

Fall Updates on Japanese Beetle, Asian Giant Hornet and the ISCBC PlantWise Program

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- Largest provincial invasive species charity in Canada
- Focus is education, outreach, training, cross-border collaboration across Canada and internationally
- Have a variety behaviour change programs, host in-person and online training, webinars, local workshops



What is an Invasive Species?

What is an Invasive Species?

A ***native species*** is one that naturally occurs in an area



E.g. Poutine in Canada

What is an Invasive Species?

A **non-native** species is:
introduced either
accidentally or on
purpose, and usually
by humans from
distant geographic
locations

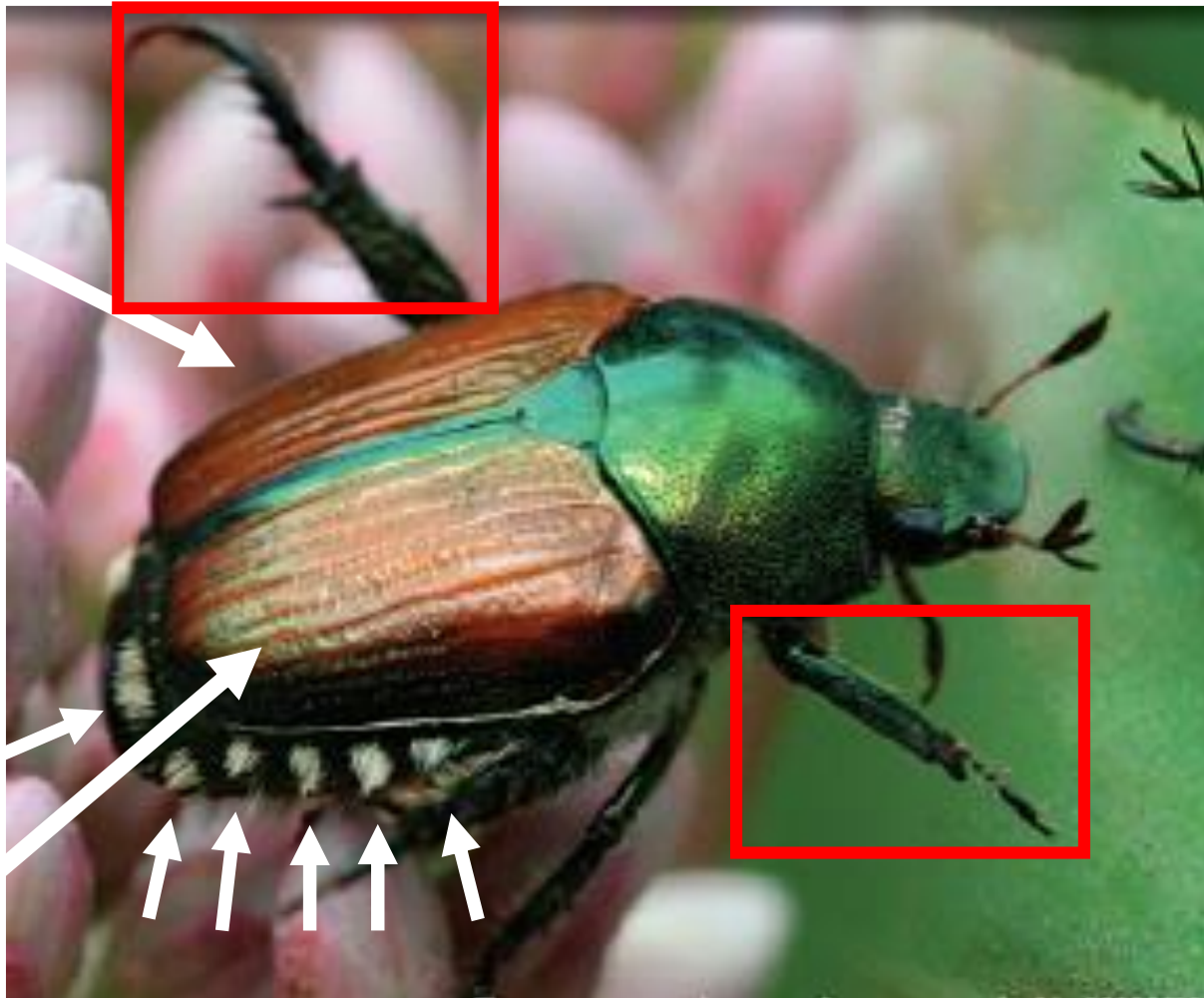


American Bullfrog



Himalayan Blackberry

Japanese Beetle – *Popillia japonica*



Kingdom: *Animalia*
Phylum: *Arthropoda*
Class: *Insecta*
Order: *Coleoptera*
Family: *Scarabaeidae*
Genus: *Popillia*
Species: *P. japonica*

Why is the Japanese Beetle Bad?



