
BIODIVERSE CITY: A BRIEF LOOK AT VANCOUVER'S BIODIVERSITY STRATEGY

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Biodiversity is not necessarily a staple of the urbanite's lexicon, perhaps unsurprisingly so. Cities are, after all, dominated by built form. They are our laboratories of skyward-reaching ambition; veritable fortresses of concrete, steel and glass, insulated from the less-tamed wilds beyond their suburban boundaries. Isn't biodiversity a matter for these decidedly non-urban places? A measure of biological affluence concerned with our forests and oceans? Perhaps so. But, increasingly, this perception is being challenged.

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The Vancouver Convention Centre's "Living Roof From Above"
Photo Credit: Belinda Chan

For those tempted to question urban biological contributions, you may be surprised. Central Park in New York City – among the best-known examples of an urban wildlife ‘hotspot’ – plays host to some [312 recorded species of birds](#). But it is the realm of the invisible where the figures become truly staggering. A 2014 study concluded that the number of distinct microbes in the [soils of Central Park rivaled even the most diverse biomes on Earth](#). New research from the University of Washington in Seattle corroborates the biological allure of cities, suggesting that [urban shorelines support more marine life than remote areas](#). Cities around the world have taken note. Christchurch, New Zealand, Boroondara, Australia, Cape Town, South Africa and even London, England, are among those that have adopted comprehensive biodiversity strategies in recent years.

Vancouver, British Columbia, and its lush, temperate surroundings, makes many cities green with envy. A biologically rich context is no assurance of an urban counterpart, however. Which begs the question: is Vancouver’s sleek, skyscraper-laden downtown capable of supporting a similarly impressive range of species? If so, what would it take to quantify this natural endowment? And what would it mean to do so? The City has endeavored to begin to answer these questions, introducing a comprehensive [Biodiversity Strategy](#), officially adopted by the Vancouver Board of Parks and Recreation and City Council in February of 2016.

Building on the City’s recent green policy additions, including its [Bird Strategy \(2015\)](#) and [Rewilding Action Plan \(2014\)](#), the Biodiversity Strategy states the following as its

five principal objectives:

1. Restore habitats and species.
2. Support biodiversity within parks, streets, and other City-owned lands.
3. Protect and enhance biodiversity during development.
4. Celebrate biodiversity through education and stewardship.
5. Monitor biodiversity to track change and measure success.

A publicly available document, the strategy identifies priority areas, hot spots, and threats to biodiversity – e.g. habitat loss, invasive species, and, certainly not least of all, climate change. Objectives are expanded upon with key targets and recommended actions. For example, one such target is to increase the amount of natural areas, including forests and wetlands, by 62 acres (25 hectares) by 2020. Importantly, the Biodiversity Strategy also proposes various metrics that can be used to track progress. The end result is a strategic framework that, if leveraged properly, should serve to guide policy and development decisions at City Hall. Recognizing its significance, Vancouver Park Board Chair Sarah Kirby-Yung proclaims that the plan “lays the foundation for the sustained ecological health of our city.”

Vancouver has made no secrets about its green intentions. Most prominent is its [Greenest City 2020 Action Plan](#), which has inspired aligned initiatives that seek to strengthen its resolve. Nick Page, a biologist at the Vancouver Park Board and one of the key figures behind the Biodiversity Strategy, saw an opportunity to tackle a pressing issue that had thus far gone



One of Vancouver's resident beavers in Lost Lagoon, Stanley Park.

Photo Credit: Samuel MacTavish

unaddressed. "There was recognition at the staff level that the City's Greenest City Action Plan was ambitious on many sustainability goals," says Page, "but that it did not address biodiversity specifically." Moreover, proponents of the strategy lamented the loss of Vancouver's historical landscape. Once rife with towering rainforests and crisscrossed by salmon-bearing streams, it was largely desecrated prior to the enactment of preventative environmental conservation measures. Here was an opportunity to take a major step toward reclaiming its natural heritage.

While it would be naive to attribute successes to a single document, Vancouver's burgeoning biological livelihood suggests that its adoption is timely. Take the Vancouver Convention Centre, for example. Completed in 2009, the now-iconic multi-pitched 'living roofs' of the West Building were envisioned as a native meadow that would provide food and habitat for birds and insects alike. Today, staff from the [University of British Columbia's Beaty Biodiversity Museum are conducting an insect survey](#) that is beginning to shed light on the number of species that frequent its grassy confines. While the report is not yet published and the data are preliminary, 145 species have been surveyed to date,

including one new to British Columbia and another that hasn't been recorded in the province since 1932.

Other success stories abound. In 2012, [chum salmon were discovered spawning in Still Creek – an urban waterway in East Vancouver](#) – after an 80-year absence. They have now [returned for a fifth year running](#), a development nothing short of remarkable given the levels of contamination once reached in the widely channelized and culverted stream.

2013 saw an [industrious beaver single-handedly redecorate the human-made wetlands of Hinge Park in Vancouver's Olympic Village](#). Spotted intermittently in years since, the months preceding the official adoption of the Biodiversity Strategy saw its [high-profile return](#); only this time, there were two. This past summer, [three beaver kits were observed](#). While Page cautions that the modest habitat allotment is likely insufficient to accommodate more than a pair of adults, he suspects that the beavers will have more success than humans in solving this conundrum.

In spite of these occasionally precarious human-wildlife juxtapositions, Page hopes the City will continue to embrace notions of biodiversity, solidifying its place on the agenda. In his mind, success will hinge on two things: “institutional change measured as staff resources and specific policies that address key biodiversity goals; and an increase in habitat to meet the biodiversity target.” With a first-of-its-kind document, another crucial aspect will be its adaptability. Page cites current emphasis on pollinators as an example of an arguably unanticipated urban planning focus. “Who would have thought ten years ago that [they] would get the emphasis they do now? We need to be flexible, follow the science, connect to public interest, and learn from successes and failures.”

Vancouver, like most cities, stands to learn a great deal through biological introspection. While the scientific measurement of successes is still ongoing, it has done itself (and its residents) a favor by recognizing and championing the cause of urban biodiversity.

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Community planting event at a 'pollinator pop-up park' in Vancouver.
Photo Credit: Nick Page



Downtown Vancouver's marine and terrestrial context.

Photo Credit: Belinda Chan

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