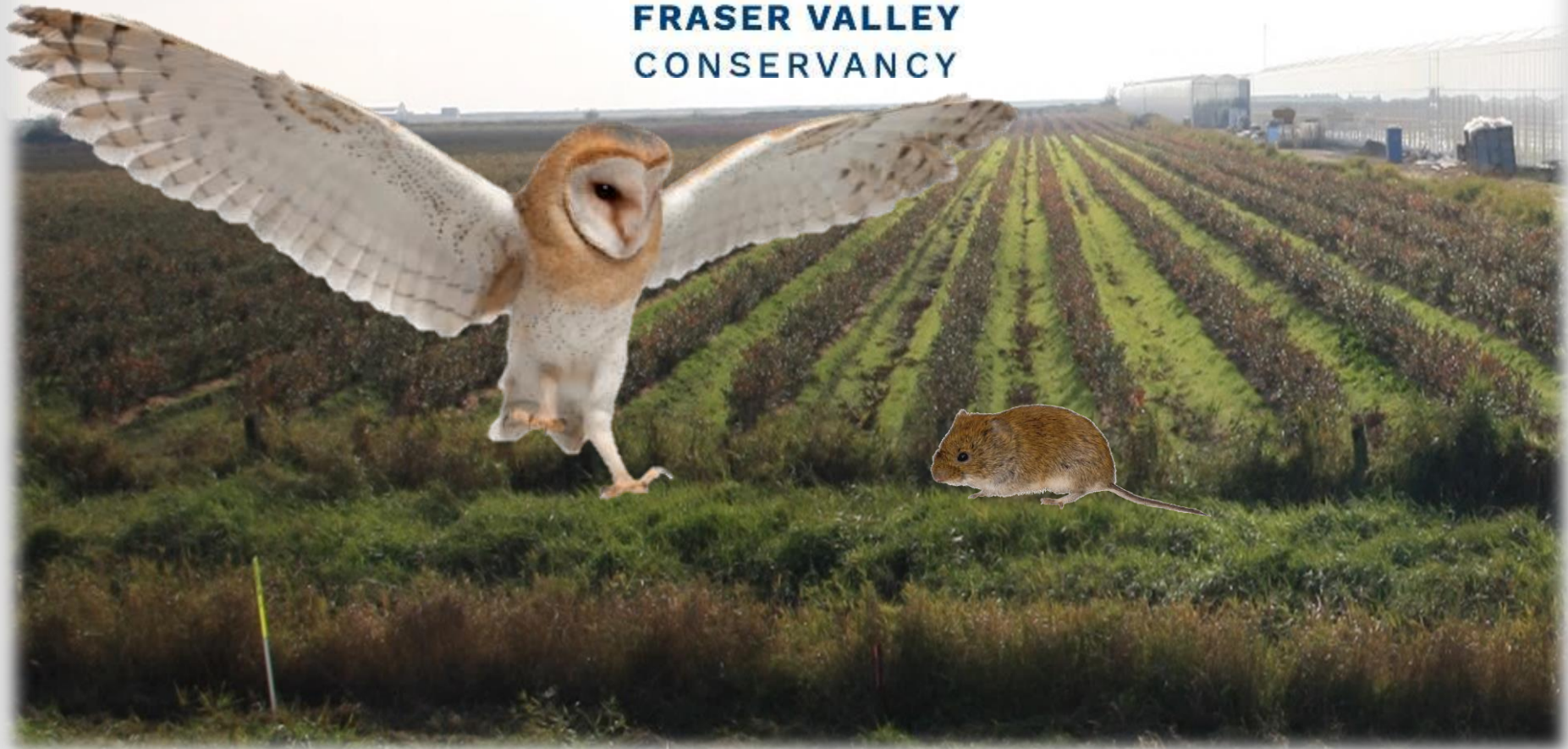


Biological rodent control: The barn owl, our rodent control ally
Sofi Hindmarch
Project Biologist



**FRASER VALLEY
CONSERVANCY**



Risk of secondary and tertiary exposure of non-target wildlife

Secondary

Tertiary?

Target

Non -Target

Primary

Gophers, voles, ground squirrels are
target species when ARs are applied
in agricultural fields



Biological



Barn owls are utilized globally to help with rodent control



Israel



Spain



USA



South Africa



Malaysia

Why are barn owls encouraged to help with rodent control?

