NEWSPACKET

November-December 2022

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Journal of the North Okanagan Naturalists' Club

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Vernon Bluebird Report 2022

by Margaret MacKenzie, Coordinator

THIS summer of 2022 was unusual again with May and June very wet, with continued cool weather which was then followed by a long hot spell mid-July right into August. Many of the nest box birds had completed at least a first nesting with young mostly raised. However, the steady hot temperatures later were hard on the then nesting birds. In fact, in one box at Allan Brooks the Western Bluebird nestlings looked like they would die, and so we covered the box with tin foil to reflect the intense heat. It worked and thankfully the young did survive and fledge.

Snake predation was down this year, it's too early to tell whether our elevated, hopefully snake-proof, boxes are working or not. We had put up some elevated poles on four different trails where snakes had been probably responsible for disappearing eggs and/or young. Out of the 23 nest boxes on telescopic poles, 2 on the Vernon Hill Trail were the only ones to lose eggs. It is surprising to think that a snake could make it's way up the poles, and as we aren't sure that this in fact happened, we will continue to monitor the elevated nest box poles for another couple of years. All in all, we think that it helps to protect the nesting birds from predation. Putting up a trail camera at the boxes might give us further insight. I would like to suggest that we invest in 2 of them for the Bluebird Trails Program with monies coming either from the BC Bluebirds Society or from NONC.

Loretta Bemister who monitors the Adventure Bay trail had a different kind of predation happen on her trail this year. Two boxes were tampered with: one whole box pulled off and only the back left on the tree, its nest material strewn about and nestlings gone; a second box had the door ripped off and contents left intact inside the box. The feeling is that this might have been human-caused. It happened to 2 HOWR nests, (HOWR themselves predate and destroy other nesting birds like the poor WBNU eggs they poked holes in and then built nests over.) We hope the destroyed boxes weren't human-caused and I have learned that Racoons can cause this kind of destruction and will rip off roofs and doors to get at eggs and nestlings.

photo by Margaret MacKenzie

Jack Smith, who retired from monitoring his nest box trail this summer, was responsible for putting up the first nest boxes at Swan Lake Bird Sanctuary, thereby attracting many Tree Swallows who now proliferate the area. His Nest Box Trail has been an important addition for increasing the Tree Swallow population in Vernon and the 50-plus nest boxes he put up have produced thousands of young Tree Swallows over the 9 years since he first set up the

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Bluebird Report continued

boxes. This summer we divided his trail into two parts and there are now 27 boxes west of the creek monitored by Jack VanDyk, and 19 boxes on the east side monitored by Robert Hettler. This arrangement is working well and the Tree Swallows have good success in this lowland lake environment with plenty of flying insects to keep them healthy.

Hylda Mayfield, another long time monitor and one time co-ordinator of our Bluebird Trails, retired this spring from her trail at Allan Brooks Nature Centre. Two more new monitors - Sharon Reid and Joyce Heard, are now monitoring this short trail on Upperton Road. Both Jack Smith and Hylda have been strongly involved and dedicated to our Bluebird Program in the Vernon area.

The 22 reporting nest box trails this summer had a total of 419 boxes which were occupied by 259 pairs of nesting birds. Our numbers of nesting Western Bluebirds were down from last year (the last 2 years we had almost double the number of boxes used by Western Bluebirds). This year Western Bluebirds occupied 54 boxes and fledged 214 young. These 2022 numbers are comparable to previous years before 2019. But.....what happened to them this year? These are questions that puzzle me. Did the heat last summer reduce their numbers? Although they did well with fledging their young, did the continued smoke and heat affect them so they didn't return?

