

WINTER BIRD POPULATION STUDY: 1988

<i>HABITAT</i>	<i>STATE/PROV.</i>	<i>COMPILER</i>
Deciduous Forest		
1. Mixed Upland Broadleaf Forest	D.C.	Shirley A. Briggs
2. Mature Beech-Magnolia Forest	Florida	W. Wilson Baker
3. Oak-Maple Bottomland	Massachusetts	Lee E. Taylor
4. Mature Deciduous Floodplain Forest	Maryland	Dick Gauthey
5. Black Willow-White Ash Forest	Ontario	Michael F.G. Clark
6. Oak-Maple Slope Forest	Pennsylvania	Laurie Goodrich
7. Oak-Maple Ridge-top Forest	Pennsylvania	Laurie Goodrich
Broadleaf/Coniferous Forest		
8. Maple-Pine-Oak Second-Growth Forest	Massachusetts	William E. Davis, Jr.
9. Mixed Deciduous with Scattered Pine	Maryland	John H. Fales
10. Coniferous-Deciduous Forest	Ontario	Michael F.G. Clark
Coniferous Forest		
11. Mature Longleaf Pine Forest	Georgia	W. Wilson Baker
Mixed Habitat (Forest/Non-forest)		
12. Cottonwood-Abandoned Fields Bottomland	Colorado	Ted Bodner
13. Suburban Wildlife Sanctuary-Mixed Habitat	Connecticut	Ed Hiestand
14. Barrier Beach and Saltwater Estuary	Florida	Robert W. Loftin
15. Field, Ridge, and Shrubby Trees	Ontario	Michael F.G. Clark
16. Shrubby Trees, Ridge, and Woods	Ontario	Michael F.G. Clark
Disturbed Habitat		
17. Disturbed Deciduous Forest	Kansas	Gary Keehn
Residential/Urban		
18. Suburban Cemetery	Alabama	Thomas A. Imhof
19. Campground in Mixed Deciduous-Coniferous Woodland	New York	William D. Symonds
20. Young White Ash-Red Maple Forest on Lake Shore	New York	George R. Maxwell
21. Urban Park with Pond	Ontario	A.P. Sandilands
22. Second-Growth Broadleaf-Coniferous	Washington	Dory Smith
Tropical		
23. Dry Tropical Deciduous Forest	Mexico	Roger Boyd
Late Reports		
24. Mixed Pine and Deciduous Forest	Indiana	Dan Webster
25. Black Greasewood-Saltgrass Association	Oregon	Rita D. Dixon
26. Rye, Corn Stubble, and Short Grass	Pennsylvania	Paul W. Schwalbe
27. Sugar Maple-Mixed Hardwood Forest	Pennsylvania	Roy A. Ickes

1. MIXED UPLAND BROADLEAF FOREST

BOSQUE MIXTO DE HOJA ANCHA DE ALTURA

SHIRLEY A. BRIGGS

7605 Honeywell Lane
Bethesda, MD 20814

Location: District of Columbia; Washington; Glover-Archbold Park; 38°55'N 77°05'W; Washington West Quadrangle, USGS. **Size:** 14.2 ha. **Continuity:** Established 1960; 29 yrs. **Description of Area:** See *Aud. Field Notes* 14:502-503 (1960). Surrounding areas to E and W are residential with large houses and lots, abundant trees and shrubbery to the W, and apartments of small garden type to the E, also with many trees. The N and S sections of the park, 42.5 ha in this uninterrupted central section, bound the other sides of the study area. The surroundings have been essentially unchanged since 1945, and only slightly changed for many years before that. On some adjoining tracts the park is bounded by similar wooded areas, but one of these to the S, the former Archbold estate, is being built up. For the first time, this development is visible from the study area. Some birds of residential areas enter and occasionally nest in the park edges. **Weather:** The sky was clear to partly cloudy on 15 visits, cloudy on 8. On 5 visits there was 15-20 cm of snow on the ground. Average temperature was 6°C. On 19 visits the wind was from 0-8 km/h, on 4 visits 16-26 km/h. **Coverage:** 23 visits (20.75 coverages) 20 Dec.-29 Feb.; 60 hrs; 0800-1700; 8 in the morning, 7 extending over noon, and 8 in the afternoon. A Fox Sparrow, a probable migrant, was seen on a 6 March visit, so we terminated the study at the end of February. **Count:** Carolina Chickadee, 20 (140); Tufted Titmouse, 11 (77); American Crow, 8 (56); House Finch, 6 (42); Downy Woodpecker, 4 (28); Northern Cardinal, 4; Rock Dove, 3 (21); Mourning Dove, 3; Red-bellied Woodpecker, 3; White-breasted Nuthatch, 3; Dark-eyed Junco, 3; House Sparrow, 3; Carolina Wren, 2; European Starling, 2; White-throated Sparrow, 2; American Goldfinch, 2; Hairy Woodpecker, 1; Northern Mockingbird, 1; Song Sparrow, 1; Turkey Vulture, +; Sharp-shinned Hawk, +; Red-shouldered Hawk, +; Red-tailed Hawk, +; Ring-billed Gull, +; Yellow-bellied Sapsucker, +; Northern Flicker, +; Pileated Woodpecker, +; Blue Jay, +; Brown Creeper, +; Winter Wren, +; American Robin, +; White-crowned Sparrow, +; Purple Finch, +. **Average Total:** 85 birds (595/km²). **Remarks:** Blue Jays were the lowest on record. **Other Observers:** Mary D'Imperio, Ann Feather, Olive Holbrook, Jane Whitaker, and Patricia Wood.

2. MATURE BEECH-MAGNOLIA FOREST

BOSQUE DE HAYA-MAGNOLIA MADURA

W. WILSON BAKER

Tall Timbers Research Station
Rt 1 Box 678
Tallahassee, FL 32312

Location: Florida; Leon Co.; Tallahassee; Tall Timbers Research Station; Woodyard Hammock; 30°40'N; 84°15'W; Beachton GA-FL Quadrangle, USGS. **Size:** 15.75 ha. **Continuity:** Established 1982; 2 intermittent yrs. **Description of Area:** See *Amer. Birds* 35:58 (1983). Trees blown down during Hurricane Kate in December 1985 created some large gaps in the study plot. **Weather:** Average low temperature: 3°C (range -3 to 13°C); average high: 12°C (range 6 to 21°C); average humidity at the start of the counts was 85%. Calm to low winds; clear to partly cloudy during count periods. **Coverage:** 8 visits; 26 hr total; 12, 13, 16, 22, 23, 26, 30, 31 Jan.; all visits started within 5 min of sunrise. **Count:** American Robin, 147 (993); Ruby-crowned Kinglet, 19 (121); Northern Cardinal, 11 (30); White-throated Sparrow, 11; Tufted Titmouse, 10 (63); Carolina Wren, 9 (57); Red-bellied