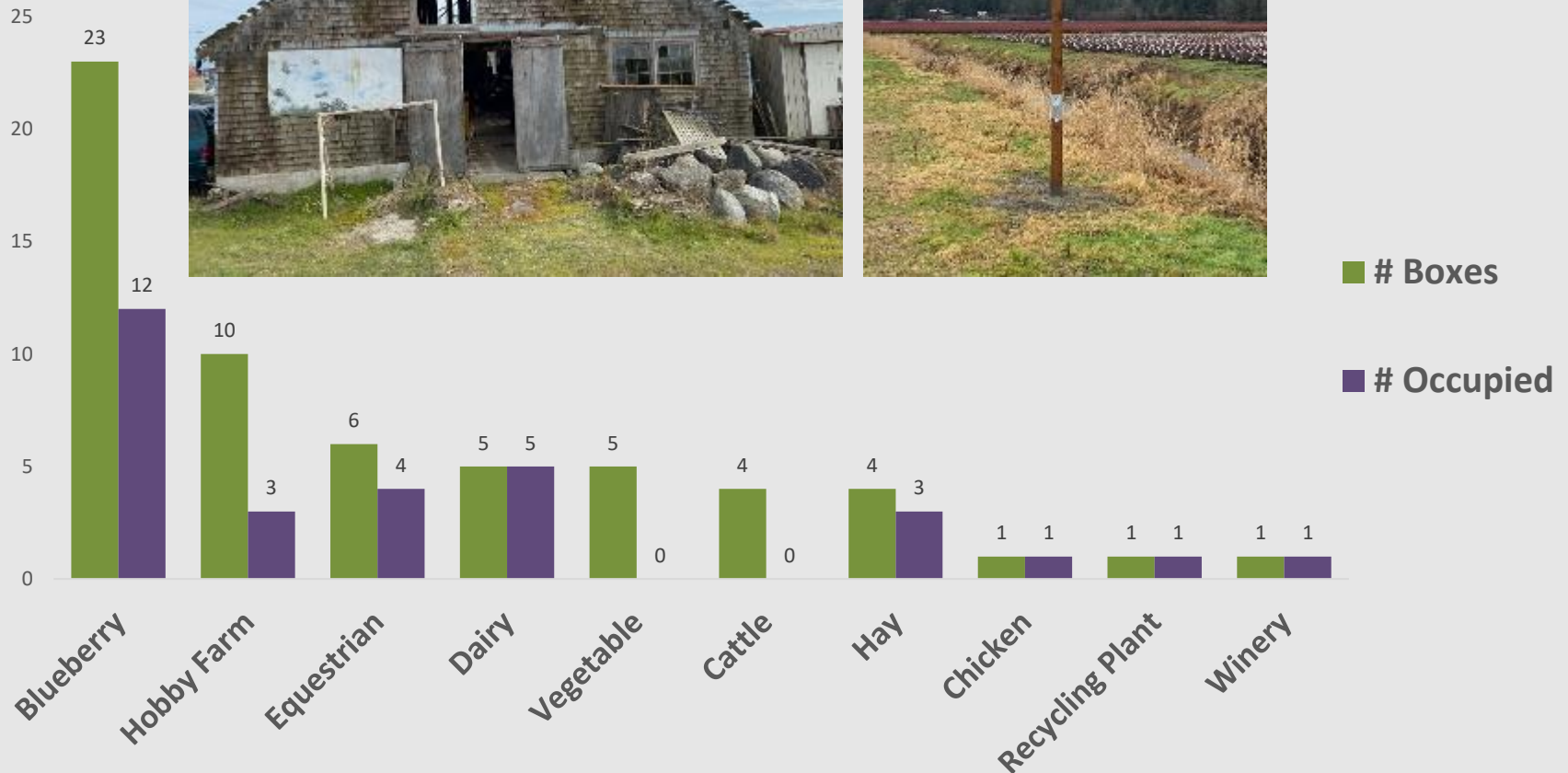


How many rodents do they eat?