Mountain Bluebird numbers remain low. Nine pairs

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Vernon & Area 2022 Results

Total # of Nestboxes Available: 419 Total # of Nestboxes Used: 259 Trails Reporting: 22

Cavity Nesting Species	Boxes Used	Eggs Laid	Eggs Hatched	Chicks Fledged	2nd Nesting in same box
Western Bluebird	54	352	266	214	12
Mountain Bluebird	9	62	57	43	2
Tree Swallow	152	835	683	577	11
Violet-green Swallow	2	12	12	12	
House Wren	33	194	159	152	5
Black-capped Chickadee	5	31	26	26	
White-breasted Nuthatch	2	4	0*		
House Sparrow	4	21	0**		
European Starling	1	4	0**		

* predated by House Wrens

** eggs were oiled

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Bluebird Report continued

occupied boxes on the trails at the Aquillini property, Lone Pine Ranch, Middleton Mountain, Adventure Bay and Christensen Ranch, where they fledged a total of 43 young. Vernon Hill, that once had several pairs of Mountain Bluebirds, has had none the past few years. Silver Star Mountain where Trish Reid has put up 7 nest boxes, had no nesting Bluebirds this year.

Tree Swallows occupied 152 boxes and fledged 577 young. They did better than I expected as it was often difficult for them to find flying insects with the almost constant rainy weather in the early part of our spring and summer.

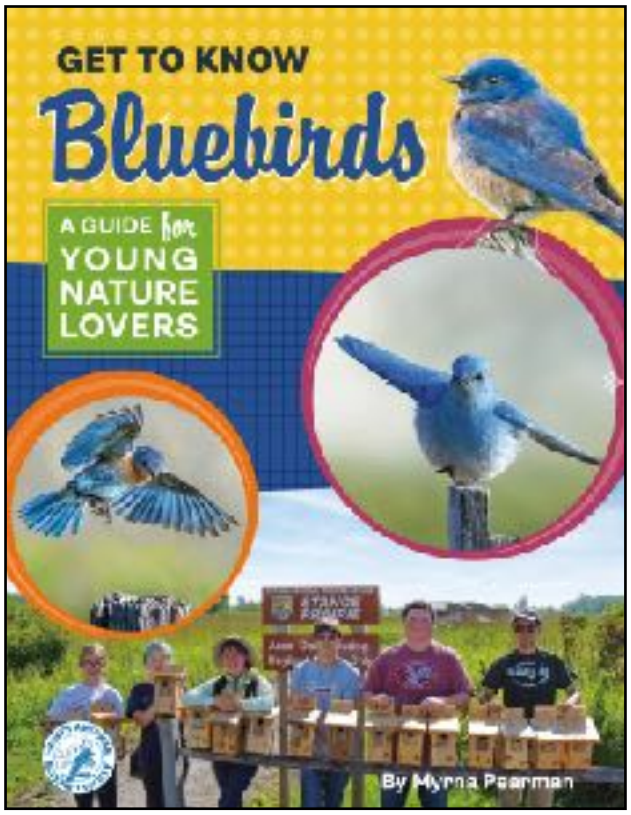
House Wrens occupied 33 boxes and fledged 152 young. Their numbers have also been down this past 2 years.

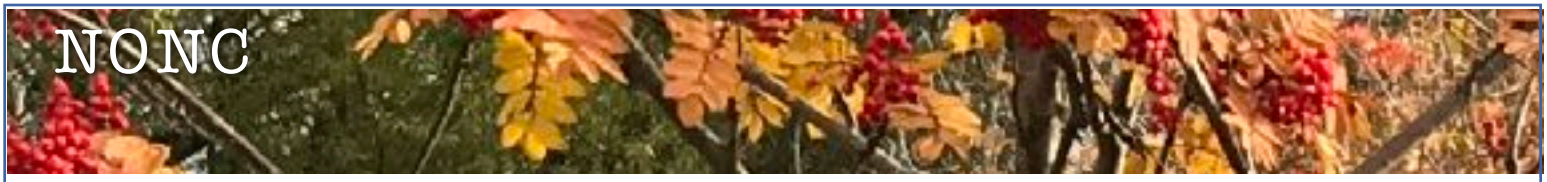
We had 5 boxes occupied by Black-capped Chickadees who fledged 26 young. Unfortunately the 2 boxes occupied by White-breasted Nuthatches were predated by House Wrens and did not fledge any young. Four boxes were occupied by House Sparrows and oiling the eggs caused them to become sterile and so none hatched. The same with one box where a European Starling managed to enter and lay eggs. We are pleased to finally find a solution to the House Sparrow problem and hope that with consistent vigilance, the House Sparrows will go elsewhere to look for nesting spots.

