



Weed Regulation in Alberta

By James B. Posey

Until recently, the regulation of weeds in Alberta was unlikely to surprise—no changes had been made to the *Weed Control Act*, or to the list of regulated weeds, for years. However, in November 2008 a new *Weed Control Act* that is different from the old in many respects was given third reading. There are now two classifications of weed species. The Nuisance category is gone. Before the Act could come into effect, updated regulations were needed, and a multi-stakeholder committee was assembled to advise the Minister of Agriculture and Rural Development (AARD) on which species should be listed as weeds in the new regulations.

The Alberta Weed Regulations Advisory Committee (AWRAC) includes representatives of the Association of Alberta Agriculture Fieldmen, branches of Alberta Agriculture and Rural Development, Alberta Sustainable Resource Development, municipal governments, the Canadian Food Inspection Agency, the Landscape

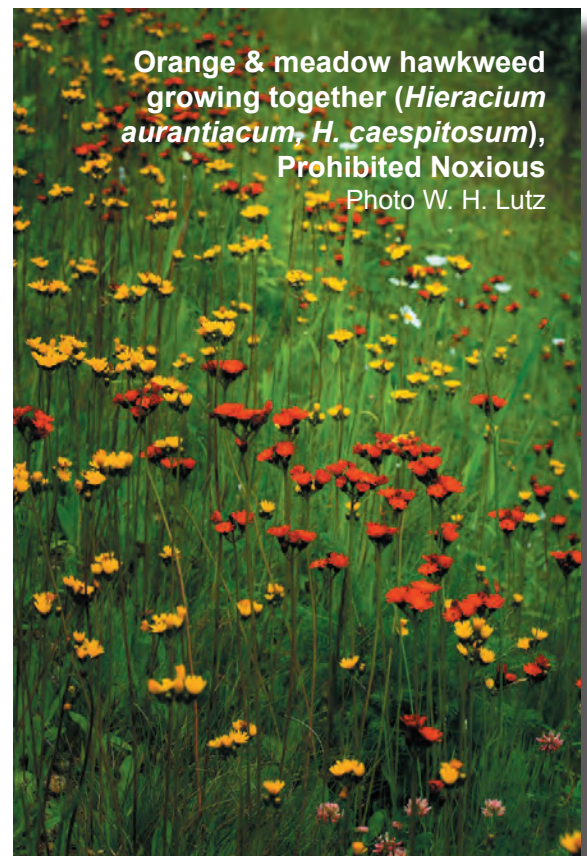
Alberta Nursery Trades Association, the Prairie Shelterbelt Program, the Alberta Invasive Plants Council, some unaffiliated individuals, and ANPC.

Good, bad, ugly, and indifferent

AWRAC adopted criteria for deciding what species should be regulated, and for categorizing them, recommended in a letter from the Alberta Invasive Plants Council to the Minister. ANPC's Rogues' Gallery summarizes the rationale for classification:

Prohibited Noxious (species that landowners must eradicate)

Non-native species with currently restricted or local distribution in Alberta that present risks of spreading and causing significant economic or ecological impact. Examples: nodding thistle (*Carduus nutans*), yellow clematis (*Clematis tangutica*).



Orange & meadow hawkweed growing together (*Hieracium aurantiacum*, *H. caespitosum*), Prohibited Noxious
Photo W. H. Lutz

Non-native species not currently established in Alberta but that occur in neighbouring jurisdictions, cause significant economic or ecological impact in those jurisdictions, and are well adapted to Alberta conditions. Examples: yellow star-thistle (*Centaurea solstitialis*), salt-cedar (*Tamarix ramosissima*).

In this Issue . . .

Can Prairie Prevail Over Politics & Potatoes?	6
Remembering Tom Maccagno	7
A Deadly Beauty: Tall Buttercup	8
In Memory of Douglas Waylett.....	10
Report Invasive Weeds	11



Orange hawkweed (*Hieracium aurantiacum*), Prohibited Noxious

Photo W. H. Lutz

Noxious (species that landowners must control to prevent from spreading)

Non-native species already widely distributed in the province that have significant ecological or economic impact, and that can spread easily from existing infestations onto adjoining properties (e.g. those with windblown seed or creeping roots). Examples: Canada thistle (*Cirsium arvense*), leafy spurge (*Euphorbia esula*).

Non-native species that are relatively easily controlled when a few individuals are found but that can easily get out of hand if left uncontrolled, and can have significant impacts when abundant. Example: scentless chamomile (*Tripleurospermum perforatum*).

Not regulated

Exotic species that have been long established in Alberta and have not shown significant ecological or economic impact. Examples: knawel (*Scleranthus annuus*), cypress spurge (*Euphorbia cyparissias*).

Exotic species that are found virtually everywhere in the province, so that it is too late to prevent further spread. Examples: stinkweed (*Thlaspi arvense*), wild buckwheat (*Polygonum convolvulus*).

Native species are not regulated.

Decisions, decisions

AWRAC initially considered a list of more than 300 species compiled by a professional ecologist and ANPC's representative. The list included all exotic species known to naturalize in Alberta (based on records at ANHIC, now the Alberta Conservation Information Management System, ACIMS) or to be problematic in adjoining jurisdictions. After excluding species that seemed likely to be confined to environments that do not occur in Alberta (e.g., the lower Fraser Valley), committee members were each asked to rank some 200 species as prohibited, noxious, or not to be regulated, based on the adopted criteria and on their field experience. Working from a compilation of those rankings, final recommendations were made by consensus.

