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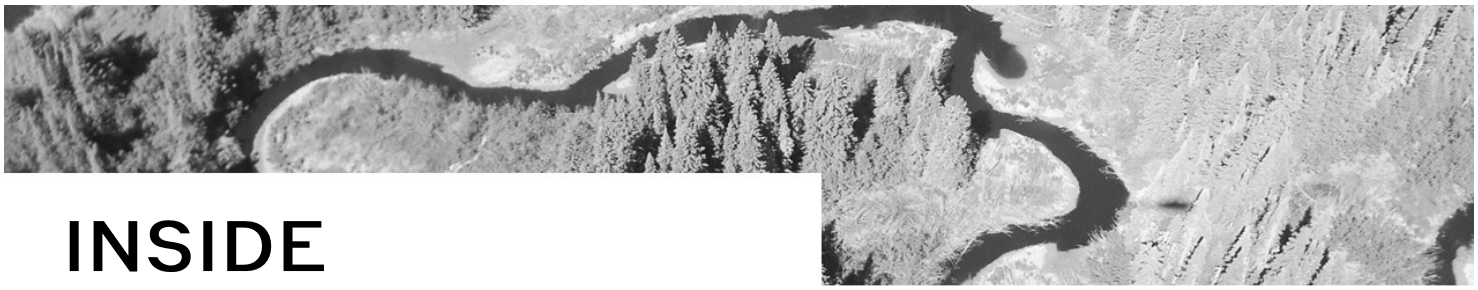
The Role of Forestry in Habitat Creation

ALSO INSIDE

OPFA's Enforcement Activity

Council Corner



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ONTARIO PROFESSIONAL FORESTERS ASSOCIATION

OFFICE	905.877.3679
FAX	905.877.6766
ADDRESS	5 Wesleyan Street #201 Georgetown, ON L7G 2E2

opfa@opfa.ca www.opfa.ca

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newsletter@opfa.ca

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Reflections on 30 Years of Addressing Fish and Wildlife Concerns During Planning and Operations in Ontario's Crown Forests

Brian Naylor, PhD

Forest Management Guide Biologist
Forest Guides and Silviculture Section
Crown Forests and Lands Policy Branch, Ministry of Natural Resources and Forestry

In the 1980s MNR used a Featured Species approach which involved considering the needs of moose or deer, game fish, and a handful of 'non-game' species such as the peregrine falcon, bald eagle, osprey, and great blue heron.

When I began my career with Ministry of Natural Resources (and Forestry) about 30 years ago, integrating fish and wildlife concerns into forest practices was easy. Forest managers only had to consider the needs of moose (or deer depending where you worked), game fish, and a handful of 'non-game' species such as the peregrine falcon, bald eagle, osprey, and great blue heron. And yes, there was a whole series of 'resource manuals' covering everything from bats to waterfowl, but these were rarely considered in planning or day-to-day operations.

With the conclusion of the Class Environmental Assessment for Timber Management and the subsequent release of the *Crown Forest Sustainability Act* (CFSA) in the early/mid 1990s, the job of forest managers got a whole lot more complicated. Instead of considering the needs of (primarily) big game and sport fish, the CFSA mandated that forests be managed to sustain biodiversity and minimize adverse effects on plant and animal life. This meant a shift from addressing the needs of roughly 10 species to addressing the needs of tens of thousands of species. And that was just for the species component of biodiversity. Ecosystem and genetic diversity are, for all practical purposes, infinite. What a daunting task!

MNR quickly realized that this task couldn't be tackled with a species by species approach. No two species have identical niches. What's good for moose is not necessarily good for martens (and what's good for martens is not even necessarily good for other old forest inhabitants such as pileated woodpeckers!). Like other jurisdictions facing the same seemingly intractable problem, MNR realized the only practical solution was to use an ecosystem-based approach. This approach assumed that providing a diversity of ecosystem conditions at a variety of spatial and temporal scales would ensure sufficient habitat to support healthy well-distributed populations of most plants and animals. A key question remained. How much of each type of habitat was enough? For example, how much young versus old forest? How much conifer versus hardwood forest? How much residual material should be left in recent harvest areas? The CFSA directed MNR to use an Emulate Nature approach. The rationale being that plants and animals have evolved (at least since the last glaciation) to exploit the shifting mosaic of ecosystem conditions created by natural disturbance processes. Thus, using forest practices to create

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The CFSA directs MNRF to emulate natural patterns and processes (such as the effects of wild fires) to conserve biodiversity, including within shoreline areas.

landscapes and stands with a composition and structure (and hopefully function) as similar as possible to that created by natural processes should theoretically maintain a natural level of biodiversity (good news - this hypothesis seems to be supported by empirical evidence).

This thinking gave rise to MNR's coarse filter approach which has evolved from providing habitat for martens and pileated woodpeckers (mid-1990s)

MNRF's current coarse filter approach includes retention of residual material within all harvest areas, such as these wildlife trees, that provide immediate nest, perch, roost, and feeding sites for a wide range of wildlife species and a future supply of downed woody material as the new stand regenerates.

to meet the needs of old forest-dependent species (young forest-dependent species were assumed to be addressed by management for moose and deer) to the more truly ecosystem approaches described in the *Natural Disturbance Pattern Emulation Guide* (early 2000s) and the current Landscape and Stand and Site Guides (post-2010). The current guides provide coarse filter direction that ranges from targets for the composition (amount of different forest types and ages) and structure (size of young forest patches, pattern of mature forest) of large landscapes (forest management units that are typically around 1 million hectares in size) to direction that maintains the integrity of lakes, streams, and wetlands, to direction that retains residual patches, wildlife trees, and downed woody material within harvest areas.

Along the way MNR realized that some species might not be fully addressed by the coarse filter alone. For example, some species need the habitat components created by the coarse filter in a very specific pattern. Thus, there is direction to provide specific landscape configurations suitable for caribou, moose, and deer. Similarly, for many rare species, including many species at risk, it's not enough to provide suitable

MNRF's current fine filter approach incorporates species-specific direction for a wide range of species, including for nests of all birds ranging from large birds like eagles, ospreys, and herons to small birds such as ducks, grouse, and songbirds.

habitat somewhere on the landscape. It must be located where the species currently exists. Thus, there is species-specific direction that retains

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habitat for these species where they occur. For some species, the coarse filter may provide abundant habitat, but the species may be adversely affected by other aspects of forest operations. For example, the coarse filter maintains aquatic habitats for species such as the Blanding's turtle. But traffic-related mortality on roads can have a significant effect on populations. Thus, there is species-specific direction to minimize traffic-related mortality. In some cases, there is direction to address requirements of other legislation. For example, federal and provincial laws prohibit the disturbance or destruction of bird nests containing eggs or young. Thus, there is direction to mitigate potential disturbance or destruction of nests for all birds ranging from large birds like eagles, ospreys, and herons to small birds such as ducks, grouse, and songbirds.

Direction in guides has always been based on the most reliable knowledge available. In the past 30 years the amount of empirical evidence used in the development of direction in guides has increased at least an order of magnitude. However, given the scope of guides, there is still lots of uncertainty. Fortunately, there is a strong working relationship between guide developers and MNRF's science community. Past work by MNRF scientists has provided the knowledge to support direction for caribou, moose, deer, bears, wolves, martens, pileated woodpeckers, various raptors, songbirds etc. Studies underway focus on emerging issues that guide developers and that forest managers will need to address in the future.

As I prepare to pass the torch to the next generation of biologists and foresters I see a host of new challenges they will have to address such as:

a) how to reconcile the ecosystem/population-based approach of the CFSA with the species by species individual plant/animal focus of the *Endangered Species Act*;
b) how to address some tough emerging issues such as the catchment-scale export of mercury to aquatic systems; and
c) how to adapt to/mitigate predicted effects of climate change.

From what I've seen, I'll be leaving these questions in very capable hands.

Ontario Professional Foresters Association

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May 7-9, 2019

Thunder Bay, Ontario

The Realities of Foresters Managing Competing Objectives

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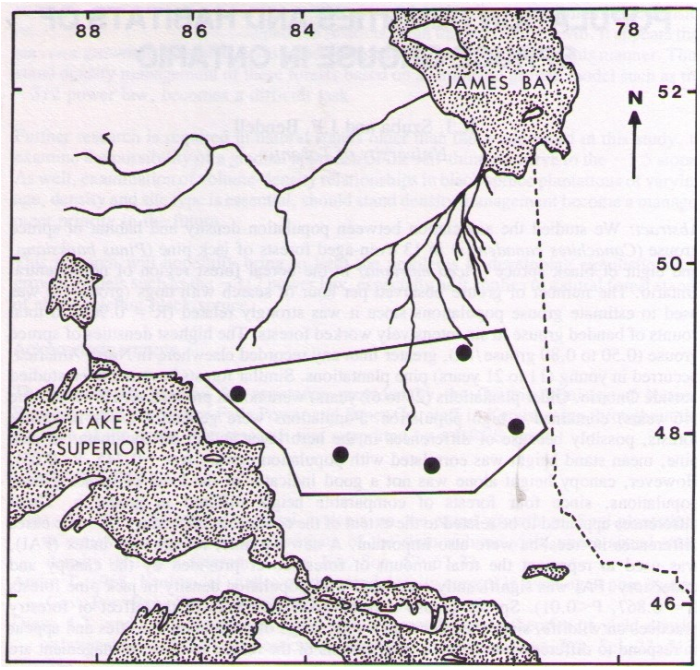
Ontario's Managed Forests as Wildlife Habitat: The 1970s and Earlier – A Happy Accident

Kandyd Szuba, PhD, R.P.F. (Ret.)

Reprinted with permission from *Forestory* (Volume 9, Issue 2, Fall, 2018), the journal of the Forest History Society of Ontario.

