# REVIVING RESIDENT BIRD COUNTS:
# THE 2001 AND 2002 BREEDING BIRD CENSUS[1]

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*Abstract.* Resident Bird Counts (RBC), two of the oldest bird monitoring programs in North America, include the Breeding Bird Census (BBC) and The Winter Bird Population Study. Last published in 1996, RBC will now be a regular feature in Bird Populations. The RBC revival starts with publication of the BBC, a territory- or spot-mapping program, for 2001 (34 reports) and 2002 (25 reports).


RESTABLECIMIENTO DE LOS CONTEOS DE AVES RESIDENTES:
LOS CENSOS DE AVES REPRODUCTORAS DE 2001 Y 2002

*Resúmen.* Los Conteos de Aves Residentes (RBC por sus siglas en inglés), dos de los más antiguos programas de monitoreo en Norteamérica, incluyen el Censo de Aves Reproductoras (BBC por sus siglas en inglés) y el Estudio de Poblaciones de Aves Invernantes. Publicado por última vez en 1996, RBC ahora será una característica regular en /Bird Populations/. El restablecimiento de RBC comienza con la publicación del BBC, un programa de mapeo de territorios o de puntos, de 2001 (34 informes) y 2002 (25 informes).

## INTRODUCTION

We announce the return of Resident Bird Counts (RBC), last published in the Journal of Field Ornithology in 1996 for census year 1995. Resident Bird Counts (RBCs) include the Breeding Bird Census and Winter Bird Population Study initiated in 1937 and 1948, respectively. These counts are among the oldest bird monitoring programs in North America and much has been written about the methods, objectives, uses, and history (see Lowe this volume: Breeding Bird Census bibliography).

Although publication of RBCs ceased in 1996, researchers and citizen scientists have continued to conduct censuses and send data to the Cornell Laboratory of Ornithology. Hence, it is the publication of results that is being revived here and not the censuses themselves. In the past, however, publication motivated data collection to some degree. Thus, when publication stopped, many fewer reports were submitted. By reviving publication we hope to indirectly revive data collection.

The RBC revival starts with publication of the Breeding Bird Census (BBC) for 2001 and 2002,

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which are years consistent with the other annual reports in this volume of Bird Populations.

## WHY REVIVE?

The RBC is a valuable monitoring program. Relative to other monitoring programs, the RBC provides an opportunity to examine a very long time series, the analyses of which indicate that interpretation of population trends depends on the length of the study period (King et al. this volume). Continuing and hopefully expanding the counts will add to the already unprecedented (at least in North America) time series. Further, interpreting the results of population monitoring is complex, as is the setup of monitoring programs, and in our opinion no methodological panacea is in sight. Multiple methods such as the Breeding Bird Survey, the BBC, and constant-effort mist netting should be used for validation and interpretation of results. The RBC has already proven valuable in this regard (see King et al. this volume and Lowe this volume: Breeding Bird Census bibliography).

At a time when ornithologists are once again debating ways to count birds, the spot-mapping method, employed by the RBC, remains the benchmark used for validation of emerging counting techniques. Publication makes these data more accessible.

The RBC is one of the oldest citizen-science projects in North America. RBC citizen science provides an opportunity to collect bird and habitat data over a very large span of space and time. Simultaneously, citizen scientists learn more about the natural history of birds in their region and about the scientific process. Moreover, they gain environmental awareness through participation.

Publication of RBC will likely play an important role in motivating further data collection. In the past, when publication ceased, the number of reports plummeted. It is our hope that regular publication will once again breathe life into collection and submission of RBC data.

## UNDERSTANDING THE REPORTS

Here we provide the skeleton of a BBC report with data descriptions inserted where the meat of each report typically goes.