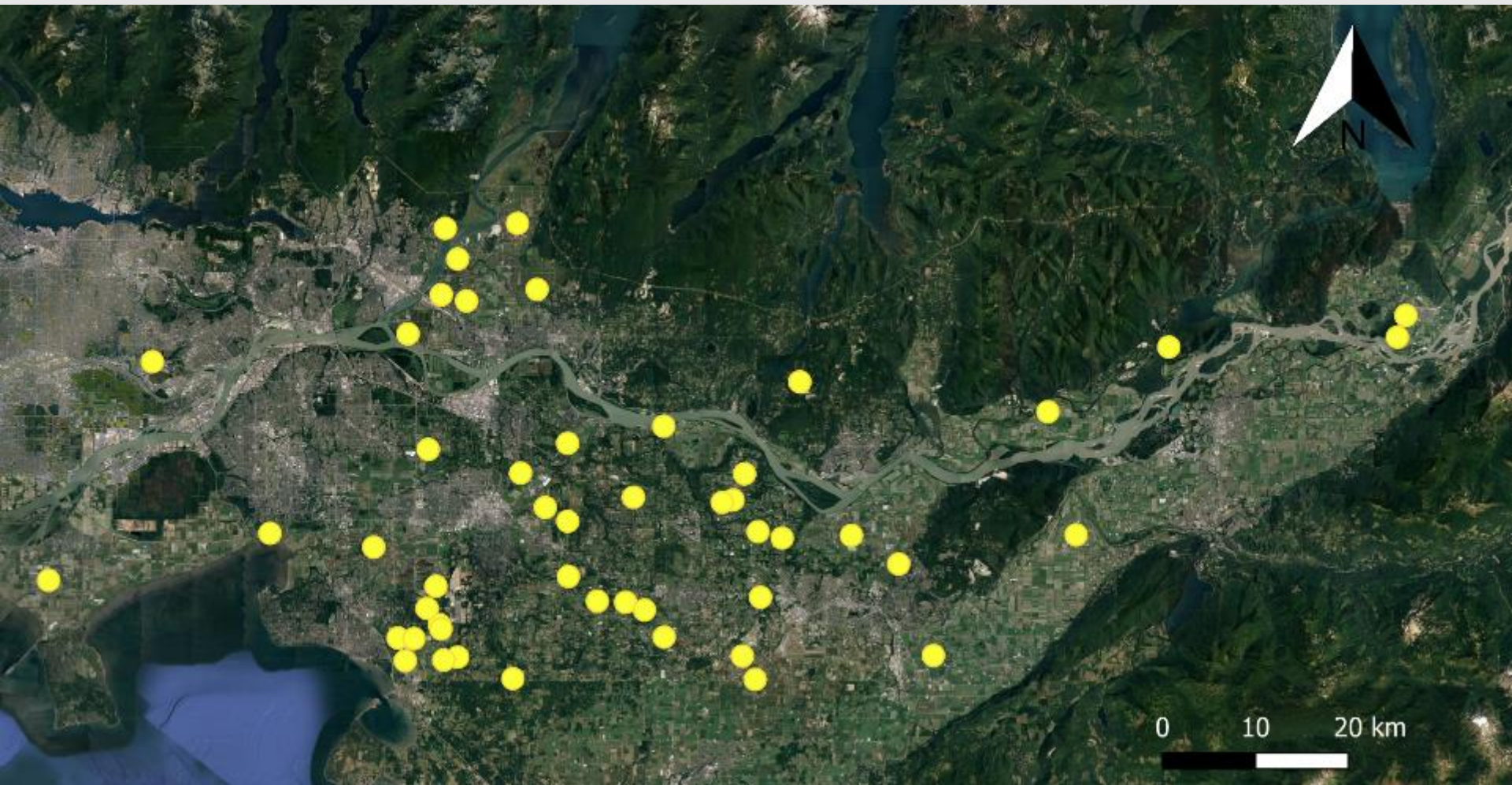
- Adults deliver on average 616 rodents per nest site during breeding season (range: 358-899) and combined with non-breeding season a barn owl family removes on average 3466 rodents per year (range 1821-7563).