Woodpecker, 8 (51); Eastern Phoebe, 8; Golden-crowned Kinglet, 8; Cedar Waxwing, 8; Pine Warbler, 7 (44); Yellow-bellied Sapsucker, 6 (38); Carolina Chickadee, 6; Winter Wren, 6; Hermit Thrush, 6; Solitary Vireo, 5 (32); Yellow-rumped Warbler, 5; American Goldfinch, 5; Downy Woodpecker, 4 (25); Pine Siskin, 4; Northern Flicker, 2; Pileated Woodpecker, 2; White-breasted Nuthatch, 2; Rufous-sided Towhee, 2; Purple Finch, 2; Blue Jay, 1; White-eyed Vireo, 1; Orange-crowned Warbler, 1; Black-and-white Warbler, 1; Red-tailed Hawk, +; Barred Owl, +; Hairy Woodpecker, +; Blue-gray Gnatcatcher, +; Wilson's Warbler, +. **Average Total:** 304 birds (1930/km²). **Remarks:** Wilson's Warbler is rare in the winter in north Florida. The White-throated Sparrows were in the bushy NW part of the plot. American Robins and Cedar Waxwings fed on *Ilex opaca* fruit and Purple Finch fed on *Ostrya* seeds. On 12 and 13 Jan., approximately 500 robins fed in the plot. White-tailed Deer (*Odocoileus virginianus*), Gray Squirrel (*Sciurus carolinensis*) and Armandillo (*Dasyfus novemcinctus*) sign were observed regularly and a few Eastern Cottontail (*Sylvilagus floridanus*) were flushed.

3. OAK-MAPLE BOTTOMLAND

BOSQUE DE ROBLE-ARCE EN TIERRAS BAJAS

LEE E. TAYLOR

28 Bellington Street
Arlington, MA 02174

Location: Massachusetts; Middlesex Co.; Waltham; Metropolitan State Hospital; 42°24'N 71°12'W; Lexington Quadrangle, USGS. **Size:** 6.7 ha. **Continuity:** Established 1982; 7 continuous yrs. **Description of Area:** See *Amer. Birds* 37:31-32 (1983). **Food:** Average. **Weather:** Average temperature: -5°C (range -15 to 6°C). Skies mostly clear; overcast with precipitation on 3 visits. **Coverage:** 13 visits; 25 Dec.-15 Feb.; 0750-1055; average visit 1 hr. **Count:** Black-capped Chickadee, 4 (60); Golden-crowned Kinglet, 2; Downy Woodpecker, 1; Hairy Woodpecker, 1; American Crow, 1; Tufted Titmouse, 1; White-breasted Nuthatch, 1; Brown Creeper, 1; Great Horned Owl, +; Blue Jay, +; Winter Wren, +; American Robin, +; American Goldfinch, +. **Average Total:** 13 birds (194/km²). **Remarks:** Great Horned Owls were flushed into the study plot from similar adjacent habitat on 1 visit; 15 of the American Crows reported came into the plot to mob the owls.

4. MATURE DECIDUOUS FLOODPLAIN FOREST

BOSQUE DECIDUO MADURO INUNDABLE

DICK GAUTHEY

6603 Reynard Drive
Springfield, VA 22152

Location: Maryland; Montgomery Co.; Glen Echo; Cabin John Island; 38°58'N, 77°08'W; Falls Church Quadrangle, USGS. **Size:** 17.8 ha. **Continuity:** Established 1947; 37 intermittent yrs. **Description of Area:** See *Aud. Field Notes* 2:155-156 (1948). The plot is within the floodplain of the Potomac River, approximately 1350 m in length and 100-250 m in width. **Edge:** There is similar habitat upstream and downstream of the plot. Inland, the plot is bordered by the Chesapeake & Ohio Canal, a wooded or brushy strip of 10-20 m, the George Washington Parkway, a wooded hillside of approximately 100 m, and a suburban residential area. **Weather:** Two weeks in early January were exceptionally cold. A 20-cm snowfall on 8 Jan. lasted 10 days. Two days in late January reached record highs. **Coverage:** 7 visits; 9, 22, 23, 30, 31 Jan.; 9, 14 Feb.; 22 hrs; 0800-1300 (6 visits), 1300-1600 (1 visit). **Count:** Carolina Chickadee, 25 (140); Tufted Titmouse, 7 (39); Downy Woodpecker, 6 (34); Carolina Wren, 6; Northern Cardinal, 5 (28); American Goldfinch, 4 (22); Red-bellied Woodpecker, 2; White-breasted Nuthatch, 2; European Starling, 2; Mourning Dove, 1; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 1; Pileated Woodpecker, 1; American Crow, 1; Brown Creeper, 1; Golden-crowned Kinglet, 1; Yellow-rumped Warbler, 1; Great Blue Heron, +; Black Vulture, +; Barred Owl, +; Belted Kingfisher, +; Winter Wren,

+; Song Sparrow, +; White-throated Sparrow, +. **Average Total:** 68 birds (381/km²). **Remarks:** Numbers of chickadees, titmice and Downy Woodpeckers returned to normal after two low years. Total number of birds seen per visit averaged 121 from 1968 through 1977 and 74 from 1984 through 1988. Substantial decreases occurred in Blue Jay (3,0), American Crow (8,3), European Starling (34,3), Dark-eyed Junco (4,0), White-throated Sparrow (4,1), and Song Sparrow (2.5,1). Numbers in parentheses are birds/visit for the 2 periods. **Other Observers:** Dick Homan and Letty Limbach.

5. BLACK WILLOW-WHITE ASH FOREST

BOSQUE DE SAUCE NEGRO-SAUCE BLANCO

MICHAEL F.G. CLARK

27 Skyline Drive

Dundas, ONT L9H 3S3

Location: Ontario; Region of Hamilton-Wentworth; Dundas; 43°16'00"N, 79°55'30"W. **Size:** 13 ha. **Continuity:** Established 1984; 5 consecutive yrs. **Description of Area:** See 1984 report. **Elevation:** 75 m. **Food:** Herbal foods were abundant where present. Box Elder and Speckled Alder crops were excellent, but the White Ash crop was scanty. **Weather:** The winter was mild with below average snowfall. Temperatures ranged from -14 to 9°C. Winds ranged from light to high and came from the SW to NW. Snow cover was absent on the first 4 counts and in March and averaged 4 cm in February. **Coverage:** 7 visits; 5, 26 Dec.; 16, 30 Jan.; 7, 21 Feb.; 5 Mar.; 12 hrs; 0840-1240 (5 visits), 1345-1640 (2 visits). **Count:** Black-capped Chickadee, 15 (116); Canada Goose, 5 (39); Downy Woodpecker, 3 (23); White-breasted Nuthatch, 3; Brown Creeper, 3; American Goldfinch, 3; Belted Kingfisher, 1; American Crow, 1; European Starling, 1; Pine Siskin, 1; Great Horned Owl, +; Hairy Woodpecker, +; Northern Flicker, +; Pileated Woodpecker, +; Northern Cardinal, +; American Tree Sparrow, +. **Average Total:** 36 birds (277/km²). **Remarks:** Chickadees, Downy Woodpeckers and White-breasted Nuthatch were the most regular visitors to the plot accounting for 59% of all birds detected.