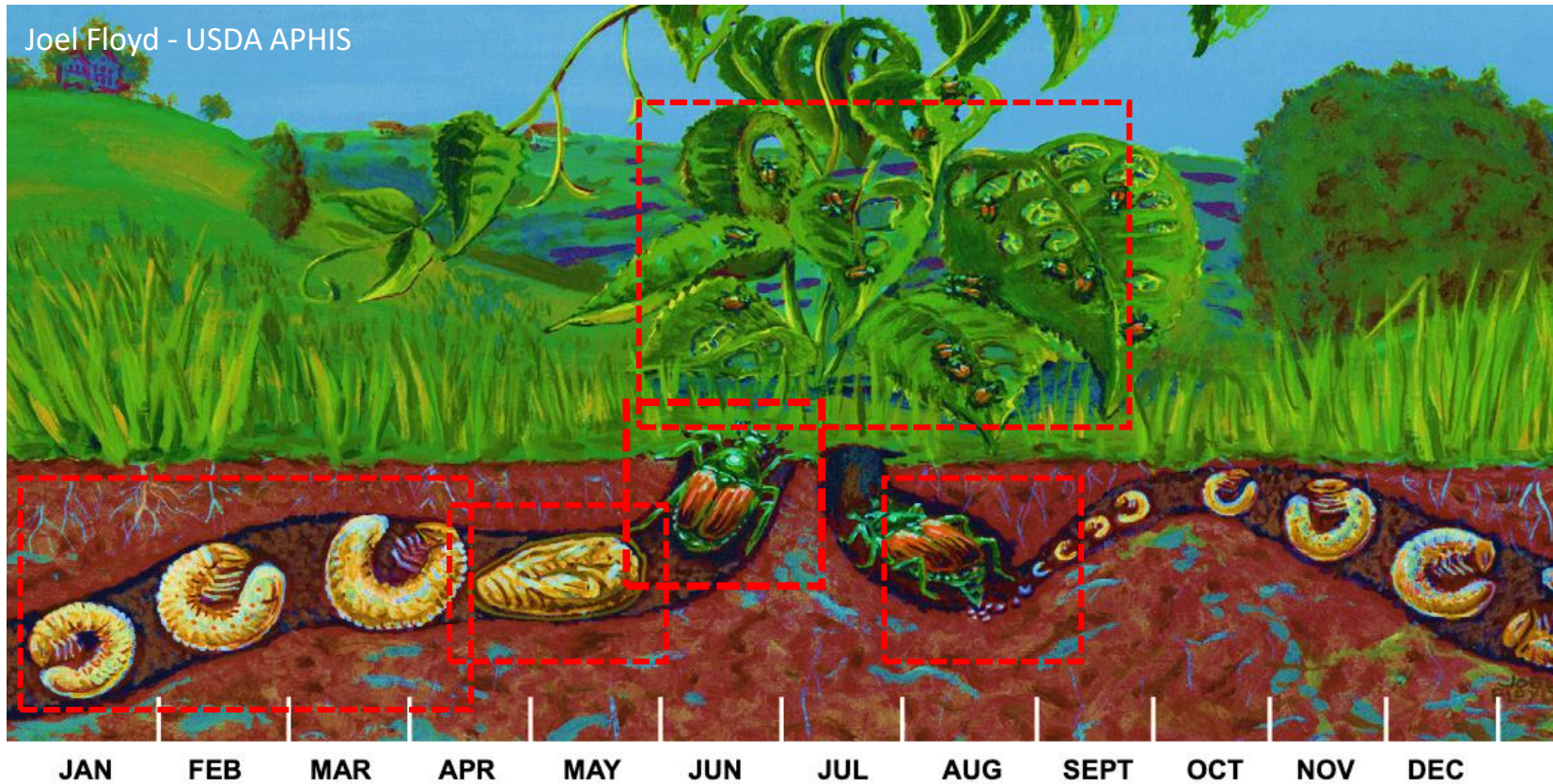
**Feeds on fruit
and leaves of
more than 300
types of plants!**