In 1971, in a move well ahead of its time on this continent, Ontario enacted its first *Endangered Species Act* (ESA). The early ESA required protection of individual nesting occurrences of endangered species such as the peregrine falcon and bald eagle, whose populations had dropped to critically low levels. The impact on forest management was small over most of the Area of the Undertaking, however, because "endangered species" were relatively rare. The focus in forestry in the 1960s, 70s and early 1980s was timber and silviculture; habitat was an afterthought. The 1988-1992 Class Environmental Assessment for Timber Management on Crown Lands in Ontario (the Class EA; Environmental Assessment Board 1994) summarized the provincial government's view of managed forests as habitat up to that time:

> "It is MNR's position that wildlife species in our boreal and Great Lakes-St. Lawrence forest are equipped to survive logging because they have adapted to periodic natural disturbances" (Environmental Assessment Board 1994, p. 177).



Map 1: Map of the region of study in north-eastern Ontario. Dots (left to right) represent the towns of White River, Chapleau, Gogama, Kirkland Lake and Cochrane (top right). Numbers indicate degrees west longitude and north latitude. From Szuba and Bendell (1983, p. 200).

Most wildlife would probably "survive logging". The idea that forestry could be used to intentionally produce habitat, or even enhance it, was new.

The government's view changed in 1988 when the first *Timber Management Guidelines for the Provision of Moose Habitat* came into effect, with their requirements to adjust clearcut sizes and shapes as a matter of course during forest harvesting, specifically to enhance conditions for moose (OMNR 1988). The Ministry of Natural Resources (MNR) had identified a "moose program objective" with a target of doubling the provincial moose population from 80,000 in 1988 to 160,000 by the year 2000. Forest management was to be a key tool to make this happen. By the end of the Class EA process, it was clear to the provincial government that the link between forest management and habitat must be recognized and formalized. The progressive *Crown Forest Sustainability Act* (CFSA)[1] of 1994 did just that by requiring forest management on Crown land to "conserve biological diversity".

The CFSA and the moose guidelines focussed our thinking about how forestry might be used actively in a positive way to benefit wildlife. But forestry was having positive effects long before that, not because of a grand design, but owing to a happy accident.

In the 1980s, Dr. Jim Bendell and students from the

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Female spruce grouse with coloured leg bands applied by Jim Bendell's students for identification.

Faculty of Forestry at the University of Toronto headed into the boreal wilderness of north-eastern Ontario (Map 1) to study managed forests as habitat. They found that young jack pine plantations 11-21 years old established in the 1960s and 1970s near Chapleau and Gogama contained astounding numbers of spruce grouse (*Canachites canadensis*, now *Falcipennis canadensis*), with population densities of breeding birds four times greater than had been recorded anywhere in North America (Szuba and Bendell 1983). The researchers found, on average, up to 80 breeding male and female spruce grouse (photos) combined per 100 hectares of pure, young jack pine forest. The spruce grouse, the "splendid symbol of boreal coniferous forests" (Cadman et al. 2007) was thriving in stands that had been shear-bladed, aerially seeded and planted on dry sites, with no direct consideration for the habitat requirements of grouse. The understories of these stands were thick with blueberries and trailing arbutus, plants later identified as important for spruce grouse hens and chicks. Jim Bendell and his students found that pure jack pine stands established in this region even earlier, in the 1940s and 1950s, making them 35-40 years old, were teeming with a little vole that was previously considered rare - the heather vole (*Phenacomys intermedius*, now *Phenacomys ungava*). Naylor and Bendell (1983) and Naylor et al. (1985) reported densities of this vole also about four times greater than the densest population reported elsewhere in the species range across the continent. The understories of these stands were dominated by mixtures of blueberry (*Vaccinium angustifolium*) and sheep laurel (*Kalmia angustifolia*), important as food and cover for the heather vole.

Male spruce grouse in partial display.

Clearly, the spruce grouse and the heather vole were doing more than merely "surviving" in managed forests before the Class Environmental Assessment was published and the CFSA came into force. In my opinion, these happy accidents reflect the fact that forest management has the inherent potential to be a positive force in the conservation of biological diversity.

Two frosty winters ago, more than 35 years had passed since the astonishing populations of grouse and voles were discovered by Jim Bendell and his students near Gogama and Chapleau. As another forester and I drove east from Wawa along Highway 101 through many kilometers of jack pine stands, there, on a rather short stretch of snow-packed, icy road that had been sanded for safety, were at least 120 splendid spruce grouse foraging and displaying. Was this a happy accident or part of a grand design?

In subsequent issues of *Forestory*, we hope to discuss other aspects of wildlife habitat management in forestry in Ontario, including its most significant advance: the retention of wildlife trees on clearcuts. This was a move that was at times embraced and heralded as long overdue, and at times resisted as a threat to forest workers and the forest economy.

[1]Crown Forest Sustainability Act 1994 S.O. 1994, C25: https://www.ontario.ca/laws/statute/94c25

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Kandyd Szuba worked for more than 40 years in Ontario as a student, a researcher, a forester and a habitat biologist, undertaking projects for the MNR, the forest industry, and independent auditing firms. She also taught courses in conservation biology and environmental science at Nipissing University between 1990 and 2001. To this day she remains optimistic about the overwhelmingly positive link between forest management in Ontario and wildlife habitat.

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HOT TOPIC

BY MARK RYCKMAN, OFAH MANAGER OF POLICY

Discussing moose management

OFAH conference hosts diverse moose panel discussion

Moose was a hot topic at the 90th OFAH Annual Fish & Wildlife Conference as experts, industry, and stakeholders participated in a panel to debate issues facing Ontario's moose population.

This topic is of utmost importance to OFAH members and the idea of doing this was to bring together diverse opinions from all angles of the moose management conversation to discuss problems and potential solutions, without the spectre of government influencing the dialogue.

Here's a synopsis of the discussion.

Forest management and fire

Each panelist had experience in forest management, making it a good topic to open the discussion. The panel was asked how well forest management mimics the effects of fire, and whether we are too good at putting out large fires. In general, most agreed that the use of fire as a tool in habitat management has improved, but the real question is whether we want forest renewal to be controlled (through forest management and/or prescribed burns or uncontrolled wildfires).

Moose use early successional forests where young trees and browse are plentiful, so the use of fire as a tool in managing forests and moose habitat needs to continue.

Impact of aerial herbicides

The panel discussed the use of herbicides in forest management, and its impact on moose and moose browse. Herbicide spraying is a growing concern among moose hunters. Most panel members agreed that the spraying of herbicide on new growth is not favourable to moose and it was also noted that there is evidence that some of the chemicals used may be having adverse growth effects on animals like moose (e.g. underbite).

On the other hand, the forest industry stated that it is only treating a very small percentage of harvested areas, and they are legally obligated to return forests to the way they were prior to harvest. The use of herbicide is simply a tool to help reach that goal and it would welcome effective alternatives.

The panel
(left to right)

Dave Pearce
Forest Conservation Manager, Wildlands League

Pierre Pelletier
Regional Chief, Robinson Superior Treaty Area

Tom Ratz
Forestry Manager for Ontario, Resolute Forest Products

Dr. Vince Crichton
Wildlife Consultant

Forest access roads

Should forest access roads be decommissioned to protect moose in recently harvested forests? When roads are created by the forest industry, they increase access for anglers, hunters, and other outdoor recreationists. While some panelists agreed that we need to keep these roads open and regulate their use, others did not. One panelist advocated for closing forestry access roads during hunting seasons to protect forestry workers and as a moose management tool. Another suggested that if access is maintained, natural resources could face additional pressure due to widespread use of ATVs and other gear to access remote areas. Closing roads also means limiting access for firefighters and other emergency services.

The public can get involved in road management decisions. Every forest management plan

Reprinted with permission from *Ontario Out of Doors* (May, 2018), the magazine of the Ontario Federation of Anglers and Hunters.

contains information on access management that the general public can comment on during each stage of the forest management planning process.

Indigenous perspectives in moose management

All panelists agreed there are opportunities to increase participation by Indigenous peoples in provincial moose management. Without government participation, panel members believe that groups like the OFAH and Indigenous representatives can work together more effectively and approach the government with common concerns and recommendations. It was also highlighted that not every Indigenous person who relies on moose meat for sustenance is an active moose hunter.

Everyone agreed that, in the best interest of moose management, there need to be limitations on all moose hunting. Some Indigenous groups self-regulate (e.g. choose not to shoot cows) in an effort to help moose populations, but they are often discouraged when the MNRF continues to hand out what seem like excessive numbers of cow tags to licensed hunters for the same area.

The discussion highlighted some key concerns with MNRF's allocation decisions.

PHOTO: JIM CUMMING

Balancing species at risk management with moose and deer management

Moose and deer ranges overlap with species like caribou in some areas of the province. Since the woodland caribou is considered a species at risk, it is protected by species at risk legislation. Managing moose, deer, and forests in these areas becomes very restrictive and difficult because habitat and road management practises intended to benefit caribou are not ideal for moose and deer.

> Everyone agreed that, in the best interest of moose management, there need to be limitations on all moose hunting.

Calf hunting

The panel was asked whether it is possible to harvest moose calves sustainably in Ontario. There was recognition that many moose hunters don't want to harvest calves, and the panel expressed notable opposition to any level of calf hunting, especially when moose populations are declining. Dr. Crichton argued that, in small populations, too few calves are born each year to offset deaths from non-hunting factors such as starvation, predators, and vehicles, so any additional calf mortality is unsustainable.

Others stated that the MNRF needs to go even further by reducing pressure on both cows and calves.

Conservation closures

Dr. Crichton explained the process used in Manitoba for shutting down areas to all moose hunters. He highlighted the need to consult extensively with Indigenous communities prior to implementation, but noted that many communities agreed with the closures. Conservation closures have long-term effects for moose hunters, but a closure may help moose populations bounce back as it has in some parts of Manitoba. These closures apply to all hunters, and possibly need to be legislated for the closure to achieve its goal.

Predator control

Opinions were polarized on whether predator control is an acceptable tool to restore moose populations. One panelist stated that predator control should never be considered, especially if the predator is considered a species at risk. The message was leave predators alone and allow them to have their place on the landscape. Others felt that control of species like wolves and bears is imperative, considering their growing populations, expanding ranges, and opportunities to harvest and collect samples from predator species for research.