6. OAK-MAPLE SLOPE FOREST

BOSQUE DE ROBLE-ARCE DE PENDIENTES

Laurie Goodrich

Hawk Mountain Sanctuary

R.D. 2

Kempton, PA 19529

Location: Pennsylvania; Berks Co.; Kempton; Hawk Mountain Sanctuary; River of Rocks; 40°45'N, 75°50'W; New Ringold Quadrangle, USGS. **Size:** 16.9 ha. **Continuity:** Established 1982; 8 consecutive yrs. **Description of Area:** The plot is bordered on the south by a boulder field overlying a stream bed known as the River of Rocks. The plot is boulder strewn, and three small openings in the canopy are created by the denser boulder patches. A freshwater spring emerges near the south end and creates a small white oak swamp with a small stream. Gypsy moth defoliation during the early 1980's has resulted in an abundance of dead or dying trees for cavity-nesting species. See also *Amer. Birds* 37:55 (1983). **Edge:** The western and northern edge is bordered by a low-use hiking trail. The plot is surrounded by continuous forest that is broken only by a road and Sanctuary parking lots and buildings. **Topography:** The plot is located in a sloping valley between two spurs of the eastern ridge of the Appalachian Mountains. **Elevation:** 320-400 m. **Weather:** Temperatures averaged -5°C (range -14 to 3°C). Snow depth ranged from 5-50 cm; winds ranged from 3-38 km/h (average 11 km/h). **Coverage:** 8 visits; 30 Dec.; 5, 12, 15, 21, 29 Jan.; 3, 15 Feb.; 17 hrs; 0900-1300. **Count:** Downy Woodpecker, 3 (18); Black-capped Chickadee, 1; White-breasted Nuthatch, 1; Golden-crowned Kinglet, 1; Hairy Woodpecker, +; Tufted Titmouse, +. **Average Total:** 5 birds (30/km²). **Remarks:** While fewer species were encountered during the 1988 count, the number of individuals was similar. Some of the rarer species located on

counts in prior years were observed off-plot in the adjacent forested area. **Other Observers:** Jane Kidd.

7. OAK-MAPLE RIDGE-TOP FOREST

BOSQUE DE ROBLE-ARCE DE TOPE DE COLINAS

STANLEY E. SENNER AND JAMES C. BEDNARZ

Hawk Mountain Sanctuary

R.D. 2

Kempton, PA 19529

Location: Pennsylvania; Berks Co.; Kempton; Hawk Mountain Sanctuary; Owl's Head; 40°44'N, 75°50'W; New Ringold Quadrangle, USGS. **Size:** 19.4 ha. **Continuity:** Established 1982; 8 consecutive yrs. **Description of Area:** One old field (65 m long) containing grasses with some shrubs is located within the plot. Dominant trees: Chestnut Oak, Red Oak and Black Gum; dominant shrubs: Sassafras and Mountain Laurel; dominant ground cover: *Vaccinium* sp. and Sheep Laurel. See also *Amer.Birds* 37:55 (1983). **Water:** One small upland bog is located in the southeast corner of the plot. The only other water source is a small (3 m diameter) vernal pond at the SW corner of the pond. **Edge:** The plot is bordered to the N by the edge of the ridge with a drop of approximately 120 m. Rock cliffs and boulders are associated with the ridge edge, and as a result the north end of the plot is strewn with boulders. The forest canopy is continuous with occasional openings; most small openings are old fire roads which are now overgrown with blueberry. **Topography:** The plot is located on the top of a spur of the eastern ridge of the Appalachians. The terrain is a gentle slope to the S. **Elevation:** 430 to 460 m. **Weather:** Temperatures ranged from -13° to 3°C; snow depth 5 to 50 cm on count days; winds from 2 to 15 km/h. **Coverage:** 8 visits; 30 Dec.; 5, 12, 15, 19, 20 Jan.; 3, 16 Feb.; 15 hrs; 0940-1200. **Count:** White-breasted Nuthatch, 2; Downy Woodpecker, 1; Black-capped Chickadee, 1; Tufted Titmouse, 1; Golden-crowned Kinglet, 1; Pileated Woodpecker, +; Common Raven, +; Brown Creeper, +. **Average Total:** 6 birds (31/km²). **Remarks:** More species and more individuals were sighted on this plot than in previous years. White-breasted Nuthatch and Black-capped Chickadee were more abundant than in previous years. The Common Raven was a new species for the plot.

8. MAPLE-PINE-OAK SECOND-GROWTH FOREST

BOSQUE SECUNDARIO DE ARCE-PINO-ROBLE

WILLIAM E. DAVIS, JR.

College of Basic Studies

Boston University

Boston, MA 02215

Location: Massachusetts; Norfolk Co., Town of Foxboro conservation land, off Willow and E. Sts.; 42°04'N, 71°11'30"W. Mansfield Quadrangle, USGS. **Size:** 11.8 ha. **Continuity:** Established in 1976; 12 consecutive yrs. **Description of Area:** See *Amer.Birds* 31:50-51 (1977). **Weather:** During census visits, average temperature ranged from -12 to 4°C. **Coverage:** 12 visits; 23 Dec.-21 Feb.; 0845-1012; 1 hr each. **Count:** Black-capped Chickadee, 2; Golden-crowned Kinglet, 1; Dark-eyed Junco, 1; Ruffed Grouse, +; Downy Woodpecker, +; Hairy Woodpecker, +; Tufted Titmouse, +; White-breasted Nuthatch, +; Red-breasted Nuthatch, +; Brown Creeper, +. **Average Total:** 4 birds (34/km²). **Remarks:** Total species 10. Kinglets were seen on 5 visits, chickadees on 4, Downy Woodpeckers on 3, Brown Creepers and White-breasted Nuthatches on 2, other species on 1. American Crows were seen or heard on 7 visits. The largest mixed species foraging flock contained 10 chickadees, 10 juncos, 6 kinglets and a creeper. The number of species recorded per hour of observation was 0.8, the number of individuals sighted per hour was 5.0.

9. MIXED DECIDUOUS WITH SCATTERED PINE

BOSQUE DECIDUO MIXTO CON PINOS DISPERSOS

JOHN H. FALES

2809 Ridge Rd.

Neeld Estate

Huntingtown, MD 20639

Location: Maryland; Calvert Co., NW of Plum Point and 1.6 km inland from Chesapeake Bay on Tobacco Road between state routes 263 and 261; 38°37'N, 76°32'W, Prince Frederick 169-2 Quadrangle. **Size:** 11.3 ha. **Continuity:** Established 1959; 30 consecutive yrs. **Description of Area:** See *Aud. Field Notes* 13:333 (1959). **Weather:** Clear days. Snow cover on 3 visits. Temperatures between -6 to 9°C. **Coverage:** 10 visits; 22 Dec.-8 Feb.; 15 hrs; 1015-1352; visits averaged 90 min. **Count:** American Crow, 2; Carolina Chickadee, 2; Tufted Titmouse, 2; Yellow-rumped Warbler, 2; White-throated Sparrow, 2; Red-bellied Woodpecker, 1; Downy Woodpecker, 1; Northern Flicker, 1; American Robin, 1; Red-shouldered Hawk, +; Rough-legged Hawk, +; American Woodcock, +; Mourning Dove, +; Yellow-bellied Sapsucker, +; Hairy Woodpecker, +; Pileated Woodpecker, +; Blue Jay, +; Brown Creeper, +; Golden-crowned Kinglet, +; Hermit Thrush, +; Northern Cardinal, +; Dark-eyed Junco, +. **Average Total:** 16 birds (139/km²).

