



Sustainability Newsletter

July/August 2014

Bees in Decline

Pollinators, such as honeybees, play a vital role in the pollination of flowering plants. Bees visit flowers regularly to retrieve pollen and nectar which they require for rearing their young, and as a result, transfer pollen from the anther (male part) to the stigma (female part) of the plant, enabling fertilization and reproduction. It has been said that upwards of 1/3 of the world's crops depend on bee pollination for plant reproduction.

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Crops that rely on bees for pollination:

- Almonds
- Cucumber
- Pumpkin
- Avocados
- Melons
- Berries
- Zucchini
- Fruit Trees (Apples, Peaches, Cherries)



The recent decline of bee colonies worldwide has been the cause of great concern in the agricultural industry. For the last 10 years, beekeepers in the United States and Europe have been reporting annual hive losses of over 30%, which is not sustainable in the long term. A possible cause for these losses is the intensified use of insecticides. One type of insecticide in particular, neonicotinoids, has been studied for its negative effect on bee populations. Studies have shown that neonicotinoids have led to a sharp decline in queen bees in colonies and can interfere with the ability of bees to navigate back to their hives.

So, what can be done?

1. Become a backyard beekeeper

Over the last two decades, the number of beekeepers has decreased by half. With our year-round demand for fresh fruits and vegetables, bee pollination is more important than ever before and has become a commercial industry. To help revive natural bee populations in your local area, consider trying beekeeping. Don't be deterred by our long winters—bees are adaptable to a wide range of climates. Beekeepers can be found in areas with cold winters, tropical rainforests and every geographic region in between! Visit <http://www.backyardbees.ca/home> to see how you can get involved with your local Beekeeping Association.



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This newsletter can be viewed online at: www.rdbn.bc.ca/environmentalservices/recycling/sustainability-newsletter

If you have any questions about the content of this newsletter, please call Carolyn Lane, Sustainability Assistant for the Regional District of Bulkley-Nechako at 250-692-3195, toll free: 1-800-320-3339, email: carolynn.lane@rdbn.bc.ca

Bees in Decline (Continued)

2. Keep your garden filled with bee-loving plants

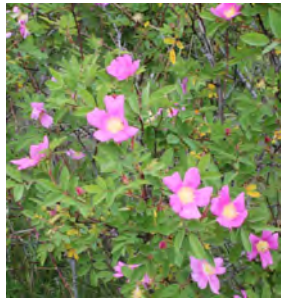
In recent years, urban development has been taking over more and more natural bee habitat. One way to help the bees without becoming a full-fledged beekeeper is to keep a backyard bee garden. This can be done by simply cultivating plants that will attract bees. The best plants to choose include flowers that bloom successively over the spring, summer, and fall to provide as much pollen (which provides bees with proteins and fats) and nectar (for sugar—bees main energy source) as possible to native bee species. Keep these tips in mind when preparing a bee-friendly garden:

- Be sure to plant a diversity of flowers that bloom at different times so there is always food available for the bees;
- Native plants or heirloom varieties are the best choices for attracting native bees, while exotic plants attract honeybees;
- Bees are especially attracted to blue, purple, white and yellow flowers. Plant flowers of a particular species in clumps so bees are more likely to find them.

Some bee-loving plants that may be suitable for your garden include:



Chives



Rose



Black-eyed Susan



Foxglove



Aster

By maintaining populations of native plants in your garden, it will be more difficult for invasive plants to take hold. Keeping the plants healthy and watered, as well as planting a variety of species, will help prevent the unwanted invaders that tend to grow.

3. Set up a “bee bath”

Bees and other important insects, including ladybugs and butterflies, need fresh water to drink. However, most of these insects are unable to land in water without crashing. One thing that you can do to attract these pollinating bugs to your garden is to set up a “bee bath” with rocks for them to land on.

First, line a shallow bowl or plate with rocks. Then add water, but leave the rocks uncovered as “islands”. Place the bath at ground level in your garden. Change the water often, adding just enough to evaporate by the end of the day.

4. Keep your garden free of pesticides

Toxic substances in pesticides can kill bees after they touch down on flowers. They can also get carried back on the bee as it returns to the hive and harm the rest of the bee population.