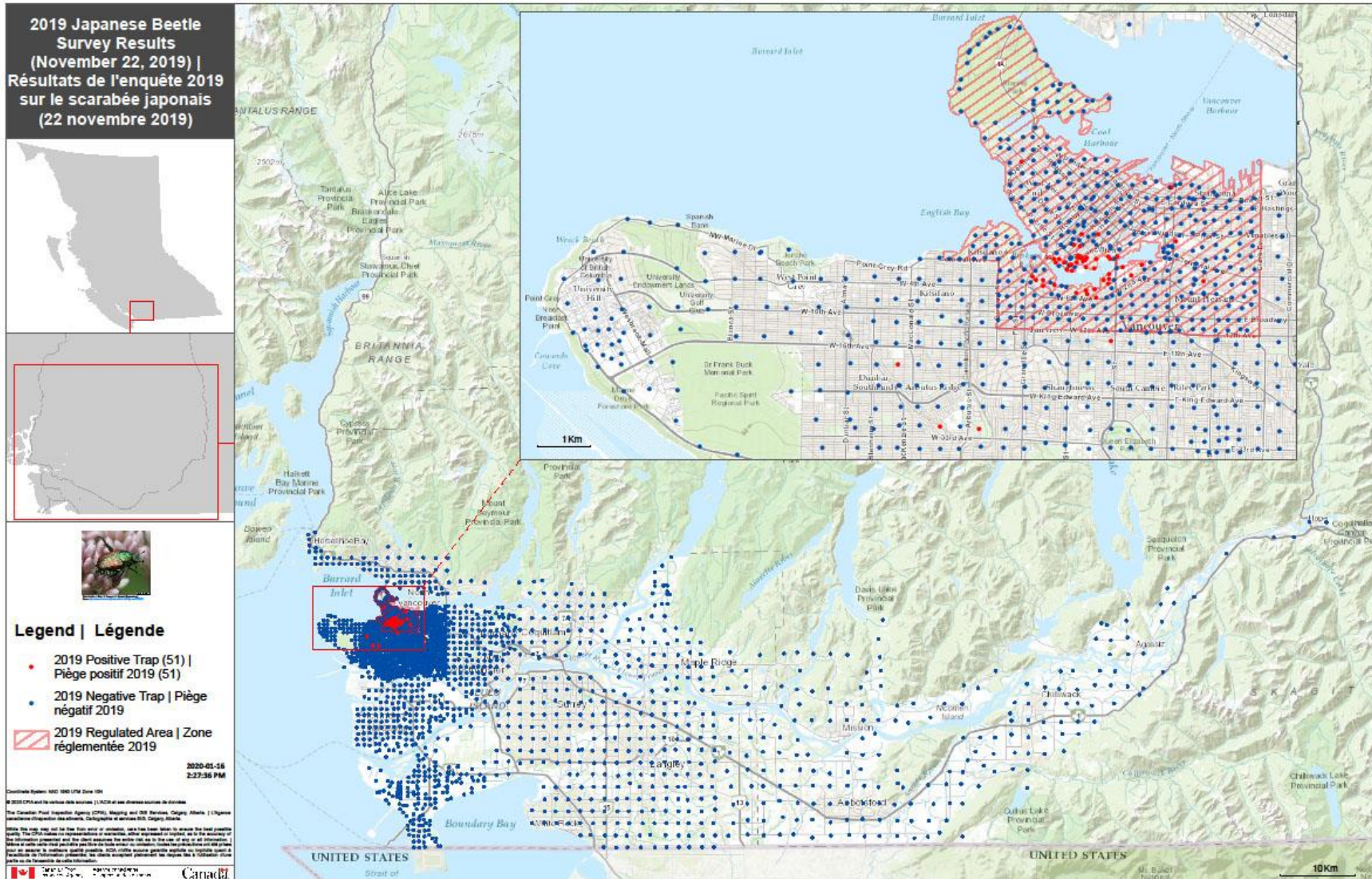
Why is the Japanese Beetle Bad?

