

Haliburton Community Organic Farm: Urban Biodiversity Enhancement Project

By Purnima Govindarajulu

Haliburton Community Organic Farm is a publicly owned farm within the Agricultural Land Reserve. Fifty years ago, Haliburton, or Four Winds Farm as it was then called, was a working farm growing fruits and vegetables for local markets. About 30 years ago, the land was zoned a Utility Zone and the Capital Regional District (CRD) constructed an underground water reservoir on part of the land and active farming ceased. In 2001, CRD wanted to divest itself of the property surrounding the reservoir but the farm was saved from development by the Land for Food Coalition, who envisioned a plan to restore Haliburton Farm to a working community organic farm. As a result of their efforts, the CRD transferred the Haliburton lands to the Municipality of Saanich. Saanich now leases the land to the Haliburton Community Organic Farm Society, a non-profit organization with a vision that includes local food security, economic stability for small scale organic farmers, education and outreach, and land stewardship.

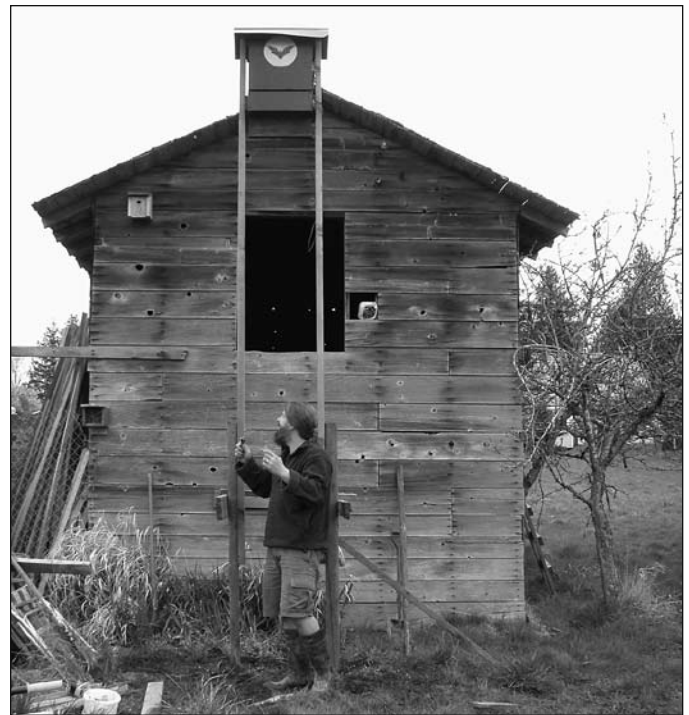
The Farm is 4.09 hectares and within its boundaries lies an increasingly rare landscape feature: a temporary wetland. There is also a small patch of associated forest, which

further enhances the ecological value of this wetland. Although the wetland itself is degraded and heavily invaded by reed-canary grass, the *CRD Natural Areas Atlas* (<http://www.crd.bc.ca/maps/natural/>) shows that it is possible to connect this small patch of natural area on Haliburton Farm to the larger Elk-Beaver Regional Park by restoring a narrow strip of riparian vegetation. Haliburton Community Organic Farm offers a great opportunity for ecological restoration and urban biodiversity conservation.

The *Urban Biodiversity Enhancement Project* on Haliburton Farm was initiated in 2007 by volunteers from the School of Environmental Studies, University of Victoria. Since then the project has grown to include volunteers from the Victoria Natural History Society, biological consultants, landscape professionals, and members of the public interested in urban biodiversity projects. The goal of the project is to enhance the biodiversity value of a wildlife habitat patch within a developed area, and to use this enhancement and restoration process to learn and to teach land-stewardship techniques and ideals.



Planting a hedgerow. *Photo:* Stephen Price



Erecting a bat box. *Photo:* Stephen Price

Current Projects

In 2007-2008 funds from a Mountain Equipment Co-op *Urban Sustainability Grant* were used to buy materials for bird boxes, a bat house, salamander boards, and to provide matching funds towards purchase of a green house which will be partly used for growing native plants for restoration efforts. The 13 bird boxes installed in the spring of 2007 were all occupied during the nesting season by various birds, including Violet-green Swallows, Chestnut-backed Chickadees, Bewick's Wrens, and House Wrens.