10. CONIFEROUS-DECIDUOUS FOREST

BOSQUE DE CONÍFEROS-DECIDUO

MICHAEL F.G. CLARK

27 Skyline Drive

Dundas, ONT L9H 3S3

Location: Ontario; Region of Hamilton-Wentworth; Dundas; 43°14'10"N, 80°02'00"W. **Size:** 9.2 ha. **Continuity:** Established 1986; 3 yrs. **Description of Area:** [From 1986 report.] Beginning at the level, east-central end, there is an extensive mature hawthorn stand interspersed with small Eastern White Pine. To the W of this is a mixed coniferous-deciduous forest of varying composition and density. Dominant trees on the plot are Sugar Maple, Red Oak, American Beech, Eastern White Pine, and Eastern Hemlock. There are a few Ironwood, Black Oak, and a patch of Bigtooth Aspen. A few hawthorn and Black Cherry are found throughout, and a second small hawthorn thicket on a flat area in the SW corner. Trees range in height from 14 to 18 m. Shrubs include brambles, Roughleaf Dogwood, hawthorn, Eastern White Pine, and Red-osier Dogwood. The few open areas, mostly at the N edge, support a small number of goldenrod, aster, Common Milkweed, Queen Anne's Lace, Teasel, and Cattail. **Edge:** To the E of the plot, a shrubby field; to the N are railway tracks, mixed forest, and lawn; to the W a continuation of hilly upland mixed forest; to the S is more mixed forest and a wooded creek ravine beyond. **Topography:** The deposits of glacial till and loam in this plot are random, resulting in its uneven topography. **Food:** The few herb patches produced abundant seed. Excellent pine cone crop. Also, the ground foraging opportunities on certain of the duff and grass covered S-facing slopes were attractive to large numbers of birds, especially chickadees. **Weather:** Temperatures ranged from -10 to 12°C. Snow cover was minimal on the first 5 visits and averaged 8 cm on the 4 visits there was snow. **Coverage:** 7 visits; 22 Dec.; 2, 9, 27, 31 Jan.; 13, 27 Feb.; 11 hrs; 0842-1225. **Count:** Black-capped Chickadee, 21 (227); Pine Siskin, 21; White-breasted Nuthatch, 4 (43); Brown Creeper, 3; Red-breasted Nuthatch, 2; Downy Woodpecker, 1; Hairy Woodpecker, 1; Golden-crowned Kinglet, 1; Ruffed Grouse, +; Pileated Woodpecker, +; American Crow, +; Northern Cardinal, +. **Average Total:** 55 birds (594/km²). **Remarks:** The total number of birds reached a 3-year high this winter, more than double the total of last year. Pine Siskin, Brown Creeper, White-breasted Nuthatch and Black-capped Chickadees were all up. Red-breasted Nuthatch were new to the plot. The Red-breasted Nuthatch and siskins appeared to be attracted by the plot's exceptional crop of pine cones.

11. MATURE LONGLEAF PINE FOREST

BOSQUE DE PINO DE HOJA ANCHA MADURO

W. WILSON BAKER

*Tall Timbers Research Station
Rt 1 Box 678
Tallahassee, FL 32312*

Location: Georgia; Thomas Co.; Thomasville; 30°45'N 84°00'W; Pine Park and Thomasville Quadrangles, USGS. **Size:** 20 ha. **Continuity:** Established 1980; 4 intermittent yrs. **Description of Area:** See *Amer.Birds* 35:69 (1981). **Weather:** The average low temperature was 2°C (range -4 to 16°C). The average high temperature was 7°C (range 2 to 19°C). Average humidity at the start of the counts was 69%. Calm to low winds; clear to partly cloudy during count periods, except for 2 cloudy days. **Coverage:** 8 visits; 17 hrs; 6, 11, 14, 15, 19, 24, 27, 28 Jan.; all visits were started within 5 min of sunrise. **Count:** Common Yellowthroat, 12 (60); Swamp Sparrow, 11 (55); House Wren, 10 (50); Rufous-sided Towhee, 7 (35); Red-cockaded Woodpecker, 6 (30); Pine Warbler, 6; Bachman's Sparrow, 5 (25); Red-bellied Woodpecker, 4 (20); Blue Jay, 3 (15); White-breasted Nuthatch, 3; Carolina Wren, 3; American Robin, 3; American Goldfinch, 3; Northern Bobwhite, 2; Mourning Dove, 2; Brown-headed Nuthatch, 2; Palm Warbler, 2; Red-winged Blackbird, 2; Yellow-bellied Sapsucker, 1; Northern Flicker, 1; Pileated Woodpecker, 1; Eastern Phoebe, 1; Loggerhead Shrike, 1; Song Sparrow, 1; Pine Siskin, 1; Red-tailed Hawk, +; American Kestrel, +; Downy Woodpecker, +; Hairy Woodpecker, +; Eastern Bluebird, +; Cedar Waxwing, +; Solitary Vireo, +; Northern Cardinal, +; Eastern Meadowlark, +; Common Grackle, +. **Average Total:** 92 birds (460/km²). **Remarks:** Three or four clans of Red-cockaded Woodpeckers foraged in parts of the plot. The 12 Northern Bobwhite were in one covey.

12. COTTONWOOD-ABANDONED FIELDS BOTTOMLAND

CAMPOS DE ALGODÓN-ABANDONADOS EN TIERRAS BAJAS

TED BODNER

*P.O. Box 367
Laporte, CO 80535*

Location: Colorado; Larimer Co.; Fort Collins; 40°36'N, 105°06'W; Fort Collins Quadrangle, USGS. **Size:** 8.1 ha. **Continuity:** Established 1975; 6 intermittent yrs. **Description of Area:** See *Amer.Birds* 29:773 (1975). **Coverage:** 7 visits; 8 hrs. **Count:** Mallard, 23 (283); European Starling, 20 (247); Dark-eyed Junco, 9 (111); Black-capped Chickadee, 6 (74); Tree Sparrow, 5 (62); Evening Grosbeak, 4 (49); Common Snipe, 2; Black-billed Magpie, 2; Red-winged Blackbird, 2; House Finch, 2; Belted Kingfisher, 1; Downy Woodpecker, 1; Northern Flicker, 1; Brown Creeper, 1; Western Bluebird, 1; Song Sparrow, 1; American Goldfinch, 1; House Sparrow, 1; Canada Goose, +; Bald Eagle, +; Red-tailed Hawk, +; American Kestrel, +; Killdeer, +; Great Horned Owl, +; Hairy Woodpecker, +; Blue Jay, +; American Crow, +; American Dipper, +; American Robin, +; Harris' Sparrow, +. **Average Total:** 84 birds (1008/km²).