We have a couple of trails not reporting.....yet. Justin Oblak at Bluenose Mountain has put up new nest boxes on his ranch this spring and hopefully next spring he will have some Mountain Bluebirds and Tree Swallows taking up the new homes he has provided. The boxes on the Coral Trail in Lavington were cleaned out and checked periodically but not enough information was gathered to provide good data. Hopefully, next spring we can get the trail up and running with monitoring the boxes on a regular basis.

Our new monitors looking after Bluebird Trails this summer have done a super job, pretty much learning how to monitor the boxes themselves with some emailing back and forth to myself. Monitoring is so rewarding but at the same time, painful when things go wrong for the nesting birds and young don't make it. All in all, the nesting birds persevere and our numbers of fledged young are keeping our populations stable. As always, I have to say, thank you to all the monitors for their dedication to "Bring Back the Bluebirds."

The e-book below may be downloaded, free-of-charge, at http://www.nabluebirdsociety.org/publications/





The New NONC Logo

WHEN I was asked to create a new logo for NONC, I was both honoured and a tiny bit overwhelmed. The initial request was for something clean, but with character that included one or more elements to represent flora and/or fauna specific to the North Okanagan. Follow up requests and critiques pulled me in all sorts of directions, but I hope I pleased most of you with this final logo.

Pictured here is Kal Lake with its turquoise waters and the grasslands of Kal Park. Enderby Cliffs represent one end of the North Okanagan valley through to Camels Hump on the other end. The Arrow-leaved Balsamroot represents the sun which plays a big part in this region. And for the birders and bluebird nest program volunteers of the group, I added a little bluebird feather. I recall hiking with the group several years ago and seeing my first bluebird, while Peter Blokker entertained the group with his knowledge of bird sounds.

Thank you for this opportunity.
Lee Brinkman
October 7, 2022.

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Signal Crayfish

story and photos by Harold Sellers

THE Signal Crayfish, *Pacifastacus leniusculus*, is native to BC.

Common Names
Signal Crayfish, Crawfish, Crawdad, Crawdab, Mudbug

Description
There is only one native crayfish species in BC – the Signal Crayfish (Pacifastacus leniusculus). This species can be identified by its uniform brownish coloration, white or light coloration of the claw joint, and the smooth surface of its carapace and claws compared to that of nonnative species.

The signal crayfish is lobster-like in appearance and reaches a maximum size of 16-18cm. Its claws have red undersides with a small turquoise/white blotch on the upper surface at the claw hinge, from which common name of the species is derived.

Range & Distribution
This species is mostly found in the southern portion of BC, including Vancouver Island. It's native range also extends into the western and north-western states.

Here in the Vernon-Coldstream-Lumby area, we seem to be at the northern extent of its distribution in the Okanagan Valley (see map on next page).

The individual pictured here was caught by the author in Duteau Creek between Lumby and Lavington on October 22, 2022.

This crayfish has been widely introduced to many parts of Europe as well as to Japan to compensate for the devastating loss of native European and Asian species caused by the crayfish plague in the early 20th century.

Habitat
This is a hardy cool-temperate species that is found in small streams, rivers and lakes, including subalpine lakes.