The new regulations, which came into force in June 2010, include 46 Prohibited Noxious species, and 29 Noxious species. ANPC representatives were pleased that no native plants were included, despite the fact that some, like spreading dogbane (*Apocynum androsaemifolium*), are agricultural pests that had previously been regulated.

Not all plants that are problematic in some way were considered, because they are regulated by other legislation or could be so regulated more appropriately than by the *Weed Control Act*.

The federal *Controlled Drugs and Substances Act* regulates *Cannabis sativa* and *Papaver somniferum*. Municipal by-laws can enforce community aesthetic standards (e.g., tall grass, dandelions).

Poisonous plants such as black henbane (*Hyoscyamus niger*), foxglove (*Digitalis purpurea*), Tartarian honeysuckle (*Lonicera tatarica*), burning bush

(*Euonymus atropurpureus*), jimsonweed (*Datura stramonium*), angel's trumpet (*Datura innoxia*), yellow lady's-slipper (*Cypripedium calceolus*), Virginia creeper (*Parthenocissus quinquefolia*), and castor bean (*Ricinus communis*) are examples varying from somewhat to extremely toxic to animals, humans, or both.



Black henbane (*Hyoscyamus niger*), Noxious Photo J. B. Posey

Surprise!

Not long after the regulations were issued, new information began to emerge. There's nothing (apart from a hanging in the morning) to concentrate the mind like the prospect of a Weed Notice. Some prohibited species are evidently more common than had been known, and there are some naturalized species that would have been considered, had the committee known that they occur here.

- Himalayan balsam (*Impatiens glandulifera*), a particularly aggressive garden escapee, has already invaded many central Alberta lake shores and stream banks.
- Garlic mustard (*Alliaria petiolata*), which had been thought not to occur in Alberta, was found in Edmonton area ravines.
- A doubled, presumably horticultural variety of poisonous celandine (*Chelidonium majus*) was found naturalized in Red Deer, Edmonton, Lacombe, and Carbon.
- Thesium (*Thesium arvense*) has been found widely distributed in Fish

See Weeds, page 3

Weeds, from page 2

Creek Provincial Park.

- Yellow hawkweeds (*Hieracium* spp.) are difficult for managers to identify; some are more common than had been thought, and new species have been found.

Evidently, the list needs to be revised in light of new and expanded information on an ongoing basis. Some species currently listed as prohibited might have to be downgraded because they are too widespread for eradication to be practical. New-found exotic species can be added if it is determined that they are likely to spread and be invasive. Anyone can ask for review of a listing by submitting a written request to the chair of the AWRAC that includes:

- Common name(s) of the species
- Scientific name and authority
- Reasons to change regulatory status, including:
 1. Description of life cycle and reproductive methods, dispersal mechanisms, and current distribution
 2. Regulatory status of the species in provinces, territories and northwestern U.S. states
 3. Rationale to justify regulation with citations of supporting literature



Bull thistle (*Cirsium vulgare*), do not regulate, elevate locally if necessary

Photo W. H. Lutz

4. Other relevant information

- Supporting information (as much as possible), with reference to the established criteria for listing.

Peering into the future

AWRAC continues to meet regularly, compiling new information and trying to reach consensus on a number of unresolved issues. The committee has taken time since the current list was recommended to formalize its procedures, and it has decided that more information about the biology and distribution of each species considered will be required before future recommendations are made.

The near future

Since the new regulations were adopted, AWRAC has decided to recommend several species to be added to the regulations, probably in 2013:

Prohibited Noxious

- African rue *Peganum harmala*
- alkali swainsonpea *Sphaerophysa salsula*
- black swallow-wort *Cynanchum louiseae*
- European swallow-wort *Cynanchum rossicum*
- hawkweeds *Hieracium*, all species except *H. umbellatum*
- wild carrot or Queen Anne's lace *Daucus carota*

Noxious

- European field pansy *Viola arvensis*
- Persian darnel *Lolium persicum*

Local elevation

Municipalities can add species to the lists, to be regulated within their jurisdiction, if the Minister approves. AWRAC will not object to elevation of the following four species, but it has decided not to add them to the list for the whole province.

See Weeds, page 4

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Weeds, from page 3

- bull thistle *Cirsium vulgare*
- clover dodder *Cuscuta epithymum*
- flax dodder *Cuscuta epilinum*
- small-seed alfalfa dodder *Cuscuta approximata*

There is no assurance that municipalities will apply the AWRAC-adopted criteria in judging what species they want to elevate, and it seems likely based on experience to date that the Minister will approve most requests for local elevation regardless. One county has elevated dodders (*Cuscuta* spp.), which includes *Cuscuta gronovii*, a critically imperilled native species, to Prohibited Noxious. Another has added absinthe wormwood (*Artemisia absinthium*) to the Noxious category. More such elevations will likely follow, if they have not occurred already.