13. SUBURBAN WILDLIFE SANCTUARY-MIXED HABITAT

SANTUARIO DE VIDA SILVESTRE SUB-URBANO

ED HIESTAND

*The Nature Center for Environmental Activities
P.O. Box 165
Westport, CT 06881*

Location: Connecticut; Fairfield Co.; Westport; 41°08'N 73°22'W; Norwalk North Quadrangle, USGS. **Size:** 24.7 ha. **Continuity:** Established 1987; 2 yrs. **Description of Area:**

See *Amer. Birds* 25:1010-1011 (1971). **Food:** Average acorn and berry crop. Three bird feeders are present on the sanctuary. **Weather:** During the 17-day study period the temperature remained below freezing on 9 days and above freezing on 3 nights. The temperature ranged from -19 to 13°C . A heavy rain fell on 18 Jan. and 7.6 cm of wet snow fell on 24 Jan. Snow depth ranged from 20 cm on 18 Jan. to 10 cm on 24 Jan. **Coverage:** 7 visits; 16, 21, 22, 23, 28, 31 Jan.; 1 Feb.; 0730-0900 (6 visits), 1000-1100 (1 visit); each trip lasted 1 hr on average. In addition, a tape recording of Eastern Screech-Owl and Great Horned Owl vocalizations was played on the night of 23 Jan. with no response. **Count:** House Finch, 17 (69); American Crow, 16 (65); Black-capped Chickadee, 12 (49); Dark-eyed Junco, 11 (45); House Sparrow, 9 (36); Mourning Dove, 5 (20); Blue Jay, 5; White-throated Sparrow, 5; Tufted Titmouse, 4 (16); Mallard, 2; Downy Woodpecker, 2; White-breasted Nuthatch, 2; Red-bellied Woodpecker, 1; Carolina Wren, 1; American Robin, 1; Northern Cardinal, 1; American Goldfinch, 1; Rock Dove, +; Yellow-bellied Sapsucker, +; Hairy Woodpecker, +; Song Sparrow, +; Pine Siskin, +. **Average Total:** 14 birds (57/km²). **Remarks:** Blue Jay, crow, chickadee, titmouse, White-throated Sparrow, and House Finch were noted on every visit. The Mourning Dove, nuthatch, House Sparrow, and junco on 6 visits, the Red-bellied Woodpecker, Downy Woodpecker, cardinal, and goldfinch on 5 visits, Carolina Wren on 4 visits, Mallard on 3 visits, Rock Dove on 2 and sapsucker, Hairy Woodpecker, robin, Pine Siskin, and Song Sparrow on 1 visit. The House Sparrows and Rock Doves were found only at the Nature Center feeder. An Eastern Screech-Owl had a roost site just off the Nature Center property and undoubtedly hunted in the large field at night.

14. BARRIER BEACH AND SALTWATER ESTUARY

ESTUARIOS DE AGUA SALADA Y PLAYAS DE BARRERA

ROBERT W. LOFTIN

University of North Florida
4567 St. Johns Bluff Rd. S.
Jacksonville, FL 32216.

Location: Florida; Duval Co.; Mayport; North Jetties Area; $30^{\circ}25'\text{N}$, $81^{\circ}25'\text{W}$; Mayport Quadrangle, USGS. **Size:** 213 ha. **Continuity:** Established 1978; 10 yrs. **Description of Area:** See *Amer. Birds* 33:47-48 (1979). **Weather:** December was warmer and drier than normal, while January and February were colder and wetter than normal. Precipitation in Dec. was 6.2 cm below normal, while Jan. averaged 6.6 cm above normal and Feb. 8.4 cm above normal. Temperatures ranged from -4 to 28°C . **Coverage:** 8 visits; 8, 20, 30 Dec.; 14, 20, 28 Jan.; 7, 22 Feb. Visits were mostly in the afternoon and averaged about 2 hours per trip. **Count:** Herring Gull, 898 (423); Laughing Gull, 708 (333); Ring-billed Gull, 312 (147); Dunlin, 254 (120); Western Sandpiper, 200 (94); Sanderling, 82 (39); Royal Tern, 68 (32); Brown Pelican, 62 (29); Double-crested Cormorant, 49 (23); Forster's Tern, 40 (19); Short-billed Dowitcher, 38 (18); Ruddy Turnstone, 37 (17); Semipalmated Plover, 34 (16); Black Skimmer, 34; Great Black-backed Gull, 31 (15); Red-breasted Merganser, 27 (13); Yellow-rumped Warbler, 25 (12); Black-bellied Plover, 20 (19); Bonaparte's Gull, 13 (6); American Robin, 8 (4); Common Grackle, 7 (3); Willet, 5 (2); Horned Grebe, 4 (2); Great Blue Heron, 4; Tree Swallow, 4; Savannah Sparrow, 4; Caspian Tern, 3 (1); Sandwich Tern, 3; Mourning Dove, 3; Northern Mockingbird, 3; Northern Gannet, 2; Great Egret, 2; Gray Catbird, 2; European Starling, 2; Northern Cardinal, 2; Rufous-sided Towhee, 2; Red-winged Blackbird, 2; Boat-tailed Grackle, 2; Snowy Egret, 1; Turkey Vulture, 1; Red-tailed Hawk, 1; Killdeer, 1; American Oystercatcher, 1; Long-billed Curlew, 1; Common Ground-Dove, 1; Belted Kingfisher, 1; Carolina Wren, 1; Song Sparrow, 1; Little Blue Heron, +; Tricolored Heron, +; Wood Stork, +; Greater Scaup, +; Hooded Merganser, +; Osprey, +; American Kestrel, +; Clapper Rail, +; Lesser Yellowlegs, +; Marbled Godwit, +; Purple Sandpiper, +; Lesser Black-backed Gull, +; Ruby-crowned Kinglet, +; Yellow-throated Warbler, +; Swamp Sparrow, +; White-crowned Sparrow, +. **Average Total:** 3003 birds (1413/km²). **Remarks:** No Lesser Scaup were recorded again this year, possibly because the inlet is now too shallow to provide suitable habitat. The salt

marsh vegetation has increased to the point where a Clapper Rail was recorded in the estuary portion of the study area for the first time. When we began this study 10 years ago, we anticipated that the increase of marsh in the area would result in a decrease in shorebirds, gulls, and terns because of loss of preferred habitat for those species. The changes that we anticipated have not transpired yet. The beaches and dunes are constantly shifting so that extensive areas of littoral habitat such as mud flats, sandbars, and beaches continue to exist in the study area. **Other Observers:** Bob Richter.

