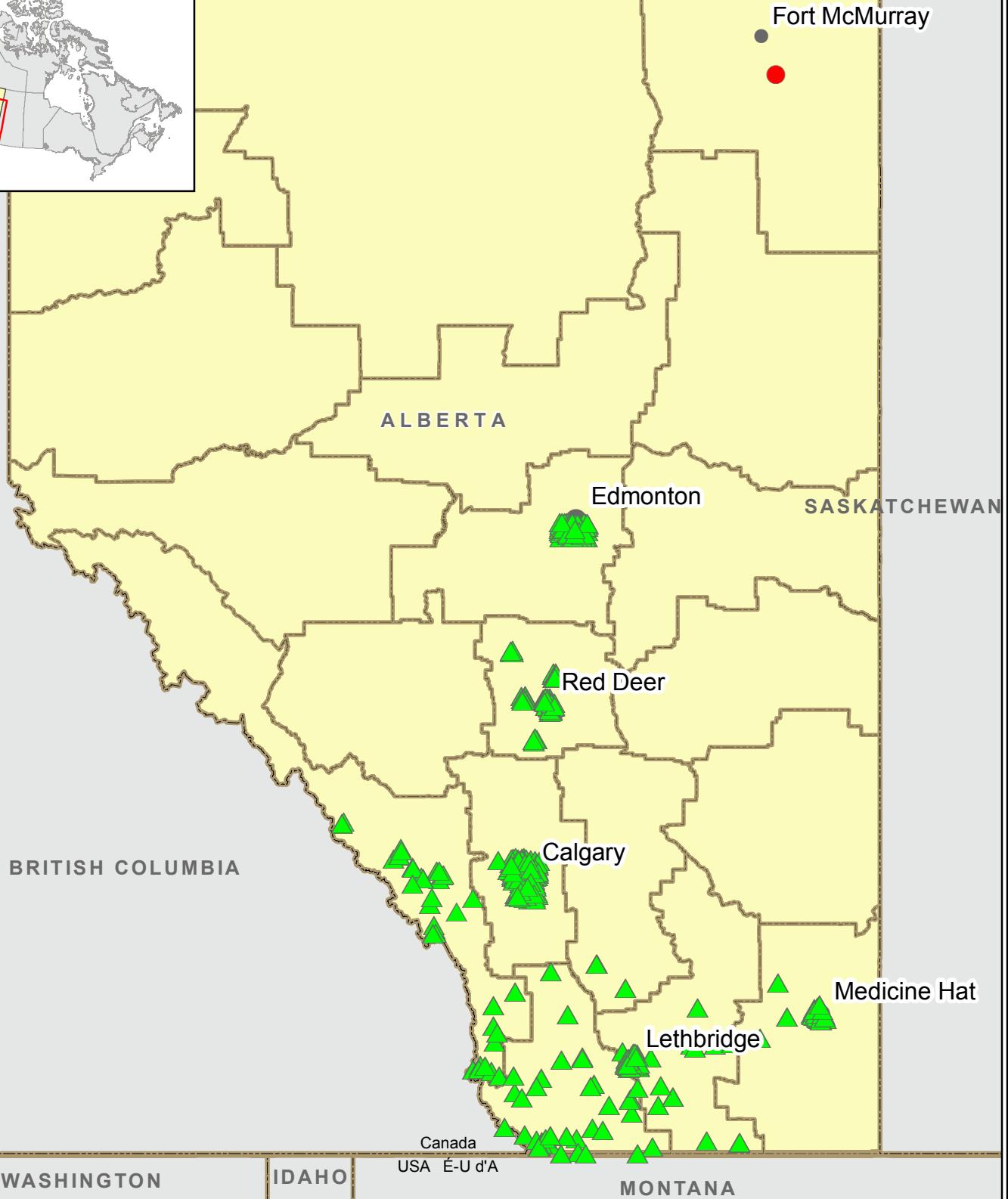
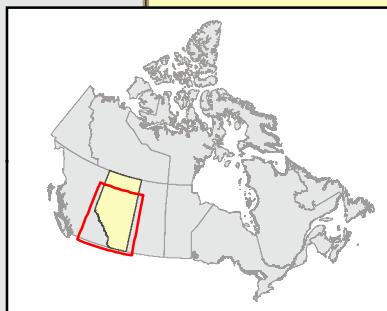
Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi
Data Sources | Sources des données:
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2015 | 03 | 03

European gypsy moth | *Lymantria dispar dispar* | Spongieuse européenne

Alberta | 2014–2015



WASHINGTON

IDAHO

USA É-U d'A

MONTANA

● Positive Site | Site positif

▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

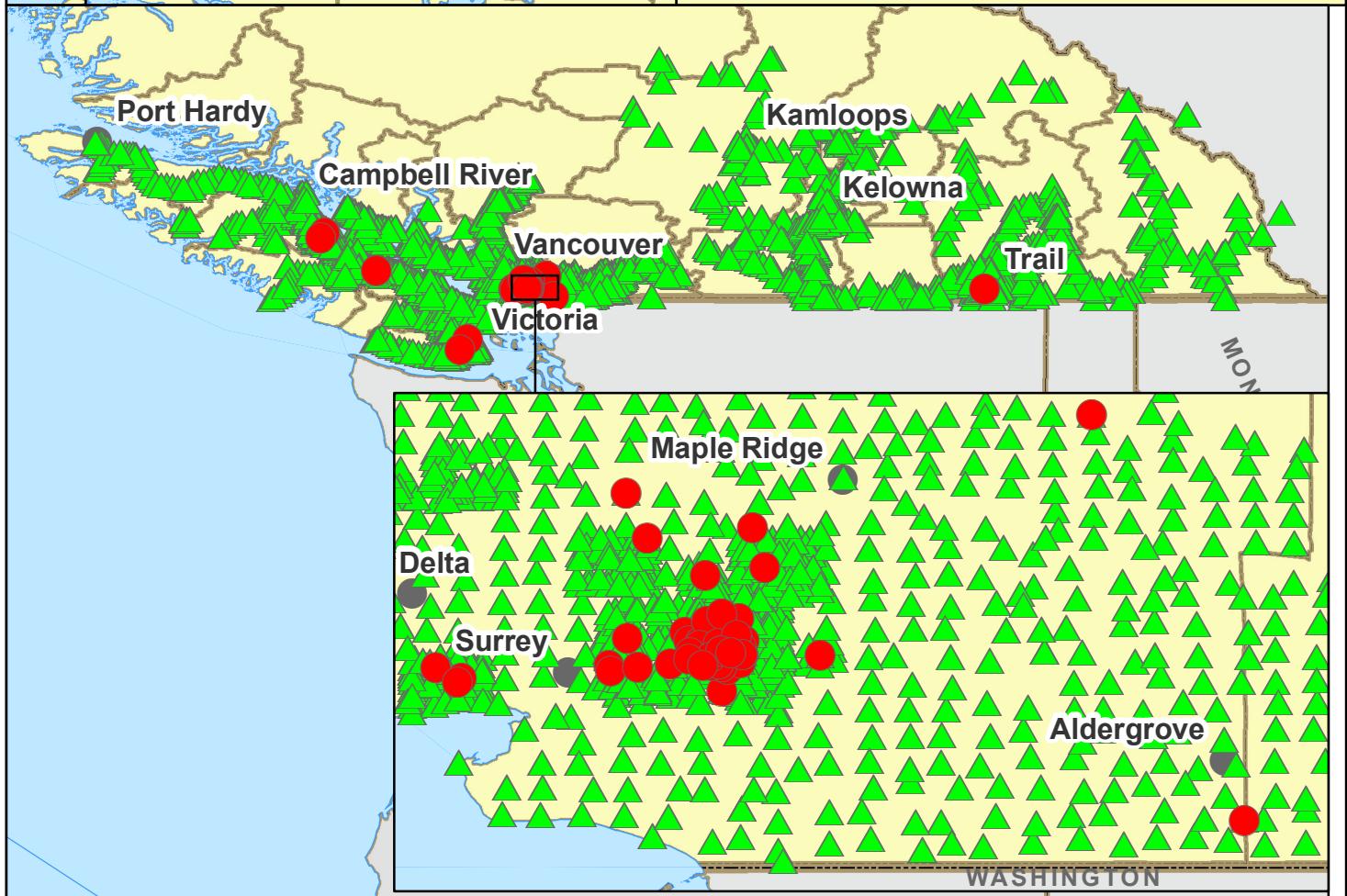
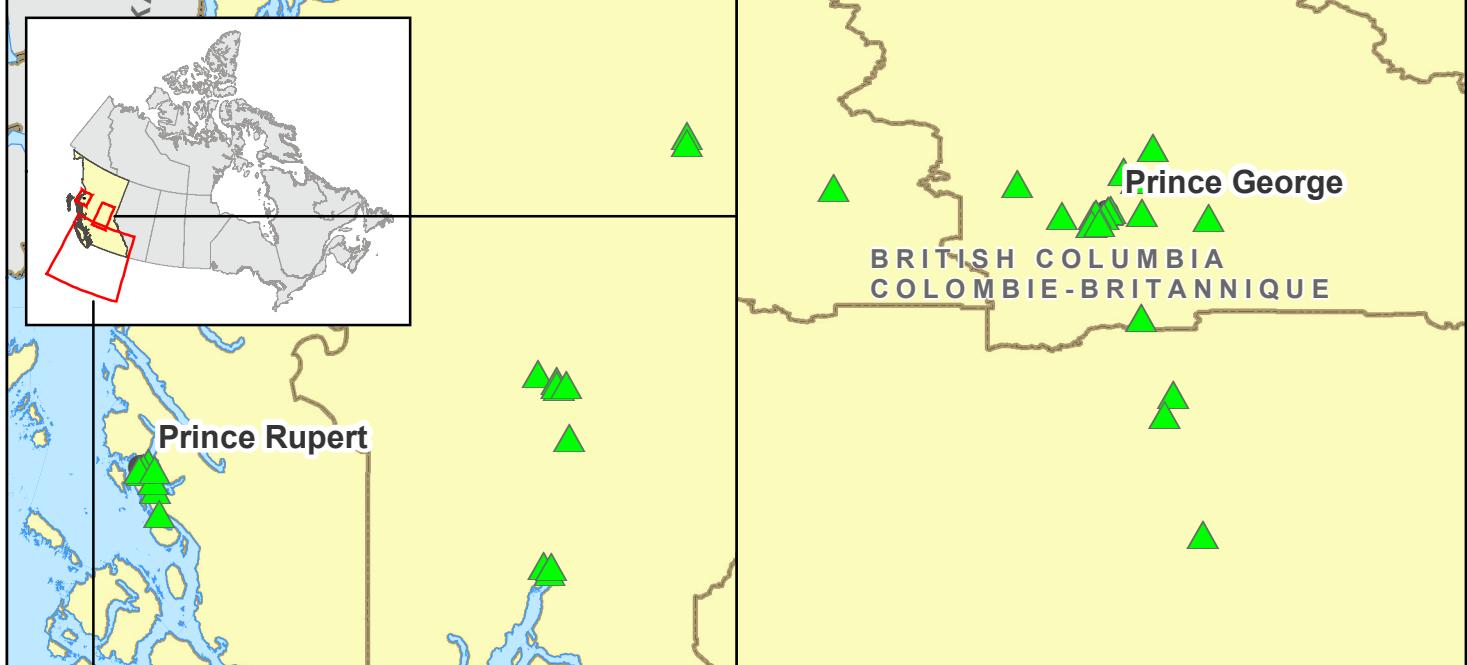
0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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2015 | 09 | 03

European gypsy moth | *Lymantria dispar dispar* | Spongérieuse européenne
British Columbia | 2014–2015 | Colombie-Britannique

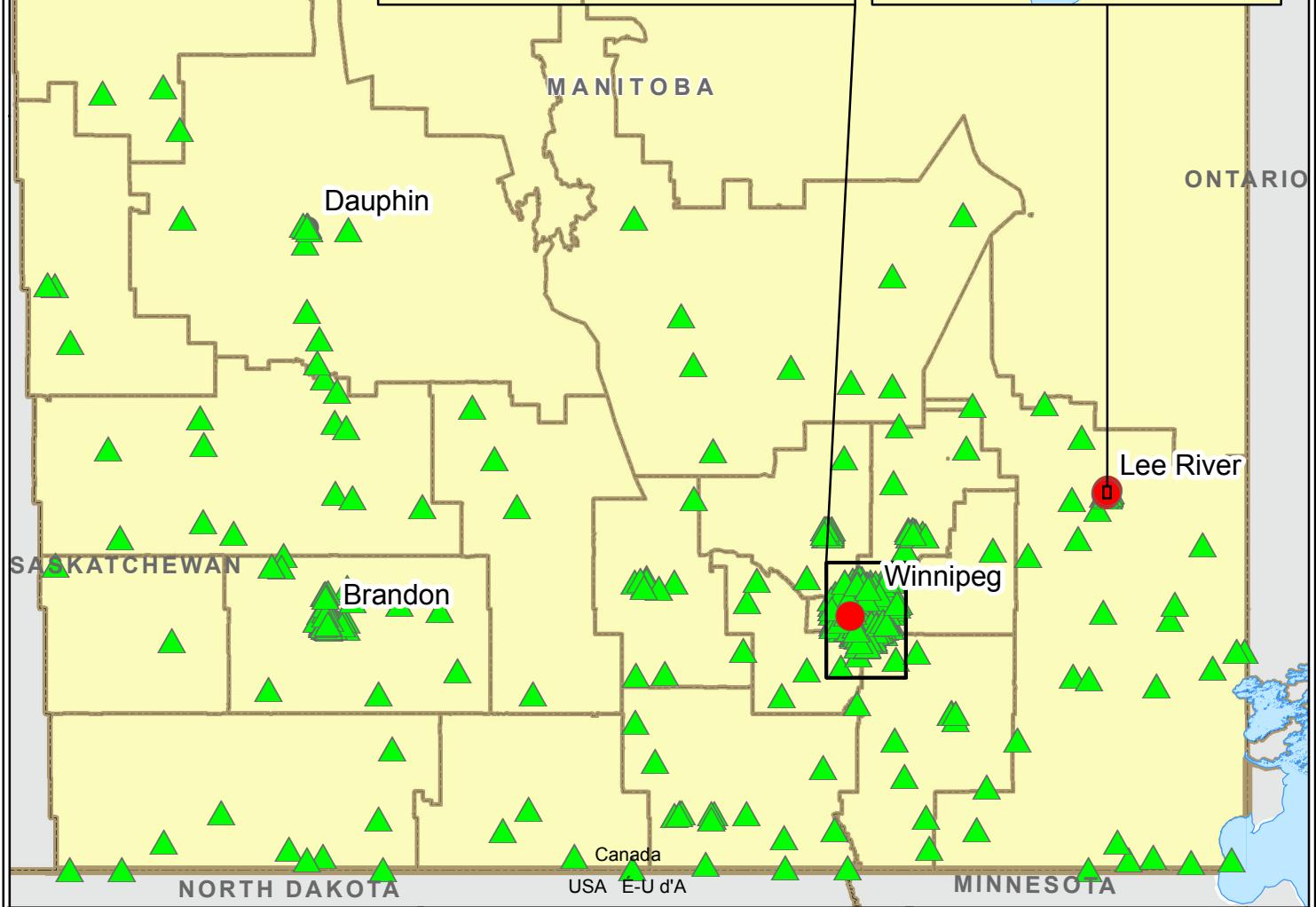
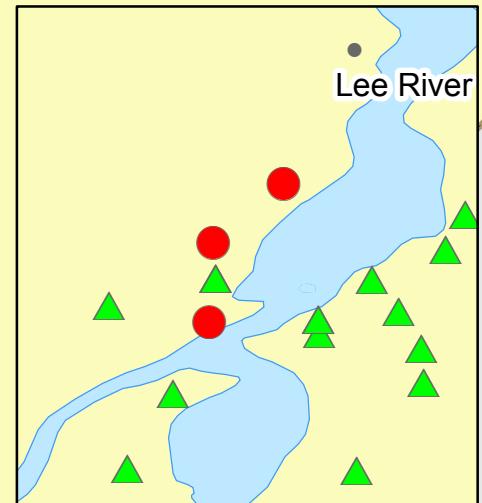
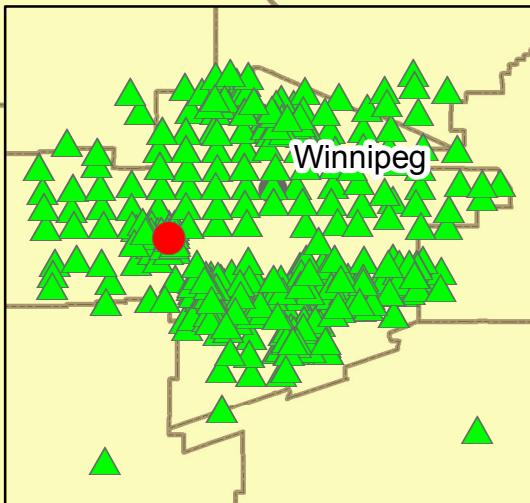


● Positive Site | Site positif
 ▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments, Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
 WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

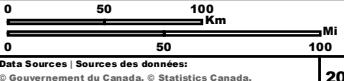
0 50 100 Km
 0 50 100 Mi
 Data Sources | Sources des données:
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 © ESRI and/or © DMTI Spatial Inc.
 2015 | 09 | 03

European gypsy moth | *Lymantria dispar dispar* | Spongieuse européenne
Manitoba | 2014–2015



- Positive Site | Site positif
- ▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
 Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
 WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