Watchfully waiting

A number of species have been placed on a Watch List, which means that in AWRAC's judgement the species may present a potential risk to Alberta, but at present does not meet the criteria for regulation or else lacks evidence to support a recommendation. Annual reviews of species on this list can result



Bird's-foot trefoil (*Lotus corniculatus*), not yet assessed
Photo W. H. Lutz

in referral to a consultant for study, recommendation to regulate or not to regulate, or retention on the list for another year. Species include:

- annual sowthistle *Sonchus oleraceus*
- carpet burrweed *Soliva sessilis*
- glossy buckthorn *Frangula alnus*
- prickly annual sowthistle *Sonchus asper*
- Scotch cottonthistle *Onopordum acanthium*
- yellow bluestem *Bothriochloa ischaemum*
- European mountain ash *Sorbus aucuparia*
- kudzu *Pueraria montana*
- Syrian bean-caper *Zygophyllum fabago*
- thesium *Thesium arvense*
- wild radish *Raphanus raphanistrum*
- woolly cupgrass *Eriochloa villosa*
- celandine *Chelidonium majus*

Friend or foe?

The following species are on the agenda, but what to recommend remains undecided.

- Russian olive *Elaeagnus angustifolia*
- bird's-foot trefoil *Lotus corniculatus*
- broadleaved pepperweed *Lepidium latifolium*
- caraway *Carum carvi*
- Cicer milkvetch *Astragalus cicer*
- cotoneaster *Cotoneaster integerrimus*
- cow soapwort *Vaccaria hispanica*
- crown vetch *Securigera varia*
- common reed *Phragmites australis*
- globe thistle *Echinops sphaerocephalus*
- hairy cupgrass *Eriochloa villosa*
- reed canarygrass *Phalaris arundinacea*
- reed sweetgrass *Glyceria maxima*
- sainfoin *Onobrychis viciifolia*
- sea buckthorn *Hippophae rhamnoides*



Caraway (*Carum carvi*), not yet assessed
Photo W. H. Lutz

In a rush to get the new regulations proclaimed, AWRAC deliberately set aside most invasive introduced plants that have commercial value. The process by which a useful crop or garden ornament comes to be regarded as a weed remains mysterious. Species like smooth brome (*Bromus inermis* ssp. *inermis*) and timothy (*Phleum pratense*) that have become widely naturalized present no difficulty—they are so widely distributed and common that they clearly belong in “do not regulate” category—taking the wind out of the sails of those who wish they had never been introduced. On the other hand, the notoriety of purple loosestrife (*Lythrum salicaria*) made listing it as Prohibited Noxious uncontroversial. Few people still regard it as a beautiful garden feature that should not be regulated.

Species that are just as invasive as purple loosestrife, plants that would be listed without question if they did not have commercial value, are definitely controversial. Caraway is grown as a crop, but at the same time it has spread widely into natural areas in the Foothills. Russian olive is valued as an ornamental tree, one of the few hardy trees that can grace developed landscapes with

See **Weeds**, page 5

Weeds, from page 4

contrasting colour, especially in the north, yet is seriously invasive of riparian environments in the south. The opposite might be true of European mountain ash (*Sorbus aucuparia*) and Peking cotoneaster (*Cotoneaster acutifolia*). These ubiquitous landscaping trees and shrubs are steadily taking over river escarpments and natural areas in Edmonton and Red Deer. Such species are as doggedly defended in some quarters as they are reviled in others. As the new regulations were being issued, garden magazines were extolling the beauty and hardiness of bighead



Common tansy (*Tanacetum vulgare*),
Noxious Photo W. H. Lutz

knapweed (*Centaurea macrocephala*)—they did not see what was coming and might have objected if they had.

At present, exotic species grown as crops or sold as ornaments can have significant monetary value that producers (and landowners) would lose if they were suddenly listed. But, on the other hand, producers are able to externalize the costs of managing these species when they escape cultivation. The public ends up bearing the cost of containing and

controlling rogue introductions and our shared environment is degraded if the damage to ecosystems is irreparable. As with pollution, the polluter profits while everyone suffers. Ideally, AWRAC would weigh global benefits (to grower and public at large) of growing each of these species against long-term global costs, and recommend accordingly. Such a determination is not easy, however, especially when parties who face immediate and easily quantified losses if the species is regulated are easy to rally to the cause while their potential opposition is diffuse and subject to costs that are small for each individual (although possibly large in aggregate) and difficult to quantify.

Help!

AWRAC remains in the position of making decisions with fragmentary information. ACIMS's primary mandate is to track rare native species, and exotics get short shrift when resources are constrained. Naturalized exotics can be missing from the List of All Elements for a time after they have been reported and may never be reported at all. Who do you call when you find a new exotic plant? The fieldman for your municipality might pass information on to the AARD Crop Diversification Centre in Brooks which maintains a distribution map, at township resolution, of reported species. Reporting is voluntary, however, and the map currently indicates that there are no weeds in the majority of Alberta's 6,800 townships. It offers no way to differentiate "not reported" from "believed to be absent." Some people contact ACIMS. The Alberta Invasive Plant Council is working with the University of Georgia's EDDMapS system to extend it to Alberta.



Common tansy (*Tanacetum vulgare*),
Noxious Photo W. H. Lutz

EDDMapS Alberta will only track provincially listed Prohibited Noxious species, at least at first. As a last resort, you could always add a report to ANPC's Rogues' Gallery!

The following steps have been taken to remedy the situation:

- Lists of species that AWRAC intends to recommend for regulation, or change of regulation, will be circulated to agricultural fieldmen throughout the province, soliciting feedback on distribution and management challenges
- A professional biologist will be retained to review available

See Weeds, page 12



Tufted vetch (*Vicia cracca*), not
considered for regulation
Photo W. H. Lutz

Can Prairie Prevail Over Politics and Potatoes?

By Lorne Fitch, P. Biol.