Diet
The signal crayfish is omnivorous and will eat a

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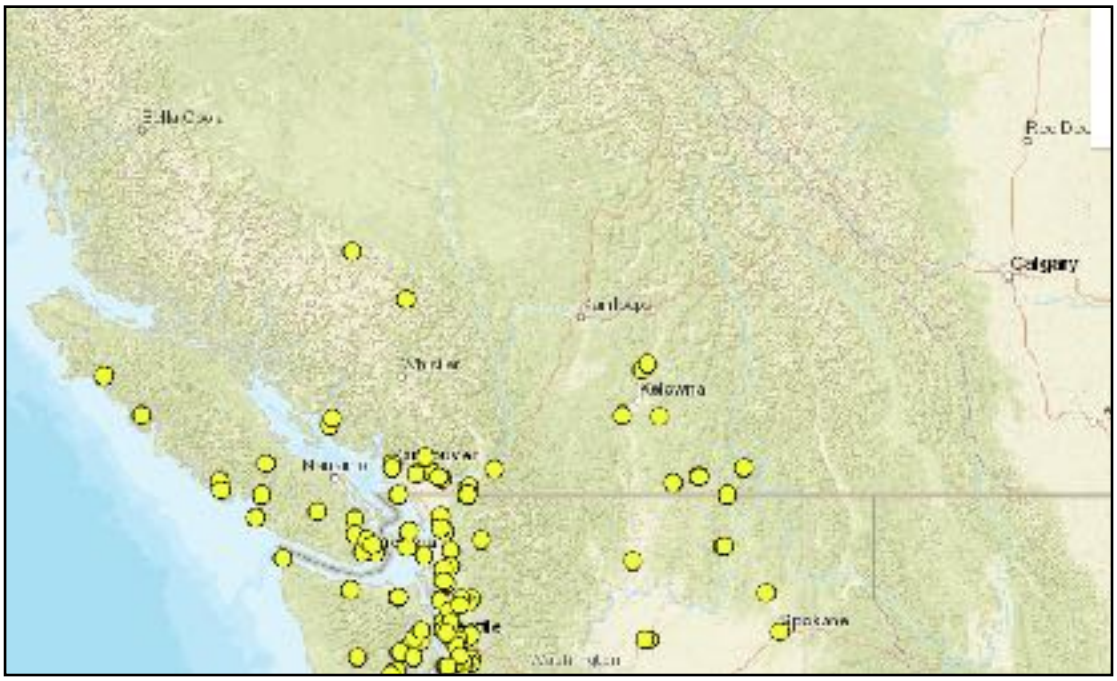
Crayfish continued

variety of foods from decaying roots and leaves to meat, including smaller crayfish and fish. Juveniles and young of the year are reported as primarily carnivorous on benthic insects.



Behaviour

This is a solitary species. It actively moves up and down rivers as well as overland, which aids dispersal. Originally, this was considered a non-burrowing species, but introduced populations in Europe construct burrows under rocks and along river and lake banks.

Catch

A fishing license is required to catch crawfish. However once this license is acquired, you can catch crawfish 365 days a year. In the Okanagan the daily quota is 25.

References

http://www.fishnbc.com
and
E-Fauna BC

Map from E-Fauna BC

Waxwings

by Chris Siddle

WHY does Vernon have Cedar Waxwings in the summer and Bohemian Waxwings in the winter?

Scientists believe that during the Pleistocene Epoch (2 million to 20,000 years ago) one ancestral waxwing species inhabited the connected landmass of Europe, Asia, and North America. With the separation of the landmasses into Europe-Asia and North America, and the beginning of the last glaciation 20,000 years ago, the waxwings diverged into Eurasian and North American populations, eventually evolving into separate species. The Bohemian Waxwing was at home in the boreal zone across northern Europe and northern Asia including Japan. With the retreat of the continental glaciers Bohemian Waxwings spread across the Bering land bridge to northwestern North America.

Photo at right: A Bohemian Waxwing about to feed on wild fruit in Kalamalka Lake Park on 20 January, 2021. Bohemian Waxwings are easily told from Cedar Waxwings by the rich brown feathers under the tail. Cedar Waxwings have white under tail coverts. Photo by Chris Siddle

Compared to the lightly built Cedar, the Bohemian Waxwing is bigger, heavier (56 grams body mass vs 32 g), rougher voiced, and to this day breeds in more isolated and northerly locations. It's a true Holarctic boreal species, nesting from Norway to Kamchatka and in North America its breeding range is centred on Alaska, Yukon, the western N.W. Territories, the northern two thirds of B.C. and northern half of Alberta. It nests in open coniferous or mixed woodlands, sometimes the edges of Black Spruce muskeg where it feeds heavily in spring and summer on insects. Think of it as a wilderness bird, a bird of the higher latitude forests, able to withstand low temperatures, and able to capitalize on burgeoning warm season insect populations and spring and summer wild fruit. In autumn North America Bohemian Waxwings gather into large flocks and wander (hence "Bohemian" – meaning?) northwest America in search of fruit. The Okanagan Valley is a favoured winter area for Bohemian Waxwings, pretty much in the centre of the species' winter range. Some winters Vernon, Kelowna, and Penticton have tallied thousands of these birds, especially around urban plantings such as Mountain Ash trees with their bright red berries. Bohemian

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Waxwings continued

Waxwings first descend upon the valley in November and depart in March.