Predator control may be particularly important in areas where moose populations are suppressed to help them recover.

The panel has spoken. Now what?

The panel discussion covered a lot of ground in 90 minutes, with valuable perspectives shared on moose management all around. The hope is to continue gathering information on threats to moose and to find ways to work cooperatively with other groups, including Indigenous communities, to develop solutions to declining moose populations that are acceptable to everyone.

Watch the moose panel discussion on the OFAH youtube channel: **www.youtube.com/ofahcommunications**

A New Caribou Research Program at the Canadian Forest Service/Natural Resources Canada

Dan McKenney, PhD and **Phyllis Dale**
Great Lakes Forestry Centre
Canadian Forest Service, Natural Resources Canada

The Canadian Forest Service (CFS), one of the sectors within Natural Resources Canada (NRCan), is Canada's national forest research organization. We work for and with partners, stakeholders and clients with diverse interests and across many scales.

Research is currently targeted across seven programs areas which can be broadly categorized under forest climate change, pest risk management, wildfire risk management, cumulative effects, sustainable forest management, fibre solutions (which includes operational wood supply/production issues such as forest inventories and silviculture), and forest sector competitiveness. Clearly, there are linkages among these programs.

Of growing importance to the forest sector is Woodland caribou (*Rangifer tarandus caribou* aka boreal caribou). Found in boreal forests and certain open taiga forests, this sub species is listed as threatened under the federal government's *Species at Risk Act* as well as under the legislation of a number of provinces. Caribou are an iconic species – featured on the Canadian quarter and holding important cultural, spiritual and even instrumental value for many indigenous and non-indigenous Canadians.

The main threats to woodland caribou include the cumulative effects of habitat fragmentation, degradation and loss caused by both anthropogenic and natural disturbances. Because of a strong connection to forest condition across large areas, recovery strategies for woodland caribou populations, where they are in decline, are of great interest to the forest sector. Recovery plans have very important economic implications to forest industry interests because they can affect the timing and pattern of harvesting activities, including road building.

NRCan-CFS recently received ~$4.4 million in funding over five years through Canada's Nature Legacy Program to support caribou-related work. These dollars include support for Indigenous participation in scientific research/monitoring related to NRCAN's area of responsibility of sustainable natural resources development.

CFS, through its regional research establishments including the Great Lakes Forestry Centre in Sault Ste. Marie, Ontario, Pacific Forestry Centre in Victoria BC, Northern Forestry Centre in Edmonton AB, and Laurentian Forestry Centre in Quebec City, PQ, will provide forest science expertise for a wide range of science projects focused on boreal caribou recovery. The work will be conducted in collaboration with our partners, and build on growing expertise within NRCan and Environment and Climate Change Canada (ECCC) as well as within academia, provincial and territorial governments, Indigenous communities, industry, and other relevant stakeholders.

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Caribou research is taking place within the "sustainable forest management" and "cumulative effects" programs with future projects addressing research themes such as:

- improving the pan-Canadian spatial database of caribou range conditions such as vegetation, fire activity, fuel densities and anthropogenic disturbance history and features, as well as past and projected future climate, in order to improve predictions of the future effects of natural and human-caused disturbances;
- multi-year and historical assessment of caribou populations and their habitats, which can be used to develop regional assessments and build decision support systems for caribou management in the context of natural resource development in general, not just forestry;
- accelerating caribou habitat recovery through restoration of forest landscapes fragmented by development activities;
- consideration of caribou as an umbrella species to assess ecosystem integrity; this includes predicting land integrity over space and time and impacts on other ecosystem services and;
- providing data to decision-makers and the public through developing web applications that provide users with timely access to data and a suite of forecasting tools, including trade-off analyses that can help evaluate alternative management strategies.

Although this larger dedication of resources is new, this work will build on past efforts by CFS researchers and others. The recent North American Caribou Workshop (http://www.nacw2018.ca/Homepage) attracted ~500 delegates from Indigenous organizations, academia, industry and governments. This is the largest ever contingent to attend these meetings and a testament to the interest and importance of caribou and caribou management to people across the country.

Reference

Environment Canada, 2011. Scientific Assessment to Inform the Identification of Critical Habitat for Woodland Caribou (*Rangifer tarandus caribou*), Boreal Population, in Canada: 2011 Update. Ottawa, Ontario, Canada. 102 pp. plus appendices. (see http://www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=2248)

NCASI's Woodland Caribou Research Program: Navigating Through Uncharted Forests

Dr. John Cook, Principal Research Scientist - Large Ungulate Ecology, NCASI
Kirsten Vice, Vice President, Sustainable Manufacturing & Canadian Operations, NCASI

NCASI (National Council for Air and Stream Improvement) initiated fundamental research in spring 2009 when, in collaboration with the University of Alaska at Fairbanks, they acquired 32 young caribou calves and bottle-raised them to be habituated to humans. The initiation of this herd was for long-term research involving nutritional ecology to improve our understanding about how habitat management may influence nutritional well-being of caribou. After spending four years in Fairbanks, the tame caribou were transported to northeastern British Columbia in 2013 where they were used for research in collaboration with Dr. Kathy Parker of the University of Northern BC. In spring of 2017, the herd was moved again to northwestern Ontario, where they were used for two more seasons of research in collaboration with Dr. Evelyn Merrill, University of Alberta and Dr. Art Rodgers, Ontario Ministry of Natural Resources and Forests. In October 2018, research using these tame caribou ended, and they were re-homed to various zoos (primarily in Toronto and Saskatoon).

NCASI's overall research program is primarily

Members of NCASI's tame caribou research herd.
Photo credit: Dr. Rachel Cook, NCASI.

supported by the forest products industry, which begs the question as to why the forest products industry would be interested in research on nutritional ecology of caribou? Fluctuations in large ungulate populations such as caribou and elk are not only a function of factors that directly cause mortality (e.g., predation), but also by the performance of individual animals. How many caribou breed each year; how many give birth to strong, healthy calves with a good chance of survival; how fast calves grow in summer and autumn, and thus how large they are entering their first winter; the age when they become sufficiently mature to breed and raise their own calves; and the level of body condition of their mothers during the breeding season and at the beginning of winter can all influence reproduction and survival. Nutrition levels available to these animals, mainly during summer, greatly influence each of these life processes. As such, forestry can have large effects on forage quality and quantity and thus, by default, productivity of these animals.

Recent research on a variety of ungulate species worldwide is documenting the importance of summer nutrition, but detailed work on the topic for woodland caribou in Canada is very rare. NCASI's large ungulate research is filling that gap using a two-pronged approach:

1) collecting data from tame animals at fine scales (in electrified pens constructed in native habitats) to determine what vegetation and habitat attributes (including silviculture techniques), directly affect summer nutrition of caribou; and

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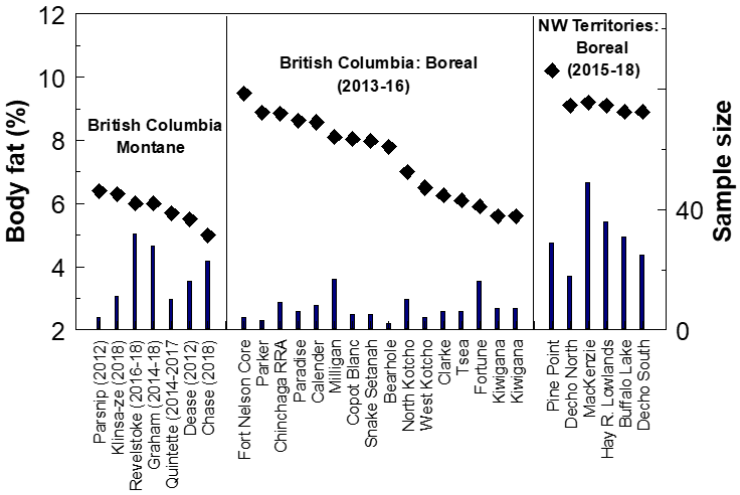

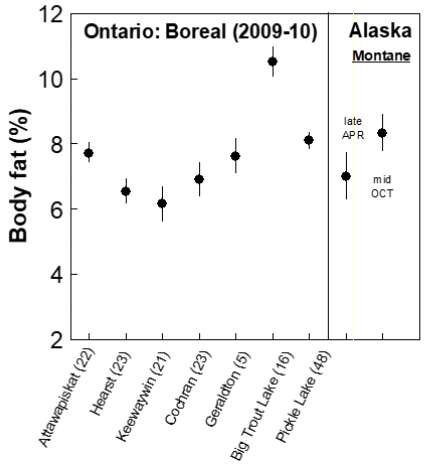

Figure 1. Population-level body fat estimates of adult female woodland caribou in British Columbia and Northwest Territories (A) and Ontario (B). Vertical bars indicate sample size for BC and NT caribou, vertical bars indicate SEs for Ontario caribou, and sample sizes for Ontario caribou are in parentheses.

2) sampling wild caribou to measure body fat levels, a key overall indicator of the nutrition levels of animals, to determine if, where, and what seasons nutritional limitations are operative.

Combined, this represents a powerful approach to evaluate nutritional influences, one that was proven highly effective for NCASI's previous research associated with elk in the US (1995-2010).

While analysis of our data sets is ongoing, several findings are already clear. After measuring body condition on >750 wild caribou, we have found substantial differences in body fat among caribou populations, with some that exhibit reasonably good fat levels and others that clearly do not (Figure 1); the latter indicating at least some nutritional limitations. Further, our studies in western Canada indicate that caribou hold body condition levels approximately constant over winter, suggesting that where nutritional limitations are evident, these probably result from nutritional and bioenergetic influences on summer ranges. This finding is corroborated by a series of older studies on barren-ground caribou, which also indicate that caribou experience the lowest levels of body condition of the annual cycle in late spring through mid-summer, suggesting that summer, more than winter, may be the most critical season. From our tame caribou studies, two clear patterns are emerging. First, different vegetation types provide surprisingly different levels of nutrition, the majority of which are deficient for caribou, in part because most of the vegetation available in summer (20% up to 90% depending on vegetation type) is unpalatable and low in nutrients. Second, our data suggest that nutrition of caribou can be very high in early seral forest communities soon after logging, but also may not be, depending on a host of ecological site characteristics.