15. FIELD, RIDGE, AND SHRUBBY TREES

CAMPOS, COLINAS Y ARBUSTOS

MICHAEL F.G. CLARK

27 Skyline Drive
Dundas, ONT L9H 3S3

Location: Ontario; Region of Hamilton-Wentworth; Dundas; 43°14'45"N, 79°54'00"W. **Size:** 6.6 ha. **Continuity:** Established 1986; 3 yrs. **Description of Area:** [From 1986 report.] This is one of 3 plots, each of which is a separate mixed-habitat area. Hawthorns, particularly Scarlet Hawthorn and Cockspur Hawthorn, are the most numerous trees ranging from 3.6 to 7.6 m in height. Other less common trees include Eastern Hemlock, Common Apple, Sugar Maple, and Black Cherry. There are a few tall snags. Shrubs include Scarlet Hawthorn, blackberry, Roughleaf Dogwood, Staghorn Sumac, and Carolina Rose. Herbaceous vegetation includes goldenrod, Common Milkweed, Heath Aster, Sweet White Clover, Queen Anne's Lace, Bull Thistle, and patches of grass. Most of the hawthorns are located in the level area in the S half of the plot. **Water:** Approximately 80 m to the S is a medium-sized creek. To the N is a second creek in the valley bottom. **Edge:** Plot is bordered on the immediate E by grassy extension, and beyond that a subdivision. To the N are railway tracks with mixed woods and a valley beyond. W of plot is an extension of hilly, open, grass, and shrubby area. S of plot is a deeply wooded river ravine. **Topography:** The soil is a mix of glacial till and loam with isolated pockets of sand. There is a ridge (9–12 m high) running E to W through the plot center. From this central ridge the plot slopes fairly steeply to the S to a level area; to the N the slope is more gradual. The contours of the N half tend to be undulous and irregular. **Elevation:** 125 to 149 m. **Food:** Herbs were very dense and herbal seeds abundant at the start of the winter. **Weather:** Skies were overcast on 3 visits, mostly sunny on 3 visits, and there was snow on one visit. Temperatures ranged from -4 to 6°C on count days. Winds ranging from NW to SW were generally light, reaching high strength on one visit only. There was very little snow cover on the first 4 visits (up to mid-Jan.); snow depth averaged 7 cm for the final 3 counts. **Coverage:** 7 visits; 12, 31 Dec.; 12, 16, 23 Jan.; 9, 25 Feb.; 7.5 hrs; 0837–1020 (4 visits), 1605–1714 (3 visits). **Count:** American Tree-Sparrow, 5 (75); Dark-eyed Junco, 5; Black-capped Chickadee, 4 (60); European Starling, 1; Downy Woodpecker, +; Blue Jay, +; American Crow, +; White-breasted Nuthatch, +; American Robin, +; Northern Mockingbird, +; Northern Shrike, +; Northern Cardinal, +; American Goldfinch, +. **Average Total:** 18 birds (270/km²). **Remarks:** Lack of Black Cherry and Common Apple fruit likely resulted in the absence of frugivores on the plot. The high daily count was 42 birds (9 species) detected on 12 Dec. The Northern Shrike was new to the plot.

16. SHRUBBY TREES, RIDGE, AND WOODS

ARBUSTOS, COLINAS Y BOSQUES

MICHAEL F.G. CLARK

27 Skyline Drive
Dundas, ONT L9H 3S3

Location: Ontario; Region of Hamilton-Wentworth; Dundas; 43°14'30"N, 80°00'30"W. **Size:** 7.3 ha (rectangular, measured by rolatape and compass). **Continuity:** Established 1986; 3 yrs. **Description of Area:** The plot is part of an extensive nature sanctuary and

recreational area located in the Dundas Valley. This area is owned and managed by the Hamilton Region Conservation Authority. Hawthorns dominate the E and W thirds of the plot; the central third is composed of mature White Oak (18.2 m high), Red Oak, and Red Maple. Sugar Maple, Sassafras, Eastern White Pine, Common Apple, Eastern Hemlock, Black Cherry, Sweet Crab Apple, and Staghorn Sumac are found elsewhere on the plot. Shrubs, located mostly toward the NW edge, include blackberry, Roughleaf Dogwood, Carolina Rose, and some vines. Goldenrod is the dominant ground cover, which also includes aster, Common Milkweed, Heath Aster, Great Burdock, Teasel, Sweet White Clover, Bull Thistle, Queen Anne's Lace and patches of grass. Dry, hot weather during the spring and summer may be the reason for the increased *Rubus* and herbal (especially goldenrod) density in most open areas of the plot. Sapling growth was heavy in the level, SW section of the plot. These conditions likely resulted in a sharp decrease or absence of several bird species. **Water:** At the bottom of the ravine to the S (18.2 m deep) is a narrow creek. **Edge:** S slope of plot leads almost directly into a heavily wooded creek ravine. High ridge hills continue to the E, plus shrubby hawthorn thickets and patches of fields. To the N are railway tracks with a sunken pasture beyond. Mixed woods as well as shrubs and fields are found to the W. **Topography:** This plot features a high sloped mound with a peak ridge approximately in the center. The mound is a mix of glacial till and loam with isolated pockets of sand. This mound or hill slopes at about a 30% grade to the N and about 40–45% grade for much of the S slope. **Elevation:** 125 to 149 m. **Food:** Herbal seeds were abundant. **Weather:** Skies were overcast on 4 visits and sunny on the other 3 visits. Temperatures ranged from –7 to 6°C. Winds came from NW to SW on most visits. There was no snow cover on the first 3 visits and the average snow depth for the last 4 visits was 12 cm. **Coverage:** 7 visits; 12, 22 Dec.; 2, 9 Jan.; 13, 27 Feb.; 8 Mar.; 11 hrs; 1004–1232 (6 visits), 1622–1730 (1 visit). **Count:** Black-capped Chickadee, 6 (82); Ruffed Grouse, 1; Brown Creeper, 1; American Robin, 1; European Starling, 1; Red-tailed Hawk, +; Downy Woodpecker, +; Hairy Woodpecker, +; Northern Flicker, +; American Crow, +; White-breasted Nuthatch, +; Northern Cardinal, +; American Tree Sparrow, +; Dark-eyed Junco, +; Pine Siskin, +; American Goldfinch, +. **Average Total:** 12 birds (164/km²). **Remarks:** The total number of birds on the plot was down from last year's high, with bark foragers accounting for 67% of the plot users: this despite the fact that weather conditions were similar in mildness to last year. European Starling, American Robin, junco, and American Tree Sparrow all fell in number.

17. DISTURBED DECIDUOUS FOREST

BOSQUE DECIDUO ALTERADO

GARY KEEHN AND ROGER BOYD

Department of Biology

Baker University

Baldwin City, KS 66006

Location: Kansas; Douglas Co.; Baldwin City; Ivan Boyd Woods; 38°48'30"N, 95°10'30"W; Baldwin City Quadrangle, USGS. **Size:** 24 ha. **Continuity:** New. **Description of Area:** The Ivan Boyd Woods is a 14.2-ha woods which has seen multiple uses over the past 50 years. The northwestern section (2 ha) is the lowest part of the area and relatively level. It has been a cultivated truck garden for a number of years, but not since 1983. A small part of the SW corner was a vineyard for an unknown length of time. All of the rest of the acreage to the E has been grazed by cattle for an unknown length of time. Young saplings about 10 years old are numerous. About 10 large Bur Oaks occur at the W end with relatively good understory, the central portion is more open with a few remnant prairie plants and the E half is a fairly good quality deciduous woods. The tallest trees are approximately 12 m high. **Topography:** The plot is the lowest portion of a N facing escarpment along the S edge of the Waukarusa River valley which lies about 10 km N. There are 3 ravines (usually dry) that run N-S in the E half of the grid. The W half gradually slopes downward towards the NW corner. **Edge:** To the W is Rice Woodlands (a Univ. Kansas research area of deciduous woods), to the N and E are more disturbed woodlands

