

## 1989 COUNTS

R. TODD ENGSTROM

*Cornell Laboratory of Ornithology  
159 Sapsucker Woods Road  
Ithaca, New York 14850*

The numbers of Breeding Bird Censuses (96) and Winter Bird Population Studies (32) are both up from last year. In addition to increased participation, the quality of new counts is improving. Most new counts exceeded the recommended minimum plot size of 10 ha and coverage was good. Some new studies were conducted on relatively undisturbed sites, such as Nature Conservancy preserves in Michigan (BBC #13) and Connecticut (BBC #33). Riparian (BBC #s 1, 2, 21, 22, and 89) and agricultural habitats (BBC #s 92-95 and WBPS 28), in particular, received attention among new counts this year. In all, 27 states, the province of Ontario, and the District of Columbia were represented in this year's counts.

As always, the counts were conducted by a mix of experienced birders and professional ornithologists. This is a very good indication that birders, regardless of profession, care enough about bird conservation to make the considerable effort to participate in long-term cooperative studies. This year's participants included dedicated individuals working alone or with friends and the staff of organizations, such as Archbold Research Station, Hawk Mountain Sanctuary, Point Reyes Bird Observatory, U.S. Forest Service, U.S. Fish and Wildlife Service, and the Cornell Laboratory of Ornithology. Academics from small colleges and large universities participated, often with the help of their students. The diversity of backgrounds is unified by the common goals and standardized methods of the BBC and WBPS.

Several new features appear in this year's Winter Bird Population Study. The first number following each species is the average number of individuals encountered per visit. This is calculated by:

$$\text{Ave. ind.} = \text{Tot. ind.} \div \text{Tot. visits}$$

This average, rounded to the nearest tenth, is much more accurate than the old method of rounding to the nearest whole number. The average number of individuals per visit is directly comparable to the old method of reporting. One minor difference is that the "+" symbol is no longer used for species encountered less than 0.5 times per visit on average. Instead, the actual average is supplied. Please note that the estimated numbers of individuals per 40 ha and per 1 km<sup>2</sup> are no longer supplied for individual species. These numbers can be calculated easily.

$$\text{Ind./40 ha} = \text{Ave. ind.} \times 40 \div \text{Plot size (ha)}$$

Similarly for 1 km<sup>2</sup>,

$$\text{Ind./km}^2 = \text{Ave. ind.} \times 100 \div \text{Plot size (ha)}$$

The number that appears in parentheses after the average number of individuals per visit, is the frequency of encounter. Frequency is the number of visits during which the species was observed. The total number of species, the average number of individuals of all species, and the average number of individuals expected on a plot size of 40 ha are listed after "Total".

For the Breeding Bird Census, I dropped the estimated number of territories per km<sup>2</sup> and give instead the estimated number of territories per 40 ha. Territories per 40 ha is given in parentheses after the number of territories for each species having 3 or more territories. Standardization to 40 ha (98.8 acres) requires less extrapolation from small plot sizes. I have also moved all data on nests and fledged young to the section on census results. Observations of nests are noted by "N" (e.g., 5N) and the presence of fledged young is noted by "FL". Both of these abbreviations are included in parentheses after the number of territories. This eliminates repetition of species names.

The changes in data presentation come as a result of consultation with many participants. It is my hope that these changes will make the data more useful. Improved presentation of data, better standardization of methods, and computerization will make the **BBC** and **WBPS** increasingly valuable components of the network of programs to study and monitor birds.