We found two Western Red-Backed Salamanders (*Plethodon vehiculum*) in the forest patch during surveys in the fall of 2007 so we installed salamander boards in the spring of 2008. This fall we were very excited to find a Wandering Salamander (*Aneides vagrans*) using these boards. Salamander boards compensate for the low availability of dead and decaying logs in urban environments and also offer a non-destructive method of surveying for terrestrial salamanders.

In early 2008, we installed a bat day-roost box close to the wetland. Possible bat species in our area that may use this artificial roost include Little Brown Bats (*Myotis lucifugus*), Yuma Bats (*M. yumanensis*), Big Brown Bats (*Eptesicus fuscus*), and potentially Townsend's Big-eared Bats (*Plecotus townsendii*). We also installed native bee boxes throughout the farmed area, not only to enhance native bee populations but also to provide essential pollination services.

In late summer of 2008 we were awarded a *Public Conservation Assistance Fund Grant* that has helped us expand

our activities. The farm is currently very open, with limited refuge habitat for birds and other wildlife. There is a kilometre of chain-link fencing on the farm and the adjoining CRD lands. In cooperation with the farmers and permission from CRD Water, we plan to convert these extensive chain-link fences to hedgerows, which have been shown to enhance wildlife values. In the fall of 2008, we began by planting 120 meters of the most exposed chain-link fence with mature Pacific ninebark (*Physocarpus capitatus*), tall Oregon grape (*Mahonia aquifolium*), mock orange (*Philadelphus lewisii*), red-flowering currant (*Ribes sanguineum*), oceanspray (*Holodiscus discolor*), Saskatoon (*Amelanchier alnifolia*), salmonberry (*Rubus spectabilis*), and thimbleberry (*Rubus parviflorus*). In 2008 the farm attained Conservation Partner status from The Land Conservancy of BC in recognition of the biodiversity stewardship activities that have been initiated on the farm.

The next big project is the restoration of the temporary wetland. In the summer of 2008, Thomas Biebighauser (author of *Wetland Drainage, Restoration, and Repair*), assessed the site and has drawn up plans for restoration of the Haliburton wetland. The goal of this effort is to create a long-hydroperiod temporary wetland that will establish the necessary conditions for breeding of native Pacific Chorus Frog (*Pseudacris regilla*) and Red-legged Frog (*Rana aurora*), but will not support breeding of the introduced American Bullfrog (*Rana catesbeiana*). The wetland will also be used by a diversity of other native species.

Temporary ponds are being rapidly lost in our landscape because they are either filled in (temporary ponds are offered no protection under most provincial and municipal laws), or



Hedgerow species – left: Oregon grape (*Mahonia aquifolium*) and right: Pacific ninebark (*Physocarpus capitatus*). Photos: Darren Copley



Amphibians species found on the farm – left: Pacific Chorus frog (*Pseudacris regilla*) and right: Western Red-Backed Salamander (*Plethodon vehiculum*). Photos: Stephen Price

they are dredged and converted to permanent ponds, usually with introduced fish and bullfrogs. These introduced generalist predators often lead to a decrease in native aquatic diversity. The wetland restoration will be conducted as a training workshop and will become a demonstration feature of our long-term biodiversity enhancement project at the farm.

Education and outreach are part of the vision of Haliburton Community Organic Farm Society. In keeping with this we will organize community events for bird box, bat box,

salamander board, and bee box construction and installation. We will also conduct native plant propagation and hedgerow planting workshops for the community. Over the past two years, students from the School of Environmental Studies *Natural Areas Restoration Program* have been involved in various aspects of the restoration plans. We hope to expand student participation and use the results of our efforts to study the long-term effects of various restoration efforts in supporting urban biodiversity.

Request for Volunteers

As the project has grown over the past two years, there is an increasing need for more volunteers to implement various aspects of the project. In particular, we are looking for VNHS volunteers who will adopt the farm as a site for a monthly bird or butterfly surveys, as well as help with the identification of plants, invertebrates and other organisms inhabiting the site. Data collected will become part of the long-term monitoring project, so we are looking for individuals to commit to at least one full year of participation. We are also looking for volunteers to help with administrative and coordination tasks.

If interested, please contact **Purnima Govindarajulu**, purnimap@uvic.ca.

For more information on **Haliburton Community Organic Farm** visit <http://www.haliburtonfarm.org/>