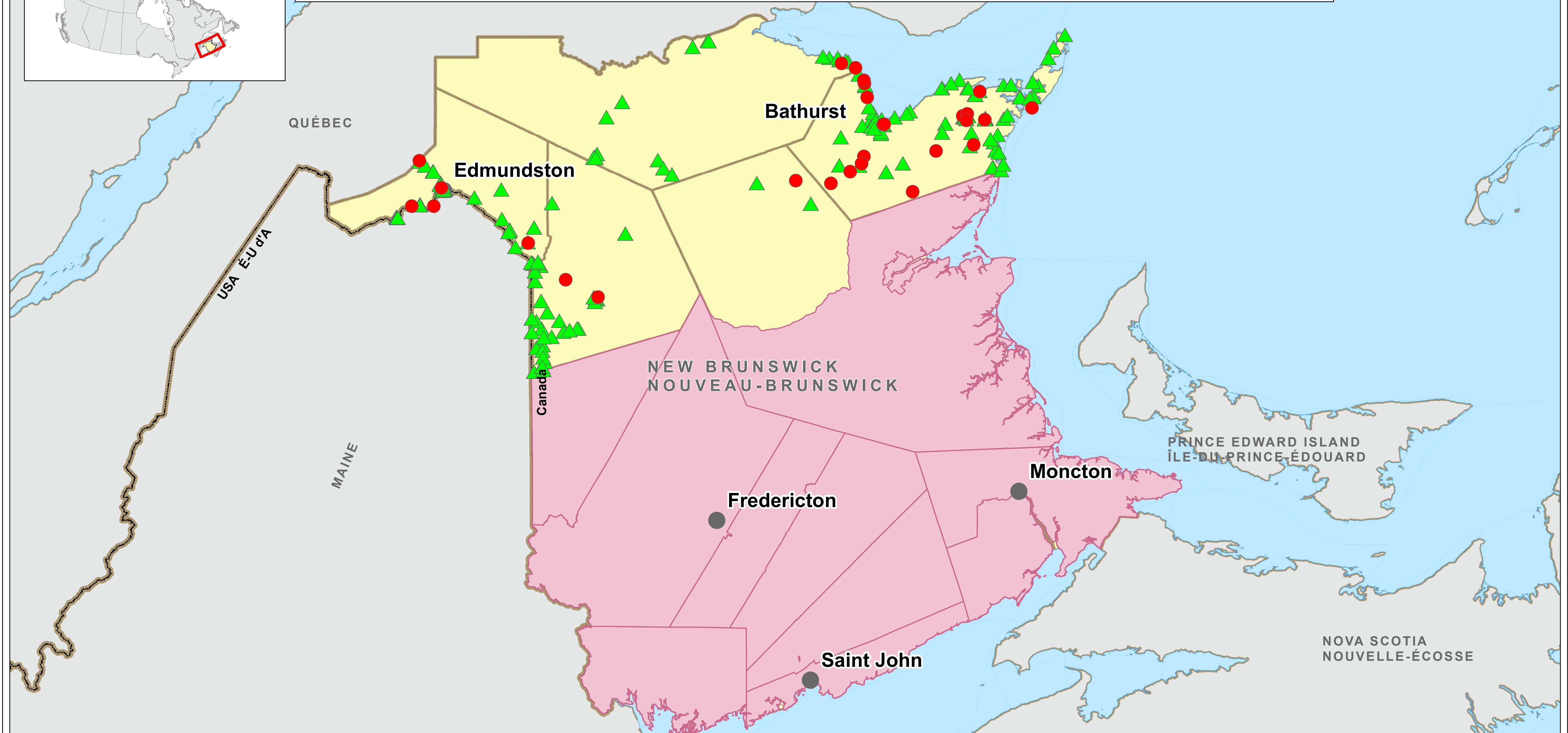


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2015 | 03 | 09

European gypsy moth | *Lymantria dispar dispar* | Spongieuse européenne

New Brunswick | 2014–2015 | Nouveau-Brunswick



● Positive Site | Site positif

■ Regulated Area | Région réglementée

▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Préparé par l'Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

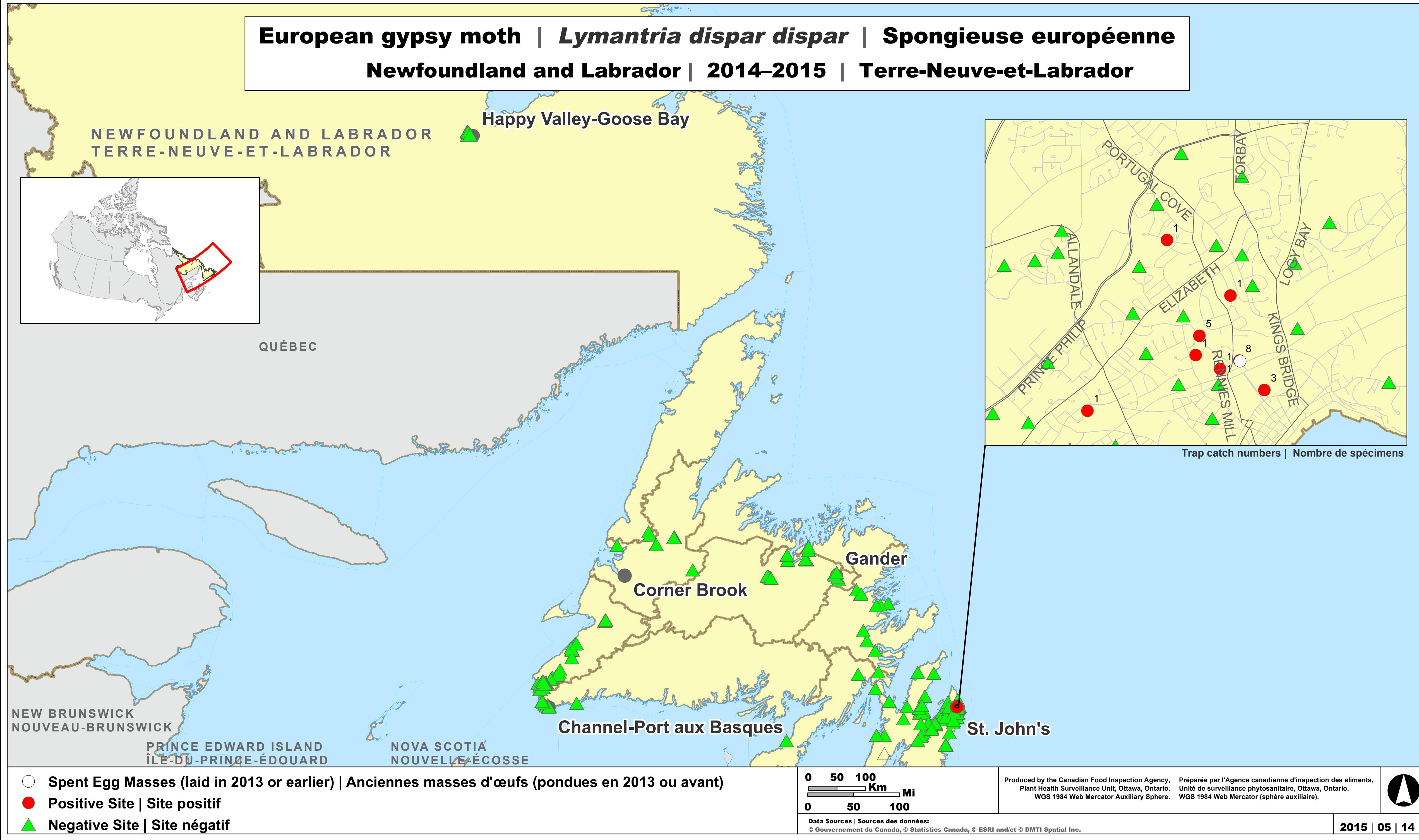
Data Sources | Sources des données:
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2015 | 09 | 03



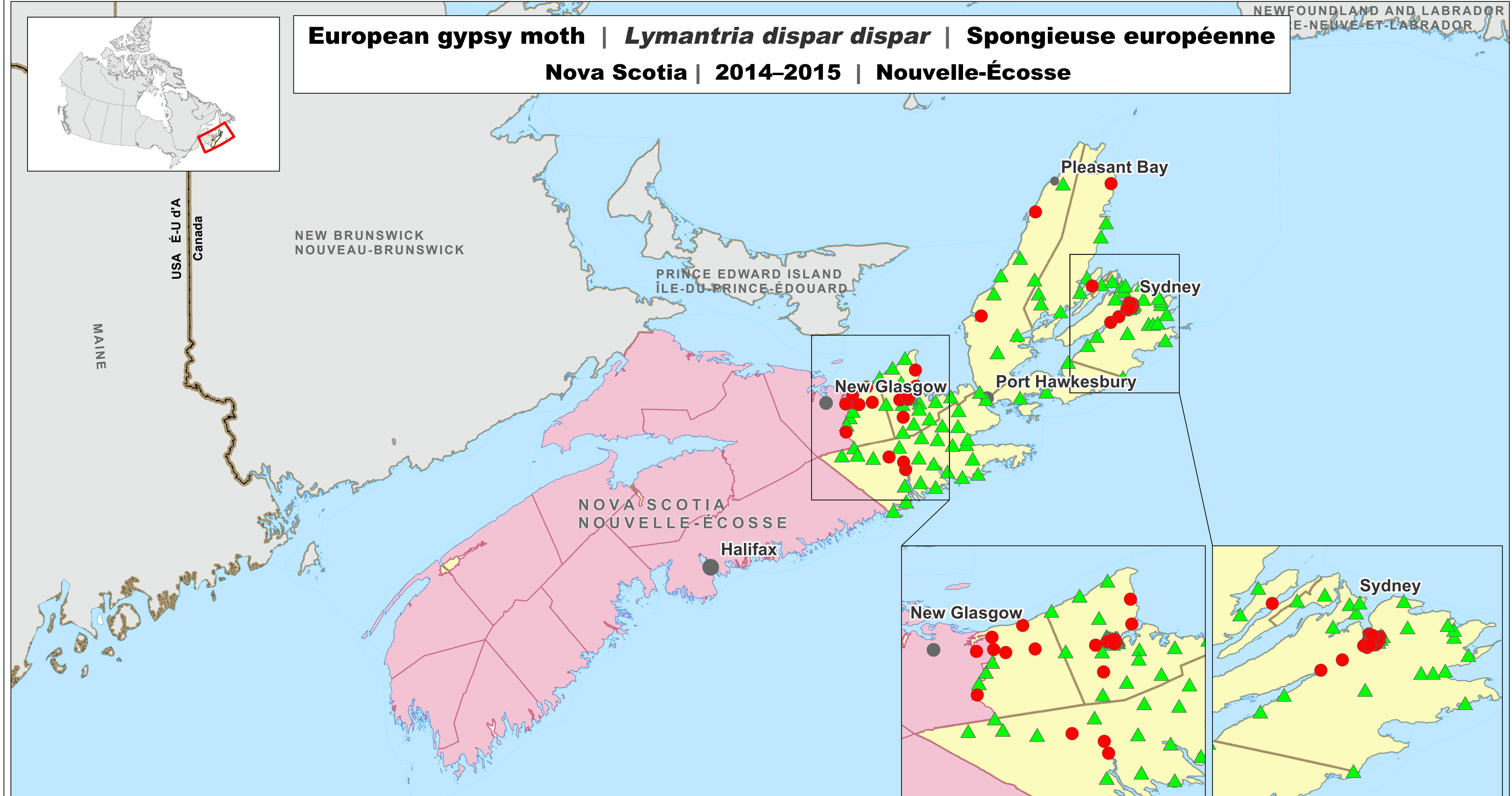
European gypsy moth | *Lymantria dispar dispar* | Spongieuse européenne

Newfoundland and Labrador | 2014–2015 | Terre-Neuve-et-Labrador



European gypsy moth | *Lymantria dispar dispar* | Spongieuse européenne

Nova Scotia | 2014–2015 | Nouvelle-Écosse



● Positive Site | Site positif
▲ Negative Site | Site négatif

■ Regulated Area | Région réglementée

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere.

Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

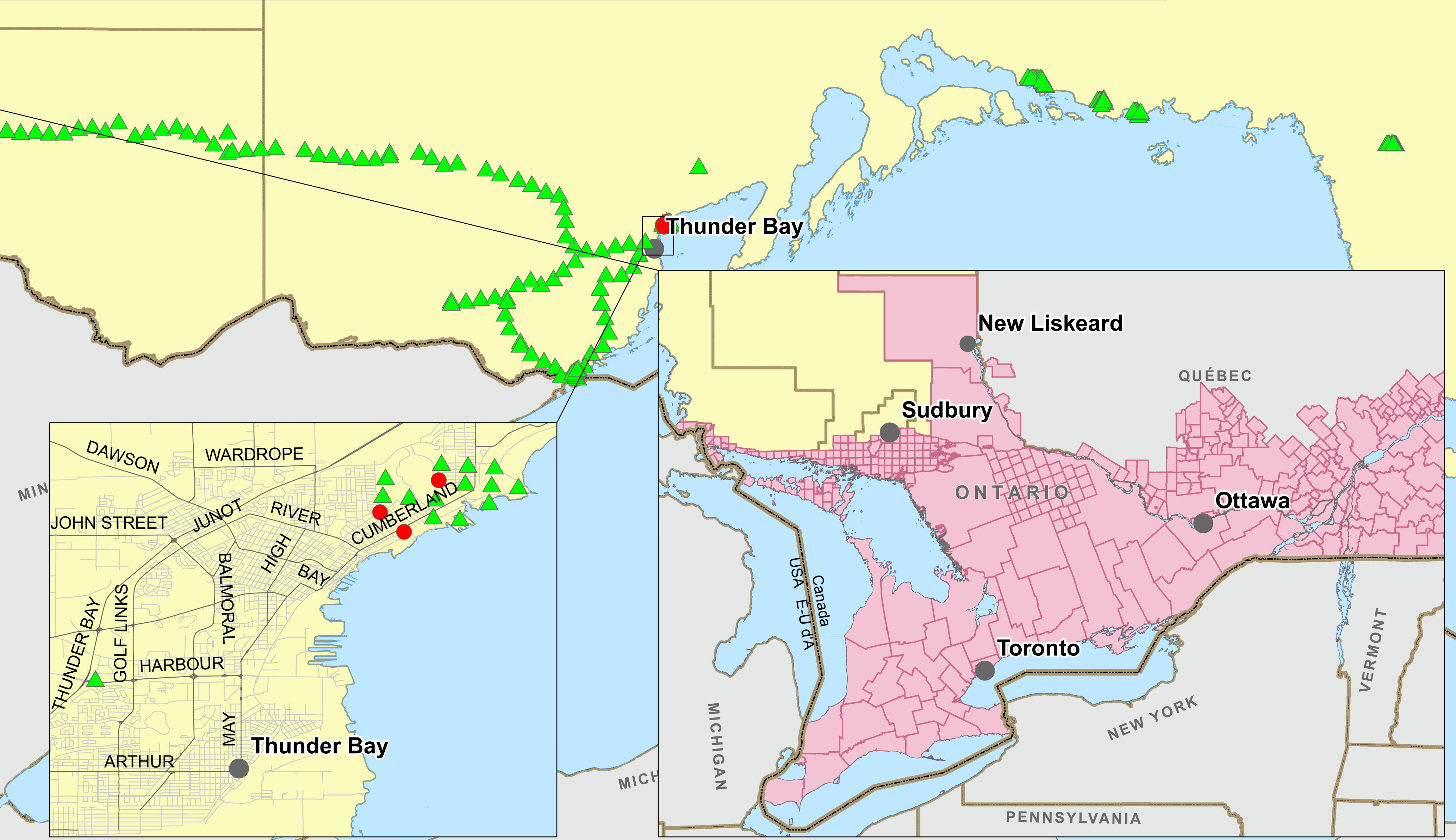
Data Sources | Sources des données:
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2015 | 09 | 03



European gypsy moth | *Lymantria dispar dispar* | Spongieuse européenne

Ontario | 2014–2015



● Positive Site | Site positif

■ Regulated Area | Région réglementée

▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere.

Préparée par l'Agence canadienne d'inspection des aliments,
Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100

Km Mi

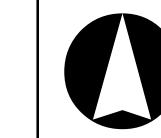
0 50 100

Mi

Data Sources | Sources des données:

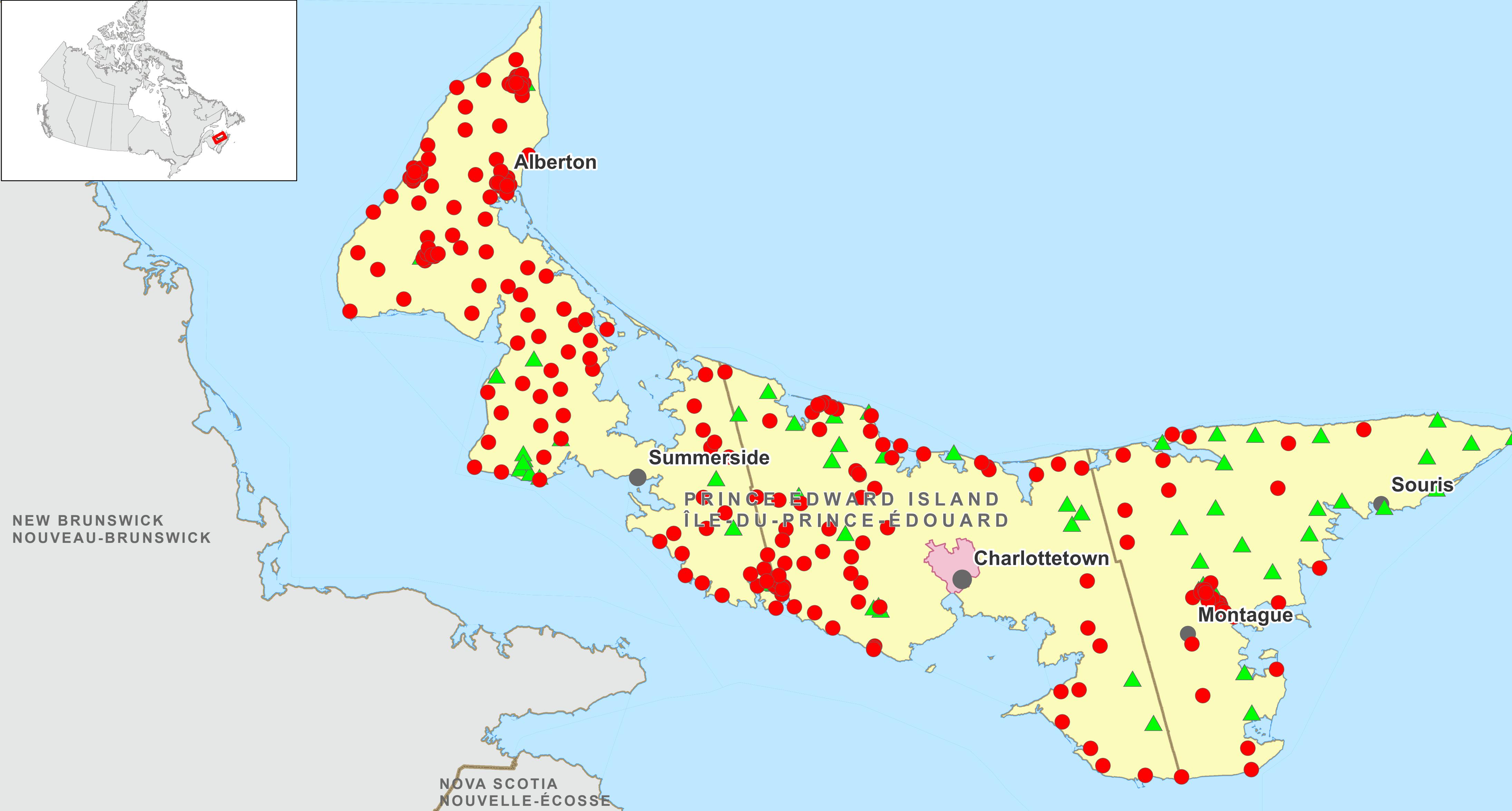
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2015 | 08 | 05



European gypsy moth | *Lymantria dispar dispar* | Spongieuse européenne

Prince Edward Island | 2014–2015 | Île-du-Prince-Édouard



● Positive Site | Site positif

▲ Negative Site | Site négatif

■ Regulated Area | Région réglementée

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere.

Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

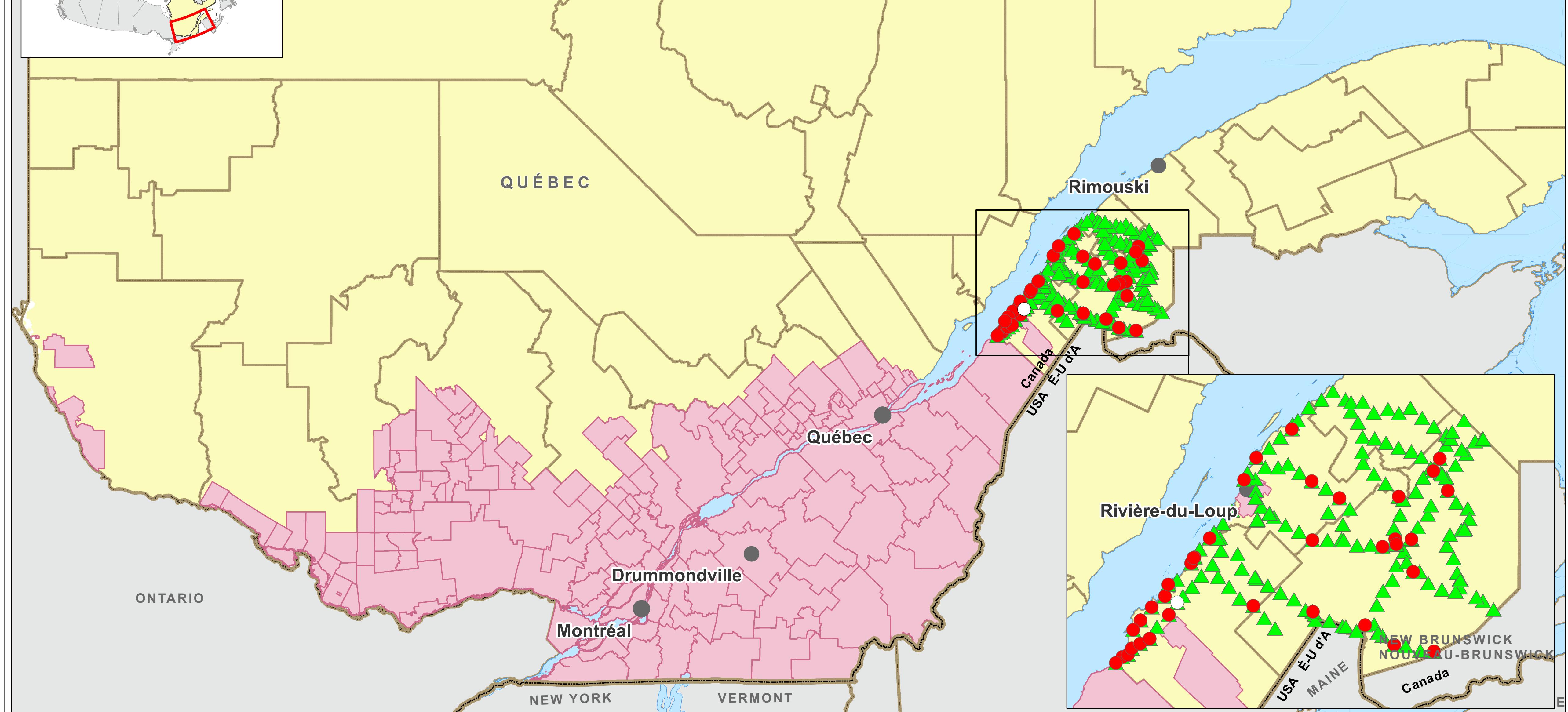
0 50 100 Km
0 50 Mi


Data Sources | Sources des données:
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2015 | 09 | 04

European gypsy moth | *Lymantria dispar dispar* | Spongieuse européenne

Québec | 2014–2015



- Spent Egg Masses (laid in 2013 or earlier) | Anciennes masses d'oeufs (pondues en 2013 ou avant)
 - Positive Site | Site positif
 - ▲ Negative Site | Site négatif
- Regulated Area | Région réglementée

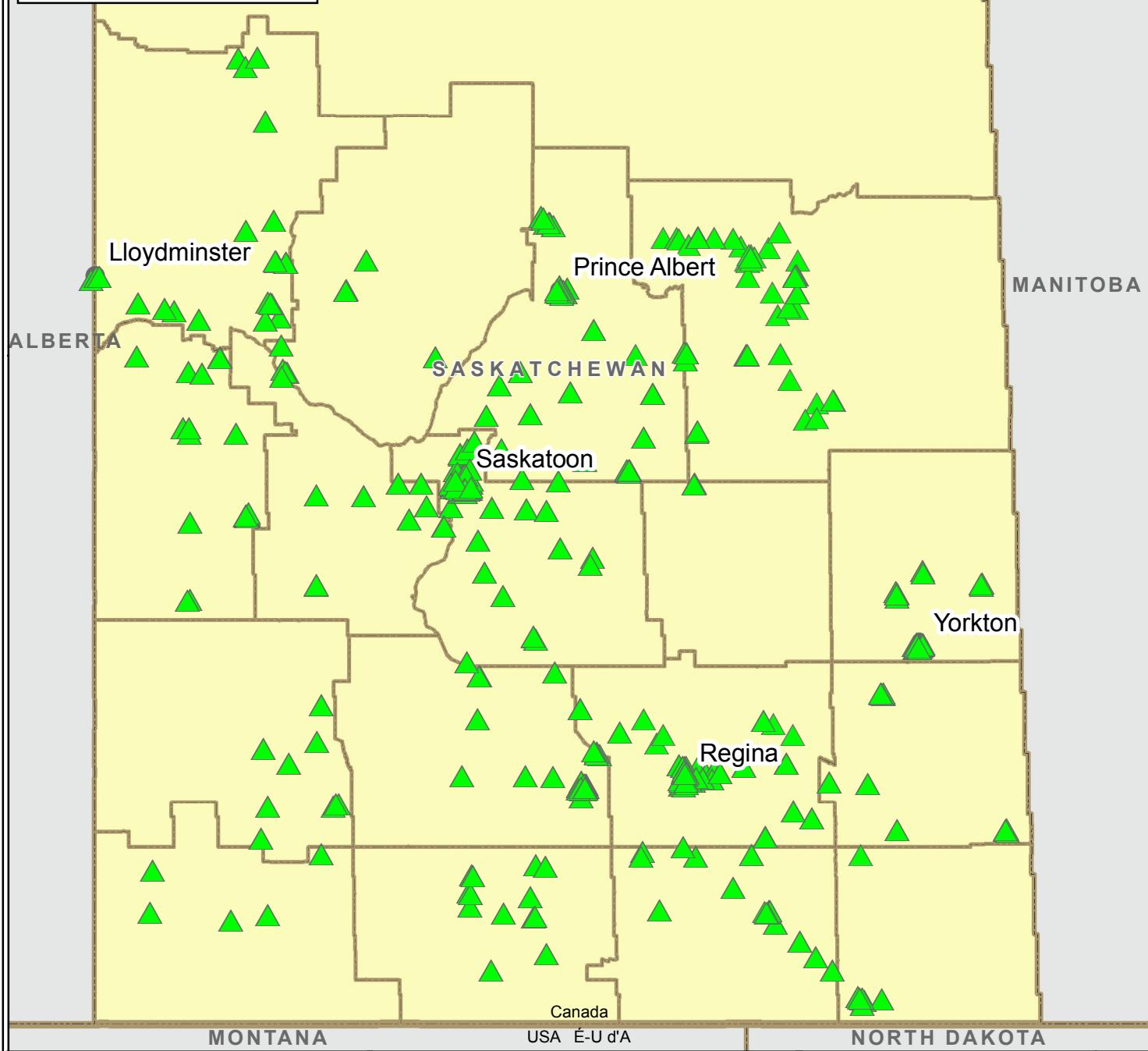
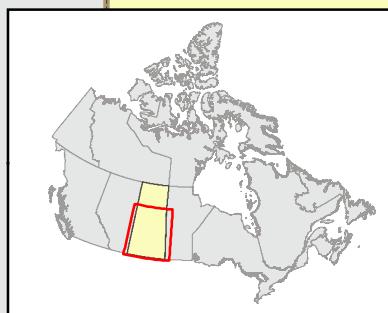
Produced by the Canadian Food Inspection Agency, Préparée par l'Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi
Data Sources | Sources des données:
© Gouvernement du Canada, © Statistics Canada, © ESRI and/or © DMTI Spatial Inc.

2015 | 09 | 04



European gypsy moth | *Lymantria dispar dispar* | Spongieuse européenne
Saskatchewan | 2014–2015



▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
 Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
 WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
 0 50 100 Mi
 Data Sources | Sources des données:
 © Gouvernement du Canada, © Statistics Canada,
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2015 | 03 | 03

Pink gypsy moth | *Lymantria mathura* | Spongieuse rose
British Columbia | 2014–2015 | Colombie-Britannique



▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km

0 50 100 Mi

Data Sources | Sources des données:

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2015 | 09 | 02

2014

Brown spruce longhorn beetle | Longicorne brun de l'épinette

Eastern Canada | Canada est

Quebec
Québec

New Brunswick
Nouveau-Brunswick

Prince Edward Island
Île-du-Prince-Édouard

Maine

Vermont

Nova Scotia
Nouvelle-Écosse

Atlantic Ocean
Océan Atlantique

Survey Site / Site d'enquête

- BSLB Detected
LBE détecté
- ▲ BSLB Not Detected
LBE pas détecté
- BSLB Containment Area
Zone de confinement LBE

0 100 200 km

2006 - 2014 / 08 / 5

Brown Spruce Longhorn Beetle
Longicorne brun de l'épinette

**Positive Sites
Outside Regulated Area**

**Sites positifs
à l'extérieur de la
Région réglementée**

Legend / Légende

Year - Année Label - Étiquette

- 2006 (1)
- 2007 (2 - 19)
- 2008 (20 - 27)
- 2009 (28 - 46)
- 2010 (47 - 59)
- 2011 (60 - 65)
- 2012 (66 - 93)
- 2013 (94 - 102)
- 2014 (103 - 104)



Regulated Area: Brown Spruce Longhorn Beetle
Région réglementée: Longicorne brun de l'épinette



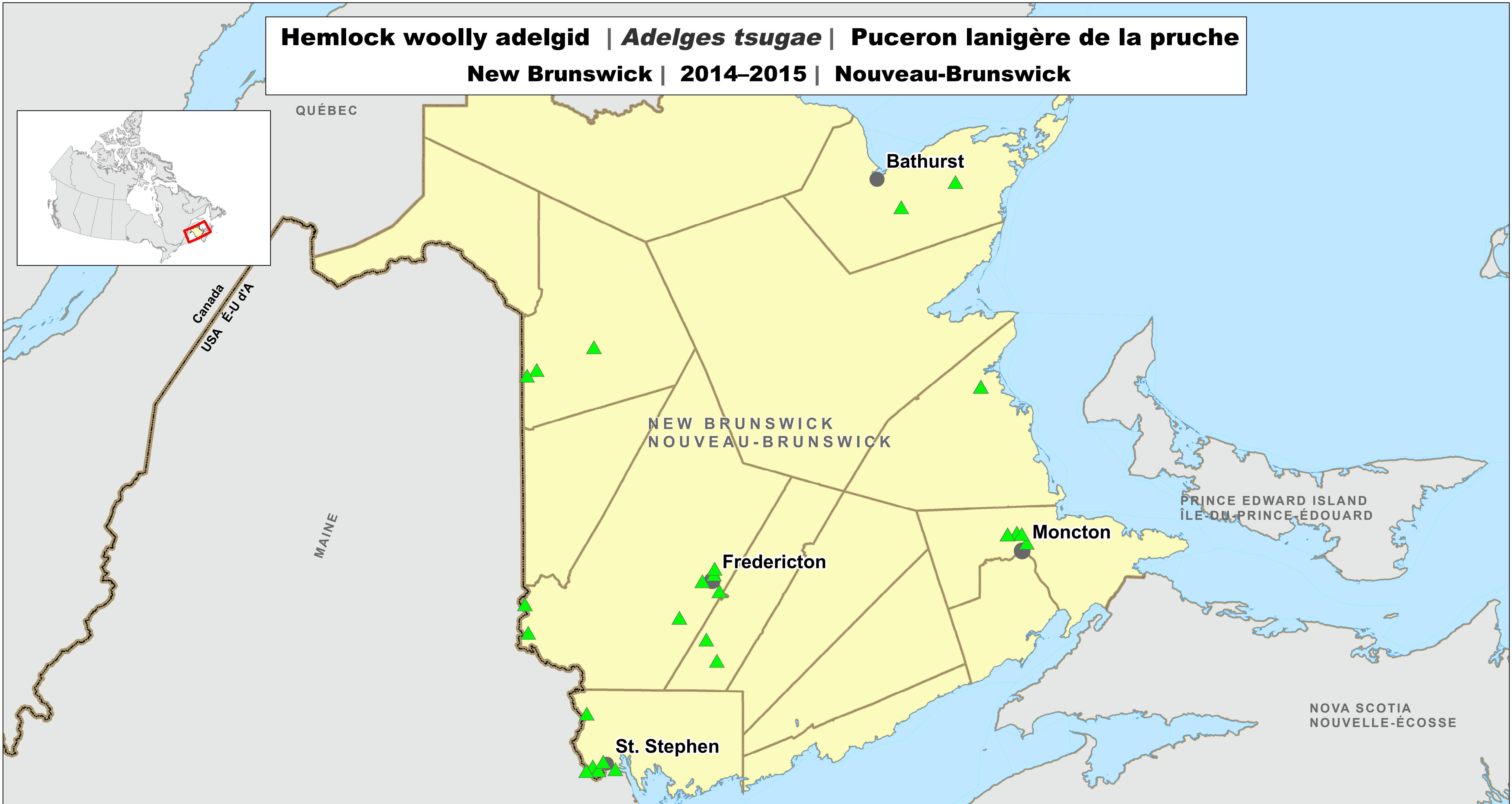
While this map may not be free from error or omission, care has been taken to ensure the best possible quality. The CFIA makes no representations or warranties, either expressed or implied, as to the accuracy of the information presented and the client assumes the entire risk as to the use of any or all information.

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Date: 08 / 13 / 2014

Hemlock woolly adelgid | *Adelges tsugae* | Puceron lanigère de la pruche

New Brunswick | 2014–2015 | Nouveau-Brunswick



 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

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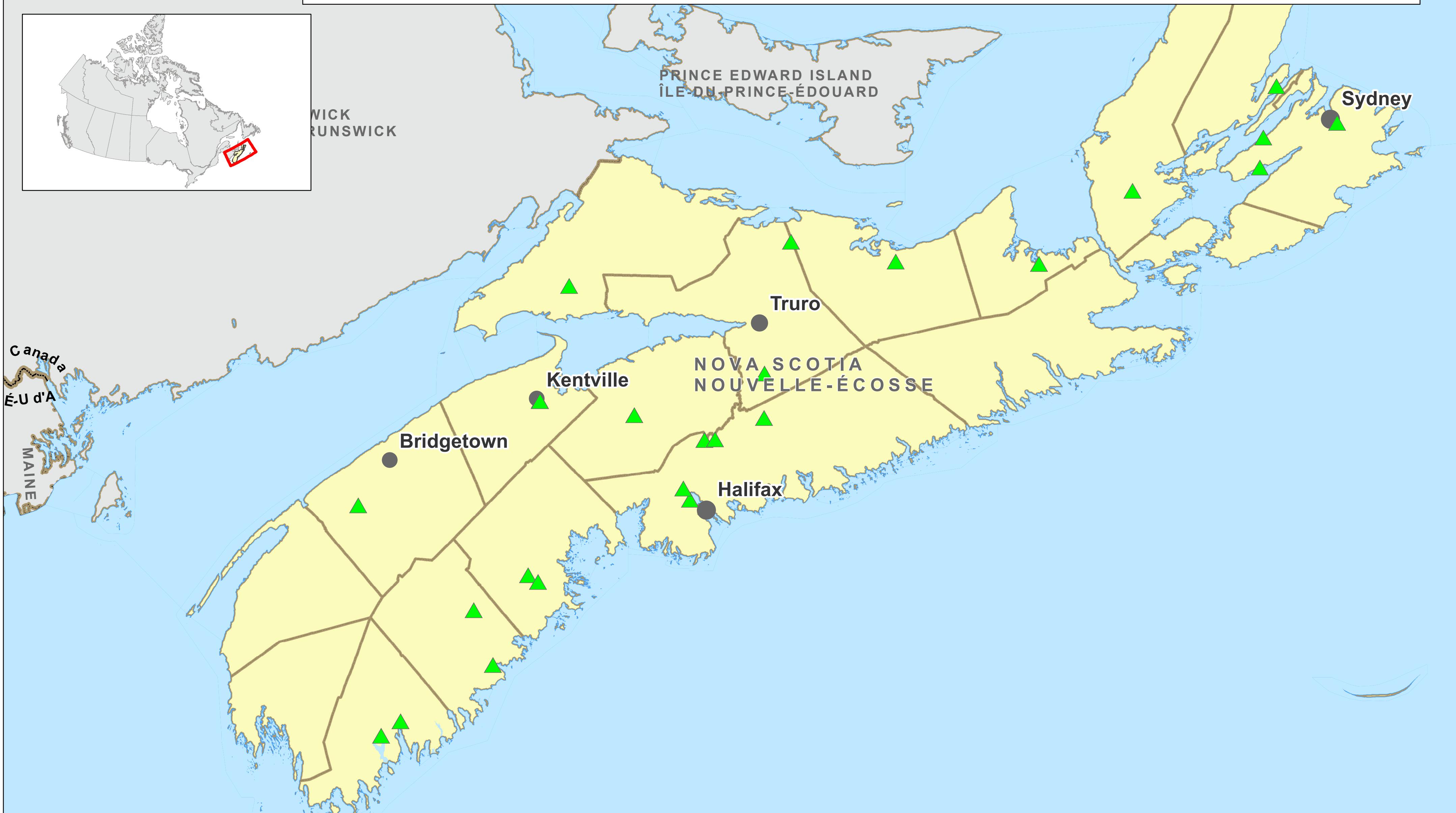
Data Sources | Sources des données:
© Gouvernement du Canada, © Statistics Canada, © ESRI and/or © DMTI Spatial Inc.