Invasive Plant Management—Landowner Rebate Program

Invasive plant management in the RDBN is conducted through a partnership with the Northwest Invasive Plant Council (NWIPC), which covers the area from Valemount to Haida Gwaii, and north to the Yukon border (excluding the Peace Region). Since 2005, invasive plant control has been conducted using a "single agency approach". Various organizations, including the RDBN, various municipalities, Ministry of Transportation and Infrastructure, Ministry of Forests, Land and Resource Operations, BC Hydro and others, contribute funding to the NWIPC. The contributed funds are managed using a partnership delivery model to achieve on the ground control of invasive plants in each jurisdiction, as well as public awareness, inventory, and assessments. On-the-ground treatments and inventory are conducted by contractors in each Invasive Plant Management Area (IPMA).

If you are struggling to treat an invasive plant infestation on your property, you may be eligible for a 50% reimbursement from the NWIPC under the landowner rebate program. Chemical, mechanical or manual treatments will be considered for a rebate up to a maximum of \$500. For more information on the program, and to see if the invasive plant species on your property is eligible, please visit http://nwipc.org/documents/private/50_50_2013_app_with_contractor_list.pdf or call 1-866-44WEEDS.

Common invasive plant species in the RDBN include:



Orange Hawkweed



Field Scabious



Canada Thistle



**Mountain Bluet
(Bachelor's Button)**



Common Tansy



Spotted Knapweed



The NWIPC website is a great resource for all things related to invasive plants. Read about the history of the NWIPC, learn more about problem plants in your area, or take part in the "Weed on the Web" ID contest. Visit www.nwipc.org.

If you see an invasive plant and want to identify it on the go, the "Report a Weed" mobile app is a great tool. Go to www.reportaweedbc.ca for more information.

Seasonal Eats: Huckleberries

The Huckleberry is a deciduous shrub that grows as tall as 1.5m, with small yellow or pink flowers that ripen into berries that are purple or black in colour. The plants can be found in shady woodland areas and often grown in large patches and grow in many areas of the Regional District of Bulkley-Nechako. They are comparable to blueberries in taste, and can be used in similar recipes. Huckleberries are high in Vitamins A, B and C, and antioxidants. To enjoy these berries all year-round, pick as many as you can while they are ripe, and freeze them for use in baking or smoothies!



Huckleberry-Lemon Scones



Ingredients

2 cups flour
3 tbsp sugar
1 tbsp baking powder
1/2 tsp salt
6 tbsp butter
2 tbsp lemon juice
2 eggs, beaten
1/3 cup cream
3/4 tsp lemon zest
3/4 cup huckleberries
1 cup powdered sugar
1/4 cup lemon juice
1/4 tsp lemon zest

Directions

1. Preheat oven to 400°F. Grease a baking sheet.
2. Whisk together the flour, sugar, baking powder and salt in a large mixing bowl. Using a pastry blender, cut in the butter and lemon juice until evenly mixed and slightly crumbly. Whisk together the eggs and cream in a small bowl. Add 3/4 tsp lemon zest to the egg mixture, then add to flour mixture. Mix gently until just blended and a dough is formed. Fold in the huckleberries.
3. Divide the dough in half. On a floured surface, shape each half into a bowl and flatten slightly. Cut each round into six wedges and place onto greased baking sheet.
4. Place in preheated oven; bake for 12 minutes or until tops are golden brown. Cool on a wire rack. Whisk together powdered sugar and lemon juice to make a glaze. When scones are cool, drizzle with glaze. Sprinkle with remaining zest for garnish if desired.

Huckleberry Barbeque Sauce



Ingredients

1 small onion, chopped
2 tsp vegetable oil
2 tsp salt
1 tsp chili powder
1 tsp dry mustard
1/2-1 tsp ground pepper
1/2 tsp red chili flakes
1/2 tsp ground cumin
2 cups chopped tomatoes
1/2 cup cider vinegar
1/4 cup packed light brown sugar
2 tsp molasses
1 cup fresh or frozen huckleberries

Directions

1. In a medium saucepan, cook onion in oil over medium heat until soft, 5 minutes. Stir in salt, chili powder, dry mustard, pepper, chili flakes, and cumin. Cook until seasonings are fragrant, 1 to 2 minutes. Add tomatoes, vinegar, sugar, and molasses. Simmer, covered, stirring occasionally for 1 hour.
2. Add berries and simmer gently, uncovered, until softened, 25 minutes. Purée 2/3 of sauce in a blender, then stir into remaining sauce.