Analysis of our fine-scale foraging data is far from complete. These data sets are exceptionally large and their final analysis and dissemination will be the primary focus of NCASI staff over the next two to three years when we expect to provide insight and guidelines about interactions of disturbance and ecological site influences on caribou nutrition.

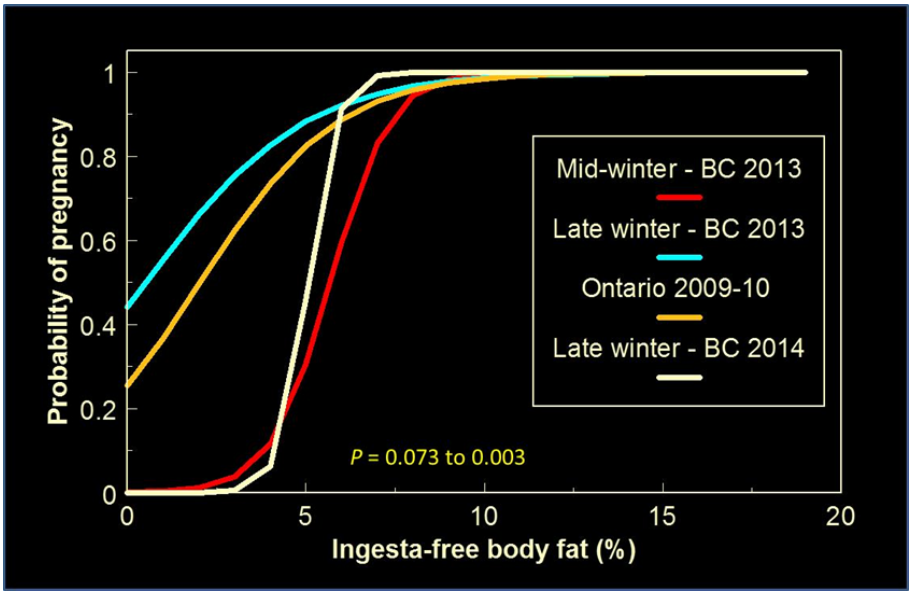

Figure 2. Probability of pregnancy of adult caribou as a function of their body fat levels in winter, showing that caribou that were relatively fat in winter were more likely to have become pregnant the previous autumn. The "P" values indicate the levels of significance for each of the curves generated from logistic regression analysis.

Does Voluntary Certification Assist with Meeting Wildlife Associated Requirements of the CFSA and ESA?

Jennifer Tallman, R.P.F.
Chief Forester, EACOM

Voluntary third-party certification of Ontario's forests began in the early 2000s and has grown rapidly since to cover much of the province. Today, many forests are certified to multiple standards - Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI). This is something all Ontario foresters can be proud of as it represents another proof of our well-managed working forests.

Globally, 440 million hectares of forests are certified, representing only 11% of the world's forests. More than 90% of the world's certified forests are in the northern hemisphere. With much deforestation still occurring in the southern hemisphere, this data supports that the world's best managed forests have been certified first and there is still work to do to achieve forest certification's founding goal to stop illegal and unsustainable forestry in the tropics.

The FSC and SFI Standards generally share similar principles for promoting sustainable forest management that addresses wildlife related regulatory requirements on both public and private land, including measures to:

- protect water quality;
- protect biodiversity;
- protect wildlife habitat;
- protect species at risk and their habitats;
- protect forests with exceptional conservation value; and
- promote and use best management practices.

There are, however, distinctions between the two standards. FSC includes a larger focus on environmental protection, conservation and enhancing the network of protected forest area. In contrast, SFI includes more focus on training of forest workers and investment in forestry research, science and technology.

Ontario has among the world's most rigorous and prescriptive forestry regulations including both the *Crown Forest Sustainability Act* (CFSA) and the *Endangered Species Act* (ESA). While detailed requirements can vary between forest management standards, they both have requirements that align with the Ontario laws. Within the mandatory Ontario Crown land forest management planning process, the detailed components of the forest management plan, for example, serve well as the base for meeting many forest management standard requirements. We are therefore already well positioned to achieve certification.

More examples include use of current information including updated forest inventory, establishment and evaluation of management objectives, sustainable harvest levels, addressing biodiversity at the landscape scale, maintenance and conservation of environmental or non-timber values, requirements to protect species at risk along with their habitats as well as monitoring and assessment during implementation of a forest management plan. Our application of the *Landscape Guides and Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales* within a forest management plan are leading edge regulatory requirements that contribute significantly to FSC and SFI Standard requirements for maintenance of biodiversity.

Further, certification standards also define requirements that build on regulatory requirements and support the wildlife requirements contained in Ontario legislation.

SFI manages a conservation impacts research partnership program that provides funding to advance forestry research. With a spirit of collaboration, these projects are supported by program participants, universities, governments, and conservation organizations, to name a few. One

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example of wildlife-related research is the National Council for Air and Stream Improvement (NCASI) Caribou Nutrition Project that took place in British Columbia and Northwestern Ontario, which evaluates the importance of a summer nutrition forage base and identifies attributes of the habitat that influence nutrition of caribou. Several other on-the-ground studies have taken place including the Boreal Avian Modelling Project that is developing models to help natural resources managers identify key habitat for breeding birds. This SFI global network will prove to be a progressive tool in our biodiversity management efforts and offers us a mechanism to collaborate cross-boundaries, hence achieving broader conservation objectives.

SFI's training for wood producers under the Qualified Logging Professional Program includes awareness of their responsibilities under the Canadian *Species at Risk Act* and other measures to protect wildlife habitat, use of best management practices and awareness of rare natural communities.

SFI Standards also work beyond certified forests, by including fibre sourcing objectives that ensure sourced wood comes from private and uncertified forests that utilize best management practices and encourage the use of Qualified Logging Professionals.

While the current FSC Standards have requirements for species at risk protection and for increased forest protection, FSC will soon approve and release a new National Forest Standard. In its draft form, this new Standard expands from protection of species at risk and forests to include requirements specifically related to boreal woodland caribou. These requirements are above and beyond the legislative requirements. Accordingly, FSC has received much feedback in response to some of the proposed requirements for the new National Standard. Though FSC can expect some challenges in implementation based on what has been presented so far, the new National Standard has yet to be unveiled. We should expect to see the new standard finalized in early 2019, which would give all interested parties in Canada an opportunity to review for maintenance of FSC certification. For my part, I will be eager to review the new Standard, once finally released, to assess its implementation on our managed forests.

Many countries lack strong forestry regulations, law enforcement and public accountability so forest planning and practices, including wildlife-related practices, can be comparatively rudderless or even corrupt. In these countries, voluntary forest certification can drive necessary change that significantly improves forest practices with respect to wildlife management. Though this is the intention, reality demonstrates that this has not been practical. This is not the case in Ontario where forests are primarily public land and world-leading forestry regulations are detailed and prescriptive.

To conclude, Ontario's legislative framework has facilitated the achievement of third-party certification of forests across the province. Current SFI and FSC Standards are also well-aligned with Ontario's wildlife-associated requirements and provide for the validation of the forest industry's efforts in managing for wildlife conservation. While the well-intentioned proposal for FSC's National Standard includes more stringent species-specific requirements, there are several changes that will go beyond legislative requirements, potentially posing challenges for maintenance of FSC certification. While it is expected that forest certification will maintain its strong presence on the Ontario landscape and will continue to support wildlife conservation requirements of Ontario legislation, the areas certified to one or two schemes in the province may shift as the Standards evolve.

Biochar: A New (But Surprisingly Old) Tool for Forest Restoration

Sean Thomas
Faculty of Forestry, University of Toronto

One of the first documented historical examples of forest restoration was in the highlands of Scotland, which had been largely deforested by the 1820s. Soils were acidic and commonly either shallow or peaty; re-establishing forest cover was a challenge. Patrick Matthew, a prominent Scottish forester, described the following method to foster tree regeneration:

"A small pile is… burnt upon the intended site of each tree… taking care, by proper regulation of the quantity of fuel, or otherwise, to prevent the combustion from proceeding too far, and the ashes from becoming white and light, as in this case a considerable part of their virtues is dissipated." (Matthew 1831, p. 142–143)

By this means charcoal was added to the planting location of each tree to enhance soil properties – the "trick" in the technique being to minimize the amount of ash.

Flash forward to 2018. "Biochar" is the term recently coined for charcoal used as a soil amendment. This is scientifically a hot topic: more than 11,000 scientific articles with "biochar" in the title have been published since 2000. This interest is spurred by biochar's potential to simultaneously address several environmental concerns: namely, climate change mitigation, remediation of soil contaminants, and improvements in water quality and crop growth, including tree crops.

Climate change mitigation: Biochar is highly stable – generally >85% of the carbon in biochar is "recalcitrant", and not readily decomposed. By pyrolizing waste material, such as agricultural silage, or the lowest-value wood fibre from sawmills, one can lock up most of the carbon for 100s-1000s of years. Depending on the pyrolysis process, 40-60% of carbon is captured: this carbon would otherwise enter the atmosphere in a year or two. Managed ecosystems – agriculture and particularly managed forests – play an enormous role in the global carbon cycle. Reducing CO_2 emissions from forestry and agriculture has the potential to offset a surprisingly large proportion of human-caused carbon emissions – perhaps as much as 1/3 globally. Biochar is also one of the few existing, low-cost technologies that can result in "negative emissions" – a net withdrawal of CO_2 from the atmosphere.

Remediation of contaminated soils: Biochar acts to sorb a wide range of toxic materials in soils, including heavy metals, organic pollutants, and "allelochemicals" exuded by certain plant species as a form of chemical warfare against competitors. A number of common weed species are potently allelopathic: Canada thistle, garlic mustard, sweet clover, and tree of heaven are notable examples. Many crops, such as rye and barley, have similar effects. Biochar is one of the few methods that can reduce the impacts of soil contaminants on revegetation.