So much for our winter waxwing. What about the Cedar Waxwing? It is thought that it evolved from the same ancestral waxwing as did the Bohemian Waxwing but in the Pleistocene absence of the Bohemian from North America, the Cedar Waxwing evolved to living in the more temperate climate of southern Canada and the northern United States from Washington and Oregon east to New England. It nests very late in spring in various kinds of open woodlands including wooded backyards, riparian shrublands, orchards, conifer plantations and suburban gardens, habitat quite different from the remote boreal forest of its bigger relative, the Bohemian. It is far less able to withstand severe winter weather than the Bohemian can and generally occurs in smaller flocks, though both species are highly social. In the North Okanagan Cedar Waxwings begin to withdraw to the south, to warmer areas, from late September onwards. By mid October, Cedar Waxwings have become quite local around Vernon, the few remaining birds faithful to the few shrubs and trees still bearing fruit.

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Photo left: Typical adult Cedar Waxwing with the red tips of "wax" visible. Photo by C. Siddle

Photo below: A first-year Cedar Waxwing closely resembles an adult but lacks the tiny red tips halfway along the wing. Note how different the Cedar Waxwing is from the Bohemian Waxwing. The Cedar is warm gray, not gray, lacks the complex white bars on the wing and has white undertail coverts. Photo by Chris Siddle

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Waxwings continued

Cedar Waxwings arrive suddenly in late May and early June in the North Okanagan, and begin nesting almost immediately upon arrival to capitalize upon ripening fruit and insects. Stragglers can linger in tiny numbers right into November, and being social, individuals may occasionally join Bohemian Waxwing flocks.

To recap, once upon a time there was an ancestral waxwing happily inhabiting the land masses of connected Eurasian and North America. Climate change and resulting ice ages separated populations into Old World and New World waxwings that over a long period of geographical isolation from one another evolved into Bohemian and Cedar waxwings. With a lowering of the ocean and the emergence of a Bering land bridge, the Bohemian Waxwing was able to expand its range from Eurasia into North America, giving us two waxwing species, seasonally isolated, more or less, from one another.

Photo above: Juvenile Cedar Waxwings have a vested appearance and are grayer than adults, but still show the white undertail feathers that identify them as Cedars. Photo by Chris Siddle

CHRISTMAS BIRD COUNT

Started in 1900, the Christmas Bird Count is North America's longest-running Citizen Science project. Counts happen in over 2000 localities throughout the Western Hemisphere.

Sunday, December 18th will be the date of the 73rd Annual CBC in the Vernon area.

The information collected by thousands of volunteer participants forms one of the world's largest sets of wildlife survey data. The results are used daily by conservation biologists and naturalists to assess the population trends and distribution of birds.

Each Christmas Bird Count is conducted on a single day between December 14 and January 5. Counts are carried out within a 24-km diameter circle that stays the same from year to year. They are organized, usually as group efforts, at the local level, often by a birding club or naturalist organization. E-mail info@nonc.ca for more information about participating.

A Rarity Found in the North Okanagan !

story and photos by Margaret MacKenzie

I'VE finally found *Artemisia tripartita*! And, it is located in the 'newly discovered' Coldstream Ranchlands Park! I say newly discovered, meaning although the park had been in existence for many years, we had only just learned that it was a public place we could explore.

Years ago Malcolm Martin, a highly regarded NONC member for his botany knowledge and other naturalist pursuits, asked me to be on the lookout for this particular Sagebrush - *Artemisia tripartita*, or Three-tip Sagebrush, on East Vernon Hill. I was to look above the bluebird boxes on the fence line. This is the Bluebird Trail in Ranchlands Park that Charlie Peti monitors. For years I tried to find this area where Malcolm had seen a few shrubs of this rare (for our area) Sagebrush growing. This location would be the most northerly area that it had been reported.