Many Albertans are applauding Premier Redford's recent decision to shelve a controversial land sale in southern Alberta. Had it happened, 16,000 acres of public land near the confluence of the Bow and Oldman rivers would have been converted from native grasslands to potato fields. This scheme, referred to by many as "Potatogate," would have seen a loss of native grasslands equivalent in area to about half the footprint of Lethbridge or Medicine Hat, and roughly a third of the scale of the Syncrude tar sands mine near Ft. McMurray. The decision suggests a new broom has swept into town. But, in the euphoria of a rare conservation win in the broader public interest, there remain several unresolved issues.

Most alarming is the arbitrary, secretive nature of such deals that can liquidate a public asset with little government accountability and, worse, leave no recourse available for concerned Albertans, other than writing a letter.

With no new guidelines in place, no adherence to the Land-Use Framework and such power invested with one Minister, this could happen again. To move away from the bright, mesmerizing lights of economic development and of lobbying efforts, a new process for land sale decisions is urgently required, one which fairly and equitably balances all values. In a more enlightened land, the scale of Potatogate would require the soberness of a formal Environmental Assessment.

In a broad sense what underlies these economic development schemes is the enduring myth that prairie grasslands aren't working hard enough for us; they

are underperforming, and plowing them up is the right economic answer. In reality the economic and environmental values of native grasslands are consistently overlooked, undervalued and ignored because of a short-term business mindset.

Grasslands are marvelously adapted to their environment given their 10,000-year evolution under arid conditions. No potato patch can rival their drought tolerance, nutrient recycling, resilience, moisture conservation and ability to support wildlife. Grasslands also capture and store appreciable amounts of carbon. As the climate change bad boy, Alberta needs every conceivable carbon storage mechanism available to demonstrate our commitment nationally and internationally to a very real problem.

The grasslands that have been plowed currently generate economic value with livestock grazing and have for over a century. Grazing of native grasslands is as close as we have come to a truly sustainable form of agriculture. To plow them up for a crop that requires artificial inputs, immense fossil fuel use and obscene amounts of water to survive, and is susceptible to any number of pathogens and diseases, means we can't read the signs and haven't yet learned the lesson of living in arid country.

We heard assurances that money from this public land sale would flow to mitigate the loss of 16,000 acres of native prairie. Laundering such "dirty" money to "conserve" other lands is a con job—possibly one of the biggest perpetrated on an unsuspecting public.

With the province's wealth and the arrogance accompanying it, we think that when the canary dies we can simply buy another canary.

Even the Alberta Government, with its pretensions of perpetuity, can't make new native grassland. It's a tough assignment to recreate a prairie where native grasses built soil, drought tested plants, and millions of bison grazed over a span of thousands of years. In the big prairie balance sheet, no matter what the compensation, 16,000 acres of native grassland would have disappeared. No sleight of hand changes the basic arithmetic.

We need to recognize grasslands as living organisms, demanding care and stewardship. Instead we have treated them as a warehouse of commodities to be mined, raided and pilfered. That warehouse, provincially, is already over three-quarters emptied. It is why the grasslands have a disproportionately high percentage of imperiled wildlife. The lands coveted for cultivation harbour several of those species and they would have been lost, as permanently and irrevocably as elsewhere where grasslands have been plowed.

Massive public outcry has answered, twice, the fundamental question: "Is it in the interest of all Albertans to liquidate 16,000 acres of public land, land that is currently providing economic returns and environmental benefits, to be plowed up to raise potatoes?" The contribution to the Alberta economy of plowing up remaining native grasslands will prove

*See **Prairie**, page 12*

Remembering Tom Maccagno

By Patsy Cotterill

Tom Maccagno, a Lac La Biche naturalist and environmental and social activist, died January 7, 2012, at age 72.

Tom came by his love of nature and the outdoors as a boy, and as an adult Tom came to realize the necessity of protecting the landscapes, plants and animals he had enjoyed in his childhood. He was always an amateur, in the true sense of the word, never having had any formal training in biology.

As a lawyer and a former mayor of Lac La Biche, he knew the importance of engaging the attention of professional experts and the political powers-that-be to accomplish his goals of environmental protection. He made enormous inroads for his community and fought ferociously for the conservation of habitat and species in northeastern Alberta.

A tireless lawyer, husband and family man from Lac La Biche, Tom just took people under his wing. He knew how to inspire people. In the 1980s he advocated for Lakeland Provincial Park, touted to be the “Kananaskis of the North.” He invited staff of Alberta Parks and others on field excursions into the Park with him, by vehicle, mountain bike or on foot, to check out the orchids he had discovered.

Orchids were always his passion. This passion was evident when Tom read in a report that it was unlikely that orchids could exist in Lakeland Provincial Park. Based on Tom’s way of looking at things, that conclusion needed to be challenged, and he proceeded to identify 16 orchids within the Park. He then put this information into a book form – *Orchids of Lakeland, a field guide to*

Lakeland Provincial Park, Provincial Recreation Area and surrounding region.

In later years his botanical interests extended to moonworts, and in company with conspirator Graham Griffiths, he combed several islands in Lac La Biche for these tiny ferns. Some of these islands had once been cultivated and had become overgrown fields, the sort of habitat that *Botrychia* seem to like, and together they photographed and identified several species. Tom was later instrumental in having these islands protected as part of nearby Sir Winston Churchill Provincial Park.

