
CROAKS AND TRILLS

From the Editor



The Alberta Volunteer Amphibian Monitoring Program has a brand new logo – displayed on top right-hand corner of this issue of the *Croaks and Trills* newsletter.

If you require additional copies of the observation data form, please feel free to call or email me.

If you wish to no longer receive this newsletter simply send me an email or call me and request to be removed from the mailing list.

--- Kris Kendell

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Painted turtles in Alberta's boreal forest: hitchhiker or native species?

By Paul Kalashnikoff

Being an avid naturalist, outdoorsman, and biologist by profession, I spend much of my time in Alberta's backcountry. In the spring of 2008, I was exploring the remote forested lands north of the Bigoray River, northwest of Drayton Valley.

Travelling along a narrow oil lease access, I was surprised to see a turtle crossing the road ahead of me. Perplexed, I quickly approached and gently pinned the scurrying reptile with my hand. "What are you doing way out here?" I asked, and was answered with a guttural hiss.



Photo by: Paul Kalashnikoff

Although I did not observe any marsh wetlands from the road, the surrounding low-lying peatlands interspersed with wet meadow grasslands appeared to be flooded from the spring melt, and apparently provided suitable habitat for this turtle.

Recognizing this chance encounter as my first in Alberta, I was sure to take photograph of the animal

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Painted turtles (cont'd from page 1)

as well as obtain the coordinates of its location from my GPS. This information was needed to report the painted turtle (*Chrysemys picta*) observation to the Alberta wildlife database, known as the Fisheries and Wildlife Management Information System (FWMIS).



Photo by: Paul Kalashnikoff

After discussing this observation with staff from the Alberta Volunteer Amphibian Monitoring Program (AVAMP), I was not surprised to find limited painted turtle observations in southern Alberta, and only a few, sporadic observations recorded in the boreal forest region. From what I understand, turtles are often brought back by families vacationing in warmer climates, only to be subsequently released. But what was my hissing friend doing way out there, many, many miles far from any neighborhood pond?



Photo by: Paul Kalashnikoff

Are there more turtles out there that you have seen? If you are fortunate enough to share a similar experience, be sure to record and report it, so that we can all better understand if these turtles in northern Alberta are just hitchhikers or a native population that has been all the while quietly basking in our boreal forest. ❖

Alberta Volunteer Amphibian Monitoring Program: 2007 results

More than 60 individuals, organizations, and families contributed 563 amphibian observations and 18 reptile observations in 2007-08.

Records for all 10 species of amphibians found in Alberta were submitted in 2007-08; in addition, observations for five snake species and one painted turtle record were submitted (see Table below).

Species Observed	Number of Observations
Boreal Chorus Frog	185
Boreal Toad	40
Bullsnake	2
Canadian Toad	17
Columbia Spotted Frog	28
Great Plains Toad	53
Long-toed Salamander	11
Northern Leopard Frog	15
Plains Garter Snake	3
Plains Spadefoot	60
Prairie Rattlesnake	2
Red-sided Garter Snake	5
Tiger Salamander	7
Wandering Garter Snake	5
Western Painted Turtle	1
Wood Frog	147
Total observations	581

All data submitted by volunteers in 2007-08 have been entered into the Fisheries and Wildlife Management Information System (FWMIS) database. FWMIS is a database maintained by Alberta Fish and Wildlife Division and used to store observational data on wildlife species within Alberta. ❖

Mystery tracks: a field observation of possible turtle tracks?

By Ted Johnson

The photograph below shows unidentified tracks that were made sometime around the end of July 2007, between Blueberry Lake and Net Lake in the Maybelle dunes area, north of Fort McMurray.

This mystery animal may have made its journey on the warmest night of the year; the temperature stayed above 24 C all night. When I first saw the tracks I thought they were some weird dirt bike tire, when they made a sharp 90 degree corner I realized they were something else. The creature travelled several hundred meters between the lakes, and by its route it appeared to know where it was going, as there was no wandering circles or major deviations during its journey. Both a wolf and a bear crossed its tracks and at one point the wolf tracks followed them for about 100 meters.



