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Brown Creeper
Photo by H. Scarth



Ecological Science and the New Forestry Strategy for NB:

Beyond Noah's Ark

Much has been written in response to the announcement by the Alward Government that it *will* increase the wood supply to mills across the province. Perhaps I should say *wants* to increase, because “it ain’t over ‘til it’s over,” as Yogi Berra used to say!

To me, a major issue arising from the debate now underway is the societal relationship to science and scientists in this province. Both government ministers and Mr. J.D. Irving referred to what they call “good science” and challenged anyone to come forward with evidence that the new forestry strategy would damage the environment. Participating in CBC political panels on the March 13 and 20, 2014, Energy Minister Craig Leonard scoffed at claims that the Strategy would be damaging to the environment, and he referred to scientists as people who present reports and provide opinions, *just like any good taxi driver* (author’s emphasis).

My point is not that scientists are more important than taxi drivers, nor that

they are smarter. My concern is that the roles of science and scientists are being misrepresented to the general public. Like every citizen, scientists have opinions, some well informed, others certainly not so well informed (my opinions on current political or economic trends are probably no better informed than those of most citizens). However, in their professional work, scientists are trained to follow a rigorous process which involves the collection of original data followed by careful statistical analysis of the collected data. Prior to publication, the interpretation of each scientist’s findings are validated by independent experts in the field. Therefore, when a person trained in ecological science uses his or her research to state an opinion within that field, it is not likely to be an uninformed opinion. It should be seen as the distillation of experience on the topic, perhaps gained over many years. It thus carries the weight of long training, rigorous analysis and careful thought.

There has been limited support provided to researchers studying the ecological impacts of human activities on New Brunswick’s varied ecosystems. We can therefore be grateful that New Brunswick’s forests have actually captured the attention of ecologists, with research results published widely in respected scientific journals.

What does some of this New Brunswick research (“good science,” judging by its acceptance in peer-reviewed journals) show us that is relevant to the new Strategy?

1. Many species of vertebrates require old forests and structures associated with these forests,

such as large snags, big logs, or simply, large-diameter trees.

2. Many species of vertebrates are much more abundant in large blocks of suitable habitat than in scattered forest fragments. Unless protected areas include relatively large blocks, or associated clusters of medium-sized ones, some of these species will decline rapidly.
3. Conifer plantations, even older ones, do not host species requiring features associated with older natural forest stands, such as many woodpeckers, or Brown Creepers,
4. Extensive conifer plantations reduce the breeding success of songbirds in nearby old stands by artificially increasing seed production and boosting populations of efficient nest predators like red squirrels.
5. Clear-cuts and conifer plantations impede the movements of species like flying squirrels or even some deciduous forest birds.
6. Harvesting near watercourses may increase both siltation of spawning grounds and water temperature.
7. Disturbance due to industrial forestry results in profound changes to forest plant communities, as well as processes associated with them.
8. And finally, beyond some intensive studies of forest birds, a few mammals, and a limited suite of plants, we have very little data on forestry impacts on other species in New Brunswick.

The forestry experience in Sweden has shown that it is unwise to let populations decline to a handful of individuals, as was the case for the White-backed and the Middle Spotted Woodpecker. The Middle Spotted Woodpecker, strongly tied



Ovenbird
Photo by H. Scarth

to large oak tree stands, is now extirpated from Sweden whereas the White-backed Woodpecker was down to a single pair, with the female born in a captive-breeding facility.

Do we really want to repeat the Swedish experience?

Blackburnian Warbler
Photo by A. Clavette