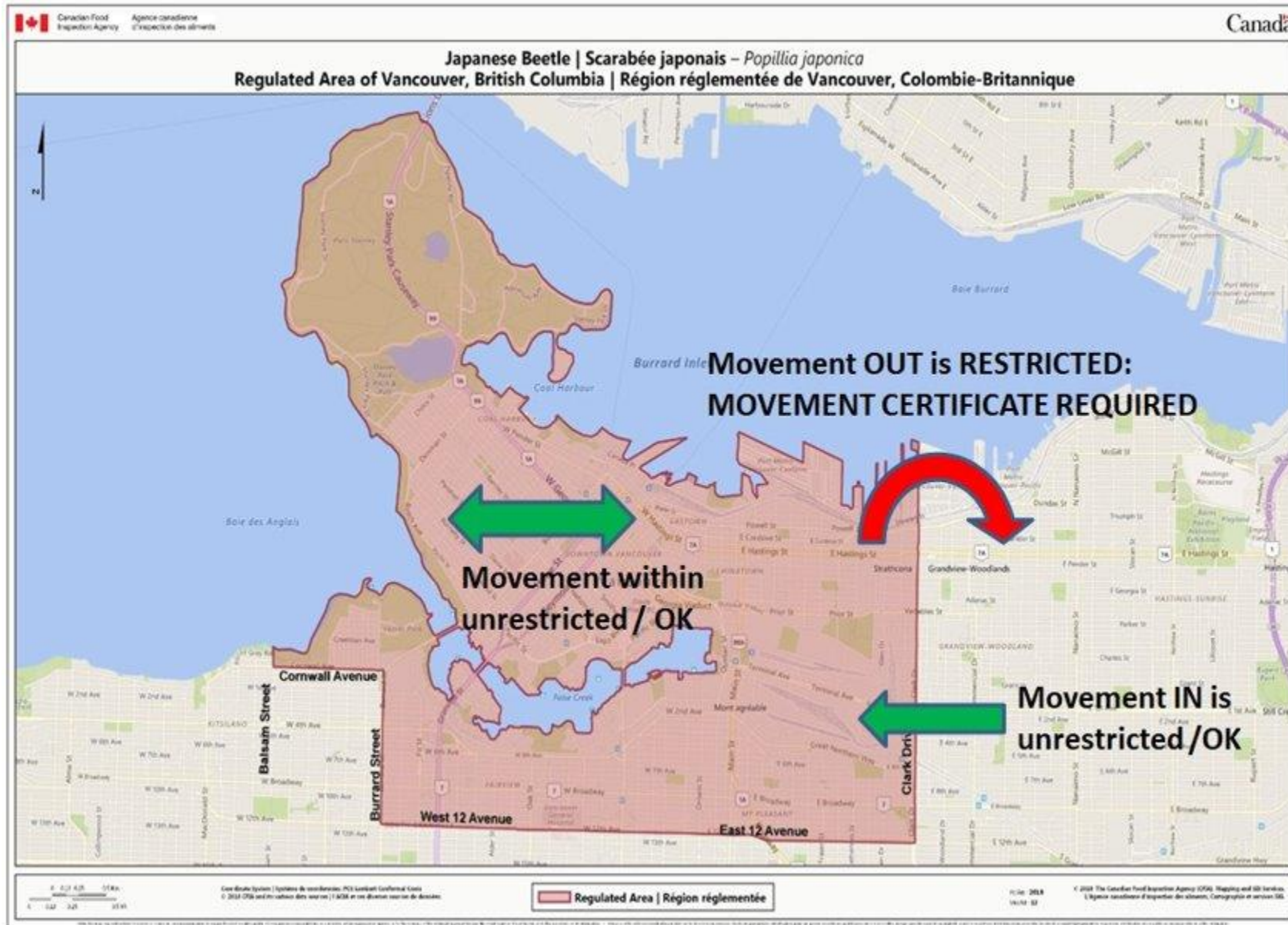


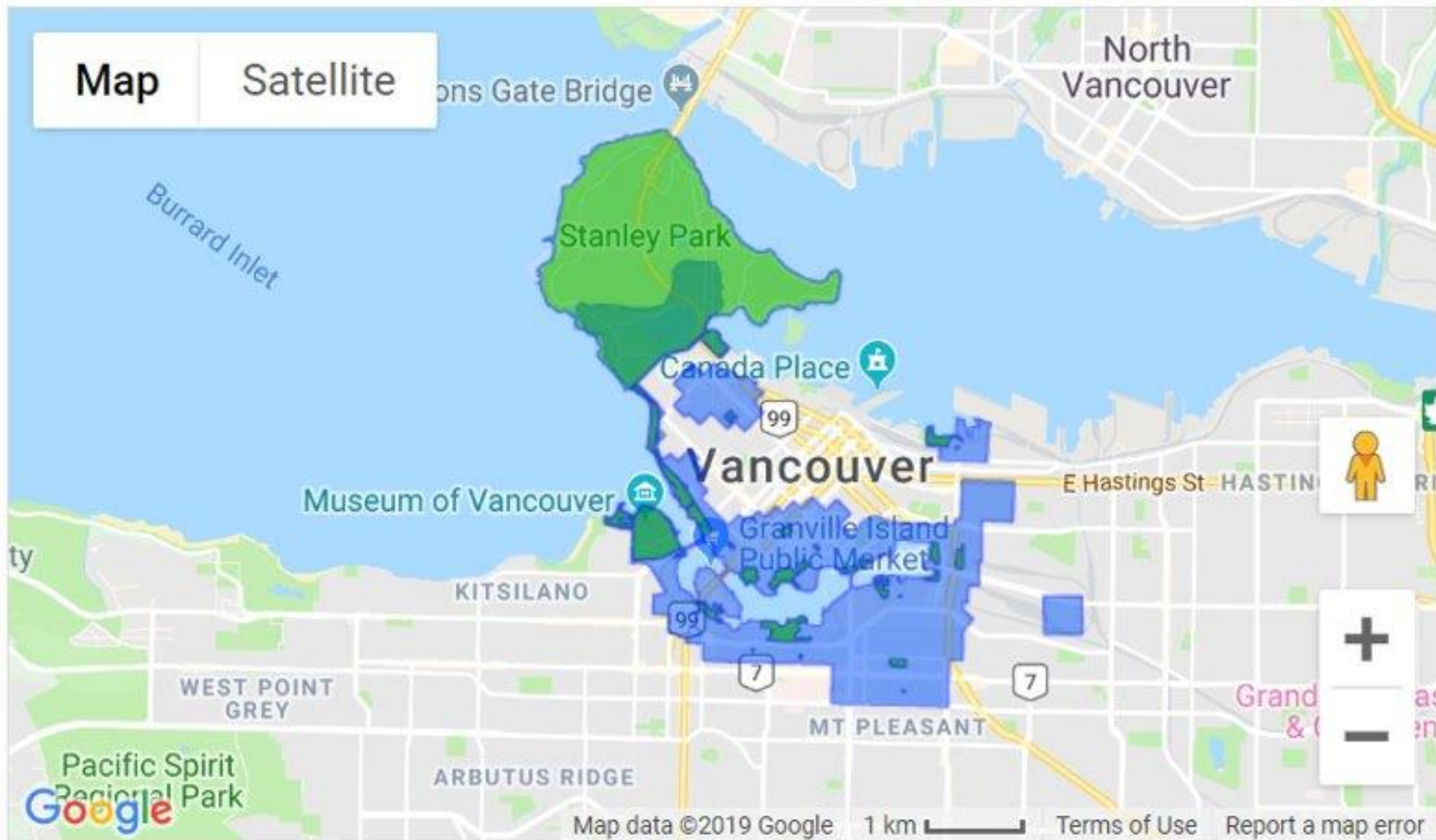
Beetle Life Cycle

Joel Floyd - USDA APHIS









New supplementary treatment
product this year

***Bacillus thuringiensis galleriae* (Btg)**

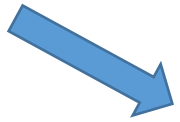


- Natural soil-borne bacteria
- Domestic product is available too
- Also works against chafer

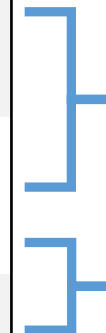


Persicaria with feeding damage

Treatment
program
started



Year	Number of Japanese beetle traps placed	Number of Japanese beetles trapped
2015	442 detection traps	No Detections
2016	505 detection traps	No Detections
2017	1425 detection and delimitation traps	958 in 42 traps
2018	2088 detection and delimitation traps	8276 in 98 traps
2019	2344 detection and delimitation traps	1157 in 51 traps
2020		



~86%
reduction

~80%
reduction

Asian Giant Hornet - *Vespa mandarinia*

The New York Times

‘Murder Hornets’ in the U.S.: The Rush to Stop the Asian Giant Hornet

Sightings of the Asian giant hornet have prompted fears that the vicious insect could establish itself in the United States and devastate bee populations.



‘Murder hornet’ hysteria takes toll on beneficial bees



By JOSHUA ROSE
For the Gazette

Published: 6/27/2020 1:22:53 PM

The headlines started in March, from media nationwide. From CNN: “Invasive

Asian Giant Hornet - *Vespa mandarinia*



WSDA Bugwood.org

Kingdom: *Animalia*
Phylum: *Arthropoda*
Class: *Insecta*
Order: *Hymenoptera*
Family: *Vespidae*
Genus: *Vespa*
Species: *V. mandarinia*