2016-2022: Installed 62 boxes



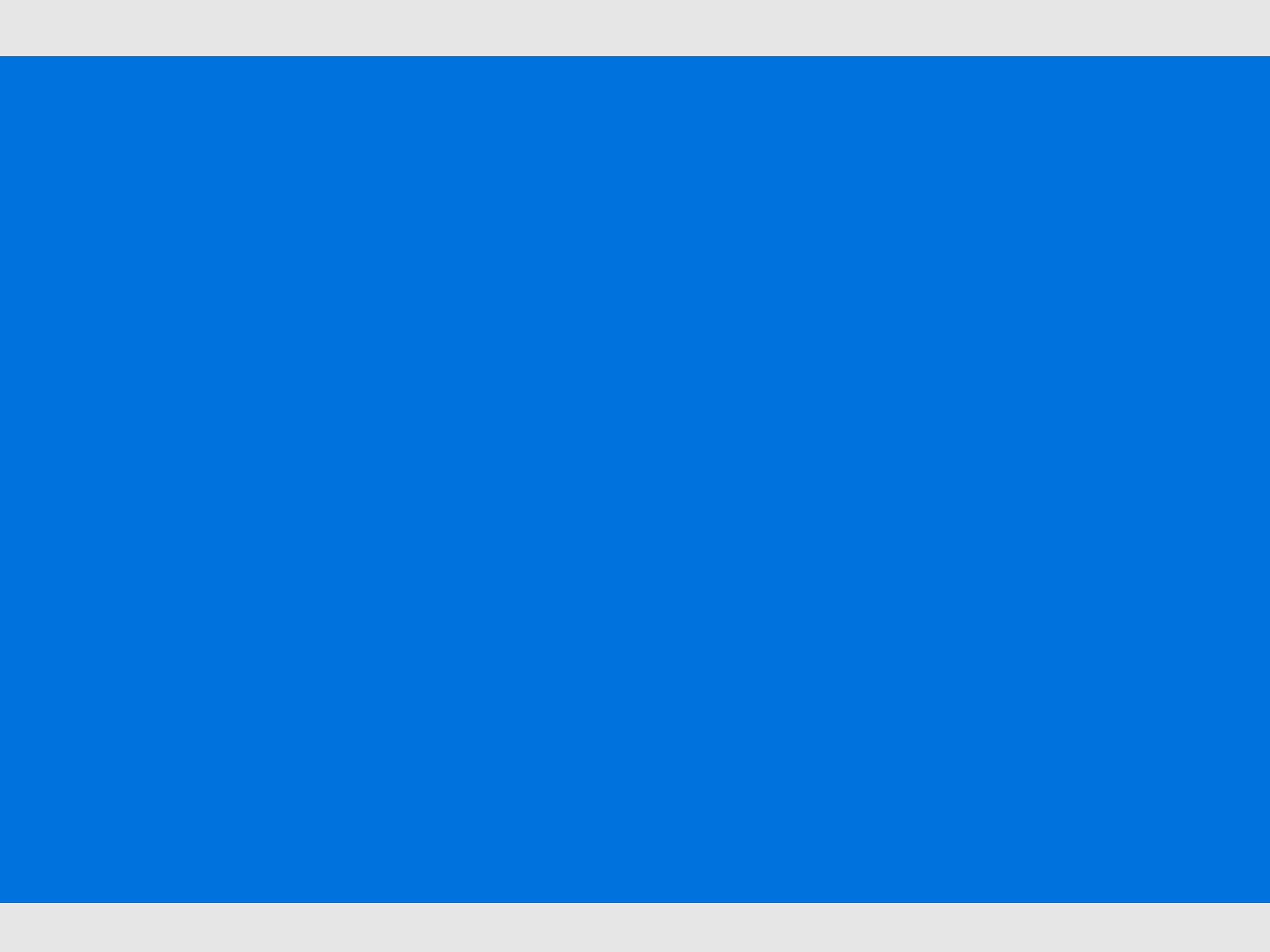
Overall occupancy 45%

Box locations 2016-2022



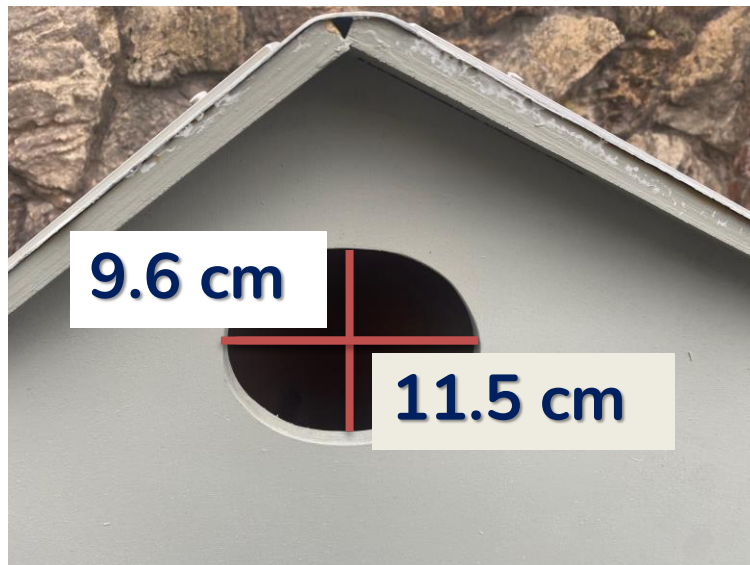
Important to install deck on owl box





Small entrance hole

To avoid predation by larger owls the size of the entrance hole should be no bigger than 9.6-11.5 cm (3.75*4.5 in)





100%

2022/07/17 22:57:30 14°C 57°F Cam1

Changing Climate: The 2021 heat dome's (June 25 – July 1) impact on our local barn owl population









November 2021 Floods



Winter 2021/22 arctic outflow



Summary 2022

- Barn owl population collapsed in the Eastern Fraser Valley: Only 15 out of 150 sites active
- Lower productivity documented in the Western Fraser Valley :
- Average 1.7 owlets fledged per nest site
- 38% of boxes previously successful not occupied in 2022



Summary

- 62 nest boxes installed to date 45% occupancy
- Deck is important on nest boxes to encourage barn owls to hunt in blueberry fields
- To better protect owlets against extreme temperatures we have modified roofing on boxes
- Barn owl population is currently rebounding due to extreme weather events in 2021



For more information: barnowlsbc.ca

A site for the conservation of Barn Owls in British Columbia

BarnOwlsBC

[Home](#) [About](#) [Contact](#) [Downloads and Links](#) [Photos](#)

[Publications](#) [Raptor Rodenticide Project](#) [Media](#)

[Vole Control in Berry Fields](#)

[Vole and Pocket Gopher Control in Orchards and Tree Nurseries](#)

Vole Control in Berry Fields



Field vole (*Microtus townsendii*) Photo Credit: Sean McCann