Tom also pushed for the legal designation of Garner Lake Fen, near Plamondon, as a provincial Natural Area by Order-in-Council in 2004. Many of us recall field trips to this little boreal jewel featuring hillside springs, sedges, orchids and rare plants. We should likely never have known of it without Tom’s advocacy.

Tom was also active in preserving local historical resources and was for a time president of the Lac La Biche Mission Historical Society. I recall him proudly showing us round the Mission during a conference of Provincial Stewards that was being hosted in Lac La Biche. He also worked with the province to designate Portage Lac La Biche as a historical resource. For his



L to R: unknown, Dr. Graham Griffiths, Tom Maccagno, Alison Dinwoodie at the ANPC Botany Alberta visit to Garner Lake Fen in 2004

Photo Marsha Hayward

community service and environmental accomplishments, Tom received recognition in the form of many awards.

- Alberta Award for Conservation and Protection in 1983
- Queen Elizabeth II Golden Jubilee Medal in 2002
- Canadian Recreational Fisheries Award in 2002
- Canadian Environmental Conservation Gold Award in 2003
- in honour of the support he gave Beaver Lake First Nations they made him an Honorary member in 2008.

Tom did many things that completely improved and even transformed the world around him and, as a surprise to no one, was involved in a number of organizations and projects, including the Lac La Biche birding society,

See **Tom Maccagno**, page 10

A Deadly Beauty: Tall Buttercup

by Brenda Kossowan, *Red Deer Advocate*, September 10, 2011. Reprinted with permission.



Tall buttercup (*Ranunculus acris*), Noxious Photo W. H. Lutz

It's tiny, rather cute and can be as deadly as anything lurking in an Alberta hayfield or pasture.

Retired oilfield consultant Al Tink is unable to speak for a moment when he describes for visitors how he nearly lost one of his prized Cheval Canadien mares to an innocent-looking yellow flower.

Six-year-old Nellie, half of his team of Quebec-bred carriage horses, was struck this spring with a mysterious illness that caused blood in her urine and stiffened her hind end to the extent that she was unable to back out of her stall. A veterinarian felt that Nellie and two of Tink's other horses were suffering from founder, caused by getting too much feed and not enough exercise.

Tink disagreed. He had his wife, Dianne, do some research on the Internet, where she discovered some vets in the United States who were discussing the toxic effect on horses of tall buttercup, a lanky broadleaf topped with small, yellow flowers.

Listed as a noxious weed in the regulations under Alberta's Weed Control Regulations, tall buttercup is described as both invasive and toxic. Eaten live, the plant causes swelling and blisters and can limit milk production in cows. The acid responsible for the toxicity dissipates when the plant dries. So it can be safely ingested if baled with hay, but there is a continued risk that the seeds will spread through the manure of livestock eating contaminated hay.

Tink found healthy growths of tall buttercup as well as some Alsike clover on his farm, located at the eastern edge of Clearwater County, about one km north of Condor. With a history of sick horses on his mind, Tink set out to battle the buttercup.

Officials from the county's Agricultural Services Department helped Tink develop a management plan aimed at killing the noxious weeds without harming animals and other plants. Standing beside a pond built next to a stand of planted evergreens, Matt Martinson, assistant manager of the county's agricultural services department, picks up a small frog as he talks about the merits of using Restore, a herbicide proven safe for livestock and wildlife.

Tink says the area was "lousy with buttercups" a week earlier, when he sprayed it with Restore. "This place is now lousy with frogs. When we were using Amine, which has 2,4-D in it, there were no frogs," he says.

The county provides equipment to farmers for \$80 an hour, plus the cost of the chemical, says Martinson. However, the program is not yet

available on smaller holdings, which Martinson hopes can be changed in the future.

Herbicides are just one tool available in a program aimed at managing noxious weeds, says agricultural services manager Kim Nielsen. Grazing management can also help keep the weed under control, says Nielsen. "A herbicide is only one tool of many. If you can combine that with good fertility of your pasture and species that are very competitive against the weed and that good grazing management of your stock density so they are doing some trampling and they're obviously doing some grazing, that's every bit as important."

Walking through a pasture on Allan and Wanda Sunde's cattle ranch, 10 km directly west of Tink's farm, he recounts findings from grazing trials that were set up to collect data on tall buttercup. "This was intended to follow up on a project we did quite a few years ago . . . on the impacts of tall buttercup on grazing."

Cattle that have experienced the bitterness and swelling associated with eating tall buttercup will avoid it if they can, says Nielsen. However, in a rotational grazing system in which the grass in small areas of pasture are allowed a healthy period of regrowth, the cattle tend to eat the buttercup along with the grass without notice and without suffering harm, he says. Sunde says his cattle don't know the difference when they ingest small bits of buttercup along with the grass in the field.

See *Deadly Beauty*, page 9

Deadly Beauty, from page 8

In a test area on the Sunde ranch, grass was grazed short and then left to regrow, so the grass was tall and in good shape the next time a herd of animals was allowed back into that section of the field. A set of test clips taken from where they had eaten showed no buttercup left behind while tall buttercup and dandelion plants were found growing in test cages where they are protected from grazing animals. "They basically devoured everything down to the point where . . . there were hardly any mature plants left behind," says Nielsen.

Although the grazing cattle did a handy job of getting rid of the plants, tall buttercup is a perennial, so there is still a question about how well it will recover in the areas that were not sprayed, he says. Nielsen and his crew are still waiting results from the next rotation to determine how many seeds will recover and start new plants in the next rotation.

