Gross bill deformity and longevity in a Northern Flicker

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Deformities in birds may be caused by accidents, diseases, physiological disorders or may, in some cases, occur as accidents during embryonic development. Some well known physical deformities include larger or smaller bodies, extra wings or legs, a lack of toenails, toes, feet, and legs, broken legs, lack of tail feathers, and bills that are crossed, split, or lack pigment. Banders have the best opportunity to record abnormal growths because they examine a lot of individuals each year. In Ohio, Hicks (1934) banded 10,000 European Starlings (*Sturnus vulgaris*) and discovered that 5.35 % (535 birds) had abnormalities. Of these 0.038 % (380 birds) had

deformed bills. Craves (1994) summarizes the incidence of bill deformities in 24 species of passerines and estimates that it is rare and occurs in wild birds at a frequency of 0.5 %.

Documenting and reporting deformities in birds, and other animals, especially amphibians, should be encouraged as such incidents help in alerting biologists to environmental health issues and perhaps problems that may exist geographically and locally in the animal's range (Berger and Howard 1968). For example, Hays and Risebrough (1972) blame the effects of chemical pollutants on deformities in young Common Terns (*Sterna hirundo*) at Long Island, New York. Such observations could be summarized annually in British Columbia Nest Record Scheme reports.

This note describes observations of a Northern Flicker (*Colaptes auratus cafer*) that visited my bird feeders and neighbour's feeders infrequently from 9 January 2003 through late October 2004 in the vicinity of McLure, 40 km north of Kamloops, BC.

The woodpecker, an adult hybrid male "Red-shafted" form, was first observed on 9 January 2003 poking at black oil sunflower seeds, suet bits, wild birdseed mix, peanuts, and table scraps on the ground. The bird's bill appeared twice the normal 4.2-cm in length and had a noticeable downward curve. The mandibles were spaced about 2.5 cm apart at the tip. While both the upper and lower mandibles followed the same downward course, the lower mandible had a slightly more pronounced curve creating a widening gap which prevented the tips from meeting (Figure 1). Neither mandible curved to the right or left, only down.

On 25 January 2004 the bird's bill had grown in length with the lower mandible curving slightly to the left. The flicker reappeared on 13 June 2004 at which time its overall appearance had changed drastically although it appeared active and alert. The breast feathers were extremely dishelved and the bill had grown significantly longer. It appeared that the upper mandible continued to follow the original downward growth, now approximately 15-18 cm in length while the lower mandible had curved to the left (Figure 1).

Between 13 and 18 June 2004 I had the opportunity to watch the flicker feeding while eating ants and kernels of corn. The behaviour was astounding. While manipulating the upper mandible like a "pry bar" then raking the left side of the bill along the length of a corncob, kernels were loosened and fell to the ground. In order to consume these kernels and bits of fallen suet, the flicker squatted low to the ground and by aligning its head horizontally its bill functioned like "chopsticks" to grasp the morsel of food. With the food secured in its bill, the flicker lifted its left wing and placed its upper mandible under the wing. The bill was slid in and out until its tongue could reach the food.

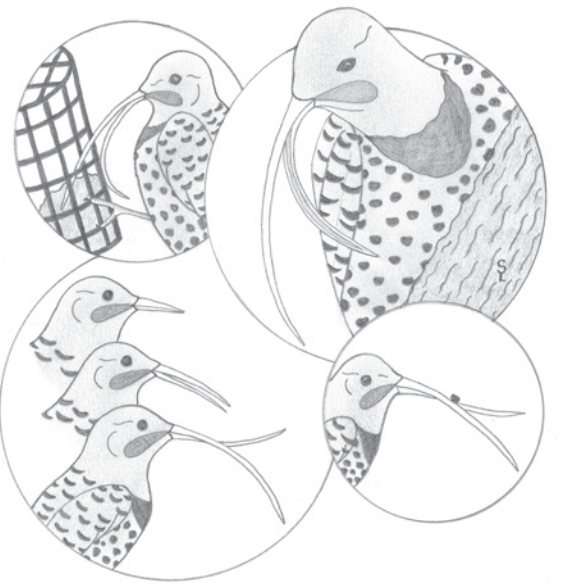

Figure 1. Artist's rendition of Northern Flicker beak deformation showing, from top left, clockwise, the bird at a suet feeder, the full extent of curvature and separation, seed manipulation, and progressive growth throughout the period of observation, at McLure, BC. (Sherry L. Lidstone).

The flicker also frequented ant colonies located on the front lawn. The bird was quite adaptable to its handicap. The feeding method included poking the tip of the upper mandible into the ant mound with the lower mandible just touching so ants could crawl up the bill and into the mouth.

By 10 August 2004 the flicker's bill length remained unchanged but the lower mandible appeared weak and floppy. On 25 September the flicker was unsuccessful at eating at the suet cage and unsuccessfully tried to pick up fallen bits of suet dropped by other feeding birds. There was now a more dramatic curve to the lower mandible and it was obvious that the flicker had lost control of its bill.

The flicker was last seen in late October 2004 at a neighbour's suet feeder and drinking water from a birdbath. The fate of this bird remains unknown. The flicker arrived in apparent adult plumage so it is remarkable that it was able to survive and adapt with its handicap in the wild for at least 760 days.

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About the Author

Sherry is an avian artist who captures the true spirits of birds for etchings on glass. She lives in the small community of McLure. She also wrote a regular column "*The Feather Factor*" for the Thompson Star/Journal in Barriere.