Letters to the Editors

Deformed Chickadee

On 12 November 1997, at my kitchen window bird feeder here at Mountain Chutes Camp, I noticed a Black-capped Chickadee with a difference. My feeder is filled with sunflower seeds, and the observation distance is three feet. This makes close inspection of feeding birds fairly easy.

This chickadee was twice the size of the average, and the beige underside was noticeably darker. His overall shape was more round and gave the appearance of having no neck. The most surprising difference though was the upper part of his bill, which was three times the length of the average chickadee's and downward curving. This distinctive bill was two-toned: light coloured on one side and dark on the other. The lower part of the bill was also longer than average, although it was only half the length of the upper part of the bill.

The attitude and habits of this bird were also unusual. He would land in this feeder and remain anywhere from five to 15 minutes at a time, pacing up and down the length of the feeder looking for seeds that were already removed from the shell. Several times he was noted checking the window ledge for dead flies. When he spied a seed he liked, he would tilt his head sideways, then lower his beak downward in order to pick up the seed using his lower mandible. He would eat this seed and resume pacing as he looked for more.

His attitude toward other chickadees was noticeably aggressive. He would rush at the other smaller birds as they landed in his feeder, and scare them off. For all these reasons, we named him "Snaggletooth". We started looking for him daily, making observations on his habits and differences. Even though he appeared to be a mutant, his disability had not affected his ability to survive and thrive. Several times each day, he would arrive at our feeder. His last visit was on 22 December. We will be watching for him to return.

Barry Kinch
Kenabeek, Ontario

Ron Tozer comments:
Although very unusual, many types of deformity due to accidents, dis-

eases, physiological disorders, and genetic defects have been recorded in wild birds (Terres 1982). A well known example involves deformed bills in nestling Double-crested Cormorants (*Phalacrocorax auritus*) on the Great Lakes, apparently caused by PCB contamination (Weseloh and Collier 1995).

However, Snaggletooth's deformed bill probably resulted from injury or genetic defect. In birds such as the chickadee, the tip of the bill normally wears down with use, and is renewed by continuous growth in that area (Terres 1982). This wearing down process does not occur when the upper and lower mandibles are out of line, and unchecked growth of one or both mandibles may result. Bill deformities are very infrequently observed in the wild, probably due to the rarity of their occurrence and the increased mortality among affected birds. Hicks (1934) found only 38 individuals with bill deformities among the 10,000 European Starlings (*Sturnus vulgaris*) which he examined for abnormalities.

Snaggletooth's reported larger size may also have been due to a deformity. Hicks (1934) found seven oversize or "giant" males among his ten thousand starlings, that were at least an inch longer overall than the average. However, this chickadee's round shape, "no neck" posture, and apparently larger size are also quite consistent with the appearance of chickadees when they fluff their feathers to increase their layer of insulation to stay warm (Smith 1991). Maintaining body temperature would be a continuous problem for a likely weakened, malnourished individual with a deformed bill, which would interfere with normal feeding.

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House Finch Trends

I read with great interest Ron Tozer's House Finch article (*Ontario Birds* 15: 89-94). There is a fair amount of information now on House Finch disease on a web site of Cornell University (www.birds.cornell.edu/HOFI/HOFIdisease.htm), and a crash in the House Finch population was predicted some time ago, before it actually happened. Indeed, at my own feeder in Oakville, the population crashed and I only saw one male last winter. Ron Tozer's data do not include the 1997 CBC, but the decline continued in southern

Ontario, certainly for the South Peel Naturalists' Club area between Toronto and Hamilton. We recorded the lowest number since 1989.

However, the article puts forth data for central Ontario to show that the crash has not yet occurred in this region. House Finches are still expanding their range northward and have not been in central Ontario for very many years. Tables 2 and 4 show data on House Finches from CBCs on Georgian Bay and on the Canadian Shield for the period of 1988-1996. I have published data from the Parry Sound CBCs for 1992-1993 and unpublished data for the period of 1994-1997 (J. Gardner, pers. comm.) that was not included in these tables. I studied it to see if it fits Tozer's comments.

Year	#	Party Hours	# per 10 Party-hrs
1992	25	45	6
1993	12	51	2
1994	103	57	18
1995	2	97?	<1?
1996	19	27	7
1997	0	32	0

The results show a peak in 1994 as is shown for southern Ontario data, but then numbers decrease below the 1992 level as if the population had crashed. In 1997, no House Finches were found in the country or the towns, including Parry Sound, and 37 feeder-watchers reported data.

While the methodology of comparing all data by using the number of House Finches observed per 10 party-hours is a scientifically correct approach, it does not apply to the Parry Sound data. House Finches in this part of Ontario are showing up on CBCs at feeders and not in the country. The party-hours published in the CBCs include, by definition, only the party-hours by field observers and exclude hours by feeder observers. Taking the peak year of 1994 as an example, 45 feeder-watchers reported 88 House Finches and 14 parties in the field reported 15 House Finches (probably mostly at feeders). Dividing the total number of House Finches by the party-hours in the field badly skews the data. This method can only be properly applied where there are small numbers of feeder-watchers reporting and where a feeder species is counted by observers in the field. In 1995, 42 feeder-watchers reported two House Finches and 14 parties in the field reported **none**. (The 97 hours reported above include the many hours of the feeder-watchers, since this was a major effort in the count.) Therefore, why divide by the hours in the field? The final published CBC data used by Tozer do not show the breakdown of how many House Finches were counted by feeder-watchers and how many by field observers. Consequently, no adjustments can be made in the analysis for comparison purposes. Having said this, I have been assured by Ron Tozer (pers.

comm.) that relatively few CBCs have a significant number of feeders reporting to skew the data.