Fewer cattle in the field, free to be more selective in what they eat, would leave the buttercup to grow and thrive, he said. Healthy grass also competes with broadleaf weeds, giving them less chance to thrive to the point where they become toxic and invasive, says Nielsen. ♦

Letter to Red Deer Advocate Editor

It was great to see Brenda Kossowan's story on tall buttercup in Saturday's Advocate. Unfortunately, this exotic weed is a threat to more than livestock. Tall



**Weedy slope,
Whitehorse Creek area**
Photo Tony Blake

weed is also found in numerous road ditches, campsites, and trailheads up and down the Forestry Trunk Road.

Private landowners can reclaim their infested pastures with chemicals and range management techniques, counties might take care of the roadside ditches, but who is going to defend the rest of our west country?

This year's crop of tall buttercup has already gone to seed. If readers want to make a difference next year, they can learn more about recognizing, managing, and preventing tall buttercup from the Alberta Invasive Plants Council web site: www.invasiveplants.ab.ca/Downloads/FS-TallButtercup.pdf

Tony Blake, Central Director, ANPC ♦

buttercup has been invading Alberta's foothills for several years, and it's a common sight on backcountry trails. This is a plant pest that follows people into the remotest places, and it's degrading some of our most productive wildlife habitat.

I've attached a photo taken this July [2011] of a mountain meadow in Whitehorse Wildland Park, near Cadomin. This is a provincial protected area, intended to preserve natural landscapes and biodiversity, but the meadow is overrun with tall buttercup likely introduced by contaminated horse feed. Unfortunately, this spot is not unusual either in the Whitehorse Wildland or the Fiddle Valley in Jasper National Park immediately to the west. The



**Tall buttercup infestation in
Whitehorse Wildland Park**
Photo Tony Blake



Botany Alberta 2012
June 1–3, 2012 at Dry Island
(tentative)
Mark your calendars!



Visit Dry Island and Tolman Badlands Heritage Rangeland. Campground will be reserved at Tolman Bridge. Check the website for updates on this event. For more information contact us at info@anpc.ab.ca

Douglas C. Waylett

June 1, 1939 – January 7, 2012



On January 7, 2012, the APA and Southern Alberta Rare Plant Study Group lost a good friend. Doug Waylett was an active member and presenter at our monthly meetings.

Doug was a retired geologist with a lifelong love of nature. He was an accomplished photographer with an extensive collection of over 6,000 photos of flowers, fungi, insects, mosses and lichens that he shared through his Flickr website (www.flickr.com/photos/dougwaylett/). His daughter Charlene will continue to manage his website for everyone to enjoy and share.



**Douglas Waylett
examining lichens**

In the last few years, Doug became passionate about lichens and learned all he could about them. Doug was often the driving force to plan hikes and get out into the mountains or foothills around Calgary throughout the summer months. He was always on the lookout for new species to find and photograph. On one occasion, we all had our noses to a large boulder checking out a lichen with our hand lenses, when we realized that a large grizzly was walking towards us. Typical of Doug was to get out his camera! Happily, once the grizzly saw us, it ran in the opposite direction.

We will miss his enthusiasm and love of learning and life. ♦

Tom Maccagno, from page 7

the Bird Atlas project, the Alberta Wilderness Association, Catholic Social Services, and the Airmen's Memorial Cairns Committee. Tom also organized and hosted Botany Alberta 2004 in Lac La Biche with the ANPC.

Every community deserves a person like Tom: an advocate who knows and values their home place and who is active for the better part of a lifetime to protect its heritage.

Marsha Hayward, Northern Director for the ANPC knew Tom and had the following words regarding Tom: A friend introduced me to Tom in 1999, when we stopped in at Tom's law office to discuss birding in the Slave Lake and Lac La Biche areas. Tom, more or less in a matter of minutes, convinced me that I needed to become more involved in my long thought of interest in boreal

plant research and to become more informed about what was happening in northeast Alberta.

Upon noting my interest in Canadian history, he loaned me a rare book entitled *The Journals and Letters of Sir Alexander Mackenzie* and convinced me to begin my research and report back to him about early Canadian botanists. A very short time later, he hired me to re-paint the hull of a replica Voyageur canoe at the Lac La Biche Mission (Museum) and took my young children under his wing. They enjoyed spending an entire weekend touring the lake by boat and digging up arrowheads around the shores of Lac La Biche while I worked. The arrowheads are still framed in our home.

In 2007, Tom was to go out in the field with me, Graham Griffiths, and another local conservation-minded

person named Dave Lozinski (of Hylo, Alberta) to the Lodge Lake area and search the unique spring-fed ponds and plant communities in the treed sand dunes. This unfortunately never occurred as Tom and Graham both had developed poor health in those years.

It was Graham and Tom who helped me correctly key and ID *Hudsonia tomentosa*, *Selaginella wallacei* and *Selaginella densa* in the Lodge Lake areas. Dave Lozinski was the only one of the three, who had all worked hard in the Lac La Biche/Cold Lake/Athabasca area for the identification and protection of boreal plants, who lived to see and hear about the Loesel's Twayblade at Lodge Lake. This would have been very exciting for Tom and Graham.

To the people who knew him well, Tom was simply "an amazing guy." ♦

Report Invasive Weeds

More Albertans will be reporting invasive weeds thanks to a web-based reporting and mapping system that the Alberta Invasive Plant Council (AIPC) plans to roll out this spring. The Early Detection & Distribution Mapping System, or EDDMapS, is fast and easy to use and doesn't require GIS experience or software. Users add specific information about weed infestations to the EDDMapS database using standardized on-line data forms, and they can upload images as well. Anyone can use the database to generate free maps that display species distributions by province, state, or county.

