

For the Good of Our Health

by Brian W. Baetz

There's a lot of talk about health care these days, given the shortfalls in health care funding and the increasing care demands for our ageing population. The pandemic exposed many cracks in our public health care system, and we read daily of the strains on ecosystem health from climate change and other environmental impacts. Comprehensive solutions seem daunting, but perhaps a pathway forward may become clearer if we start thinking deeply about the connectivity between ecosystem health and human health. The material below relates to a series of human health related perspectives, taken from interviews with local experts in the context of preserving the Cootes to Escarpment EcoPark System (C2EP). For the full interviews, please type the following URL into your Web browser:

<https://www.youtube.com/watch?v=r570AvEpyrs&t=1460s>

Dr. Conrad Sichler, a local MD with a keen interest in nature and indigenous wisdom, comes right to the point—"Without nature we'd be dead! We don't often think of nature and health, or if we do, it's when something bad is going to happen (flooding, climate change, etc.). But if it weren't for these plants around us, we would not be able to breathe. If it weren't for these plants capturing the slightest fraction of energy that the sun puts out, this planet would be desolate and barren like most of the other planets in the solar system."



Dr. Conrad Sichler

Dr. David Galbraith, Head of Science at RBG, builds on these points to demonstrate the uniqueness of Hamilton's nature..." In 2007, we had the startling realization that the 10 square kilometers of property that the Royal Botanical Gardens owns is the richest place in all of Canada for plant species diversity! One cannot find another area of the same size with as many wild plant species growing on it as we have right here, and it's a staggering thought and an amazing coincidence of foresight that the biodiversity hotspot for Canada is in a protected Botanical Garden."



Dr. David Galbraith

Dr. Ben Vanderbrug, former CAO of the Hamilton Conservation Authority, is no stranger to the benefits of active living in Hamilton's natural areas..."Open spaces in cities are critical for preventative healthcare. If people have access to open space they will make use of it, and we need to make connections to all the neighborhoods either through walking or cycling. When people begin to use open space it has proven to be a way of reducing crime. You read about exercise and reduction of stress levels as being the key to a healthy lifestyle, maybe you go to a gym but open spaces and communing with nature is the best way of being active." As a testament to a practicing-what-you-preach philosophy, when Ben was leading the HCA he commuted by foot from his suburban Ancaster home to the Authority headquarters on Mineral Springs Road, using Dundas Valley trails traversing over open spaces that he played a key role in acquiring and conserving.



Dr. Ben Vanderbrug

Dr. Jim Quinn, Professor of Biology at McMaster University, is an award-winning scientist and a long-time supporter of local land conservation. "We should always be concerned about impacts of air pollution on DNA and in particular DNA mutations that are passed from generation to generation. Trees in particular are very effective in filtering out particulate air pollution, essentially acting as natural HEPA filters where particulates stick to the leaves on the trees. All kinds of respiratory and cardiac problems come from particulate air pollution and the more trees we have near cities the better off we are."



Dr. Jim Quinn

Dr. Fran Scott, former Medical Officer of Health for the Region of Hamilton-Wentworth, creatively looks at nature and open space as “upstream” health care facilities. With regular immersive experience in local nature through hiking, walking, running or cycling, Hamilton residents will have a higher probability of maintaining strong physical and mental health. This in turn will reduce demand on “downstream” health care facilities such as clinics and hospitals at a time when conventional health care systems are overloaded. Dr. Conrad Sichler also has recognized that “considerable public spending and private philanthropy currently goes towards our health care systems, and the C2EP will also play an important role in keeping us physically and mentally healthy. It’s starting to come into the public consciousness that we are part of this broader ecosystem... we're made of earth, and we're made of water, and we're made of sky, and we're made of plants and we're made of animals. So anything that happens to the Earth happens to us. The way that we treat the Earth is a reflection of something going on inside ourselves, so obviously clean water, healthy food, some places to hike, some contact with nature...these are pivotal parts to someone's health. When people are out in nature it hopefully stirs something within them that is majestic or moving or even scary that shifts them out of whatever stuck place they might be in. Nature can get us out of this boxlike environment that we have built for ourselves and the boxlike thinking that comes with it.”



Dr. Fran Scott

Jen Baker, General Manager for the Hamilton Naturalists’ Club, has built a significant thrust towards getting kids to have the opportunity to enjoy local nature ...“ The kids that we bring love it here... for a lot of them it's their very first nature outing so for them this is Algonquin Park, they feel like they're in deep-deep wilderness. At first they're nervous, but then they really get into it because we have activities that keep them busy and they see what new trees there are and that they're all different types of trees and not all the same species, and different wildlife. They remember some of what we talked about in the classroom, they get a good workout, and it's not that far for them to travel.” This resonates with Dr. David Galbraith who suggests “ in the past two decades or so we've discovered that if you're inside and you're a child you're probably

being wired wrong. Kids need to be outside to play in nature, they need the experience of hands in the mud and the sticks and the twigs and seeing the birds and the plants, to develop as a well- centered capable human being in terms of their emotional and their intellectual development.” The HNC has been immersing young people in local nature since the 1920s with the Junior Audubon Club of the Hamilton Bird Protection Society, and since 1986 in partnership with the RBG as the Hamilton Junior Naturalists’ Club.



Ms. Jen Baker

The HNC has done many positive things to enhance the lives of Hamiltonians. Without too much of a stretch we can now add the improvement of our collective physical and mental health to the long and enviable list of Club achievements.

<Brian Baetz is the Director of McMaster’s W Booth School of Engineering Practice and Technology, and is working with fellow Club members John F. Evans, Kevin Empey, Jen Baker and Brian McHattie on fundraising for land acquisition in the Cootes to Escarpment EcoPark System>