2015 | 09 | 02



Hemlock woolly adelgid | *Adelges tsugae* | Puceron lanigère de la pruche

Nova Scotia | 2014–2015 | Nouvelle-Écosse



 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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2015 | 09 | 02

Canada

Hemlock woolly adelgid | *Adelges tsugae* | Puceron lanigère de la pruche

Ontario | 2014–2015



MICHIGAN

USA É-U d'A

Canada

ONTARIO

Toronto

London

Hamilton

Niagara Falls

Windsor

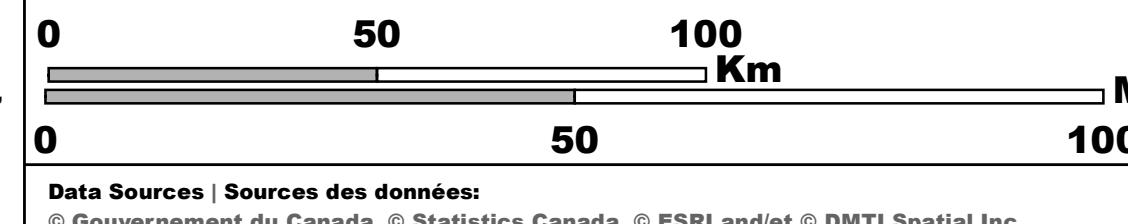
NEW YORK

Canada

PENNSYLVANIA

- Positive Site | Site positif
- ▲ Negative Site | Site négatif

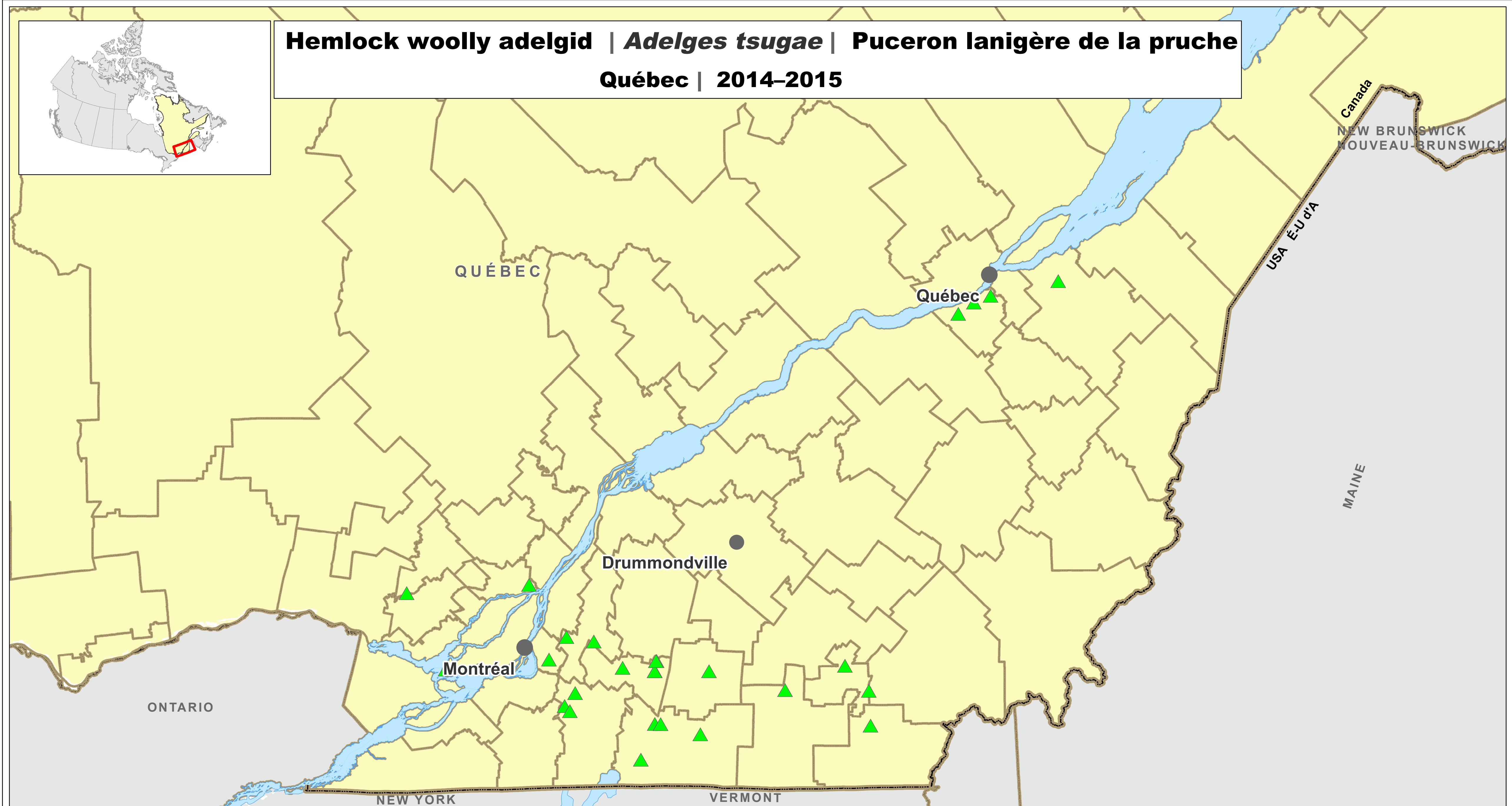
Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. Préparé par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).



2015 | 08 | 05

Hemlock woolly adelgid | *Adelges tsugae* | Puceron lanigère de la pruche

Québec | 2014–2015



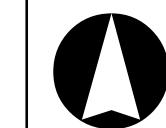
 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere.

Préparée par l'Agence canadienne d'inspection des aliments,
Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator (sphère auxiliaire).

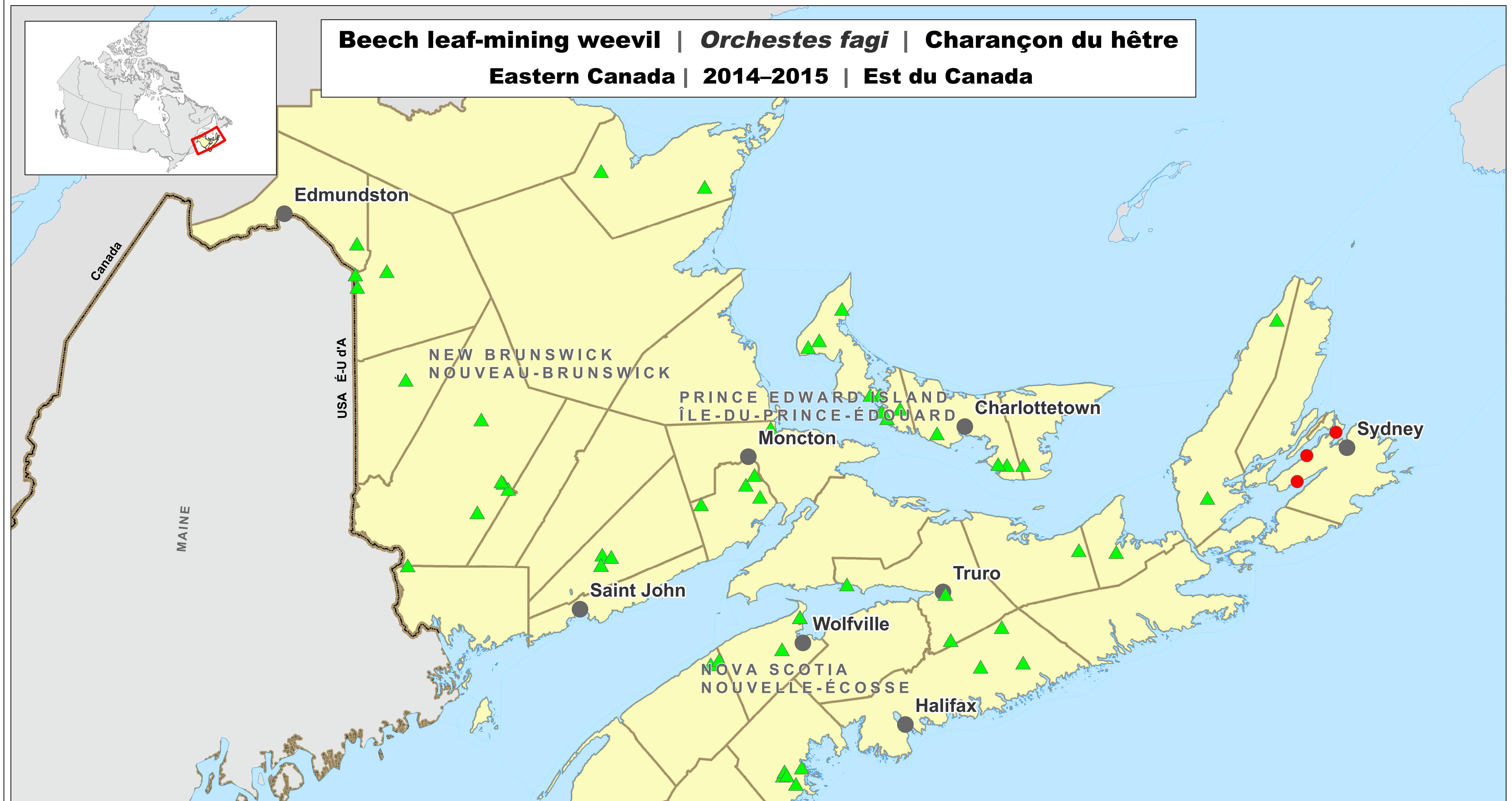
0 50 100 Km
0 50 100 Mi
Data Sources | Sources des données:
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2015 | 09 | 02



Beech leaf-mining weevil | *Orchestes fagi* | Charançon du hêtre

Eastern Canada | 2014–2015 | Est du Canada



Positive Site | Site positif

Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. Préparé par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere.

WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km

0 50 100 Mi

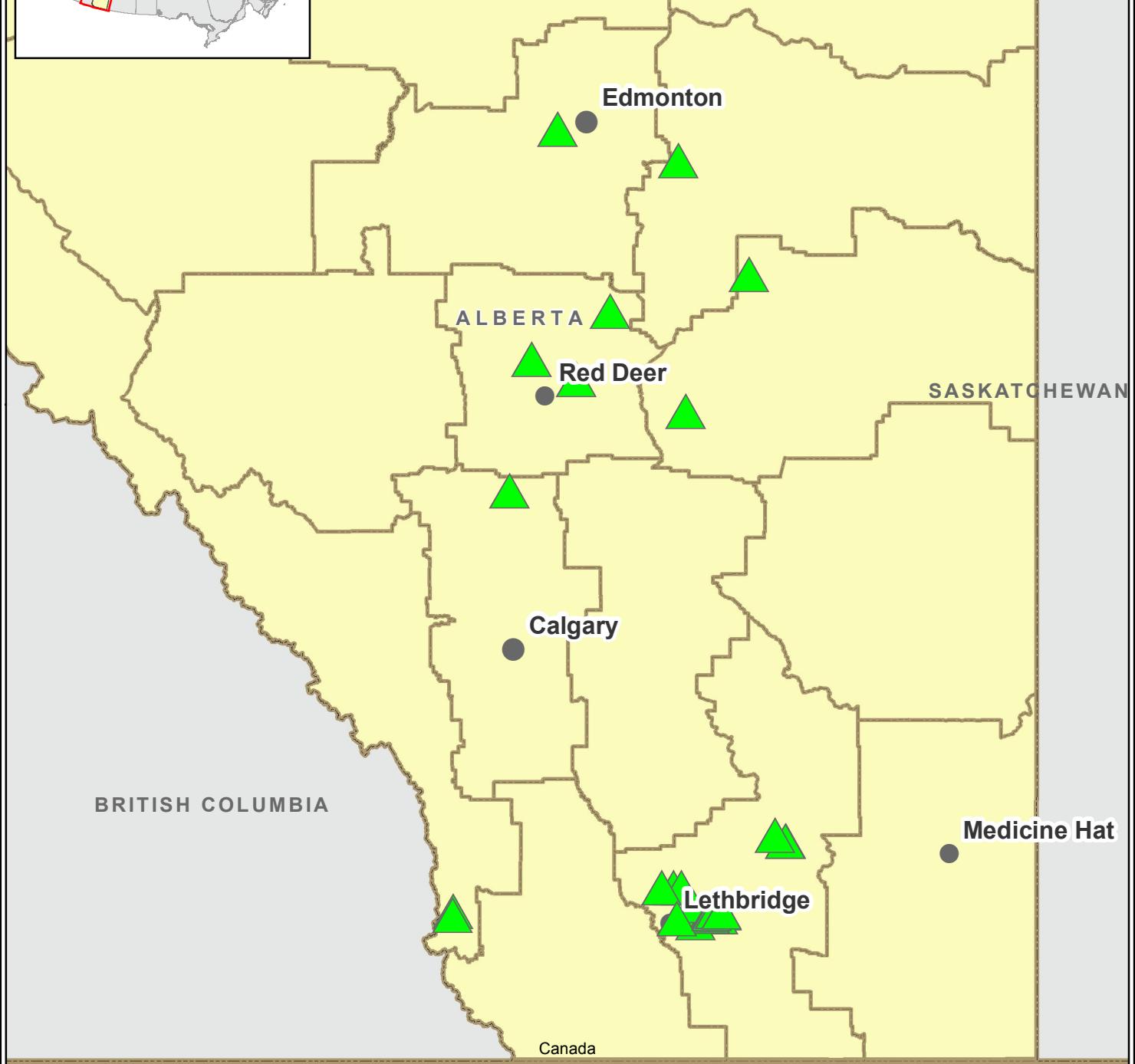
Data Sources | Sources des données:
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2015 | 09 | 02

Woolly cupgrass | *Eriochloa villosa* | Eriochloé velue

Alberta | 2014–2015



▲ Negative Site | Site négatif

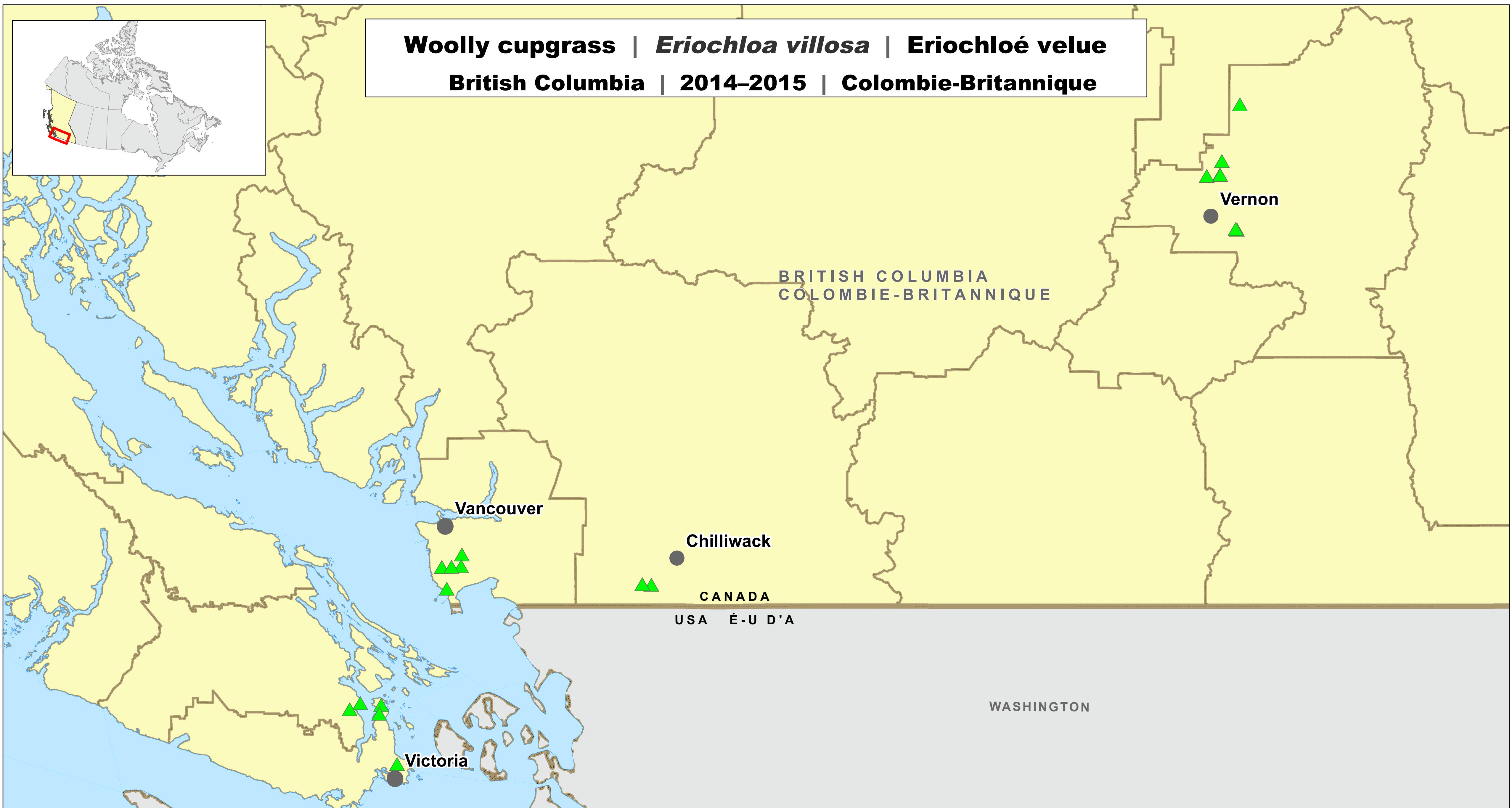
Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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2015 | 09 | 03