and on the S is a tract of undisturbed deciduous woodlands. This latter area, Sturdy's Woods, is the site of previous censuses (R. Boyd and C. Cink. 1985. Eastern Deciduous Forest IV. *Amer. Birds* 39:118). Dominant trees: Shagbark Hickory, Bur Oak and Black Locust; dominant shrubs: Buckbrush and *Rubus ostryifolius*; dominant ground cover: Bedstraw and Broomsedge. **Elevation:** 290 to 320 m. **Weather:** No precipitation fell during any of the counts. There was 2.5 cm cover of snow 4 Feb., a trace on 9 Feb. and 13–15 cm of new snow 11 Feb. A very dry winter. Temperatures averaged 6°C (range –14 to 25°C). **Coverage:** 8 visits; 4, 9, 11, 16, 18 Feb.; 1, 8, 10 March; 0800–1200; total coverage: 22 hrs, averaging 2.75 h/visit. **Count:** American Goldfinch, 9 (38); Blue Jay, 8 (34); Black-capped Chickadee, 8; Tufted Titmouse, 6 (25); Red-headed Woodpecker, 6; Northern Cardinal, 5 (21); Red-bellied Woodpecker, 3 (13); White-breasted Nuthatch, 3; Downy Woodpecker, 2; American Crow, 2; American Robin, 2; Dark-eyed Junco, 2; Red-tailed Hawk, 1; American Woodcock, 1; Hairy Woodpecker, 1; Northern Flicker, 1; Golden-crowned Kinglet, 1; American Tree Sparrow, 1; Red-winged Blackbird, 1; Pine Siskin, 1; American Kestrel, +; Killdeer, +; Barred Owl, +; Mourning Dove, +; Yellow-bellied Sapsucker, +; Brown Creeper, +; Rufous-sided Towhee, +; Lincoln's Sparrow, +; White-crowned Sparrow, +; Eastern Meadowlark, +. **Average Total:** 63 birds (265/km²).

18. SUBURBAN CEMETERY

CEMENTERIO SUB-URBANO

THOMAS IMHOF

1036 Pike Road

Birmingham, AL 35218

Location: Alabama; Jefferson Co.; Birmingham; Oakland Cemetery; 33°29'N, 86°54'W; Bessemer Quadrangle, USGS. **Size:** 15 ha. **Continuity:** Established 1978; 8 intermittent yrs. **Description of Area:** See *Amer. Birds* 34:18–19 (1980). **Coverage:** 12 visits. **Count:** Common Grackle, 186 (1246); European Starling, 64 (429); House Finch, 41 (275); Rock Dove, 31 (208); Mourning Dove, 30 (201); House Sparrow, 30; American Robin, 27 (181); Cedar Waxwing, 13 (87); White-throated Sparrow, 10 (67); Blue Jay, 7 (47); Northern Mockingbird, 6 (40); Tufted Titmouse, 5 (34); Northern Cardinal, 5; Rufous-sided Towhee, 4 (27); Red-bellied Woodpecker, 3 (20); Northern Flicker, 3; Red-winged Blackbird, 3; American Goldfinch, 3; Carolina Chickadee, 2; Yellow-rumped Warbler, 2; Yellow-bellied Sapsucker, 1; Carolina Wren, 1; Ruby-crowned Kinglet, 1; Brown Thrasher, 1; Field Sparrow, 1; Rusty Blackbird, 1; Brown-headed Cowbird, 1; Red-tailed Hawk, +; Sharp-shinned Hawk, +; American Kestrel, +; Killdeer, +; Barred Owl, +; Downy Woodpecker, +; American Crow, +; Brown Creeper, +; Golden-crowned Kinglet, +; Hermit Thrush, +; Song Sparrow, +; Purple Finch, +; Pine Siskin, +. **Average Total:** 482 birds (3229/km²).

19. CAMPGROUND IN MIXED DECIDUOUS-CONIFEROUS WOODLAND

CAMPOS EN BOSQUE MIXTO DECIDUO-CONÍFEROS

WILLIAM D. SYMONDS

9022 Ridge Rd. W.

Brockport, NY 14420

Location: New York; Monroe Co.; Hamlin Beach State Park Campground; 43°15'N, 77°52'W; Hamlin Quadrangle, USGS; **Size:** 36.3 ha. **Continuity:** Established 1986; 3 yrs. **Description of Area:** Campground situated among Eastern White Pines planted during the 1930s with scattered oak, beech, and maple. Restrooms, picnic area and playground in the area. **Edge:** To the south is the Lake Ontario State Parkway with apple orchards beyond; to the north is a park road located 200 m from Lake Ontario; to the E and W is undeveloped park land. **Topography:** Flat. **Elevation:** 81–84 m. **Food:** Cones were abundant in some

pine stands, but lacking in others. Rodents were very abundant. Fruits, nuts and seeds weren't very abundant. **Weather:** Snow 0–5 cm deep was present on the ground during censuses. Temperatures were above normal during Dec. and below average during the first half of Jan. and above normal through the remainder of Jan. Temperatures ranged from –21 to 11°C during the counts. **Coverage:** 8 visits; 22, 24 Dec.; 3, 9, 12, 16, 19, 23 Jan.; 12 hrs; 0900–1457. **Count:** Black-capped Chickadee, 37 (102); European Starling, 33 (91); Red-breasted Nuthatch, 17 (47); Northern Cardinal, 7 (19); Dark-eyed Junco, 7; American Crow, 6 (17); White-winged Crossbill, 4 (11); Downy Woodpecker, 1; Blue Jay, 1; White-breasted Nuthatch, 1; Brown Creeper, 1; Golden-crowned Kinglet, 1; American Tree Sparrow, 1; Song Sparrow, 1; American Goldfinch, 1; Red-tailed Hawk, +; Great Horned Owl, +; Red-bellied Woodpecker, +; Northern Flicker, +; White-throated Sparrow, +; Pine Siskin, +. **Average Total:** 120 birds (336/km²). **Remarks:** Red-breasted Nuthatch, European Starling and American Crow increased dramatically while American Robin, Cedar Waxwing and White-throated Sparrow were sparse. No wood cutting was done this year during censuses. Predators observed include Red Fox (*Vulpes vulpes*), Raccoon (*Procyon lotor*), Great Horned Owl and Red-tailed Hawk.