Asian Giant Hornet - *Vespa mandarinia*



Bombus huntii



5598650

H Royals. USDA APHIS PPQ, Bugwood.org



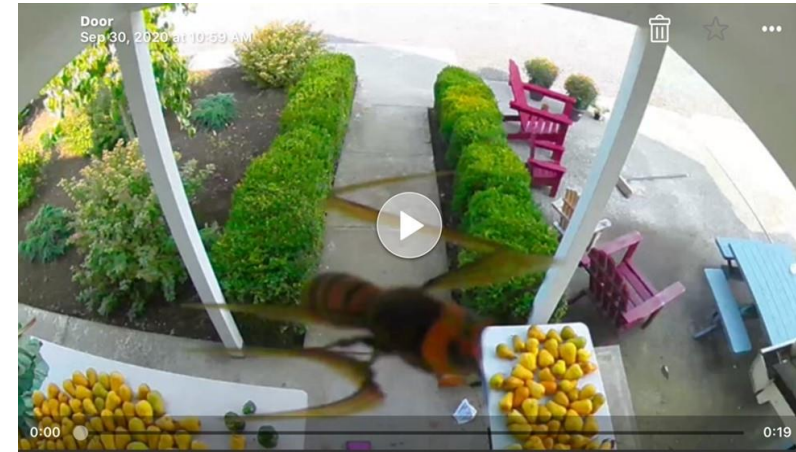
Alastair Macewen Getty Images

Asian Giant Hornet - *Vespa mandarinia*



Asian Giant Hornet - *Vespa mandarinia*

- Nest destroyed Nanaimo Sept 2019
 - Specimen spotted White Rock in Nov 2019
 - Two specimens Dec 2019 in Blaine, Wash.
-
- Dead specimen May 15, 2020 in **Langley, BC**
 - Dead specimen May 27, Custer, Wash.
 - Specimen spotted June 9 Bellingham, Wash.
 - Trapped mated queen July 14 Birch Bay in Wash.
 - Trapped worker Aug 19 Birch Bay in Wash.
 - Blaine, Wash. Sept 21, 25, 28, 29, 30 (1st tagging attempt)
 - Blaine, Wash. Oct 2, 5, 9 (2nd tagging attempt)



Asian Giant Hornet - Lookalikes



Bald-Faced Hornet
(*Dolichovespula maculata*)
1.2 – 2.0 cm



Western Yellow Jacket
(*Vespula pensylvanica*)
1.5 cm



Elm Sawfly
(*Cimbex americana*)
~2.5 cm

Asian Giant Hornet - Lookalikes



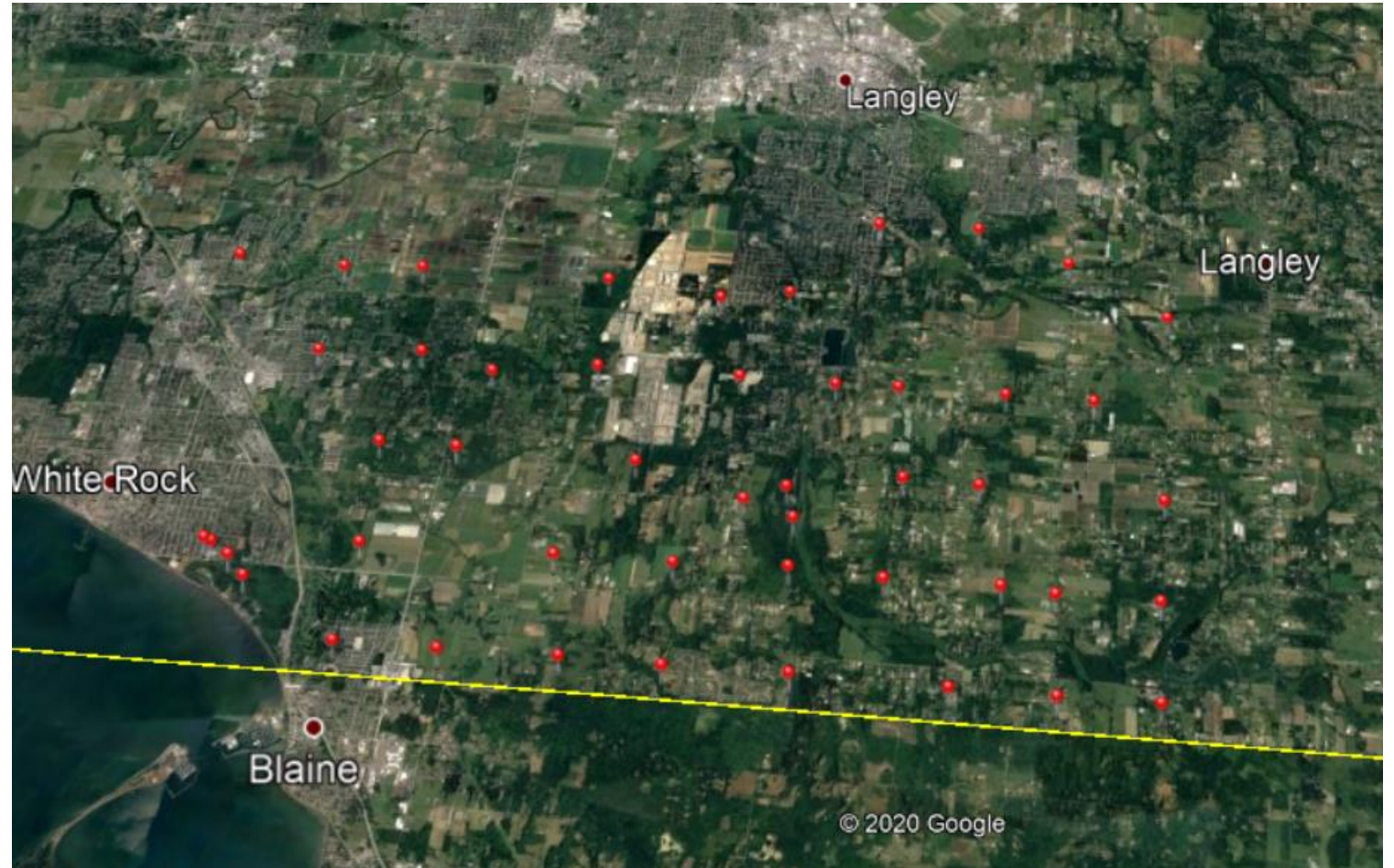
Lion Longhorned Beetle
(*Ulochaetes leoninus*)
~ 2.0 cm