Photo by: Ted Johnson; note the \$2 coin placed next to tracks for scale.

If you happen to have any information that may offer insight on whether the tracks in question are indeed that of a turtle, please contact Kris Kendell (contact information on page 6). ❖

Ephemeral wetlands, dugouts, and toad reproduction

By Tim Schowalter

Hundreds of Great Plains “toadlets” hopped ahead of us as we walked along the muddy flat along the dugout. It seemed that the animals were coming out of the ground there were so many of them — then we realized that they actually were coming out of the ground!



Photo by: Tim Schowalter

Moving more slowly, we could see where the animals had buried themselves, each location given away by a small bump of disturbed surface. As our walking disturbed them, they climbed out of their damp hiding spots and hopped to the water or the vegetation along the muddy bank.

Most of the dugouts and ephemeral ponds in the Vauxhall Stock Grazing Association lease east of Vauxhall had Great Plains “toadlets” in July of 2006 when we surveyed the area for wildlife for Operation Grassland Community. A wet spring had evidently resulted in a great many temporary shallow sloughs, which were ideal for toad reproduction, as we saw thousands of young toadlets.

The adults proved more difficult to find, but we finally encountered about 50 of them around a dugout while searching for northern leopard frogs at night. It took little effort to pick up a handful for a photo.

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Ephemeral wetlands (cont'd from page 3)

As the animals inflated themselves, a defensive reaction to predators, the number of toads it was possible to hold lessened.



Photo by: Tim Schowalter

The discovery of the toads was good news. Though their populations vary greatly in response to spring moisture, making the determination of population trends uncertain, Great Plains toads are thought to have declined in Alberta since the 1980s. Evidently, they were still relatively common in at least one area.

On a negative note, there were fewer toads observed at most dugouts compared to the natural ephemeral ponds.



Photo by: Tim Schowalter

Although more study would be required, it appeared that the dugouts were generally placed in areas that would have been ephemeral wetlands.

At dugouts that had shallow water earlier in the season, toads were usually abundant. Few animals were found at dugouts that filled completely and lacked shallow-water areas earlier. We chaffed at not having the time to investigate the suitability of differently-configured dugouts and other questions. Could artificial water bodies be designed and managed to encourage toad reproduction?

We would also have liked to determine if the abundance of young toads was unique to the large block of grassland we were surveying or if the animals were also abundant in more altered habitats in the region. Other research could have been aimed at the evaluating the impact of grazing practices on the toads. It was evident that the Vauxhall Stock Grazing Association practiced moderate grazing. Although our surveys did not take us off the Grazing Association lands it would be interesting to know if the Association grazing practices encouraged toad reproduction more than heavier or even lighter grazing. ❖

In search of Vauxhall's northern leopard frogs

By Leah Darling

Have you ever been walking along a creek or pond in southern Alberta and heard a loud “plop” or splash, but didn’t see where it came from or what made it? If you have, you may have just missed seeing a northern leopard frog!

Because of their large size, you might think that they would be easy to spot. As we found out while doing wildlife surveys for Operation Grassland Community (OGC) in the grasslands leased by the Vauxhall Stock Grazing Association, it’s not as easy as that.

We knew that leopard frogs had been found in the Vauxhall area in previous years, and had likely been recently seen by people that work for the Grazing Association; we’d even heard suspicious splashes ourselves.

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Vauxhall's leopard frogs (*cont'd from page 4*)

Finally, after days of searching creeks, ponds, dugouts, and irrigation canals looking for the camouflaged brownish or greenish amphibians, and listening for the tell-tale splash, I got a call. "I've found leopard frogs!" My co-worker had spotted them hopping in a grassy seep near the Bow River. Our suspicions had been confirmed.



