

## Need Help with Report

Dear Friends,

As we assemble the mountains of data gathered at Newport Forest over the last ten years into a comprehensive document, Pat and I have picked up a number of suggestive signals from the numbers. One of these numbers is zero -- the number of Ruffed Grouse seen over the last two years.

Here is the early draft of a report on Ruffed Grouse at Newport that I am preparing for wider distribution. If you have time, please feel free to make comments or suggestions for its improvement, whether in content or style (incl. organization).

All the best

Kee

Population Status Alert for Ruffed Grouse at Newport Forest (draft) March 9 2009

A. K. Dewdney  
Newport Stewards Committee

We have been concerned by the apparent absence of Ruffed Grouse (hereafter "grouse") sightings at Newport for two years (going on three), as shown by the records below. It is possible that the Ruffed Grouse is now extirpated from the property. If this is the case, one might wonder if disease or predation (the usual suspects) are to blame. But one might also suspect loss of forage, due to competition with the Wild Turkey (hereafter Turkey). Flocks of these birds seem to be growing, with more flocks showing up over time. .

According to the opinion of some area naturalists, predation might well be the cause of the decline. Marjorie and Bill Preicksaitis of the West Elgin Nature Club think that raccoons are likely predators, raiding the nests of grouse before the eggs hatch -- or very shortly after. Dave Martin, a well-known bird expert has mentioned hawk predation as another possible explanation. The female Coopers Hawk is quite capable of flying off with a mature grouse, killing and eating it, not to mention picking off chicks. While we cannot eliminate either predator as a guilty party, neither is there evidence of increases in either population over the period of concern to reinforce the explanation.

The grouse is one of the most common game birds in North America. Its range extends from Alaska across Canada and the Northern US, extending further south along the cordillera in the west and the Appalachians in the east. Although most grouse populations are still viable, marked declines are being observed in the central & southern Appalachians. Declines have been observed in some states like Missouri -- even as increases are noticed in northern states such as Wisconsin. Overall, grouse have declined by roughly 40% over their North American range since about 1970. The overall decline is usually attributed to loss of habitat, either clearing of scrublands and partially forested areas or their regrowth into mature forest (which, by itself, does not support the grouse). However, this is probably not the cause of decline in the immediate area, as suitable habitat is as available as ever.

The grouse and the turkey are both Gallinaceous birds that share a common diet of seeds, buds and twigs, herbaceous material, invertebrates and, occasionally, small herptiles. Their habitats also overlap strongly in that both species are commonly found in forested areas and scrubland, while turkeys also routinely forage in open fields. Moreover, while grouse forage alone, turkeys forage in flocks, presumably depleting an area of edible material before moving on.

The turkey, long absent from Ontario, was re-introduced to the province with several releases of US birds into southern Ontario in the 1980s. The re-introduction is considered a great success, with turkeys showing up virtually everywhere across southern Ontario over the last two decades, even inside cities, such as London, Ontario.

The statistics below\* show the raw numbers of sightings of both grouse and turkey at Newport Forest over the last nine years. Since the data are undoubtedly biased one way or the other by the number of observing days, the counts have been adjusted to take frequency bias into account, with a 90-day baseline. The

resulting numbers are rounded to produce the maximum-likelihood observational data, had the property been visited 90 times in each year, other things being equal.

std. common name	00	01	02	03	04	05	06	07	08
Ruffed Grouse	2	5	7	7	4	2	4	0	0
Wild Turkey	1	5	9	8	6	11	11	16	8
no days (nd)	51	74	90	77	79	82	92	78	63
weight = 90/nd	1.8	1.2	1.0	1.2	1.1	1.1	1.0	1.1	1.4
weighted observations (to nearest integer)									
Ruffed Grouse	4	6	7	8	5	2	4	0	0
Wild Turkey	2	6	9	9	7	12	11	18	11

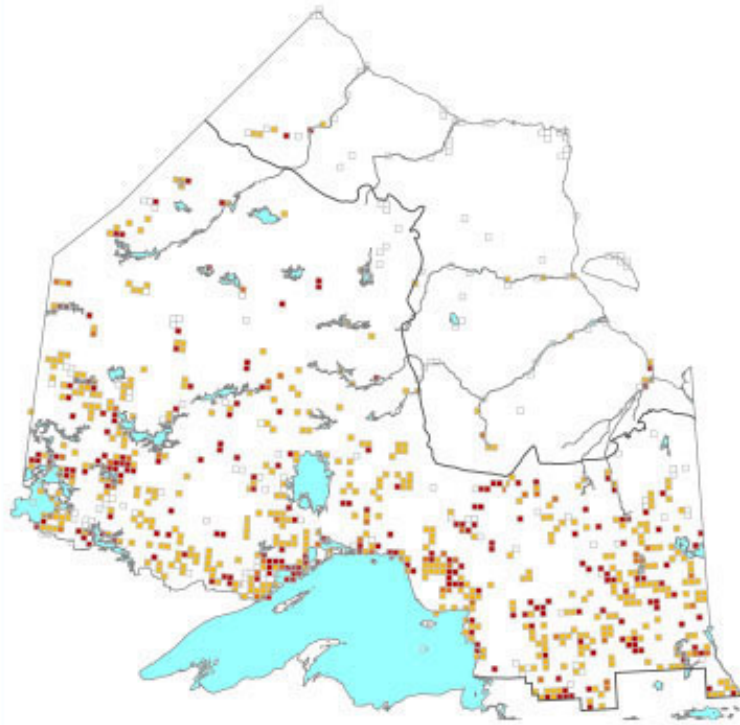
The adjusted data show a marked increase (with the usual statistical fluctuations) in turkey sightings, accompanied by a decline to zero in grouse sightings. Grouse populations are known to cycle with periods from 5 to 10 years, so the apparent lack of grouse on the property might merely be a reflection of this tendency. However, a third year with no sightings would tend to blunt this explanation, since 3 is a sizable fraction of the cycle time.