Water quality: The capacity of biochar to sorb a range of pollutants also suggests its use to enhance water quality, and this has emerged as an important commercial application. Recent changes in stormwater management requirements in parts of the US have led to large-scale applications, particularly at industrial facilities.

Tree growth enhancement: Charcoal soil amendments can greatly enhance tree growth, with large responses often observed on acidic, coarse textured soils – especially soils that are deficient in phosphorus, potassium, and calcium. In a recent meta-analysis of the published literature, we found an average 41% increase in tree biomass growth in response to biochar addition.

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Out of the lab and into the field? Forestry professionals should be aware of the emergence of biochar as a tool from several perspectives. Biochar represents the potential to convert low-value waste material into high-value products. This may ultimately change stand management and harvesting practices if more material can profitably go to mills or pyrolysis facilities. Natural fire residues are pervasive in forests in Canada; scientific data are beginning to become available on how these natural charcoals impact tree regeneration. And there is the potential for utilization of designed biochars to enhance early forest regeneration.

Since 2015 biochar has been regulated by the Canadian Food and Inspection Agency (CFIA): CFIA registration is required for commercial sales. Commercial suppliers of biochar "designed" specifically as a soil amendment include Airex in Quebec, AirTerra in Alberta, and Titan Bioenergy in Saskatchewan. There is currently high demand for this material, with important competing industrial uses. A low-cost alternative is bottom ash from wood gasification facilities: In some cases this material has quite high carbon content and can qualify as biochar under CFIA regulations. Wood Ash Industries in Ontario is an example of a company that produces CFIA-registered biochar of this type. Our current research suggests that this material may be of particular use in highly degraded substrates, such as mine tailings.

Further reading:

Thomas, S. C., & Gale, N. (2015). *Biochar and forest restoration: a review and meta-analysis of tree growth responses.* New Forests, 46: 931-946.

Council Corner

Greg Pawson, R.P.F.
Past President

Council Corner is to provide membership with insight into what happens at OPFA Council meetings. Council met most recently on December 5 and 6 2018. OPFA Council provides strategic direction in alignment with the objectives and goals of the Association which regulates the members who practice professional forestry.

December council meetings are an interesting experience as Council members whose terms have ended move on and new Council members, and often new executive members (e.g. Vice President) take on new roles. The Council meeting table is a welcoming place for Council to bring good thoughts to the challenges that face the OPFA and to share information pertinent to the OPFA. This Council meeting had the absences of Richard Raper (Councillor for the Southeast section) and Astrid Neilsen (as she finished a nine-year long stint, most recently as Past President) as they came to the end of their terms of service to OPFA Council. Thank you to both Richard and Astrid; their presence and wisdom will be difficult to replace. We also welcomed new members to the table; Muhammad Waseem Ashiq (Councillor for Southeast section, replacing Richard) and Neil McLean (Councillor for Central West section, replacing Denis Gagnon). Denis continues his service to OPFA as Vice President, with Peter Street assuming the helm as President. It is always interesting to see the new dynamics at the Council table as the turnover of Council takes place. Waseem and Neil fit in quickly and provided significant contributions to the discussion.

At this Council meeting the following items were on the agenda:

- potential changes to the registration process in particular associate members;
- a review of the 2018 work plan and the approval of the 2019 work plan;
- an update and background to the Ontario Professional Foresters Fund;
- an update on the digital services that were undertaken and completed by Office / Bureau;
- a discussion on publishing the OPFA Council minutes on our website;
- a change in Council practice to review all action items at the beginning of each meeting;
- next steps in Council responding to the Membership Survey;
- a summary of enforcement actions from 2016 to the present;
- the 2019 annual conference (Thunder Bay) and discussion about future host locations;
- some direction for the Finance Committee to look at the OPFA's long-term finances;
- determining the next steps in meeting with the new Minister of Natural Resources & Forestry and potential involvement in the Provincial Forest Industry Sector Strategy; and
- an Indigenous peoples initiative that OPFA is undertaking

The above is a listing of the main agenda items that Council had before them at this past meeting and I'd like to take this time to highlight further a couple of the above matters.

Proposed changes to registration: For many years the OPFA has been struggling to determine an effective way to continue to increase the number of members as the demographics of the OPFA continues to reflect an aging population (including myself as I start to consider membership options as I rapidly approach my retirement window with the Ministry of Natural Resources and Forestry (MNRF)). The OPFA currently has an increasing number of Provisional Members that are working their way to becoming Full Members or Associate Members of the OPFA. In the past, the majority of our Provisional Members had come from accredited undergraduate degrees in forestry. But, did you know that currently many of our Provisional Members are coming from unaccredited undergraduate degrees (mainly science program degrees) and from applicants that have been educated at foreign post-secondary academic schools? Our OPFA staff work closely with these Provisional Members providing direction and guidance on the process requirements to become a member of the OPFA. The OPFA continues to navigate these waters with a focus on increasing membership in the OPFA and also ensuring that the required competencies to practice professional forestry in Ontario are effectively met.

Enforcement activities of the OPFA: Recently, the OPFA brought on a new Enforcement Coordinator. Dave Payne started in this position on September 1, 2018. Dave is retired from the MNRF where he last held the position of District Manager in North Bay. Dave's field training was as a biologist, but at one

(Continued on page 21)

Council Corner: Confessions of an OPFA Naysayer

Lacey Rose, R.P.F.
Central East Councillor

"What has the OPFA done for me lately?" or "It's basically an old boys' club" are some direct quotes you might have heard from me a few years ago. A wise OPFA member who I respect very much responded to my questions and comments at that time with "Well, if you don't like it, why don't you get involved?". Touché. So, here I am, starting my second two-year term on OPFA Council.

Therefore, I was not surprised that in the recent survey to members that others have those same concerns. Due to my aforementioned background, I feel like I can relate. Although I am not nearly as wise as the person who presented me with a call to action, I would encourage you to make the same self-reflection.

A few issues I had with the OPFA had to do with the image and lack of public awareness. Major steps have been taken in this department through outreach to students, development of information sheets for various audiences, social media, the re-branding exercise, and completion of a new OPFA website. Recruitment of new members is something else I felt strongly about. Being in my 30s, I often had images in my mind of being the cheese that stands alone after all the Baby Boomers retired – how would we be sustainable as an Association? That's also a recent good news story – there are a record number (a tripling) of Student Members and Foresters in Training thanks to the immense efforts of staff.

Something else that has become clear to me through my time on Council is that the OPFA is a very small organization with a very small (but mighty) staff. You won't hear me complaining about the fees anymore after learning what other associations pay, and also that the OPFA has one of the lowest staff/member ratios out there. The organization is also somewhat limited within its legal boundaries as to what it can do in terms of advocacy – hearing that straight from the lawyer's mouth simmered me down significantly on that front. But that doesn't mean I think we should be silent. You're the OPFA and I'm the OPFA. It's up to us as Members to make sure we speak up when we hear something false about forestry, foresters or any other related topic that you feel qualified to talk about. A big shout out to everyone who is already doing this! You can also help raise awareness about the profession by sharing your good news stories with the volunteer OPFA Social Media Team so those messages can be spread further.

Everyone has different issues they care about and perspectives they bring to the OPFA Council table. That's why diversity is so important. If you ask me today about the OPFA, I would say that I feel very proud to be part of a profession where we are held accountable in protecting the public interest in Ontario's forests. I think explaining that to people really increases our credibility. I'm also really inspired by the large crop of keeners new to the profession who are eager to make contributions. There's still work to be done, and I encourage you to consider getting involved to lend your voice to the issues you feel passionate about.

Changes in OPFA's Enforcement Program

Fred Pinto, R.P.F.
Executive Director & Registrar

The OPFA is a regulatory body that has enforceable codes of ethics and conduct. The OPFA has an active enforcement program that responds to concerns and formal complaints each year. This requires the OPFA to have the necessary regulatory infrastructure to document concerns and complaints as well as deal with them within the laws and by-laws that govern the OPFA's and members' actions.

Over the past several years the coordination of OPFA's enforcement program was assisted by James (Jim) Parker, R.P.F. (Hon.). Jim worked with OPFA staff over the past several years to organize and guide OPFA's enforcement program and coordinate its actions. As of the end of October Jim moved to actual retirement. We wish Jim well in his new stage of life and would like to thank him for his guidance and help in dealing with sensitive files with objectivity and professionalism.

I would like to introduce you to OPFA's new Enforcement Coordinator, David (Dave) Payne. Dave lives in North Bay and has over 30 years experience with the Ministry of Natural Resources including positions as Field Biologist, Supervisor, Great Lakes Coordinator (Lake Superior), and District Manager. Dave has also been a negotiator with the Native Affairs Unit and the Negotiations Secretariat. Prior to joining MNR, Dave was a Police Constable with the Peel Regional Police and was involved in a wide variety of policing activities. Currently, Dave, along with Misha (his yellow Lab), are active in the pet therapy program at the North Bay Hospital and he is a senior support volunteer at the Canadian Anti-Fraud Centre. Please welcome Dave as the new Enforcement Coordinator. He will help the OPFA manage the concerns and complaints received, as well as help in the development of the OPFA's regulatory infrastructure.

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time he also served as a police officer.

A summary of enforcement actions from the last three years was presented to Council. Did you know that the OPFA has had 43 complaints, concerns, and inquiries brought to the attention of the Registrar in those three years? A complaint requires a formal submission, a concern is informal, and an inquiry is a party asking for information.

Most enforcement activities are the result of a concern, but complaints increased in 2018 and there is an expectation that the OPFA will continue to see an increase in complaints filed in the future. The majority of the complaints, concerns or inquiries are from members of the public. The three types of complaints, concerns or inquiries that are most abundant are founded in ethics, use of designation, and practices/standards/processes.

Council will continue to bring forward matters discussed at Council meetings and in the near future we will also start posting the minutes from Council meetings in the members section of the OPFA website.