EDDSMapS Alberta will also generate local weed distributions of the pilot project target species.

EDDMapS has grown into an independent continent-wide network since its inception in 2005 at the University of Georgia. Although it was conceived for documenting weeds, the system is versatile enough to track the spread of Burmese pythons and other exotic animals in the state of Florida.

In Alberta, the AIPC has engaged Kelly Cooley, an invasive plant practitioner from Southern Alberta, to coordinate the introduction of EDDMapS Alberta. Kelly can be reached at kcool@platinum.ca.

Join Our Volunteers

ANPC has both elected and non-elected positions on the board. The elected positions are for a two-year term. Nominations are now being requested for the following positions, which are up for election this year.

Position	Incumbent
President	Kelly Ostermann
Treasurer	Mryka Hall Beyer
Vice-President	Leslie Monteleone
Central Director	Tony Blake*
Southern Director	Chad Willms
Nature Alberta Director	Chrissie Smith*
Nature Alberta Director (alternate)	Tony Blake*

*These incumbents have agreed to put their names forward for another term.

ANPC members may offer to stand for election for a selected position or nominate others (with agreement from the nominee).

Nominations may be mailed to: Alberta Native Plant Council,
Box 52099 Garneau PO, Edmonton, Alberta T6G 2T5
Or may be emailed to laurie@zanshinenvironmental.com

Elections will occur at the Annual General Meeting, to be held in conjunction with the April 21, 2012, Workshop in St. Albert, Alberta (see registration form online or mailed with the newsletter).

Vacant non-elected positions

In addition, ANPC is looking for volunteers for the following non-elected positions:

Horticulture and Reclamation Committee Representative
Newsletter Editor
Webmaster
Conservation Action Committee Representative

For any member who wishes to bring up any **items for discussion at the AGM**, please e-mail ANPC via laurie@zanshinenvironmental.com prior to April 7, 2012.



More information about EDDMapS Alberta can be found on their website: www.eddmaps.org/alberta ♦

Weeds, from page 5

information in the literature about biology, ecology, means of control, and geographic distribution of any species being considered for regulation (as opposed to being put on the watch list), and to provide an opinion as to the likely success of that species in Alberta, and prospects for control if it should become established.

However, more needs to be done. The knowledge, field experience, and sightings of botanists and naturalists, if accessible, would be immensely helpful. The



Meadow hawkweed
(*Hieracium caespitosum*),
Prohibited Noxious
Photo W. H. Lutz

collection and storage of information about exotic species in Alberta is fragmented and riddled with holes, at least for now.

Jim Posey and Tony Blake represent ANPC in the AWRAC Committee.

Download the current Act and Regulations, as well as a weed identification guide from [www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/acts6156](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/acts6156).

Contact the AWRAC committee chair Gayah Sieusahai by e-mail to Gayah.Sieusahai@gov.ab.ca.

Visit EDDMapS at www.eddmaps.org/alberta (currently on line for testing, expected to be operational starting in April 2012).

Find ANPC's Rogues' Gallery at www.anpc.ab.ca/wiki. ♦

Prairie, from page 6

as difficult to capture as the dust blowing off these lands when the ancient, protective cover is erased. Moreover, short-term profiteering fails to recognize the substantial penalties that will accrue for the early withdrawal of 10,000 years of stored fertility and carbon, plus wildlife losses.

One must give much credit to Premier Redford for her decision. However, there is a caveat. In the coin toss that often characterizes the contest between conservation and business interests, if the coin ends up heads the developer wins; if it's tails they get to flip again and again. Without systemic changes the future could see yet another attempt to orchestrate the sale over the objections of thousands of Albertans who have expressed their opinion that the land should stay unplowed and public.

Lorne Fitch is a Professional Biologist, a retired Fish and Wildlife Biologist, and an Adjunct Professor with the University of Calgary. ♦

Iris is published three times a year by ANPC. The Council aims to increase knowledge of Alberta's wild flora and to preserve this diverse resource for the enjoyment of present and future generations.

If you have an announcement, article or other item, you are invited to submit it to the editor for publication. Items concerning native plants will be given highest priority.

The editors reserve the right to edit submissions, but will review changes with the authors whenever possible. Disputes will be resolved in favour of the audience.

Copyright remains with the authors except where noted. Permission to reprint is generally granted, but please contact the editors for details.

Submission deadline for the next issue:

September 30, 2012

A subscription to *Iris* is included with membership in the ANPC. To join, contact the secretary, or check our website, www.anpc.ab.ca.

Addenda for the Rare Vascular Plants of Alberta are now available!



For information, drawings, and range maps of rare vascular plant species of Alberta not found in the *Rare Vascular Plants of Alberta* (Kershaw et al. 2001) please visit the Alberta Native Plant Council's website at www.anpc.ab.ca under Publications. This is an ongoing project with plant species added as the pages are completed.