Horntail or Woodwasp
(*Tremex* sp.)
< 4.0 cm

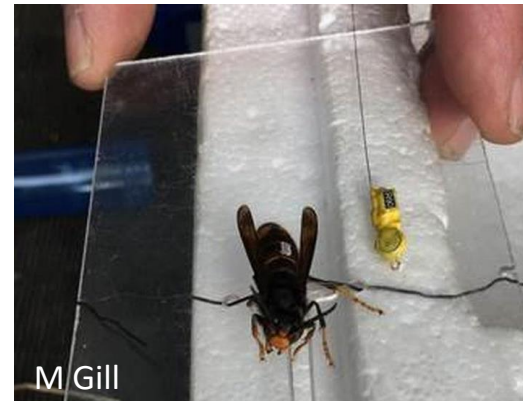
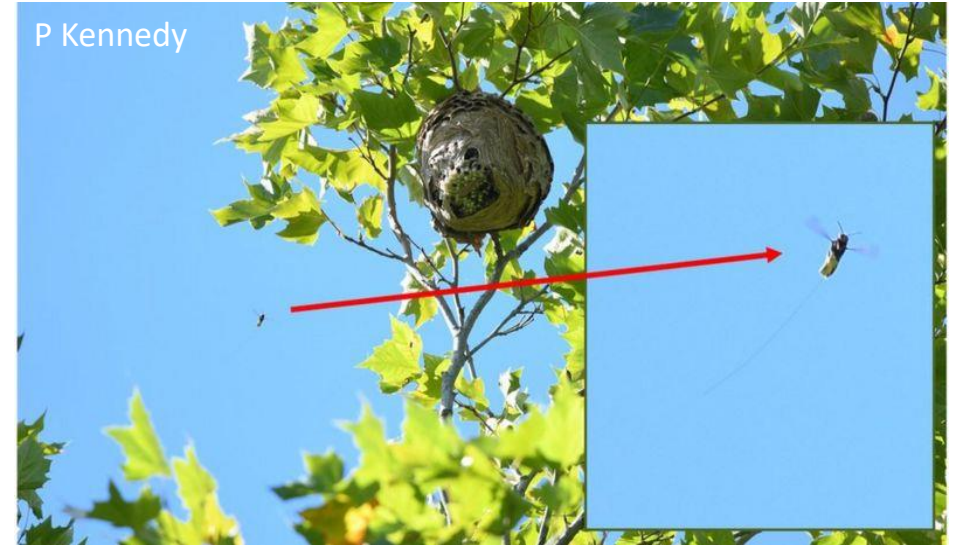
Asian Giant Hornet - *Vespa mandarinia*

What's happening in BC?



Asian Giant Hornet - *Vespa mandarinia*

What's happening in Washington?