Woolly cupgrass | *Eriochloa villosa* | Eriochloé velue
British Columbia | 2014–2015 | Colombie-Britannique



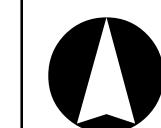
 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparé par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
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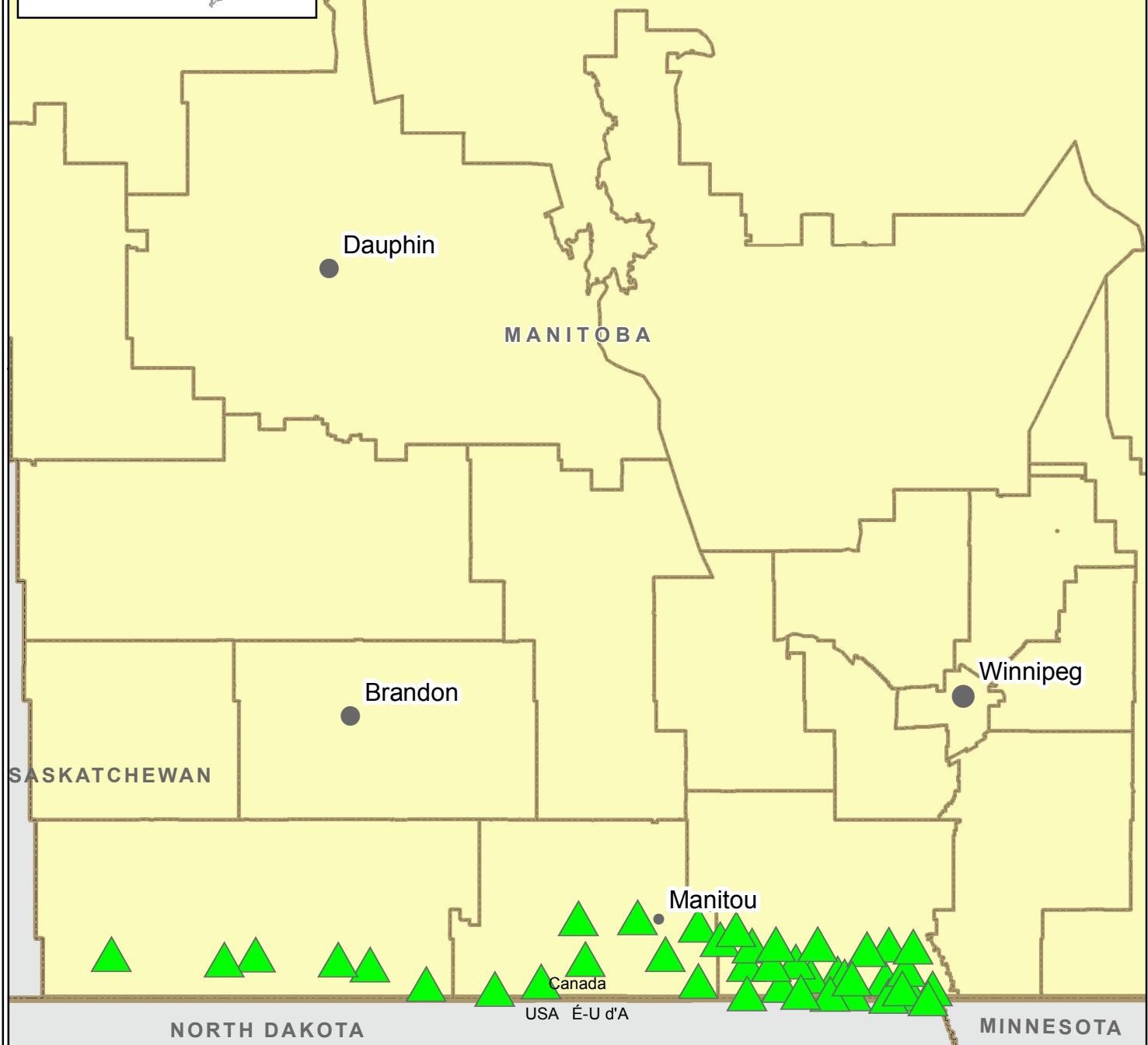
Data Sources | Sources des données:
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2015 | 09 | 03



Woolly cupgrass | *Eriochloa villosa* | Eriochloé velue

Manitoba | 2014–2015



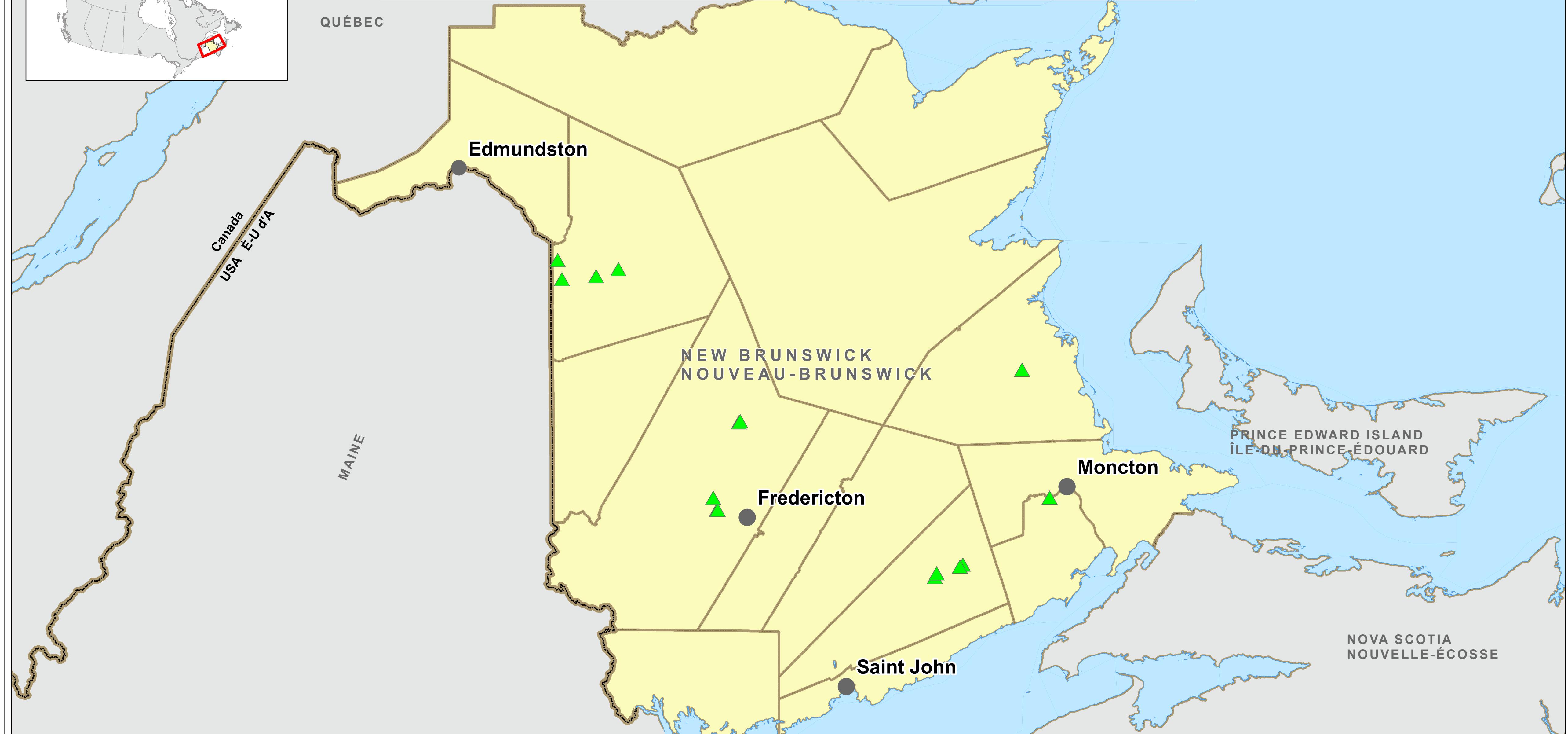
Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50
Data Sources | Sources des données:
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2015 | 09 | 03

Woolly cupgrass | *Eriochloa villosa* | Eriochloé velue

New Brunswick | 2014–2015 | Nouveau-Brunswick



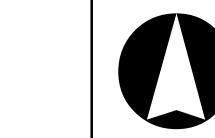
 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
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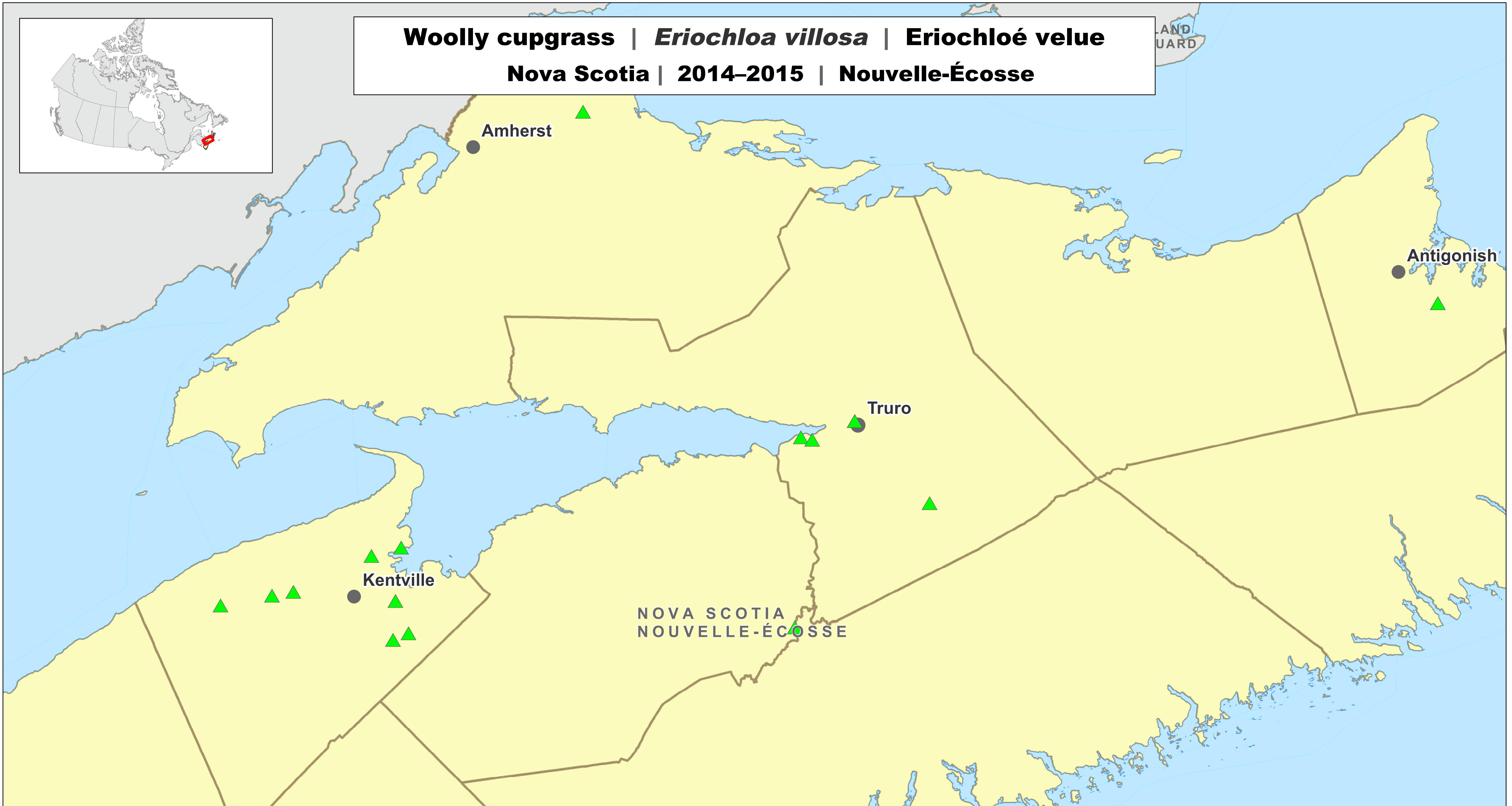
Data Sources | Sources des données:
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2015 | 09 | 03





Woolly cupgrass | *Eriochloa villosa* | Eriochloé velue
Nova Scotia | 2014–2015 | Nouvelle-Écosse



 **Negative Site | Site négatif**

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

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Data Sources | Sources des données:
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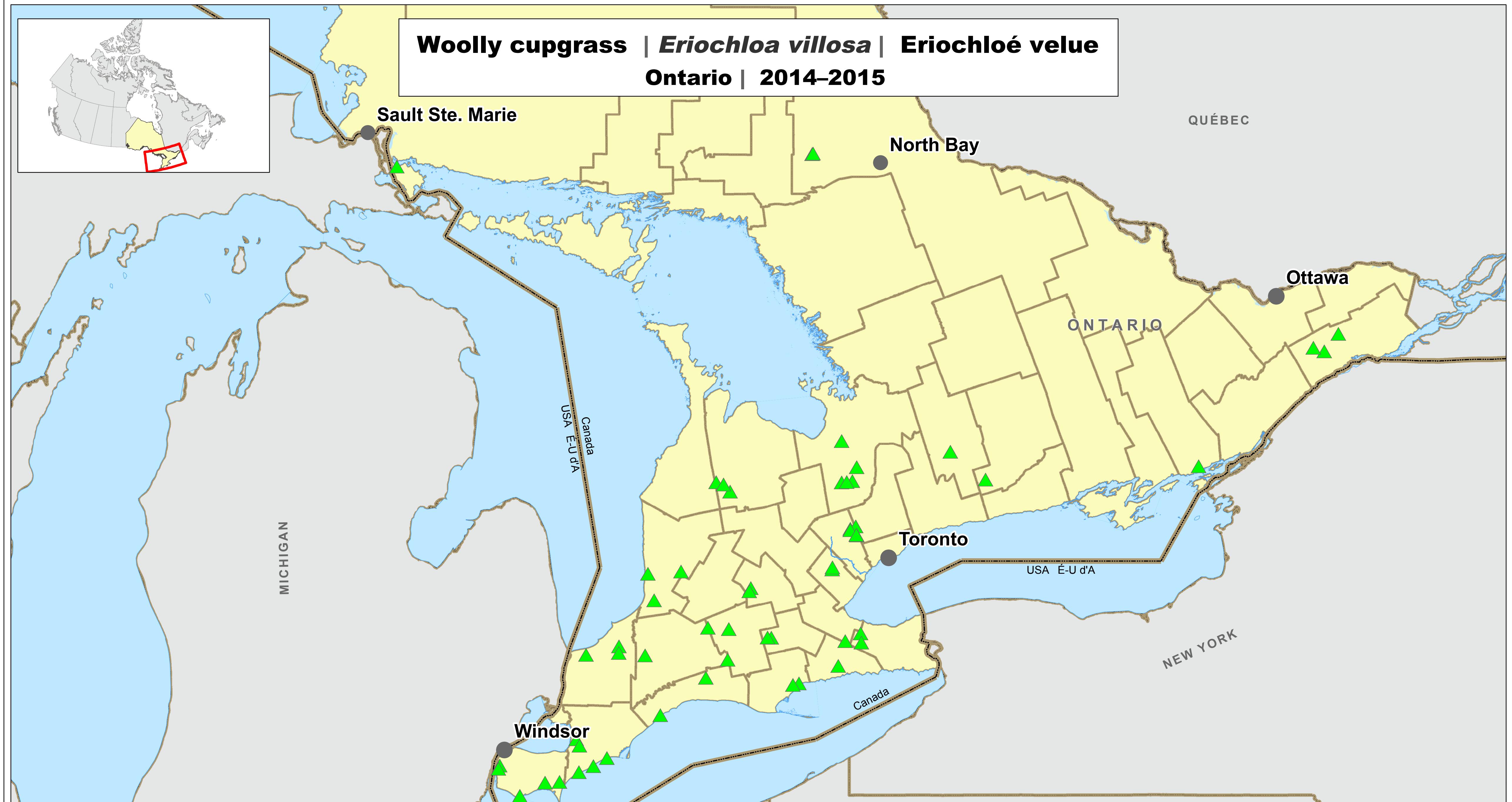
2015 | 09 | 03



Canada

Woolly cupgrass | *Eriochloa villosa* | Eriochloé velue

Ontario | 2014–2015



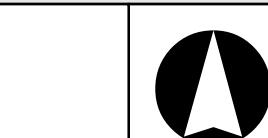
▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere.

Préparé par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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2015 | 08 | 06

Woolly cupgrass | *Eriochloa villosa* | Eriochloé velue
Prince Edward Island | 2014–2015 | Île-du-Prince-Édouard



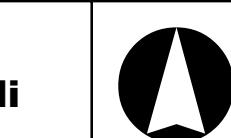
 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Préparée par l'Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).