**1. DESCRIPTIVE TITLE OF THE AREA**
DESCRIPTIVE TITLE IN SPANISH
Author(s)
Address(es)

**Site Number:** A unique ID number assigned for some older plots. **Location:** State or Province; County; nearest town; latitude and longitude; USGS topographic map or other map name. **Continuity:** Year established; Number of years census has been done. **Size:** Plot size in hectares. **Description of Plot:** Common names of dominate plant species, topography, elevation, edge, and other features noted as necessary (e.g., buildings, bodies of water, rock outcrops, roads). Established plots will provide the original report citation as well as citations for published updates. **Weather:** Mean temperature in Celsius at the start of visits (temperature range in Celsius) and other comments, as appropriate, such as deviations from long-term averages and amount of precipitation. **Coverage:** Total hours spent; number of visits to plot (time of day); dates of visits; maximum number of observers/visit (if more than 2). **Census:** Species common name, Number of territories rounded to nearest half territory (Number of territories per 40 hectares (for species with at least 3.0 territories); number of nests (N) or fledglings (FL) observed, if applicable). A "+" after a species name indicates that less than one-quarter of the species' territory occurred on the plot. Species are listed in descending order (ties are listed in taxonomic order). **Total:** Total number of species; Total number of territories (Total number of territories / 40 hectares). **Visitors:** Observed species that potentially could nest on plot but which were not counted (listed in taxonomic order). **Remarks:** Comments on factors that may affect populations on the study plot (e.g., predators, parasitism, disturbance, habitat change, large population fluctuations from previous years). **Other Observers:** Full names. **Acknowledgements:** If applicable.

## THE FUTURE

Resident Bird Counts will now be a regular feature in Bird Populations. Publication will move forward at the pace of this journal and will be temporally in phase with reports from other monitoring programs around the world.

Depending on time and resources, we hope to eventually fill the gap in publication for all RBC.

Use of RBC data will be made more powerful with more years of study and with the addition of study plots (see Lowe this volume). The addition of replicate plots by habitat is desirable to address methodological concerns related to, for example, extrapolation of results to regions or habitat types.

The RBC will be most useful when the data are made available beyond publication. It is our ultimate goal to make all RBC data easily available through the Avian Knowledge Network (AKN; http://www.avianknowledge. net/). The AKN can provide the means for RBC data to be gathered (online data entry), archived, organized, discovered, and accessed. Further, the AKN has the potential to provide analyses and subsequent data visualizations of RBC data. For example, the AKN could deliver population trend results by species across several spatial scales. The RBC will be made even more powerful by its inclusion with all datasets federated by the AKN.

## PARTICIPATION

Professional and amateur ornithologists alike are invited to participate. A contributing census is a great classroom activity, if supervised. We encourage participants to submit any data that have not been turned in yet, revisit previously censused plots, and to establish new ones. These data are most valuable when census effort is long-term and we encourage participants to visit their plot(s) for at least five years; ten would be better but any number will be useful. When it is no longer possible for you to do the survey, attempt to find someone to take over.

Contact Tom Gardali (tgardali@prbo.org) for instructions and data forms.

## THE 2001 AND 2002 BREEDING BIRD CENSUS

A total of 59 Breeding Bird Census reports are included, 34 in 2001 and 25 in 2002 (Tables 1 and 2). The counts come from 7 states, 1 Canadian province, and the District of Columbia. California has the most counts with 17 (9 in 2001 and 8 in 2002) followed by Connecticut with 10 (5 in 2001 and 5 in 2002) and New York with 9 (5 in 2001 and 4 in 2002). Included here are a total of 4 plots being published for the first time.

TABLE 1. Summary of Breeding Bird Census reports from 2000.