Reporting Invasive Species

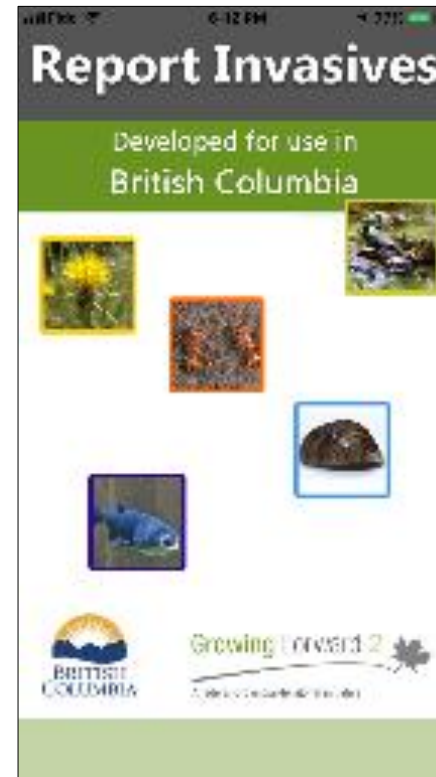
Report JB by calling the Canadian Food Inspection Agency
at **604-292-5742** or emailing cfia.wstjb-sj.acia@canada.ca



Report AGH or other invasives by calling the ISCBC
at **1-888-933-3722** or email us info@bcinvasives.ca

Report-Invasives-App

iPhone



PlantWise Update

PlantWise is BC's invasive plant prevention program for the horticulture industry and consumers

We support the horticulture industry's transition to become invasive-free and help gardeners and industry understand which plants are invasive and harmful to our communities



Grow Me Instead: a key component of PlantWise

- **Supports gardeners and industry** to reduce the distribution & spread of invasive plants
- **Identifies 26 invasive plants** frequently found in gardens across BC
- **Offers suitable alternatives** for all growing zones in BC



Grow Me Instead is being revised and updated!

- **Will be reviewed and adjusted** based on new information, horticultural trends, etc.
- **Will include new sections** for trees, aquatic plants, and plants used for green roofs

The new version should be available by April 2021

Six key unwanted species of concern

- **These plants are still being sold** in garden centers & nurseries across the province!
- **AVOID purchasing or trading these plants:** Common Periwinkle, English Ivy, Yellow Archangel, Mountain Bluet, Spurges (Leafy, Myrtle, Cypress), Russian Olive



Common Periwinkle (*Vinca minor*)

- **Sold as a fast-growing, shade-tolerant evergreen ground cover** with small violet-blue or white flowers
- **Forms dense mats** that suppress other plants
- **Invades moist areas** in forested areas, and along watercourses
- **Grows rapidly** and adapts to many growing conditions



English Ivy (*Hedera helix*)

- **Popular** for its evergreen leaves, garden adaptability, and quick coverage
- Thick ivy mats impact the forest floor, shrub layer, and canopy, **smothering and debilitating trees**
- **Can accelerate rot**, add substantial weight to a tree, and deteriorate structures



J Leekie

Yellow Archangel (*Lamiastrum galeobdolon* L.)

- **Sold to gardeners as a hardy, low maintenance** groundcover species
- **An entirely new plant** can grow from a small stem fragment
- **Rapidly out-competes native species.** Quickly reduces diversity in woodland understories, riparian systems and transitional ecosystems



J. Leekie

Mountain Bluet (*Centaurea montana*)

- **Sold as an attractive, pollinator-friendly perennial**
- **Very adaptable** – easily self-seeds and able to quickly naturalize in meadows, pastures and roadsides
- **Capable of reducing forage** opportunities for wildlife and livestock



J. Leekie

Spurges: Leafy, Myrtle, and Cypress
(*Euphorbia esula*, *E. myrsinites*, *E. cyparissias*)

- **Sold as a unique water-wise plant**
- **Inhibits the growth of other plants,** enabling it to out-compete native species and establish a monoculture.
- **Most garden centers carry non-invasive spurges** – but be sure to verify plant labels!



Russian Olive (*Elaeagnus angustifolia*)

- **Sold as low-maintenance, attractive, bird friendly** shrub or tree tolerant of flooding, drought, shade, and full sun
- **Seeds are light and palatable**, spread by wind and birds
- **Outcompetes native vegetation**, reducing habitat availability for wildlife



Consultation

ISCBC will be looking to engage with interested groups or individuals for consultation in the PlantWise update.

Allison McCabe

New PlantWise Coordinator

plantwise@bcinvasives.ca



Thank you very much!

Any questions?

projects@bcinvasives.ca