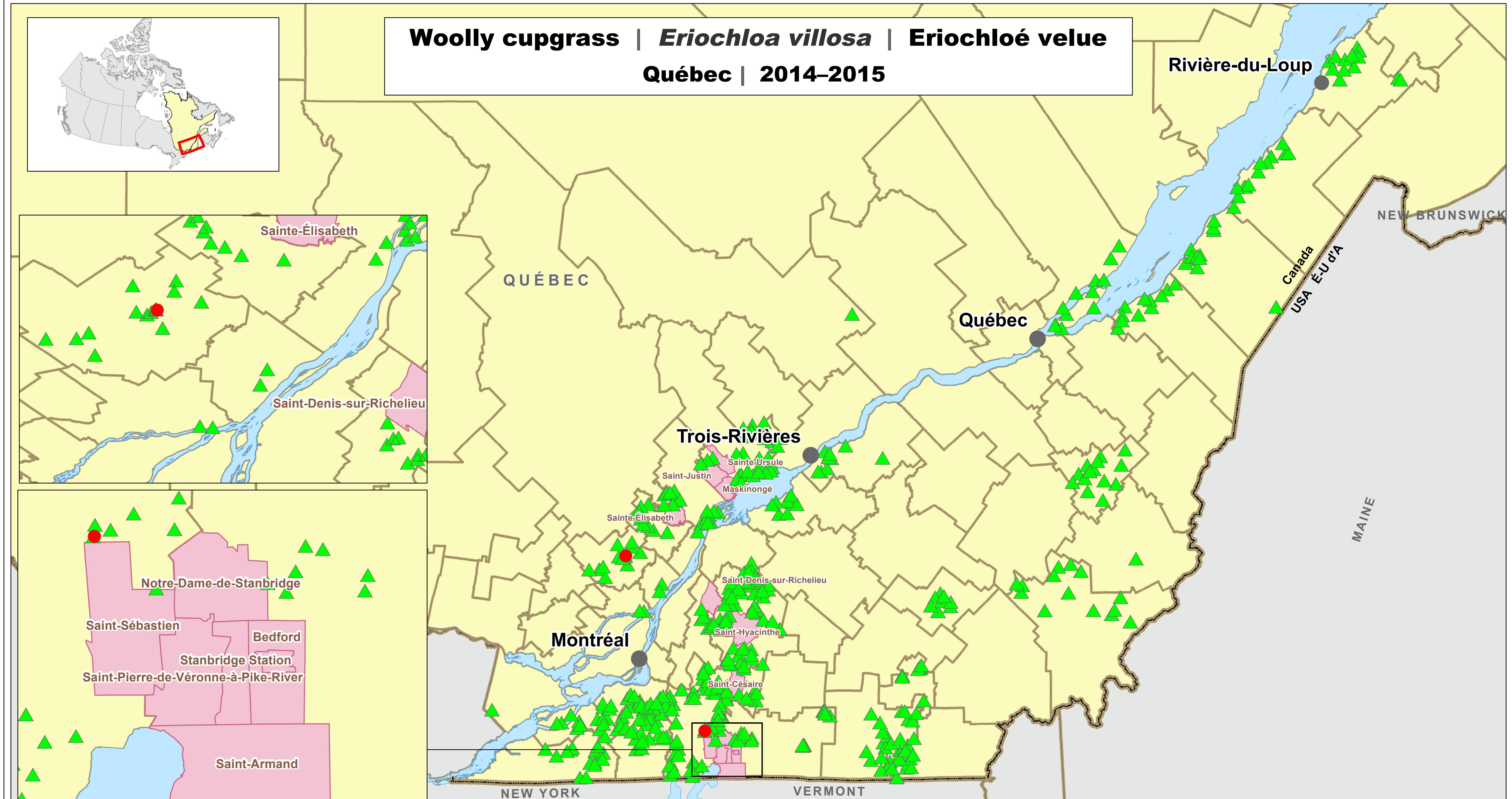
Data Sources | Sources des données:
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2015 | 09 | 03



Woolly cupgrass | *Eriochloa villosa* | Eriochloé velue

Québec | 2014–2015



● Positive Site | Site positif

▲ Negative Site | Site négatif

■ Positive Regional County Municipality | Municipalité régionale de comté positive

Produced by the Canadian Food Inspection Agency,
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Préparée par l'Agence canadienne d'inspection des aliments,
Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere.

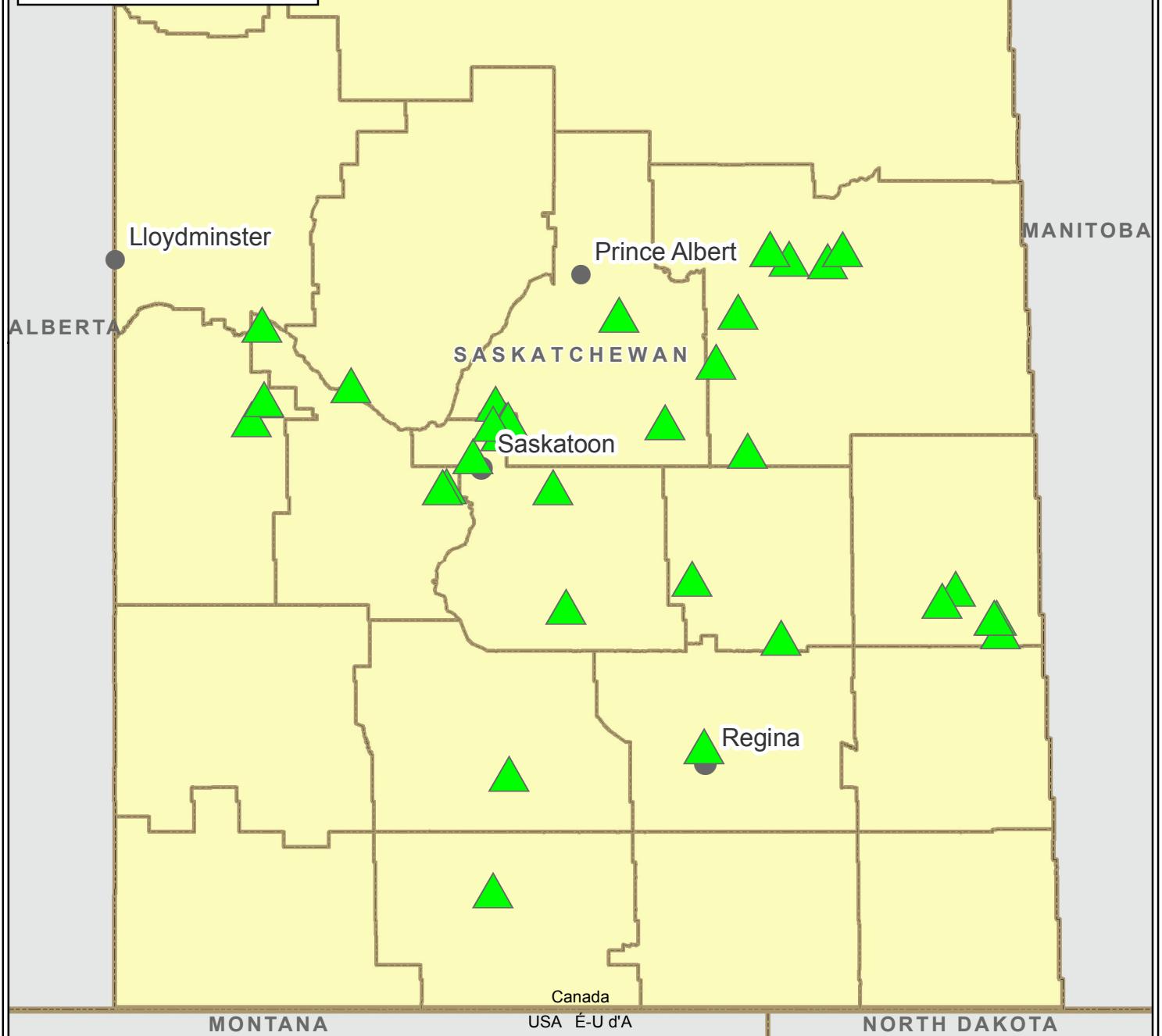
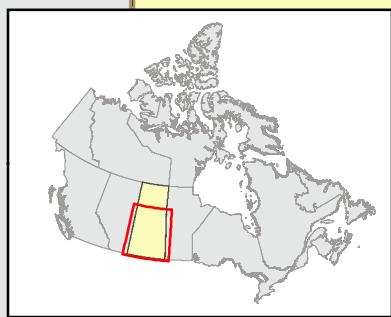
0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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2015 | 09 | 03

Woolly cupgrass | *Eriochloa villosa* | Eriochloé velue

Saskatchewan | 2014–2015



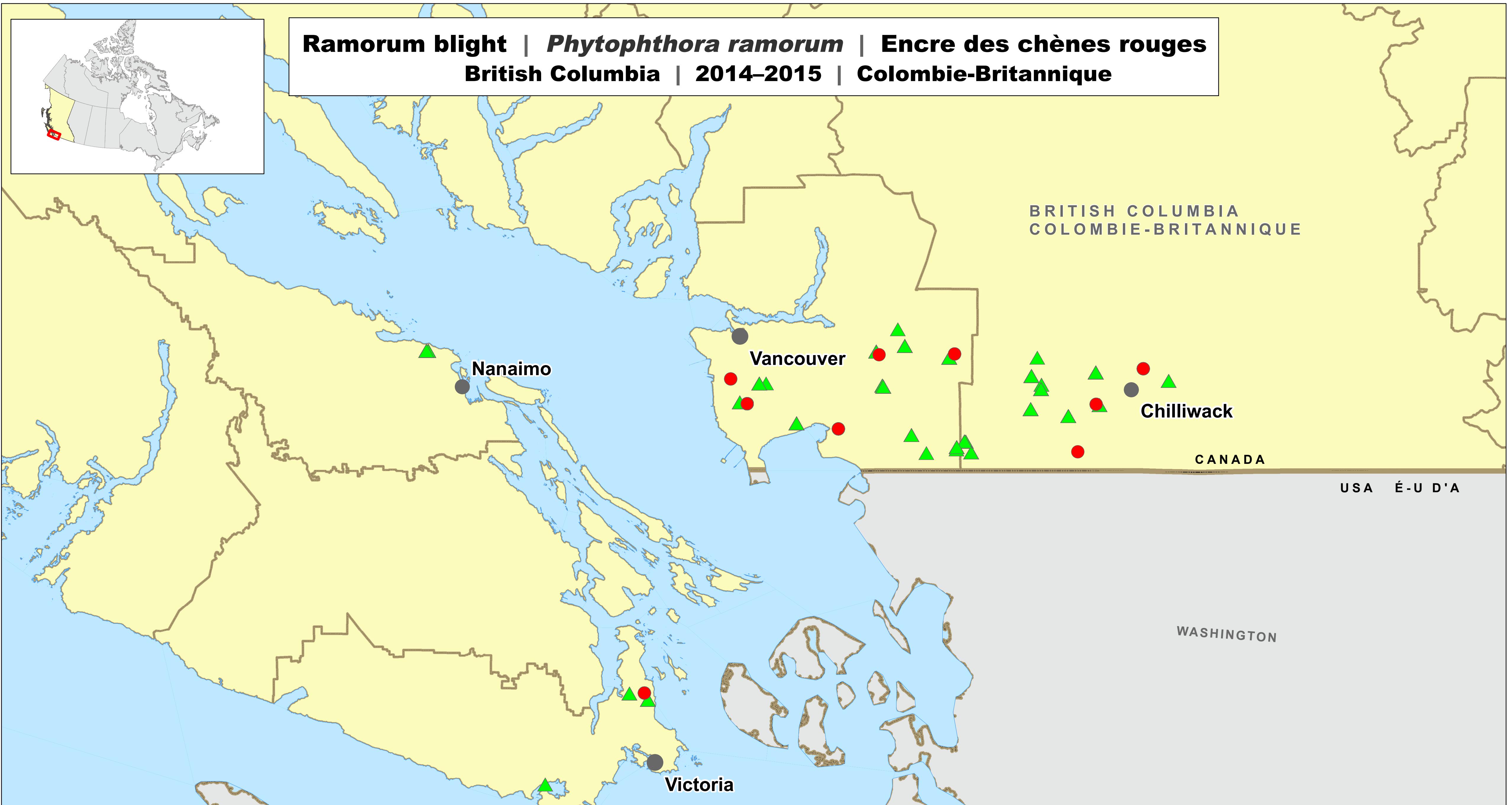
▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency. Préparée par l'Agence canadienne d'inspection des aliments
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
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Data Sources | Sources des données:
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2015 | 09 | 03

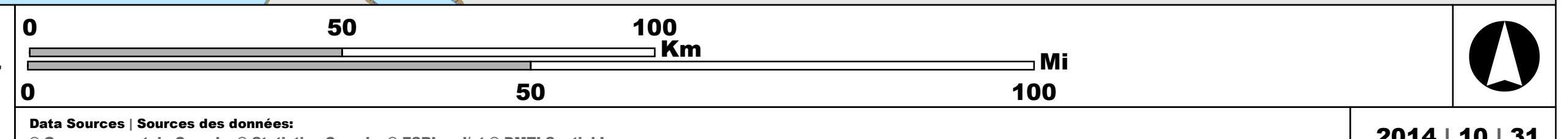
Ramorum blight | *Phytophthora ramorum* | Encre des chênes rouges British Columbia | 2014–2015 | Colombie-Britannique



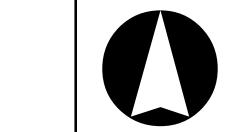
- Positive Site | Site positif
- ▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere.

Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).



2014 | 10 | 31



Ramorum blight | *Phytophthora ramorum* | Encre des chênes rouges

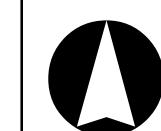
Nova Scotia | 2014–2015 | Nouvelle-Écosse



▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparé par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

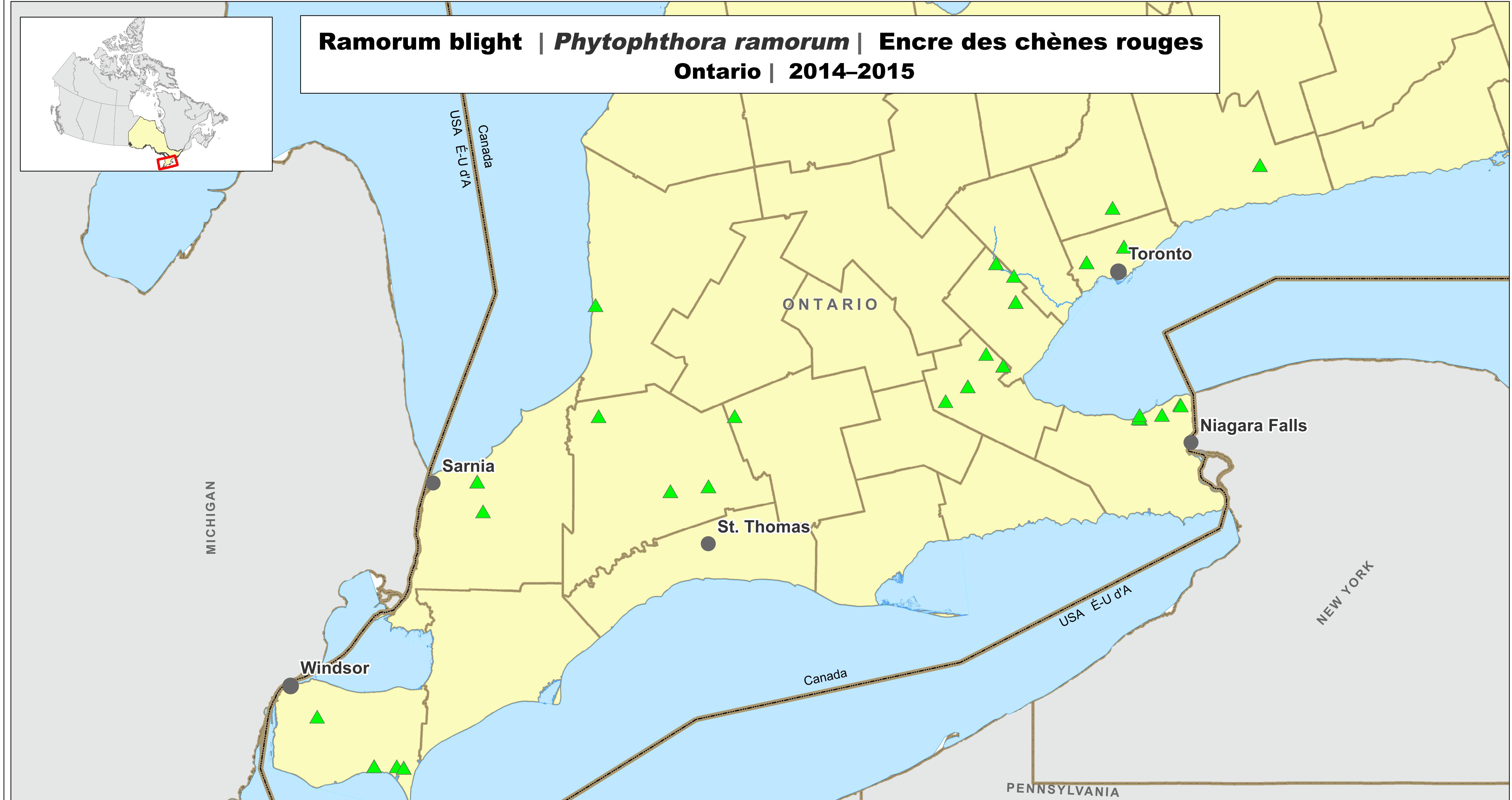
0 50 100 Km
0 50 100 Mi
Data Sources | Sources des données:
© Gouvernement du Canada, © Statistics Canada, © ESRI and/or © DMTI Spatial Inc.