Past issues of *Iris*
are now available
online at
www.anpc.ab.ca



Alberta Native Plant Council (ANPC)
25th Workshop and Annual General Meeting

The Value of Native Plants in Urban Environments

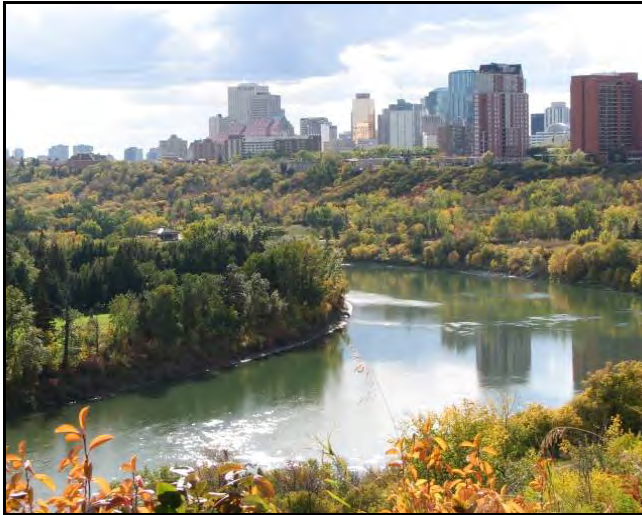
Saturday, April 21, 2012
The Enjoy Centre, St. Albert, Alberta

In urban environments dominated by parking lots, shopping malls and subdivisions, what value do native plants have? With over 80% of Alberta's population living in urban areas, it's worth exploring the role and value that they play. Please join us in St. Albert to explore this topic. Potential topics include:

- Ecosystem Services
- Low Impact Development
- Land Development Design
- Green Roofs
- Xeriscaping
- Urban Park Systems and Management

The workshop program is currently being developed.

Please visit www.anpc.ab.ca for regular updates.



Workshop registration includes the one-day workshop, program handout, buffet lunch and coffee breaks. A dinner banquet and speaker is also planned after the AGM. Please indicate on the registration form if you will be attending the dinner banquet.

After the workshop, the ANPC will hold its Annual General Meeting. Everyone is invited to attend. Learn about ANPC activities, consider a position on the Executive and/or volunteer for committee work.

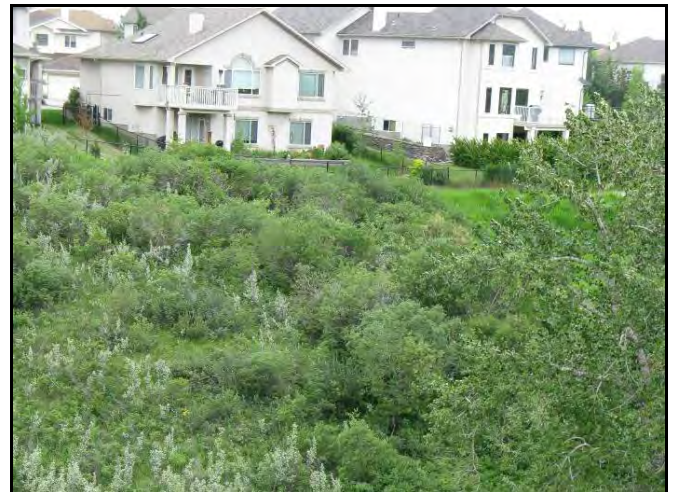
The workshop, annual general meeting and banquet will take place at:

The Enjoy Centre
St. Albert

8:00 am Check-in and registration
8:30 am Workshop presentations begin
4:30 pm Annual General Meeting
6:15 pm Dinner banquet

For information on the workshop and registration please contact:

Chad Willms
Phone: (780) 499-9220
E-mail: chadwillms@gmail.com



Registration:

Fill out the following registration form and mail it to:

2012 ANPC Conference
c/o Mryka Hall-Beyer
3023 Cochrane Rd NW
Calgary, AB T2M 4J4

Include a cheque or money order payable to:
Alberta Native Plant Council

Sorry, we cannot accept other forms of payment.

Deadline:

Early registration is up to and including April 1, 2012.
Full price registration until day of the workshop.

Registration Form:

Name _____

Affiliation _____

Address _____

City _____ Province _____

Postal Code _____

Phone _____

E-mail _____

Early Registration (check one, enter amount on line below)

- | | |
|--|---------|
| ☐ Member (new or current) | \$65.00 |
| ☐ Non-Member | \$75.00 |
| ☐ Student | \$35.00 |

Full Price Registration **after April 1st, 2012**

- | | |
|--|---------|
| ☐ Member (new or current) | \$75.00 |
| ☐ Non-Member | \$85.00 |
| ☐ Student | \$45.00 |

- ☐ Dinner Banquet \$45.00
(Catering by Prairie Bistro)

Workshop Registration Total \$ _____

My diet is restricted (please describe below):

New Membership or Membership Renewal enclosed:

- | | |
|---|---|
| ☐ Individual.... \$15.00 | ☐ Family..... \$25.00 |
| ☐ Senior \$10.00 | ☐ Student..... \$10.00 |
| ☐ Corporate.... \$50.00 | ☐ Life..... \$500.00 |

Tax deductible donation \$ _____

- ☐ where needed ☐ conservation action ☐ educational programs

Total Enclosed \$ _____

ANPC is going digital with our newsletter IRIS to reduce paper and production costs.

If you would still prefer to receive a paper newsletter by mail, please check the following. Otherwise, please ensure your email (above) is correct.

- ☐ Paper Newsletter

Accommodations:

Please note that due to the location of this year's workshop, we have not secured a block of hotel rooms for the delegates. There are many hotel options in St. Albert and Edmonton. We leave it up to you to secure your own accommodations.

Venue:

The Enjoy Centre
101 Riel Drive
St. Albert, Alberta