OPFA's Enforcement Activity

Fred Pinto, R.P.F.
Executive Director & Registrar

An important function of a provincial regulator is to deal with complaints related to an individual member's professional practice. The OPFA is required, under the *Professional Foresters Act RSO 2000* section 5 2(6), to deal with issues related to professional forestry. There is further direction in legislation (https://www.ontario.ca/laws/statute/00p18), regulations (http://canlii.ca/t/rc3) and OPFA bylaws (https://opfa.ca/wp-content/uploads/2018/06/The-Ontario-Professional-Foresters-Asso...-Chart-of-Current-and-Proposed-By-Laws.pdf) that enable and govern the OPFA to receive and deal with issues related to individual member's professional practice.

For some of you the information below may come as a surprise. I am aware that this is the case as every year about 10% of practising members do not pay their fees or report on the maintenance of their competency. This is one of the highest default rates of any regulated profession in Ontario (my apologies for being blunt). This failure indicates that a significant number of registrants are unaware that the OPFA is a regulator and not a social club of people within a certain occupation. Reading the information below may cause registrants to suddenly feel threatened or unsure. I would like to assure readers that like all regulators the OPFA is committed to dealing with all enforcement actions fairly and effectively.

You may also note that rather than using the term "member" I have used the term "registrant". I hope that this helps differentiate your status as a member of a regulatory body from that of membership in a social organization.

The OPFA enforcement activity can be categorized into inquiries, concerns and complaints. See Figure 1 for definitions of inquiries, concerns and complaints. Note that the cost of OPFA's enforcement actions is borne by registrants' fees.

Figure 1. Types of enforcement activity

Activity	What it means
Inquiry	A request for clarification or information related to the practice of professional forestry or an individual member's professional practice
Concern	Identifies an issue but does not file an official complaint
Complaints	An official complaint is filed with the Registrar

Figure 2 (next page) describes the process used to deal with each category of enforcement action. Once a complaint is heard and disposed of by a Complaints Panel (i.e. a subset of members of the Complaints Committee) the decision is shared with the Complainant and Respondent. The issue is then closed and kept confidential. If information related to a complaint is requested in the future by the Complainant or their lawyer for a court hearing the OPFA retains legal counsel to deal with the request. Discipline cases are open to the public and the decisions are posted publically.

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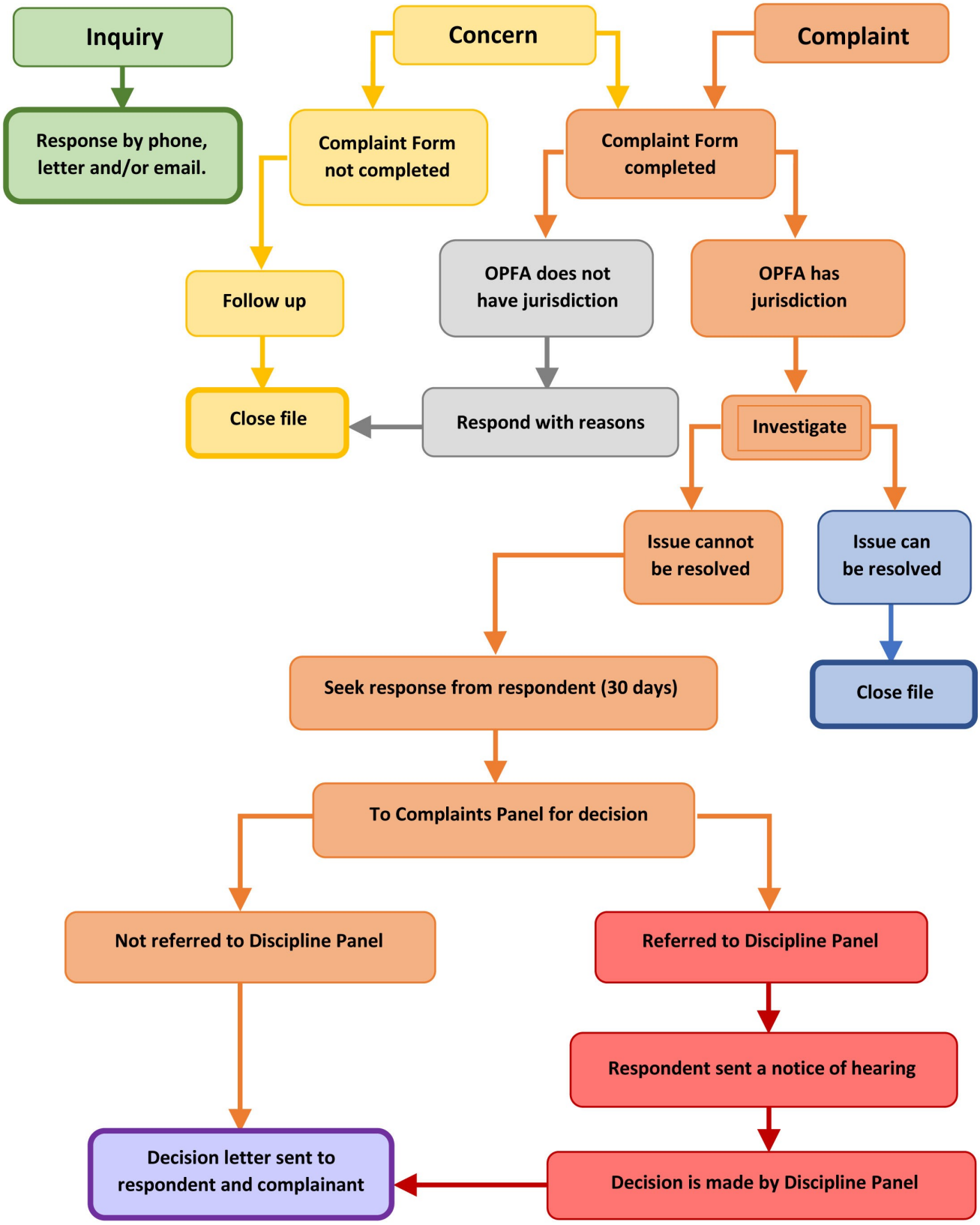
Figure 2: OPFA Complaints Procedure

Note: Complainant is the person who made the complaint.
Respondent is the member who the complaint was made against.



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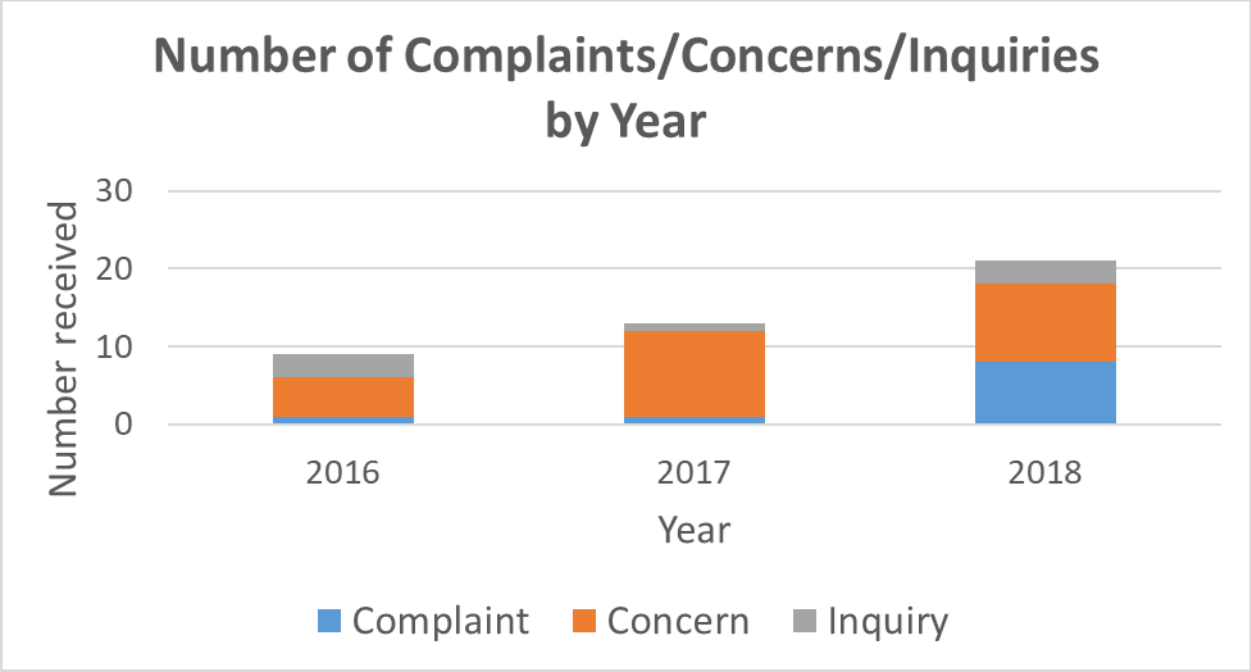
Today more people in Ontario are aware that professional forestry is regulated. The good news is that the OPFA has seen an increase in new employers hiring or seeking the services of professional foresters. This increased awareness has also resulted in an annual rise in the number of enforcement issues. Figure 3 shows that enforcement activity is increasing each year. To deal with these issues the OPFA has to develop and maintain its enforcement infrastructure. Each issue must be documented, followed up, clarified, dealt with, and filed. All of these files must be stored securely and have to be maintained indefinitely.

Figure 3: Number of enforcement issues over the past three years



OPFA has to ensure registrants are aware of their responsibilities. This is done in a number of ways:

a. Wonder why some of the letters sent to registrants related to the registration process, payment of fees, and competency reporting are blunt? The reason is these letters must clearly describe what is needed as the letter serves as evidence when a member does not comply with the requirements for registration or the maintenance of their registration.
b. You are required to check off that you are familiar with your professional code of ethics, etc. each year so that the OPFA has evidence that you are aware of your responsibilities.
c. Member's responsibilities are defined further in Practice Guidance documents. Approved Practice Guidance documents are distributed to all members and are available on the OPFA website. Practice Guidance documents provide general guidance to registrants based on OPFA's enforcement experience. The Practice Guidance documents are written by OPFA staff, reviewed by OPFA's legal counsel and selected registrants, and, finally, approved by OPFA's Council.
d. Registrants have to maintain their competencies through the development of a personal learning focus and mandatory learning plan. Registrants must retain a record of both documents. If a member's competency in professional forestry is questioned the personal learning focus and learning plans may be required as evidence in an enforcement action.
e. As registrants serve on Council and the Complaints and Discipline Committees the OPFA needs to ensure all of them are trained to fairly and effectively deal with enforcement issues.