Vole damage to berry crops can cause significant costs to a grower if the damage occurs on well-established productive plants. The application of rodenticides can be an effective tool to combat vole damage, however, there is evidence that this has unintended consequences to non-target raptors and other wildlife. Most farmers are aware of the risk rodenticides present to non-target wildlife, but feel they are left with little other choice due to lack of effective alternatives. We are currently assessing the feasibility of a non-chemical, instant kill, self-resetting rodent control method as an alternative to rodenticides. This approach could give berry farmers the opportunity to control voles and simultaneously attract barn owls and other vole-hunting raptors.

We are currently assessing whether the Goodnature[®] bolt trap designed for rats can be modified and used for controlling voles in berry fields.

VOLE CONTROL SERIES

Video 1: Vole identification

https://www.youtube.com/watch?v=c_mNEV3l0aM

Video 2: Minimizing vole damage

<https://www.youtube.com/watch?v=SFm7Ep1lkDI>

Video 3: Using rodenticide

<https://www.youtube.com/watch?v=SFm7Ep1lkDI&t=5s>



DELIVERED BY

FUNDING PROVIDED BY



Lower Mainland
Horticulture
Improvement
Association



Email: sofi@fraservalleyconservancy.ca

Credit line: Funding for this project has been provided by the Governments of Canada and British Columbia through the Canadian Agricultural Partnership, a federal-provincial-territorial initiative. The program is delivered by the Investment Agriculture Foundation of BC.

Disclaimer: Opinions expressed in this document are those of the author and not necessarily those of the Governments of Canada and British Columbia or the Investment Agriculture Foundation of BC. The Governments of Canada and British Columbia, and the Investment Agriculture Foundation of BC, and their directors, agents, employees, or contractors will not be liable for any claims, damages, or losses of any kind whatsoever arising out of the use of, or reliance upon, this information.