Meanwhile, the decline at Newport Forest echoes a decline seen throughout the general area of southwestern Ontario. The West Elgin Christmas Bird Count (CBC) logged the following grouse numbers recently:

Year	Number
2003	2
2004	1
2005	0
2006	3
2007	0
2008	0

Just as at Newport Forest, the last two years drew blanks. Outside of these regular observing periods, Preicksaitis has seen grouse just three times, one in each of the last three years. One was at Clear Creek, one near Meadowlands (the Caveney property) and one on a farm upriver from Newport Forest.

## Ruffed Grouse *Bonasa umbellus*

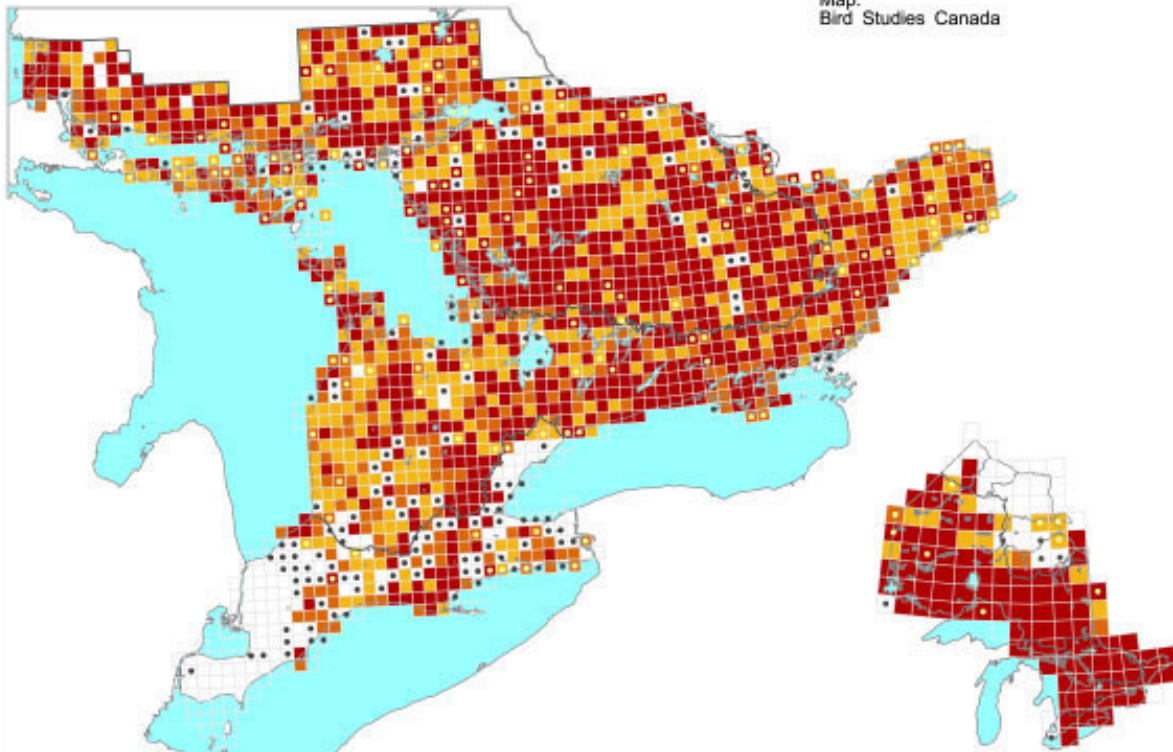


### Breeding Evidence

- Possible
- Probable
- Confirmed
- Square with adequate coverage
- Found in second atlas, but not in first
- Found in first atlas, but not in second

Source:  
Atlas of the Breeding Birds  
of Ontario (2001-2005)

Map:  
Bird Studies Canada



The accompanying map (source: Bird Studies Canada website) shows a clear band of extirpation extending from Windsor to Chatham, with the Skink's Misery complex (SMC) on the very edge of the band. Indeed, the SMC is partly surrounded by squares in which grouse were seen in 2000 but not in 2005. (Much of this clear zone results from earlier land-clearing.)

\*excerpted from A Ten-year Study of Newport Forest (in preparation)



In the meantime, we contemplate performing a focused grouse survey over the coming warm months. The idea would be to walk the property with 5 or six experienced hunters and/or naturalists (a game sweep), to see how many of these birds can be flushed. Two such sweeps might be sufficient for our purpose. We have already used a similar technique (involving native hunters) to conduct a deer survey on the property. In the case of grouse, we have noticed a peak in sightings in the April-May period (10) and again in the November-December period (7), the remaining sightings being randomly distributed among the other months (1-3 each). We would therefore conduct the two surveys during these periods, respectively.