The enforcement issues dealt with by the OPFA have been summarized in Figure 4 (next page). This information was prepared for Council so that they could discuss and resource the development of actions to help registrants

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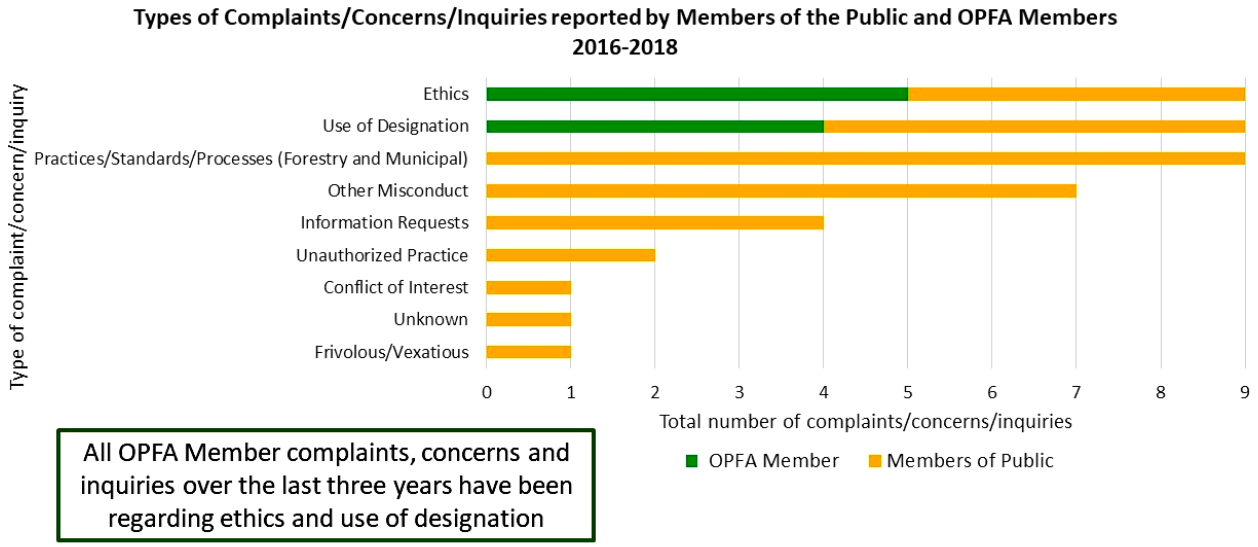
improve their professional practice.

Figure 4. Number of enforcement issues by type reported by members and public between 2016 and 2018



What can you do to improve your professional practice?

1) Be aware of your responsibilities: read and understand the code of ethics, Practice Guidance documents, and the renewal and maintenance requirements of your registration.
2) Document your work and retain these files.
3) Be familiar with the conflict of interest policies of your clients and employer. Document any conflict of interest ruling by your client or employer.
4) When discussing forestry work make sure that you explain your perspective and are specific. Do not make disparaging comments.
5) Remember that all OPFA enforcement actions to date relate to people and not silvicultural practice. Make sure you explain your work to your clients, especially the relevant regulations related to land development.

Frank A. MacDougall Forest History Trust Fund

In 2014 the Forest History Society of Ontario established the Frank MacDougall Forest History Trust Fund. The purpose of the Fund is to provide financial support for projects and activities that can further the knowledge and understanding of Ontario's forest history in all its aspects. The first project was a memorial to Frank MacDougall as a permanent exhibit in ***The Canadian Heritage Bushplane Museum*** in Sault Ste. Marie, established in 2017.

Frank MacDougall graduated in forestry from the University of Toronto in 1923 and began his career with the Ontario Department of Lands and Forests in Pembroke, then in Sault Ste. Marie, from 1926 to 1931. He served as the Superintendent of Algonquin Park from 1931 to 1941 when he was appointed Deputy Minister of the Department, and until his retirement in 1966 was the longest serving Deputy Minister. He was a strong supporter of the forestry profession and continuing forestry education including the formation of the Forest Ranger School, the Junior Ranger Program and the establishment of the Diploma in Resources Management at the University of Toronto. The fund is administered by **Forests Ontario** and donations may be sent to:

Forests Ontario
144 Street West, Suite 700
Toronto, ON M5J 2L7
Note that it is for the **Frank A.MacDougall Forest History Fund**.

Forests Ontario will issue a charitable receipt for the amount received.

The Future of Regulatory Bodies

Editor's Note: The following is an introduction from Fred Pinto, R.P.F., Executive Director and Registrar to the Grey Areas newsletter that stars on the following page.

The legislatures of many jurisdictions delegate authority to regulatory bodies such as the OPFA to govern their members to protect the public interest. The delegation of authority and formation of regulatory bodies is not static. Support for a specific regulatory body or the idea of self-regulation goes through varying levels of support by society over time. Some regulatory bodies in recent times have had their legislation repealed after they were involved in advocacy, or for other reasons.

In British Columbia, the reliance on self-regulating professional associations has been questioned. Justice James T. Casey, Q.C. published his report on the province's use of self-regulating professionals in natural resource management. You can find a copy of his report here: https://engage.gov.bc.ca/app/uploads/sites/272/2018/06/Best-Practices-of-Professional-Governance.pdf

Closer to home, the Ontario Government plans to abolish the College of Trades. For information on these changes see Bill 47 https://www.ola.org/en/legislative-business/bills/parliament-42/session-1/bill-47

The role that regulatory bodies play has also been reviewed by other countries. The following article describes some of the general shortcomings or modern challenges for small non-health regulatory bodies.

Grey Areas
SML Steinecke Maciura LeBlanc Barristers & Solicitors
A COMMENTARY ON LEGAL ISSUES AFFECTING PROFESSIONAL REGULATION

Fit for the Future? Are Professional Regulators Really Ready for the World that Lies Ahead?

by Darrel Pink – Guest Contributor
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Can a study of legal services regulation in Scotland have relevance for regulators in widely different professions? Should regulators be concerned about approaches and recommendations that are not specific to them? Anyone interested in professional regulation will have noted increasing government interest in this area, including reviews of health professions regulation[1], professional reliance[2], complaints processes[3] and all that has traditionally fallen within the province of self-regulation. Government interest, to the point of abolishing regulators[4], should cause Canadian regulators to take note.

The most recent and far-reaching review of regulation approaches and content is that of legal services regulation in Scotland, entitled *Fit for the Future: Report of the Independent Review of Legal Services Regulation in Scotland* ("the Report")[5]. Though focused on one sector, the issues and recommendations are easily transferable across most areas and are worthy of careful consideration by all committed to "public interest" regulation.

The Report invokes the need for regulators to anticipate the dramatic changes happening in their respective industries and professions.

The Report goes much further than the concept of "Right Touch Regulation". To enable and support high quality professional service delivery, the Report calls for a single "sector-wide" regulator with responsibility for all (legal) service providers. A unitary body would eliminate varying standards for entry and professional conduct and inconsistent approaches to oversight. One entity would also eliminate many challenges faced by small regulators, which often lack human and technological resources.

There are several key themes in the Report:

Setting Expected Outcomes

The work of a regulator should be premised on meeting required outcomes. Those outcomes should specify the purpose and expected impact of regulation. Most of the proposed outcomes for legal services regulation are of broad application and would require a regulator to:

- enable access to the profession including choice and diversity;
- offer accountability in protecting the public and consumer interest;
- secure the confidence and trust of the public; and
- enable future growth of the profession

A commitment to these outcomes, which are called "regulatory objectives"[6], has had some uptake in Canada[7], but is far from the norm.

Risk-based and Principled Regulation

Regulation, in its structures and approaches, should be principled, risk-based and proportionate. Regulation should embody the Better Regulation Principles (familiar to those with an appreciation of approaches in United Kingdom), which add the concepts of consistency, accountability and transparency to the other objectives. To ensure their

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adoption, these requirements should be embodied in governing legislation, while allowing the regulator to articulate the specific details. In discussing proportionality the Report notes:

> This would not be a one size fits all model, as clearly the **arrangements for each of the professional areas should be appropriate and proportionate** to the business carried out by those professional groups.

Innovation

Regulators should assume a role in encouraging/enabling innovation by creating and supporting an environment where innovation is encouraged. This is in stark contrast to the present where innovation is often stifled by "the outmoded or necessary limitations of the regulator's structure" (p. 20).

Governance and Independence

Many regulators are grappling with a range of governance issues, including board size, constitution and selection processes.[8] Related to this is how professional regulation maintains its independence in the face of changing and increasing expectations of the profession and government.

The recommendations in the Report are revolutionary, at least from a Canadian perspective. They advocate for an approach to regulation (with responsibility from entry-to-practise to departure from the profession) that is unquestionably independent from government. To accomplish this complete separation, the Report recommends that the accountability of a regulator would be to the Legislature and the regulator would be subject to audit (by a body similar to an Auditor-General). To accomplish this several core concepts must be adopted:

- There must be complete separation of regulatory and representative roles;
- The Chair of the Board should come from outside the profession and be appointed by a parliamentary/legislative committee, with a specific term and removal only for cause;
- There should be an equal number of professional and non-professional members of the Board, resulting in a slight plurality of non-professional members;
- The Chair and Board members should have experience in corporate governance;
- There should be a statutory requirement to establish links with the profession and the representative bodies and to work proactively with the profession to improve practice and ethical standards and enhance public trust in the profession.