Exploring the new park had me zigzagging up and down its slopes and one day in April 2021, I was

coming down from the high point of the park by the ravine and dipped into a depression where the land flattens somewhat. Quite an extensive patch was in front of me of at least 30 shrubs [*see photo, above*]. They are not tall like our usual Big Sagebrush (*Artemisia tridentata*), rather their stems and leaves are smaller. Also, the leaf tips of Three-tip Sagebrush are split into 2 deep notches giving the appearance of 3 fingers [*see photo at left*]. The tips of Big Sagebrush leaves are only indented slightly. It does have a pleasant sage odour similar to Big Sagebrush.

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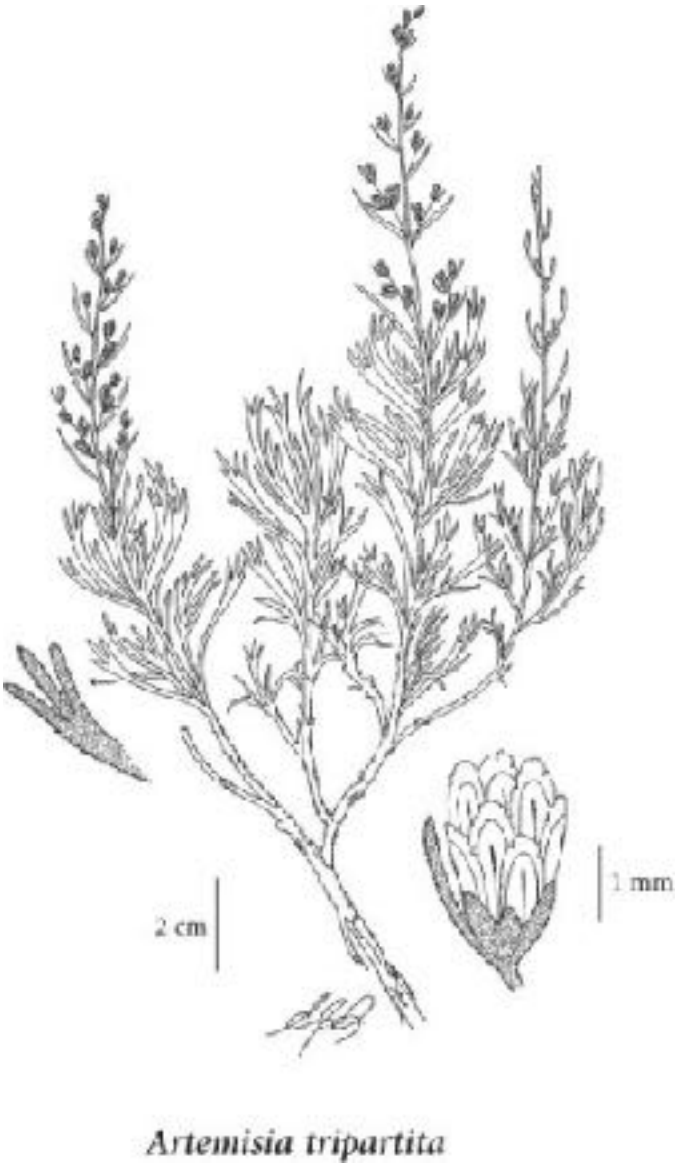
Sagebrush continued

Searching and finding unusual or rare plant species was something Malcolm Martin and Ernie McNaughton, (both NONC members and botanists), did weekly throughout the summer months. They found many rare and unusual plants over the years and thus joined the exciting ranks of the Plant Hunters. I, too, like the idea of being a Plant Hunter and so am always on the lookout for a plant or flower that is different or out of character for the area in which I find myself. Being a Plant Hunter is not much different than being a Gold Hunter, for it's the search and hopeful goal that provides the excitement. Thinking that there is the possibility of a rare plant at the summit of some hill or mountain has often been the push for me to climb to the top!

The important value in finding this shrub is that it might be helpful in adding some protection to Coldstream Ranchlands Park to keep it as a strictly a natural area with no developed walking or bike trails! Let's hope so and maybe we can find something else rare to add to the list.



above: Illustration of Three-tip Sagebrush taken from "The Illustrated Flora of British Columbia"

left: A closeup of the "three-fingered" leaves. This plant is not one that you might notice easily. It is a short and rather a plain shrub with nondescript flowers in late fall.