| Habitat | State or Prov. | Author(s) | Plot Size (ha) | Terr. per T40 ha | No. spp. | Hrs. Obs. | Yrs. |
|---|---|---|---|---|---|---|---|
| **Broadleaf Forests** | | | | | | | |
| 1. Irrigated Mixed Willow Riparian | CA | S.K. Heath et al. | 15.0 | 123 | 21 | 350.0 | 2 |
| 2. Recovering Mixed Willow–Black Cottonwood Riparian I | CA | S.K. Heath et al. | 39.0 | 187 | 28 | 453.6 | 2 |
| 3. Recovering Mixed Willow–Black Cottonwood Riparian II | CA | S.K. Heath et al. | 24.5 | 162 | 25 | 433.9 | 2 |
| 4. Remnant Black Cottonwood Riparian Forest | CA | S.K. Heath et al. | 15.0 | 239 | 28 | 308.9 | 2 |
| 5. Mixed Hardwood Poletimber | CT | D. Rosgen | 8.5 | 532 | 49 | 19.0 | 35 |
| 6. Second-Growth Hardwood Forest | CT | D. Rosgen | 10.1 | 396 | 42 | 16.5 | 35 |
| 7. Central Hardwood Forest with Scattered Pine | DC | M.E. D'Imperio | 26.3 | 192 | 27 | 29.2 | 52 |
| 8. Mixed Upland Broadleaf Forest | DC | M.E. D'Imperio | 14.2 | 593 | 33 | 55.0 | 43 |
| 9. Oak-Maple-Poplar Hollow | PA | L. Ingram | 11.3 | 145 | 13 | 32.8 | 9 |
| 10. Oak-Maple Ridge-Top Forest | PA | D.R. Barber | 19.4 | 78 | 15 | 22.0 | 20 |
| 11. Oak-Maple Slope Forest | PA | D.R. Barber | 16.9 | 101 | 20 | 22.9 | 20 |
| 12. Hardwood Bottom | SC | P.A. Koehler | 11.4 | 307 | 19 | 20.3 | 3 |
| 13. Virgin Hardwood Swamp Forest | SC | M. Dawson | 8.9 | 288 | 19 | 15.5 | 12 |
| 14. Mature Maple-Beech-Birch Forest | TN | H. Wilson et al. | 10.2 | 347 | 13 | 22.7 | 9 |
| **Needleleaf Forests** | | | | | | | |
| 15. Cedar Forest | ID | S.R. Robinson | 12.3 | 171 | 21 | 14.7 | 10 |
| 16. Upland Christmas Tree Farm | NY | E.W. Brooks | 10.7 | 282 | 22 | 11.6 | 19 |
| 17. Upland Scotch Pine Plantation | NY | E.W. Brooks | 9.3 | 202 | 25 | 9.2 | 33 |
| 18. Loblolly Pine Plantation | SC | P.A. Koehler | 9.7 | 109 | 13 | 19.0 | 4 |
| **Broadleaf/Needleleaf Forests** | | | | | | | |
| 19. Climax Hemlock-White Pine Forest with Transition Hardwoods | CT | D. Rosgen | 10.5 | 537 | 45 | 22.5 | 35 |
| 20. Young Mixed Hardwood-Conifer Stand | CT | D. Rosgen | 8.5 | 428 | 44 | 14.5 | 24 |
| 21. Riparian Woodland | ID | S.R. Robinson | 8.9 | 227 | 24 | 13.7 | 5 |
| 22. Mixed Upland Forest | NY | L. Bowdery et al. | 42.3 | 148 | 44 | 33.7 | 7 |
| 23. Upland Mixed Pine-Spruce-Hardwood Plantation | NY | E.W. Brooks | 16.6 | 190 | 27 | 10.7 | 28 |
| **Mixed Habitats** | | | | | | | |
| 24. Field, Ridge, Shrubby Trees, and Woods | ON | M.F.G. Clark | 5.8 | 848 | 16 | 14.0 | 8 |
| 25. Shrubby Trees, Ridge, and Woods | ON | M.F.G. Clark | 7.3 | 323 | 18 | 12.6 | 9 |
| **Non-forested Wetlands** | | | | | | | |
| 26. Desert Riparian-Freshwater Marsh | CA | E.A. Cardiff | 15.4 | 436 | 31 | 26.8 | 24 |
| 27. Shrubby Swamp and Sedge Hummocks | CT | D. Rosgen | 8.1 | 943 | 43 | 21.0 | 35 |

TABLE 1. Continued.

| Habitat | State or Prov. | Author(s) | Plot Size (ha) | Terr. per T40 ha | No. spp. | Hrs. Obs. | Yrs. |
|---|---|---|---|---|---|---|---|
| **Shrublands** | | | | | | | |
| 28. Coastal Scrub | CA | A. Dotolo | 8.1 | 148 | 18 | 178.2 | 27 |
| 29. Disturbed Coastal Scrub A | CA | D. Jongsomjit, M.E. Flannery | 4.7 | 174 | 21 | 164.0 | 27 |
| 30. Disturbed Coastal Scrub B | CA | P. Erwin | 8.1 | 222 | 21 | 369.1 | 27 |
| 31. Grazed Coastal Scrub | CA | M.I. Huang | 45.0 | 127 | 27 | 429.8 | 7 |
| **Successional Fields** | | | | | | | |
| 32. Abandoned Upland Pasture | NY | V.M. Pitzrick | 8.0 | 540 | 41 | 6.8 | 18 |
| 33. Clear-Cut-Longleaf Pine Regeneration | SC | S.J. Wagner et al. | 12.5 | 75 | 14 | 15.5 | 7 |
| **Cultivated** | | | | | | | |
| 34. Conventional Dairy Farm | PA | R.C. Keller | 23.1 | 137 | 32 | 18.3 | 11 |

