

STATUS OF THE ROCK PIGEON (*COLUMBA LIVIA*) IN NELSON, BRITISH COLUMBIA

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The Rock Pigeon (*Columba livia*), a species native to Europe, Asia, and northern Africa, has established populations around the world in cities on every continent except Antarctica. It was introduced to North America about 400 years ago and has since spread throughout the United States, southern Canada, and as far north as Alaska and the Yukon Territory in the west (Johnston 1992). Rock Pigeons

thrive in urban settings due to a number of factors, including an abundance of available food and nesting sites. Under ideal conditions, pigeon densities may become so great that they begin to cause problems for people. Accumulations of droppings, for example, are unsightly, increase corrosion of surfaces, and harbour funguses that can cause infections when inhaled.

Little is known about the early history of the Rock Pigeon in North America. Since it is not a native species, it was often excluded from early ornithological texts and surveys. For example, Arthur Cleveland Bent did not include a species account for Rock Pigeon in his monumental series on North American birds (Bent 1932), nor did P.A. Taverner in his *Birds of Canada* (Taverner 1945). The species was also not included in official results of the continent-wide Christmas Bird Counts until 1973.

Trends in Numbers of Rock Pigeons in Nelson

Rock Pigeons likely arrived in British Columbia about the time of the first European settlers. Small numbers were present in the city of Nelson at least by the late 1970s.

Campbell et al. (1990) included a report of 25 birds in 1977. Data from three local surveys demonstrate a substantial increase in numbers of Rock Pigeons since that time, particularly in the last 12 years (Figure 1).

The longest-running survey is the West Kootenay Duck Count (WKDC), initiated in 1974 and conducted in late-autumn in 26 of the past 31 years. The focus is on bird species occurring on or near the water between Balfour and Taghum. The WKDC detected no Rock Pigeons along the waterfront between 1974 and 1979, but the species was detected in five of 10 surveys in the 1980s with 20 birds being the highest count. Between 6 and 11 pigeons were recorded on the WKDC from 1990 to 1993, and then the count was suspended for three years. When it resumed in 1997, numbers of pigeons along the waterfront had jumped to 196.

The Nelson Naturalist's Winter Bird Count (WBC), covering the area from Balfour to South Slokan, was initiated in 1993/94 and conducted in 11 of the past 12 years. The data demonstrates a rise in Rock Pigeon numbers in the Nelson area during that time, including a nearly tenfold increase

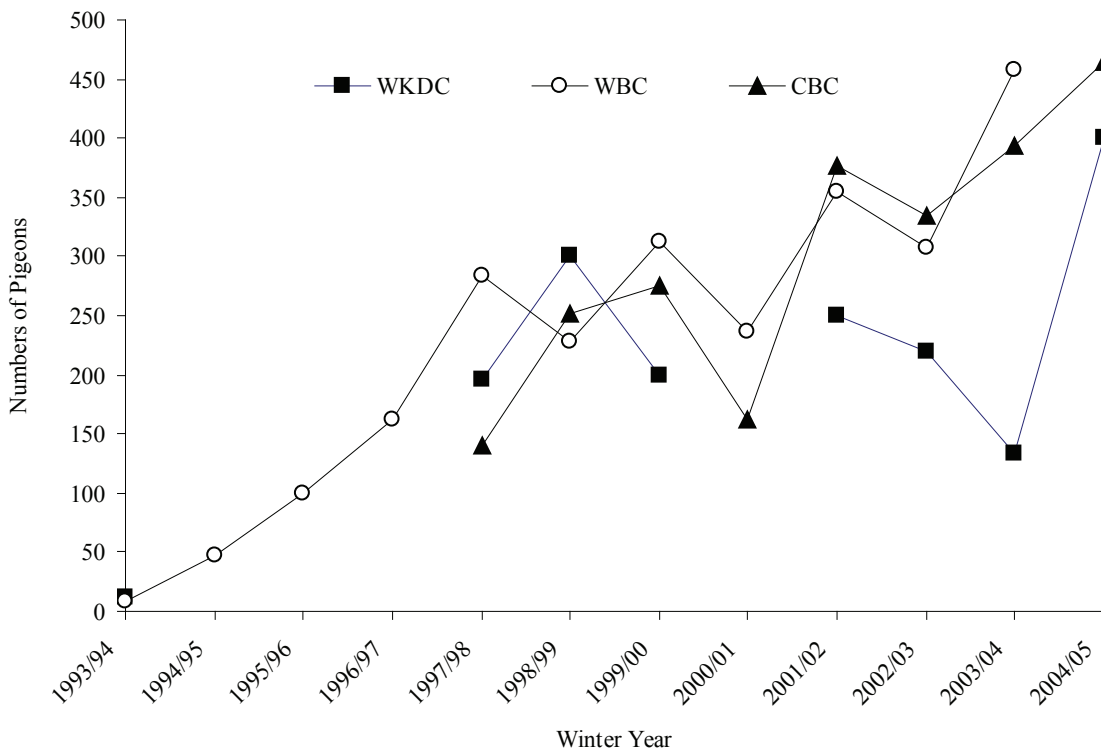


Figure 1. Change in the number of Rock Pigeons as determined from three independent surveys in Nelson, BC. WKDC = West Kootenay Duck Count, WBC = Winter Bird Count, CBC = Christmas Bird Count.