Photo courtesy of the ACA

The sighting was significant. Once common throughout most of the province, northern leopard frogs experienced dramatic population declines in the late 1970s and early 1980s, and the species now appears to be reduced to a relatively few occurrences in southern Alberta. We eventually found a total of four separate sites where northern leopard frogs occurred.

The presence of leopard frogs on the Association's leased land emphasizes the importance of this native grassland to this and other species at risk. Because of the drastically reduced population of this species in Alberta, the presence of that many locations with frogs is significant for the persistence of this species in the province.

Of interest was that we found leopard frogs in three distinct habitat types. Their discovery in a wet seep near the Bow River was perhaps the most unexpected, as we began our search in the most likely places to find them (i.e., creeks, ponds, irrigation canals, and dugouts). The seep was on a sloping bank with thick

knee-high vegetation and although very wet, there was no open water. We did not see the frogs initially but found them by tracking the motion of the vegetation as they jumped through it. A good reminder to a wildlife surveyor is to keep your eyes open at all times, and to keep an open mind as well.

We also found several frogs along a length of creek that fed into the Bow River. This was good leopard frog habitat with clear, flowing water with lots of vegetation to hide in; we'd hoped to find them here, and fortunately we did.



Photo by: Leah Darling

The third habitat type leopard frogs were found in was an irrigation canal that was degraded by cattle trampling the vegetation, and by feces contamination. We felt that this site was a good candidate for a stewardship project, as the habitat damage could be reversed by fencing and setting up an off-site cattle watering system.

For more information about OGC and its activities, please visit their web site at www.ogcpsp.com or contact 403-331-0627. ❖

Amazing amphibians and remarkable reptiles!

- Many snakes minimize water loss by excreting their nitrogenous waste as uric acid, a white, crystalline substance needing very little water to carry it out of the body.
- Researchers working in Borneo have recently discovered the only known frog with no lungs. The tiny frog, named *Barbourula kalimantanensis*, was found in western Kalimantan, Indonesia where it lives in cold, rushing water in remote rainforest. It is so rare that only two specimens had been found previously. It receives all necessary oxygen through its skin. The fact that the frog was lungless was discovered accidentally after researchers found a larger number of the frogs and felt comfortable sacrificing some for routine dissections to extract tissue samples to be used for DNA work.
- Most snakes have a vestigial left lung that is often small, or sometimes even absent; in these snakes the right lung is greatly enlarged in order to compensate. Boas and pythons, on the other hand, possess two functional lungs.
- Frogs and toads eat more-or-less anything they can catch and that will fit in their mouths – for large species, prey items may include mice, small birds, lizards, and other frogs and toads.
- The Coqui Frog (*Eleutherodactylus coqui*) has become a pest in Hawaii because of its incessant and loud calling (sometimes reaching as high as 100 dB at a distance of 0.5 m). In some places it has been estimated that as many as 20,000 Coqui Frogs may occur per hectare!
- Although considered a vagrant, the Kemp's Ridley Seaturtle is the smallest of the seaturtles in Canadian waters and is also the most endangered of all seaturtles!
- Unlike warm-blooded mammals, amphibians and reptiles do not eat food to produce body heat; instead, they feed opportunistically and use the energy for growth and reproduction.
- The common egg-eater (*Dasyplectis scabra*) is a small African snake that specializes in eating the eggs of birds. The common egg-eater engulfs whole eggs by wedging them against a firm object before forcing them into its throat. Specialized vertebrae penetrate the shell, while other vertebrae prevent the egg from moving further down the throat or slipping out of the snake's mouth. As the egg is crushed by yet other vertebrae, its contents are swallowed and the shell is folded into a characteristic pellet and regurgitated! ❖

CROAKS AND TRILLS is the official information newsletter of the Alberta Volunteer Amphibian Monitoring Program, a program delivered by the Alberta Conservation Association.

For more information on:

- the Alberta Volunteer Amphibian Monitoring Program
- amphibians and reptiles of Alberta
- how to submit monitoring data, or other amphibian and reptile observations

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