TABLE 2. Summary of Breeding Bird Census reports for 2002.

| Habitat | State or Prov. | Author(s) | Plot Size (ha) | Terr. per T40 ha | No. spp. | Hrs. Obs. | Yrs. |
|---|---|---|---|---|---|---|---|
| **Broadleaf Forests** | | | | | | | |
| 1. Irrigated Mixed Willow Riparian | CA | S.K. Heath et al. | 15.0 | 157 | 25 | 370.6 | 3 |
| 2. Recovering Mixed Willow-Black Cottonwood Riparian I | CA | S.K. Heath et al. | 39.0 | 188 | 27 | 521.0 | 3 |
| 3. Recovering Mixed Willow-Black Cottonwood Riparian II | CA | S.K. Heath et al. | 29.5 | 205 | 32 | 483.2 | 3 |
| 4. Remnant Black Cottonwood Riparian Forest | CA | S.K. Heath et al. | 15.0 | 284 | 29 | 426.5 | 3 |
| 5. Mixed Hardwood Poletimber | CT | D. Rosgen | 8.5 | 656 | 50 | 17.5 | 36 |
| 6. Second-Growth Hardwood Forest | CT | D. Rosgen | 10.1 | 392 | 46 | 16.5 | 36 |
| 7. Central Hardwood Forest with Scattered Pine | DC | M.E. D'Imperio | 26.3 | 157 | 19 | 25.4 | 53 |
| 8. Mixed Upland Broadleaf Forest | DC | M.E. D'Imperio | 14.2 | 514 | 30 | 45.0 | 44 |
| 9. White Oak Savannah | ON | M.F.G. Clark | 10.4 | 219 | 19 | 16.5 | 8 |
| 10. Oak-Maple-Poplar Hollow | PA | L. Ingram | 11.3 | 158 | 15 | 25.7 | 10 |
| 11. Hardwood Swamp Forest | SC | M.R. Dawson | 8.1 | 481 | 18 | 13.0 | 12 |
| **Needleleaf Forests** | | | | | | | |
| 12. Upland Christmas Tree Farm | NY | E.W. Brooks | 10.7 | 333 | 20 | 12.5 | 20 |
| 13. Upland Scotch Pine Plantation | NY | E.W. Brooks | 9.3 | 252 | 30 | 8.4 | 34 |
| 14. High Altitude Red Spruce Forest | TN | A. Trently | 9.9 | 115 | 10 | 25.8 | 10 |
| **Broadleaf/Needleleaf Forests** | | | | | | | |
| 15. Climax Hemlock-White Pine Forest with Transition Hardwoods | CT | D. Rosgen | 10.5 | 522 | 46 | 23.0 | 36 |
| 16. Young Mixed Hardwood-Conifer Stand | CT | D. Rosgen | 8.5 | 435 | 50 | 16.0 | 25 |
| 17. Riparian Woodland | ID | S.R. Robinson | 8.9 | 236 | 25 | 13.5 | 6 |
| 18. Upland Mixed Pine-Spruce-Hardwood Plantation | NY | E.W. Brooks | 16.6 | 213 | 32 | 10.9 | 29 |
| **Mixed Habitats** | | | | | | | |
| 19. Pitch Pine-Slabrock | NY | L. Bowdery et al. | 15.8 | 137 | 28 | 27.6 | 3 |
| 20. Field, Ridge, Shrubby Trees, and Woods | ON | M.F.G. Clark | 5.8 | 793 | 19 | 13.5 | 9 |
| **Non-forested Wetlands** | | | | | | | |
| 21. Desert Riparian-Freshwater Marsh | CA | E.A. Cardiff | 15.4 | 278 | 29 | 25.5 | 25 |
| 22. Shrubby Swamp and Sedge Hummocks | CT | D. Rosgen | 8.1 | 1086 | 46 | 25.0 | 36 |
| **Shrublands** | | | | | | | |
| 23. Coastal Scrub | CA | A. Rosenthal, D. Jongsomjit | 8.1 | 237 | 22 | 203.7 | 28 |
| 24. Disturbed Coastal Scrub A | CA | B. MacDonald, D. Jongsomjit | 4.7 | 221 | 25 | 176.9 | 28 |
| 25. Disturbed Coastal Scrub B | CA | E. Morrison, D. Jongsomjit | 8.1 | 299 | 21 | 265.2 | 28 |