

*The Condor*  
Volume 104, No. 2  
May 2002  
Abstracts

## FEATURE ARTICLES

### **DO FEEDER COUNTS RELIABLY INDICATE BIRD POPULATION CHANGES? 21 YEARS OF WINTER BIRD COUNTS IN ONTARIO, CANADA**

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Manuscript received 1 April 2001; accepted 17 January 2002.

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*Abstract.* Few monitoring programs in North America track bird populations at a continental scale during the winter, a critical stage of the life cycle for many species. To date, only Christmas Bird Counts (CBC) have been used to index bird abundance in winter across North America. We evaluated another continentwide program, Project FeederWatch (PFW), which monitors many bird species more intensively than CBC. PFW is a survey in which volunteers use standardized methods to count birds visiting feeders every two weeks from November through April. We compared population indices and trends from PFW and CBC data for 43 species in 3 regions of Ontario, Canada, over a 21-year period from 1976–1997. Annual population indices from PFW were significantly positively correlated with similar indices from CBC for about 80% of species for which annual variation in counts was substantially greater than sampling error. Log-linear population trends from both surveys were also well correlated, though the absolute value of the trend estimates tended to be higher for PFW. The high consistency between surveys suggests that both may be suitable for detecting population changes for many bird species in winter, especially irruptive species that show large annual fluctuations, and species with marked population trends. However, some species did not correspond between surveys, despite being measured fairly precisely, highlighting the value of having two independent surveys to corroborate patterns. Christmas Bird Counts have the advantage that they sample more species, but Project FeederWatch has a more consistent protocol and continues through the winter, allowing analysis of changes in populations through the winter.

*Key words:* bird surveys, Christmas Bird Count, irruptive species, monitoring, population trends, Project FeederWatch.