Praying Mantis

Mantis religiosa

by Harold Sellers

from Royal BC Museum with additions from: Recent range expansion of the Praying Mantis in British Columbia Robert A. Cannings, Entomological Society of British Columbia Praying mantises alive and well in Okanagan, The Daily Courier, Kelowna, July 31, 2021

THE Praying Mantis, a distant relative of grasshoppers and cockroaches, is spreading through southern British Columbia. You might catch a glimpse of this insect in tall grasses bordering roads or uncultivated fields. Or you might see the egg sac of a mantis: a hard, papery case glued to a branch or a fence post.

The slow-moving Praying Mantis is a carnivore that eats only living insects. Using large, spiny forelegs, it captures and holds its prey before devouring it.

Impact on Communities and Native Species

It is hard to say if the Praying Mantis is having any effect on our native BC mantis, the Ground Mantis (*Litaneutria minor*). This rare little wingless species has shared its habitat with the Praying Mantis for decades, apparently without declining. The increase of the Praying Mantis, however, introduces a new competitor to many areas—time will tell if it causes any observable problems.

photo above: a Praying Mantis found on the Anderson range, near Goose Lake, in late September 2022; by Harold Sellers

Invasion History

The Praying Mantis was introduced accidentally to New York from Europe in 1899 and spread to eastern Canada soon after. In the 1930s, the Praying Mantis arrived in BC when federal entomologists in the Okanagan and Shuswap regions imported them in an attempt to control the grasshoppers eating agricultural crops. Mantids quickly disappeared from most of the region, but by the 1970s, there was a

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Praying Mantis continued

small population between Okanagan Falls and Osoyoos in the south Okanagan.

In the last [two or three] decades, however, the Praying Mantis has spread farther afield, moving as far north as Kamloops and east to the Kootenays. In 1999, these mantids were recorded on south Vancouver Island, perhaps the result of people transporting egg cases or adult mantids. Others sighted in the Vancouver area probably spread from western Washington State where the species is common.

Dr. Rob Cannings, who spent 33 years as curator of entomology for the Royal BC Museum, said while praying mantises aren't considered rare in the Okanagan, they are definitely good at hiding in plain sight.

"You could call it 'uncommon' or 'scarce' or some other term that indicates that someone knowledgeable about its habitat and habits could find it maybe one out of four or five times it's looked for in suitable habitat," said Cannings.

Cannings has published two papers on praying mantises in B.C.

According to his research, European praying mantises were introduced to the Okanagan in the late 1930s by a Vernon farmer trying to control grasshoppers. There were also releases in the Kamloops and Salmon Arm areas around the same time. Cannings isn't aware of any releases in the South Okanagan, but said it's the South Okanagan where the praying mantises gained the firmest foothold.

Praying mantises have "a slow reproductive rate and their populations just are never high enough to make a dent in any prey species' numbers," said Cannings. "So, no, it was not effective against grasshoppers."

- long, slender, neck-like thorax
- spiny, grasping front legs
- prominent compound eyes
- threadlike antennae
- adults are 47–56 mm (1.85-2.2 inches) long
- both brown and green forms occur
- both sexes have wings
- camouflaged; will blend in with grasses and leaves

photo below by Harold Sellers

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Newspacket is published five times per year, in January-February, March-April, May-June, September-October and November-December.

Thank you to Wayside Press of Vernon which prints our hard copies of Newspacket.

Copy for publication should be sent to Harold Sellers, Editor, by e-mail hikerharold@gmail.com.

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MONTHLY MEETINGS

On the first Wednesday of the month (September through May), we hold a meeting for members and visitors at the Schubert Centre. Start time, 7:00 pm. Guest speakers, club news, refreshments.

NONC MEMBERSHIP

Clip or copy this form to begin or renew a membership with the North Okanagan Naturalists' Club. The form is also available on our website. Annual dues are $35 for an individual, $20 for a student and $50 for a couple or family. Every member should also complete a Waiver form, available at our website membership page.

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