Complaints and Discipline

The discussion of complaints handling is another area where the proposals should have widespread interest as they describe approaches to addressing public concerns about professional behaviour. Recognizing current complaints processes as "legislative", i.e. entrenched and not 'fit for purpose' for either consumers or professionals, the recommendation is that complaints handling should be driven by consumer principles with the ability to develop appropriate, flexible and fair sanctions along with fair compensation and a simple process for appeals. The details are obviously complex, but the notion of a process that allows for flexibility is very appealing.

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Entity Regulation

One aspect of the Report that will be of significant interest to professions where practice occurs in firms/groups, is the discussion on "entity regulation". The benefits for both the profession and the public that would derive from regulating an entity delivering professional services are outlined and the benefits of allowing various combinations of services to be provided under one roof are highlighted. The entity would be responsible to the regulator for the quality of services, management, supervision, quality improvements and maintaining an internal complaint system. Regulators would require a **"fitness to be an entity"** test before being allowed to deliver services. Finally, entity regulation would not be in lieu of individual regulation, but would be in addition, to provide better mechanisms to deal with professional behavior.

The details will be of significant interest to regulators in Canada which are at various stages of implementing models of entity regulation.

Conclusion

Because of the practical and principled approaches that are outlined, the Report is worth a careful read with wide distribution among regulators and those interested in professional regulation because of the practical and principled approaches that are outlined in it. No doubt in jurisdictions where deeply entrenched interests will be affected, the Report will be controversial. The government sponsored reviews and actions we have seen to date have already begun to bring on some discomfort among regulators. The Report's analyses will allow an objective reader and a thoughtful regulator to contemplate and address the need for change, regardless of the regulatory model and before governments commission their own studies which are likely to come to similar conclusions.

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[1] https://www.mcmasterforum.org/find-evidence/products/project/modernizing-the-oversight-of-the-ontario-health-workforce

[2] See Grey Areas No. 228 where Erica Richler discusses 'The Final Report of the Review of Professional Reliance in Natural Resource Decision-Making' - https://engage.gov.bc.ca/app/uploads/sites/272/2018/06/Professional_Reliance_Review_Final_Report.pdf

[3] Streamlining the Physician Complaints Process in Ontario, http://www.health.gov.on.ca/en/common/ministry/publications/reports/physician_complaints/docs/physician_complaints_process_en.pdf

[4] https://www.thestar.com/news/queenspark/2018/10/26/skilled-trades-and-apprenticeship-system-to-be-modernized-province-says.html

[5] https://www.gov.scot/Resource/0054/00542302.pdf

[6] See S. Terry, Laurel & Mark, Steve & Gordon, Tahlia. (2012). Adopting Regulatory Objectives for the Legal Profession. Fordham Law Review. 80.

[7] See the ROs of the Nova Scotia barristers' Society at www.nsbs.org.

[8] See Grey Areas No. 230.

In Memoriam

Willard Arnold Grey Thurston (1919-2018)

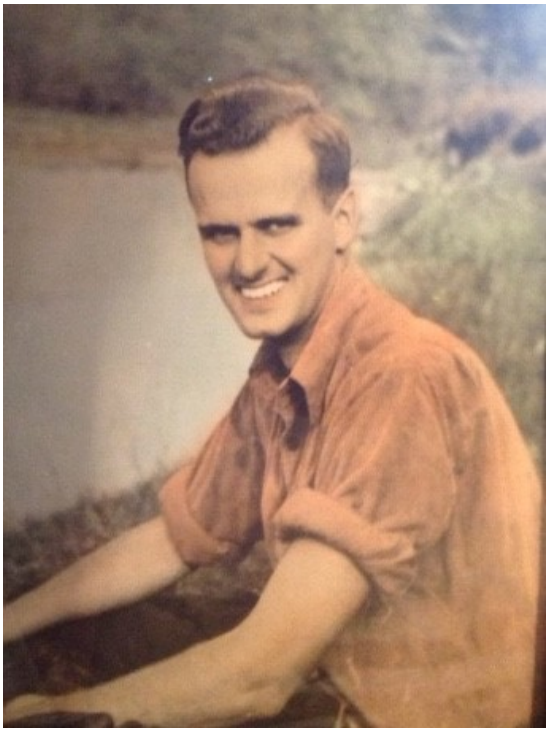
Willard Arnold Grey Thurston passed away peacefully at the Meaford Long Term Care Centre on Wednesday, December 19, 2018, in his 100th year.

Willard was born in Toronto on September 20, 1919, son of longtime Meaford residents Stanley and Tillie Thurston. He attended Meaford High School where he met the love of his life, Gwen Knight, with whom he walked hand-in-hand for nearly 80 years. They observed their 74th wedding anniversary on December 15th, sharing chocolate cake and ice cream with family members.

Willard (or Bill, depending on when you knew him) enjoyed his career as a Professional Forester for 35 years. In 1943 Bill graduated with a degree in Forestry, having also taken four years of training in the Canadian Officers Training Corps while he was at U of T. Then he was directed by the Wartime Bureau of Technical Personnel to work in Forestry rather than going overseas. Thus began his Forestry career in Kapuskasing with the Spruce Falls Power and Paper Company, where about half of his time was spent in the bush, sometimes living in a tent, even in winter.

When his time away from Gwen became too much, Bill joined the Ontario Department of Lands & Forests (now Ministry of Natural Resources) to pursue his interest in Reforestation. This path led Bill with his growing family to Toronto, Stratford, Galt, Lindsay, Kemptville, and finally Toronto again, where he retired in 1978. Numerous county forests and farm woodlots resulted from Bill's forestry management skills, and Bill and Gwen enjoyed revisiting those locations in recent years.

Willard and Gwen did almost everything together; washing the dishes so they could discuss their day while the kids did their homework, building their house in Galt, gardening, boating, camping, hiking and holding executive positions with the Bruce Trail Association, home renovations, countless driving holidays with their four children, and many projects in this church. His woodworking hobby and reading occupied Bill's time whenever Gwen was involved in UCW.



Willard was a dependable, generous, loving husband and father with a wry sense of humour, always available to help his children through any sort of crisis with sage counsel and physical assistance if necessary, always with Gwen at his side. They enjoyed spur-of-the-moment adventures, nature, long walks and sunsets, particularly the beautiful sky on Willard's last evening on earth.

A dear friend of youngest daughter Kate offered her condolences with these words: “Prayers aloft for his smooth trip off the launching pad and onward to his next celestial adventure. Where there will be, no doubt, bountiful and verdant forests waiting.”

Member News

New Full (R.P.F.) Members
Waseem Ashiq
Charlotte Caron (from Inactive)
Timea Filer
Ronnie Huang
Mitchell Long
Kate Maklan
Francisco Murphy
Tim Payne
Andrew Puchalski
Gus Saurer
Abram Seargeant (transferred from B.C.)
William Wright

New Associate (Associate R.P.F.) Members
Paul Gagnon

Please welcome and support the following people who have been admitted into the OPFA but are not yet entitled to practice professional forestry in Ontario:

New Provisional Members (R.P.F. in Training)
Natalie Dulude
Hunter Roberts

New Student Members
Ana Kostic
Janice Lam
Amber-Lynne Lammers
Dean Rogers
Benjamin Vandewater
Emily Weatherston

The following people are not entitled to practice professional forestry in Ontario but remain members of the OPFA:

New Inactive Members (R.P.F. Non-Practising)
Klaus Koehler

Membership Suspended For Administrative Reasons
Brad Chaulk
Mary Gordon
Benson Howey
Peter Klyne
Nathan Mudge
Tom Schicks
Stephanie Ulcar

The following people are not entitled to practice professional forestry in Ontario and are no longer members of the OPFA:

Resigned, Associate Members
Rudy Dyck

Resigned, Full Members
Philip Bunce
Stephen Dominy
Randy Ford
Peter Higgelke
Hugh Lougheed
Lorne Morrow
Larry Polk
Michael Taylor
Erin Woodland

Resigned, Inactive Members
George Bruemmer
James MacLean

Resigned, Provisional Members
Laura Brodey
Shuva Gautam
Anne Nitsa Lumumba
Baral Sharad
Tristan Yull
Kai Zhao

Deceased Member
William Jonas

Continuing Education

Webinars

Websites that offer free webinars to earn CEUs for your membership maintenance.

1. Canadian Institute of Forestry
https://www.cif-ifc.org/e-lectures/
2. Ontario Ministry of Natural Resources and Forestry. MNRF Science, contact Kristy Mckay, Science Transfer Specialist at
Kristy.McKay@ontario.ca
3. Forestry and Natural Resources Webinars
http://www.forestrywebinars.net/
4. Conservation Webinars
http://www.conservationwebinars.net/
5. Urban Forestry Today
http://www.urbanforestrytoday.org/
6. Climate Webinars
http://www.climatewebinars.net/
7. Cornell University
http://blogs.cornell.edu/cceforestconnect/subscribe/
8. How To Do Urban Wood
http://illinoisurbanwood.org/urban-wood-network-announces-how-to-do-urban-wood-webinar-series/
9. Forestry Chronicle
http://pubs.cif-ifc.org/journal/tfc
10. Canadian Journal of Forest Research
http://www.nrcresearchpress.com/journal/cjfr

Coming Events

Forest History Society of Ontario Annual Meeting
February 7, 2019
www.ontarioforesthistory.ca

Forests Ontario Annual Meeting and Conference
February 8, 2019
www.forestsontario.ca

National Invasive Species Forum
February 12-14, 2019
www.canadainvasives.ca

International Mass Timber Conference
March 19-21, 2019
www.masstimberconference.com

Ontario Woodlot Association Annual Meeting and Conference
April 5, 2019
www.ontariowoodlot.com

OPFA Annual General Meeting and Conference
May 7-9, 2019
www.opfa.ca

International Wood Educators Conference
September 11-14, 2019

WOODRISEQUÉBEC 2019
September 30-October 3, 2019
info@woodrise2019.ca

21st International Conference on Aquatic Invasive Species: Aquatic Invasions in the Anthropocene
October 27-31, 2019
www.icais.org