The statement made in the article that "as with the Georgian Bay and Ottawa River areas, the post-1994 decline is not shown in these data from the Shield", does not seem to apply to the Parry Sound data. Table 4 does show a peak for 1994 in the total number of House Finches reported on the Canadian Shield (without dividing by party-hours). I recognize that consistency in the coverage of the fairly new Parry Sound CBC may be poorer than other long established count areas for the purposes of this type of statistical analysis. Nevertheless, the pattern of the rise and fall of the House Finch is still evident for this area of central Ontario. It will be interesting to see the 1997 data for Georgian Bay and the Canadian Shield. It is curious that not only did 37 feeder-watchers in Parry Sound not report any House Finches in 1997, but they did not report a single House Sparrow either.

The article discussed another interesting point about House Finches. The western (native) population is sedentary while the eastern House Finch population is partially migratory. I have noticed this as they have been spreading northward to include my feeder in Carling Township, north of Parry Sound. I first recorded them from 15 April to 8 May 1994 during spring migration. The next three years followed the same pattern: 21 April to 15 May 1995, 19 to 22 April 1996, and only one single male on 23 May 1997. I had no summer or fall sightings. This is following the pattern of a collapse in Shield country now, as I observed quite a few migrating in 1994, the peak year elsewhere shown by the Christmas counts; then the numbers dropped off to the present single sighting.

Jean Niskanen
Oakville, Ontario

Ron Tozer comments:
Jean Niskanen identifies several important issues in her letter, which would require another article to fully address! I agree that the post-1994 decline in House Finch numbers is detectable on some Georgian Bay and Canadian Shield CBCs, but other counts there actually showed apparent increases during that period (e.g., Meaford, Mindemoya and Sharbot Lake). My point in the article was that the decline was more dramatic and consistent across southern Ontario. The Parry Sound CBC has not been an official Audubon count, and so the results were not available to me. However, it does appear to reflect the post-1994 decline in House Finches, as noted by Jean.

Researchers have recognized that "CBC results must be normalized to be meaningful indicators of winter bird population sizes", and that "party-hours seems to be the

best and most widely accepted factor for CBC standardization" (Bock and Root 1981). Observer effort must be factored in when comparing results of CBCs. For this reason, both Kozlovic (1994) and I utilized "birds per 10 party-hours" in our analyses of the House Finch.

However, many concerns have been expressed by researchers concerning the reliability of CBC results for monitoring bird populations (see Arbib 1981, Bock and Root 1981, Butcher and McCulloch 1990, Butcher et al. 1990, Dunn 1995, Peterson 1995). Birds that concentrate at feeders (such as the House Finch) are one of the most significant sources of bias in CBC data. Dunn (1995) reported that high levels of feeder-watching effort can inflate CBC totals "to over 67% more than would be the case with no feeder-watching" for species like the House Finch. An effective solution to this problem would be for feeder-watcher counts and hours to be recorded separately from those of field observers (Arbib 1981, Dunn 1995). However, there has been concern that more complicated reporting procedures might reduce participation among birders primarily interested in the fun and competition of CBCs (Bock and Root 1981). In any case, feeder and field results continue to be combined in published CBC totals.

Despite my earlier contrary assurances to Jean Niskanen, feeder-watcher participation in Ontario CBCs may be a significant source of bias in results for species like the House Finch. A cursory analysis of the 1996 results published in *National Audubon Society Field Notes* 51(2) for the 50 southern Ontario counts utilized in my article showed: three counts not reporting, 14 counts reporting no feeder-watcher participation, and 33 counts reporting feeder-watchers. The latter averaged 11 feeder-watchers (ranging from 1 to 39) and 26 hours of observing feeders (a range from 1 to 165 hours). The North Bay CBC had 222 feeder-watchers reporting 460 hours of observation in 1996! The apparently growing tendency to include feeder observations in CBC results has great potential to distort the data for research purposes, under current reporting procedures.

Even given the problems with interpreting CBC data, I think Ontario counts do reflect a real and large post-1994 decline in the House Finch population, as was also shown in Project FeederWatch results (Deschamps 1997). I will be continuing to monitor House Finch population trends in Ontario, and will report these in *Ontario Birds*. The introduced eastern House Finch population has now spread west to contact the native western population, and House Finches exhibiting symptoms of the eye disease have been reported from British Columbia (D'hondt 1998). The story is far from over!

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PUBLICATION NOTICE

A Birder's Guide to the Bahama Islands. 1998. By *Anthony W. White.* ABA/Lane Birdfinding Guide. American Birding Association, Inc. Wire-o binding, 320 pages, 8 colour plates, line drawings. $26.95 American, plus postage and handling. Available from ABA Sales, Box 6599, Colorado Springs, Colorado, U.S.A. 80934-6599. Phone orders (have your credit card ready) toll free to (800) 634-7736, or fax orders toll free to (800) 590-2473, or e-mail: abasales@abasales.com

This is the latest in ABA's Birdfinding Guide Series, and the first to treat a region off the continent. It covers all the major Bahama Islands, including the popular Turks and Caicos. Tony White provides detailed descriptions and maps to over 150 birding sites. The guide contains a checklist that lists the islands where particular species are found, the seasons they are present, and the level of difficulty in finding them. A very useful Annotated List of Specialties discusses the rare and endemic species, including field-identifiable Bahamian subspecies and morphs. The guide also includes concise information on getting there and getting around on the islands, history, climate, precautions, other observable wildlife, and numerous sections on recommended readings.

After studying this wonderful guide, I'm now planning my first birding trip to the Bahama Islands for next March, a fitting end to another great Canadian winter! *Ron Pittaway*