2014 | 10 | 31

Ramorum blight | *Phytophthora ramorum* | Encre des chênes rouges

Ontario | 2014–2015



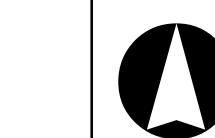
▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparé par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
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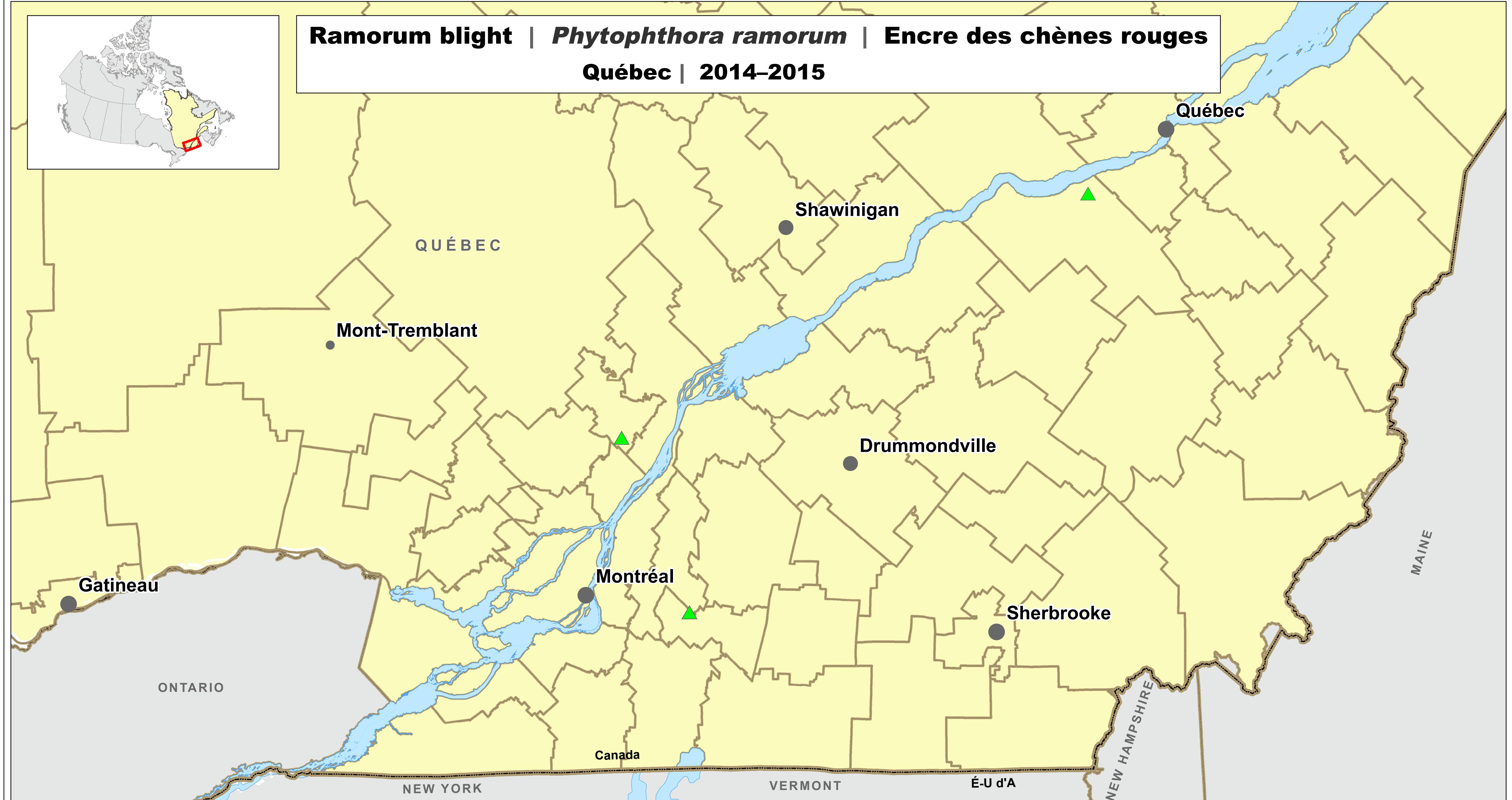
Data Sources | Sources des données:
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2014 | 11 | 01



Ramorum blight | *Phytophthora ramorum* | Encre des chênes rouges

Québec | 2014–2015



▲ Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
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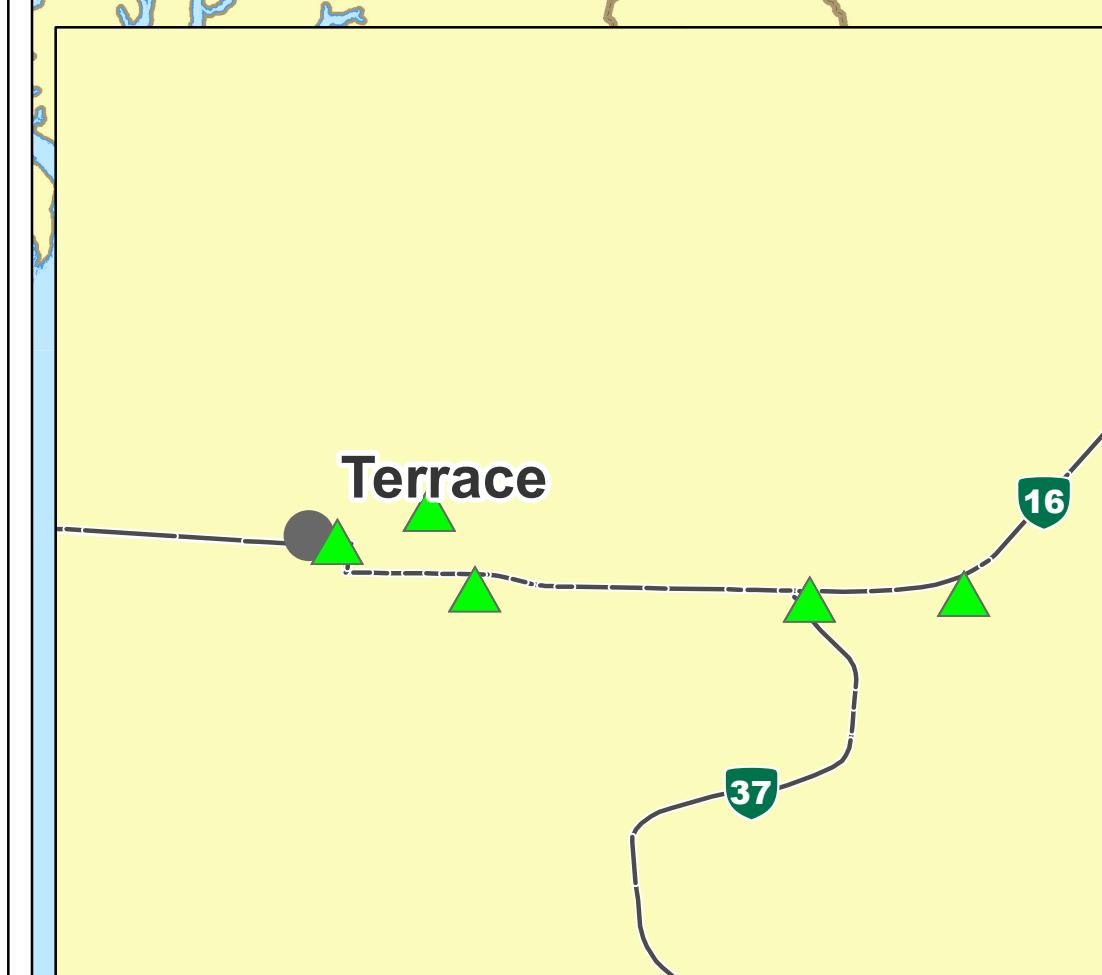
Data Sources | Sources des données:
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2014 | 10 | 31

Oriental fruit moth | *Grapholita molesta* | Tordeuse orientale du pêcher

British Columbia | 2014–2015 | Colombie-Britannique



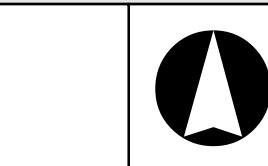
 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere.

Préparé par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

Data Sources | Sources des données:
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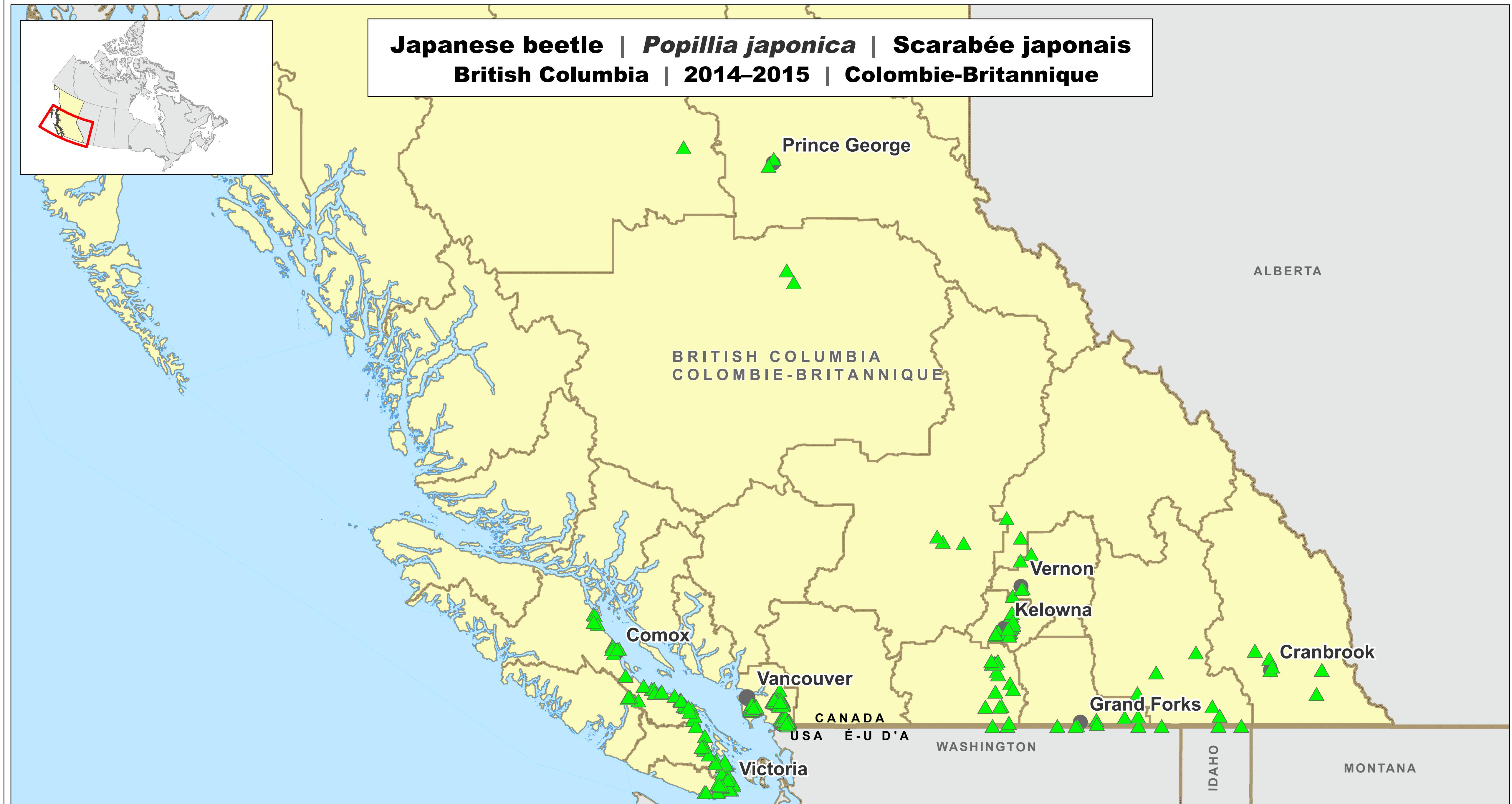


2015 | 09 | 02

Canada

Japanese beetle | *Popillia japonica* | Scarabée japonais

British Columbia | 2014–2015 | Colombie-Britannique



▲ Negative Site | Site négatif

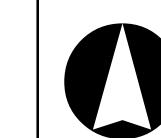
Produced by the Canadian Food Inspection Agency, Préparée par l'Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

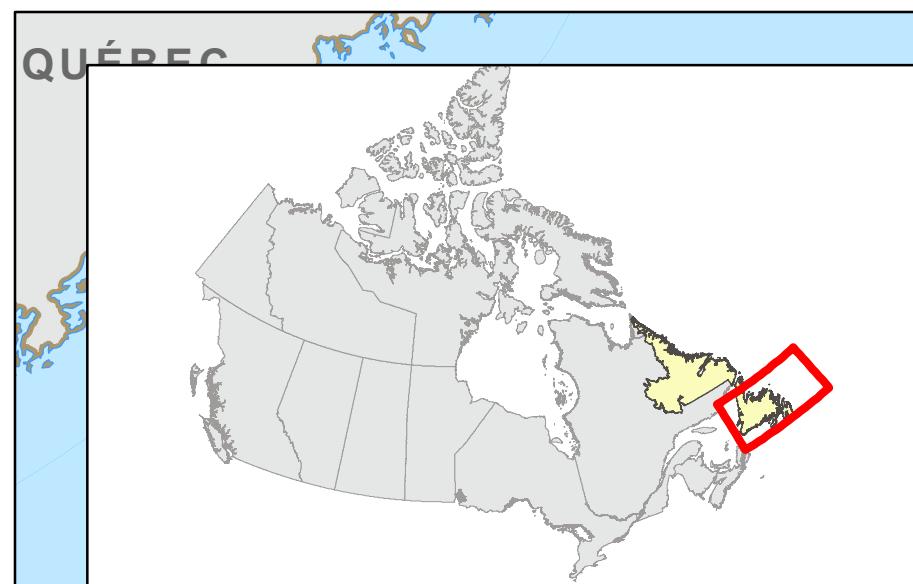
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Data Sources | Sources des données:
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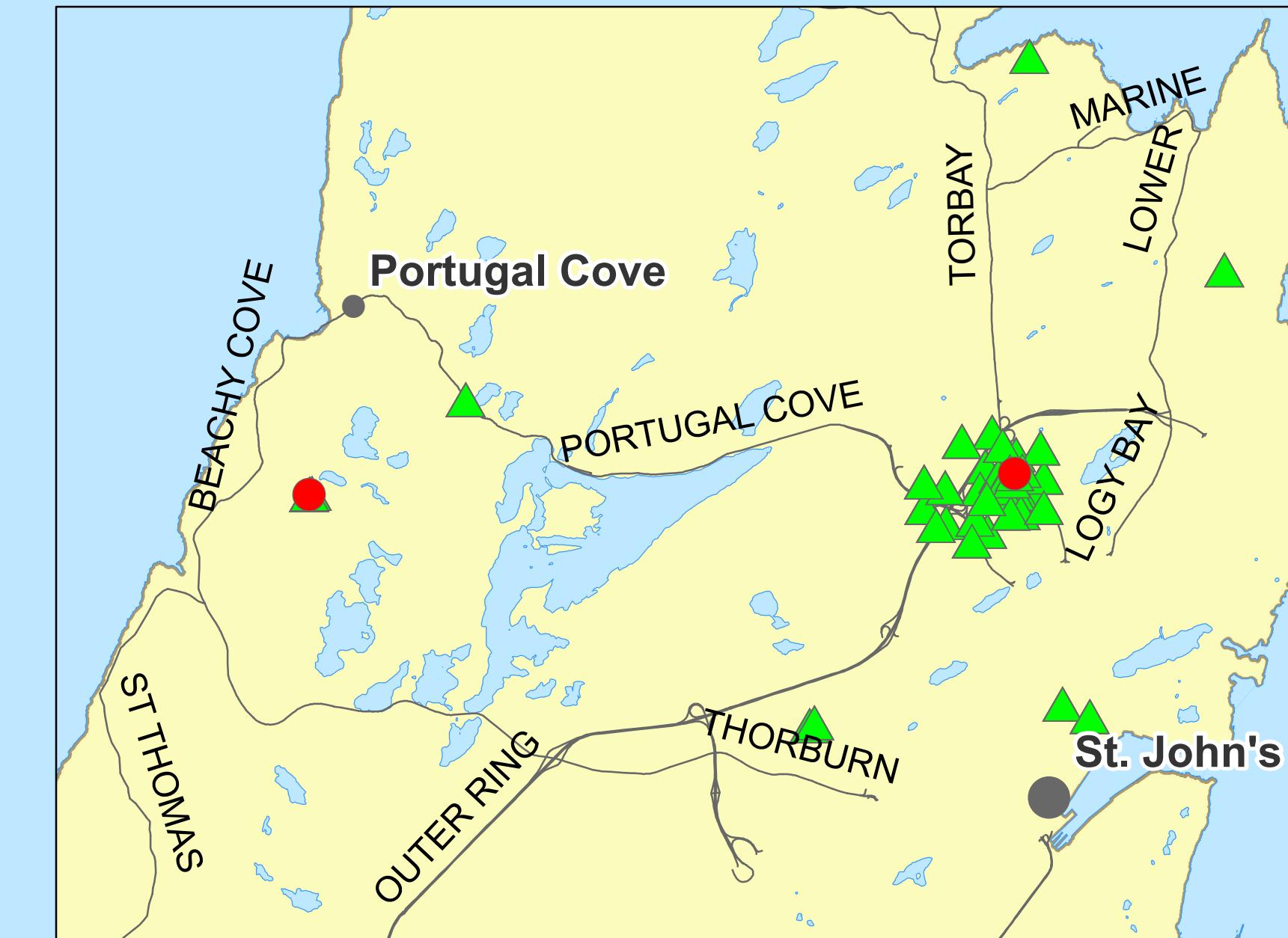
2015 | 09 | 01





Japanese beetle | *Popillia japonica* | Scarabée japonais

Newfoundland and Labrador | 2014–2015 | Terre-Neuve-et-Labrador



- Positive Site | Site positif
- Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere.

Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

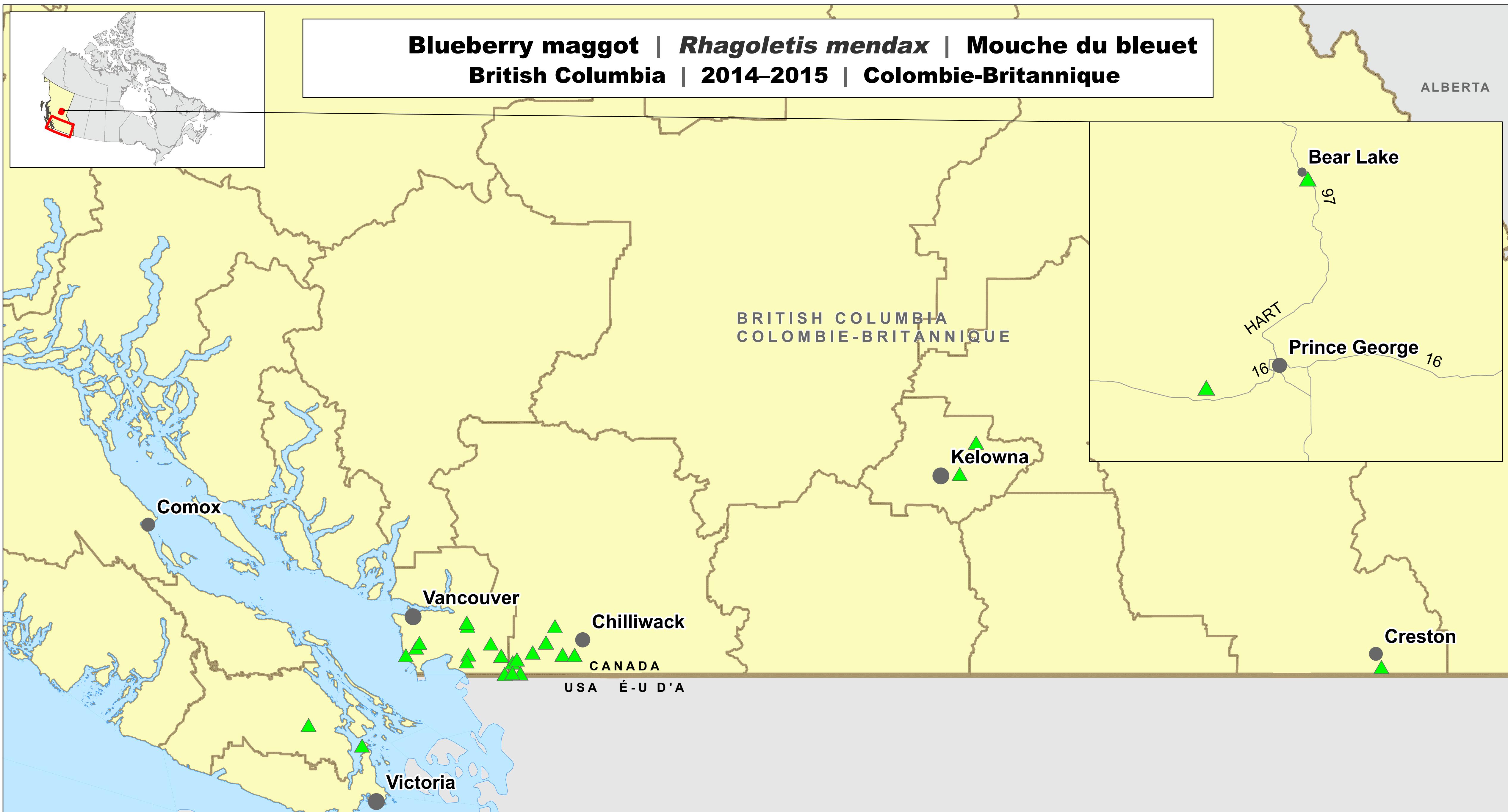
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2015 | 09 | 02



Blueberry maggot | *Rhagoletis mendax* | Mouche du bleuet British Columbia | 2014–2015 | Colombie-Britannique



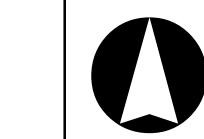
 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi

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2015 | 08 | 28



Blueberry maggot | *Rhagoletis mendax* | Mouche du bleuet
Newfoundland and Labrador | 2014–2015 | Terre-Neuve-et-Labrador



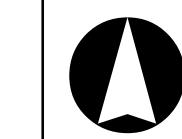
 Negative Site | Site négatif

Produced by the Canadian Food Inspection Agency, Plant Health Surveillance Unit, Ottawa, Ontario. WGS 1984 Web Mercator Auxiliary Sphere. Préparée par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario. WGS 1984 Web Mercator (sphère auxiliaire).

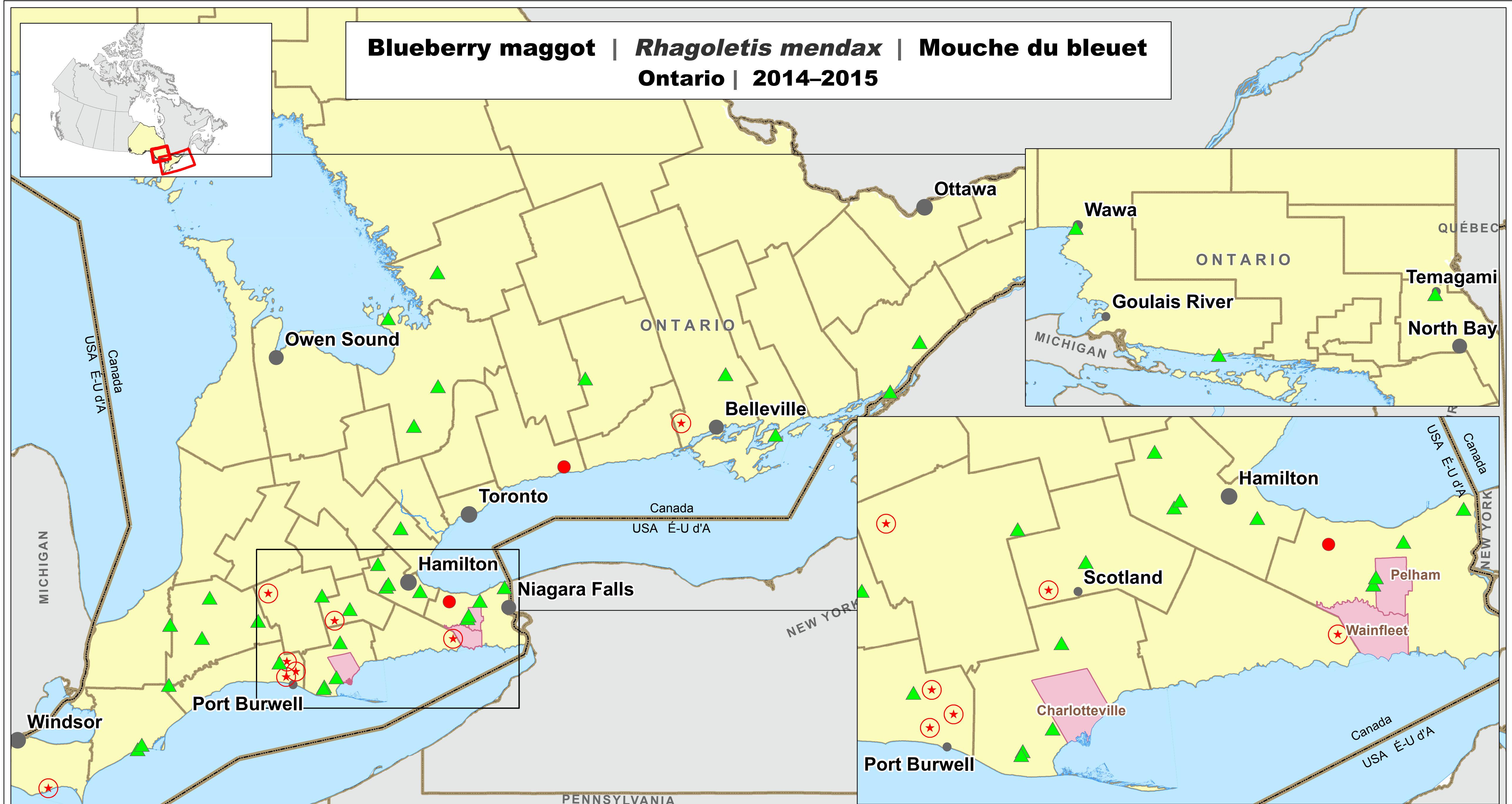
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2015 | 08 | 28



Blueberry maggot | *Rhagoletis mendax* | Mouche du bleuet Ontario | 2014–2015



Positive Site | Site positif
Negative Site | Site négatif

Regulated Farm | Ferme réglementée
Regulated Area | Région réglementée

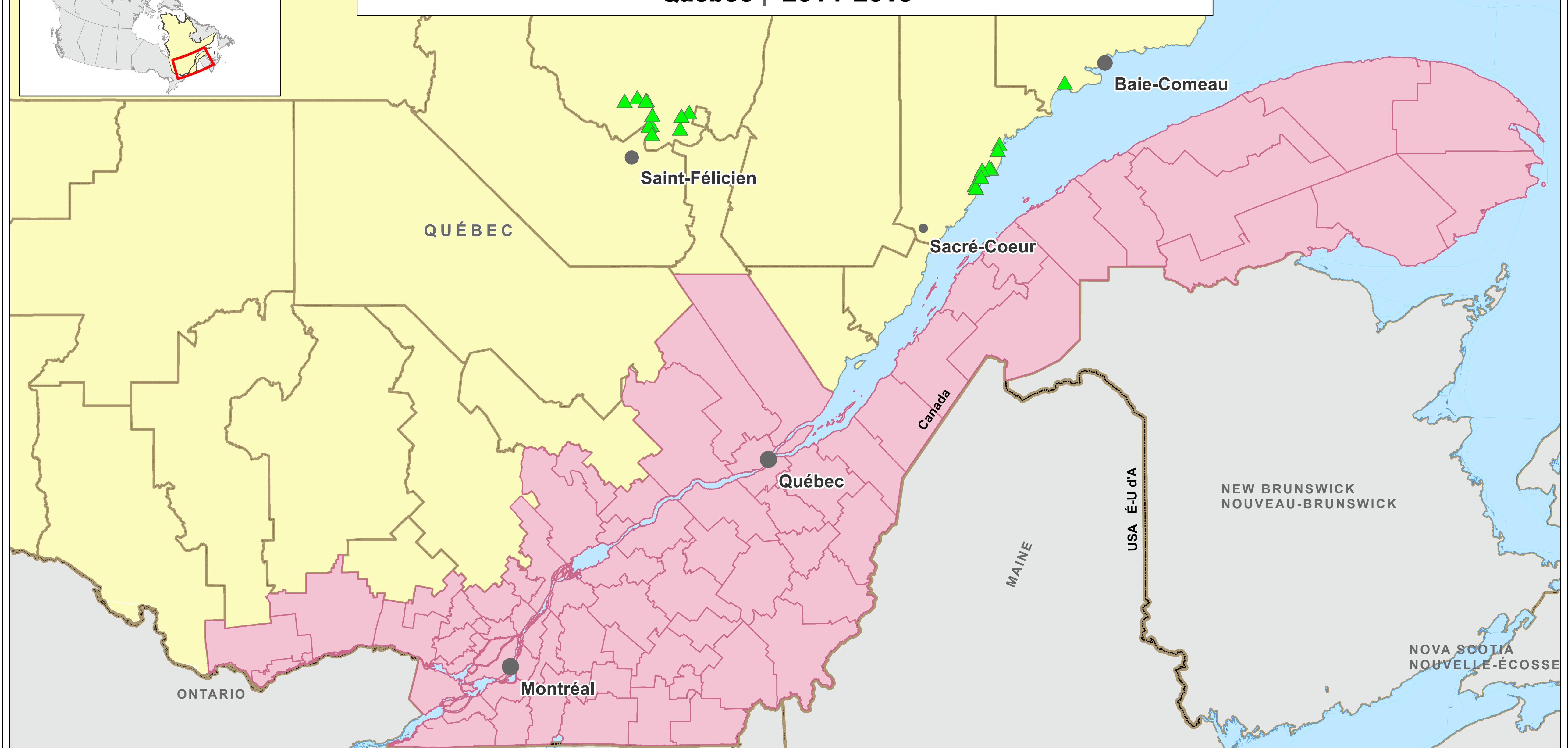
Produced by the Canadian Food Inspection Agency, Agence canadienne d'inspection des aliments, Plant Health Surveillance Unit, Ottawa, Ontario.
Préparé par l'Agence canadienne d'inspection des aliments, Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km
0 50 100 Mi
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2015 | 08 | 05



Blueberry maggot | *Rhagoletis mendax* | Mouche du bleuet
Québec | 2014–2015



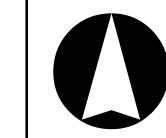
▲ Negative Site | Site négatif ■ Regulated Area | Région réglementée

Produced by the Canadian Food Inspection Agency, Préparée par l'Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario. Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere. WGS 1984 Web Mercator (sphère auxiliaire).

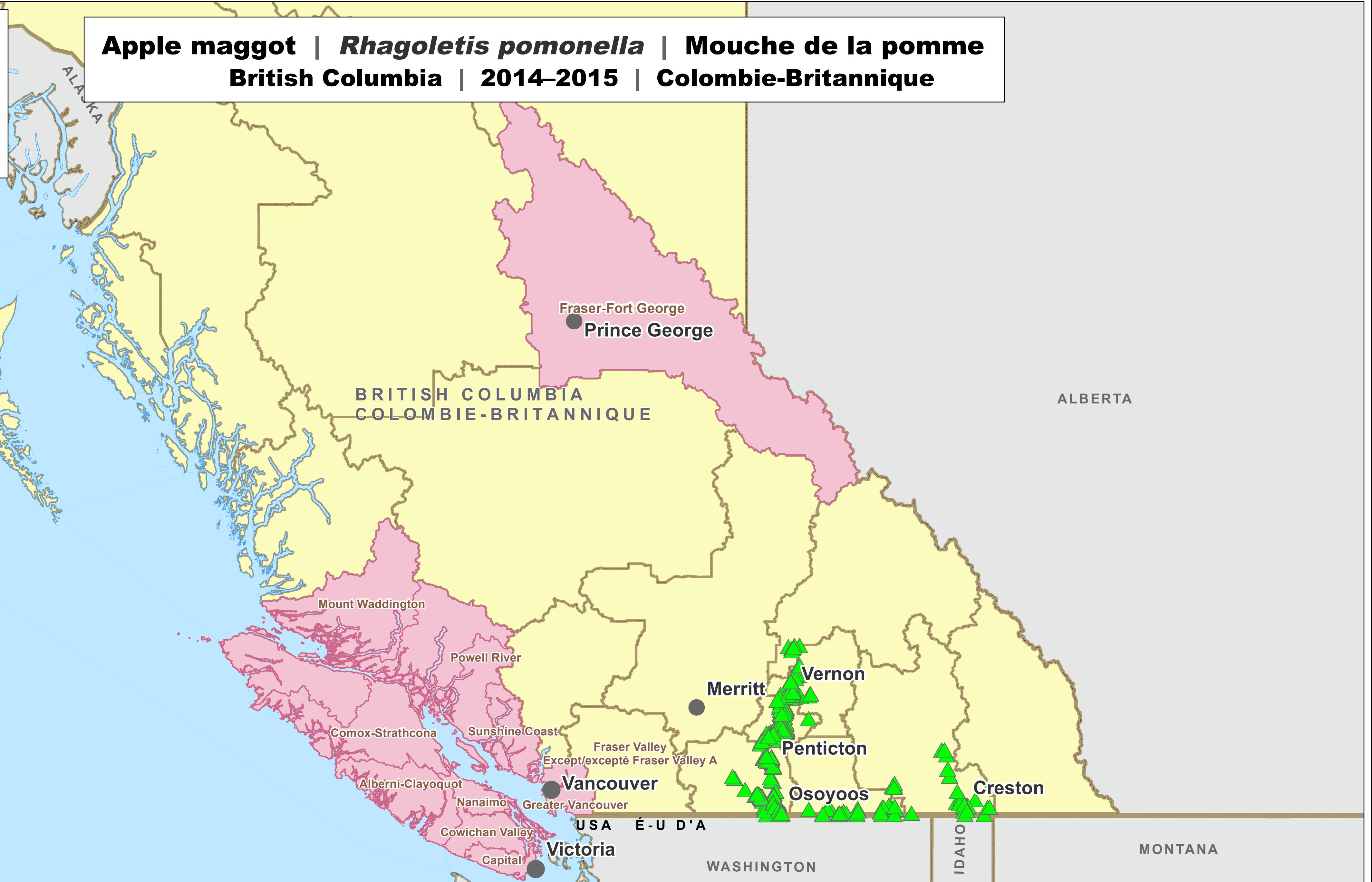
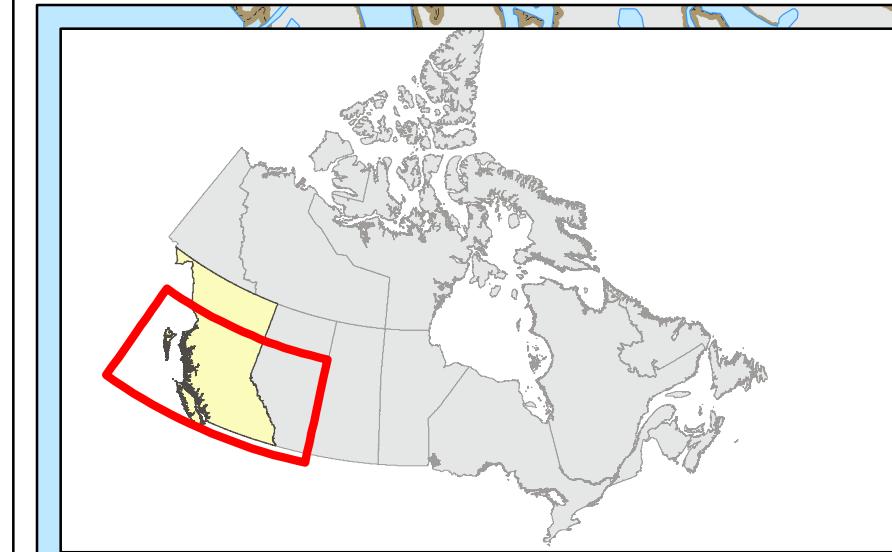
0 50 100 Km
0 50 100 Mi

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2015 | 08 | 28



Apple maggot | *Rhagoletis pomonella* | Mouche de la pomme
British Columbia | 2014–2015 | Colombie-Britannique



● Positive Site | Site positif

▲ Negative Site | Site négatif

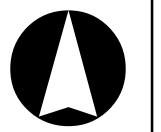
■ Regulated Area | Région réglementée

Produced by the Canadian Food Inspection Agency, Agence canadienne d'inspection des aliments,
Plant Health Surveillance Unit, Ottawa, Ontario.
WGS 1984 Web Mercator Auxiliary Sphere.

Préparée par l'Agence canadienne d'inspection des aliments,
Unité de surveillance phytosanitaire, Ottawa, Ontario.
WGS 1984 Web Mercator (sphère auxiliaire).

0 50 100 Km

0 50 100 Mi



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2015 | 08 | 11