Figure 2. Rock Pigeons can be seen resting on wires along the waterfront in Nelson, BC. Dec 2001 (Linda M. Van Damme).

in nine years, from 48 in the winter of 1994/95, to 457 in 2003/04. This count encompasses inland areas as well as the waterfront and therefore provides a more accurate indication of total pigeon numbers in the area.

Limited data from the annual Audubon Christmas Bird Count (CBC) reflects trends shown in other surveys and demonstrates that virtually all pigeons counted on wider-ranging surveys occur within Nelson itself. In 1985/86, no pigeons were detected on the Nelson CBC. When the survey started up again in 1997/98, 140 birds were counted, with subsequent counts having increased numbers in most years, and a maximum count of 465 birds in 2004/05.

Notes on the life history of Rock Pigeons in Nelson

Rock Pigeons are known or suspected to roost and nest in a variety of locations around the city, including abandoned and neglected buildings, ledges, light fixtures, awnings, shelters, the city wharf, and the “Orange Bridge” that spans Kootenay Lake. Although pigeons commonly use rock bluffs and silt cliffs in parts of the Okanagan Valley (Cannings et al. 1987), there are no known natural sites in the Nelson area. Rock Pigeons continue nesting throughout the winter in Nelson, at least in some years, and are therefore likely able to rear four or more broods annually.

Currently, the largest foraging concentrations in winter occur along the waterfront at two locations: the mall parking lot and the “Orange Bridge” adjacent to Lakeside Park. The birds are fed daily by locals at both of these locations, and the two sites are close enough together that flocks routinely fly between them to take full advantage of the available food. Smaller groups of pigeons are found in several areas downtown, and individuals and breeding pairs feed on scraps along the streets and alleyways near restaurants and around

dumpsters. There are no significant agricultural operations in or near Nelson where spilled or waste grain would attract large numbers of pigeons.

The City of Nelson has no policies or bylaws concerning the control or feeding of pigeons. Mesh or netting has been installed in some locations to prevent access by birds. It is unknown whether pigeons in Nelson pose a human health risk at present densities.

Observed causes of mortality include predation, human intervention and vehicle collisions. Merlins (*Falco columbarius*) and Northern Goshawks (*Accipiter gentilis*) have been observed hunting and capturing pigeons in Nelson. Domestic cats likely kill pigeons and there is even a report of a dog capturing and eating a pigeon on a city street. Occasionally, nests are destroyed or enclosed by mesh to prevent fouling of sidewalks. It is not known whether poison has been used. Rock Pigeons commonly forage on roads and parking lots and some are hit and killed by vehicles.

Possible factors affecting population growth

Without specific research on Rock Pigeons, any discussion on factors contributing to the growth of the Nelson population remains speculation only. Results from the 105th CBC (2004/05) in other southern interior centres show that only Kelowna has substantially more pigeons, at 1,251 (National Audubon Society 2005). Other places with more than 350 birds include Oliver/Osoyoos (439), Salmon Arm (415), and Penticton (396). The milder climate at these locations, relative to areas to the north or east, may contribute to increased over-winter survival and breeding.

Nelson does not possess significant agriculture or fast-food industries which seem to attract large numbers of birds in some other urban centres. However, people provide grain and other food for them on a daily basis and at predictable locations. The sites that have shown greatest growth in numbers are the two along the waterfront where the birds are fed consistently.

Ultimately, the population is most likely to be regulated by food. As the species slowly became established in Nelson, people presumably began to feed them in greater quantities, resulting in relatively rapid growth in numbers. There is likely an upper limit to this growth, which may soon be reached, given the small size of Nelson. Assuming that current levels of feeding and control persist, that no new agricultural or fast-food ventures start up, and that climate conditions do not change significantly, pigeon numbers are expected to plateau and then remain relatively stable.

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About the Author

Janice is a biologist, naturalist and birder residing in Nelson since 1996. She has also lived and worked in New Brunswick and Ontario. Among other projects, she monitors Osprey and Bald Eagle nests along the shores of Kootenay Lake.