20. YOUNG WHITE ASH-RED MAPLE FOREST ON LAKE SHORE

BOSQUE JOVEN DE FRESNO BLANCO-ARCE ROJO EN ORILLAS DE LAGOS

GEORGE R. MAXWELL

RD 1 Box 179

Red Creek, NY 13143

Location: New York; Wayne Co.; Fair Haven; Blind Sodus Bay; Metzger Road; 43°20'N, 76°44'W; Oswego Quadrangle, USGS. **Size:** 16.2 ha. **Continuity:** Established 1987; 2 yrs. **Description of Area:** Dominant trees (5–7 m high): White Ash, Red Maple and Quaking Aspen; dominant shrubs: Arrowwood and dogwood; dominant ground cover: Sensitive Fern and goldenrod. A dead end road traverses the plot. **Edge:** Bounded by field, similar woods, summer cottages and Blind Sodus Bay. The forest size is approximately 40 ha. **Elevation:** 104 to 108 m. **Weather:** 1 sunny and 12 cloudy days. Mean temperature –2°C. **Coverage:** 13 visits; 14 Dec.–29 Feb.; 13 hrs; 0800–2100 (7 morning, 6 afternoon and evening). **Count:** House Finch, 61 (378); Canada Goose, 31 (192); Ring-billed Gull, 23 (143); House Sparrow, 16 (99); Black-capped Chickadee, 10 (62); Pine Siskin, 10; American Goldfinch, 10; Red-breasted Merganser, 8 (50); Herring Gull, 5 (31); Blue Jay, 3 (19); Tufted Titmouse, 3; White-breasted Nuthatch, 3; Mallard, 2; American Crow, 2; Northern Cardinal, 2; Mourning Dove, 1; Red-bellied Woodpecker, 1; Downy Woodpecker, 1; Cedar Waxwing, 1; American Tree Sparrow, 1; Evening Grosbeak, 1; Northern Harrier, +; Sharp-shinned Hawk, +; American Kestrel, +; Ruffed Grouse, +; Great Black-backed Gull, +; Rock Dove, +; Great Horned Owl, +; Hairy Woodpecker, +; Northern Flicker, +; Pileated Woodpecker, +; American Robin, +; European Starling, +; Dark-eyed Junco, +. **Average Total:** 197 birds (1221/km²).

21. URBAN PARK WITH POND

PARQUE URBANO CON CHARCAS

A.P. SANDILANDS

RR 1

Branchton, ONT NOB 1L0

Location: Ontario; Waterloo Co.; Kitchener; Lakeside Park; 43°26'N, 80°30'W; NTS Quadrangles 40P/7 and 40P/8. **Size:** 14.2 ha. **Continuity:** Established 1981; 7 consecutive yrs. **Description of Area:** See *Amer. Birds* 36:77 (1982). **Food:** The Common Buckthorn fruit crop was poor and Wild Grape crop was almost non-existent. Only three small flocks of Cedar Waxwings were observed and no American Robins. The number of robins observed on the Kitchener Christmas Bird Count was a record high. There were five feeders in the plot, but they attracted few birds, probably due to the lack of snow cover and availability

of natural plant seeds. **Weather:** Warmer than normal with less than average snow accumulation. The amount of snow on the ground averaged 4.3 cm (range 0–17 cm). The mean temperature for the count period was -6°C (range -22.9 to 9.8°C). **Coverage:** 10 visits; 19 Dec.–9 Feb.; 0755–1050; average count length: 97 min. **Count:** House Finch, 14 (98); Black-capped Chickadee, 9 (63); American Goldfinch, 6 (42); Northern Cardinal, 4 (28); Mourning Dove, 3 (21); American Crow, 2; White-breasted Nuthatch, 2; Cedar Waxwing, 2; Dark-eyed Junco, 2; Downy Woodpecker, 1; American Tree Sparrow, 1; Pine Siskin, 1; House Sparrow, 1; Ring-necked Pheasant, +; Cooper's Hawk, +; American Kestrel, +; Hairy Woodpecker, +; Blue Jay, +; Golden-crowned Kinglet, +; Song Sparrow, +. **Average Total:** 48 birds ($336/\text{km}^2$). **Remarks:** House Finches were sporadic, but most prevalent before mid-January. Early in the count period, flocks of up to 40 were common, but later on they were absent or rare. Mourning Doves did not appear until late January, but were common and seen on every count thereafter.

22. SECOND-GROWTH BROADLEAF-CONIFEROUS

BOSQUE SECUNDARIO DE HOJA ANCHA-CONÍFEROS

DORY SMITH

120 Olympic Ave. S.

Sequim, WA 98382

Location: Washington; Clallam Co.; Sequim; Dungeness Recreation Area; $48^{\circ}08'N$, $123^{\circ}12'W$, Dungeness Quadrangle, USGS. **Size:** 21.5 ha. **Continuity:** New. **Description of Area:** The study plot is part of the 106-ha Dungeness Recreation Area. Part of the study plot is a campground with 65 sites, a small residence, a playground, picnic area, and playing field. Vegetation is fairly uniform throughout the area. The dominant evergreens are 17 to 25 m. tall. The dominant trees are Douglas Fir, Shore (Lodgepole) Pine and Scouler Willow; dominant shrubs are Ocean Spray and Red-flower Currant; dominant ground cover is Salal and Sword Fern. A more extensive description of the plot is available. **Edge:** To the N is the Dungeness National Wildlife Refuge, which includes an estimated 32 ha of upland mature second-growth coniferous forest. The western side of the study area is bounded by a 33 m bluff along the Strait of Juan de Fuca. South of the study area is mostly shrubby brush and grassland. East of the study area is privately-owned grassland, with a few widely separated houses. **Topography:** The study plot is almost entirely flat, except for one dip along the east side. **Elevation:** 33 m. **Food:** The conifers, especially Douglas Fir, had good cone crops. Red Alder was also well-supplied with fruit. Almost no fruit was available from cherries, Salal, and Oregon Grape during the census period having presumably been consumed during the autumn. **Weather:** Temperatures ranged from -1 to 12°C . Sky conditions ranged from clear to cloudy. Wind was always under 16 km/h. No rain. **Coverage:** 8 visits; 28 Dec. 1987 to 12 Feb. 1988; 0900–1000; visits averaged 2 h. **Count:** Golden-crowned Kinglet, 28 (130); Dark-eyed Junco, 16 (74); Song Sparrow, 9 (42); Bushtit, 6 (28); Ruby-crowned Kinglet, 6; Rufous-sided Towhee, 6; Chestnut-backed Chickadee, 4 (19); Winter Wren, 4; American Crow, 2; Black-capped Chickadee, 2; American Robin, 2; California Quail, 1; Bewick's Wren, 1; Golden-crowned Sparrow, 1; Northern Harrier, +; Cooper's Hawk, +; accipiter sp., +; Downy Woodpecker, +; Northern Flicker, +; Steller's Jay, +; Common Raven, +; Varied Thrush, +; Hutton's Vireo, +; White-crowned Sparrow, +; Purple Finch, +. **Average Total:** 87 birds ($409/\text{km}^2$). **Remarks:** Mammals seen during the study period included deer, dogs, cats, and Red Fox.

23. DRY TROPICAL DECIDUOUS FOREST

BOSQUE DECIDUO TROPICAL SECO

ROGER BOYD AND CHRIS BAILEY

Biology Department

Baker University

Baldwin City, KS 66006

Location: Mexico; Jalisco; Estacion de Biología, Nacional Autonómica México; Chamela; $19^{\circ}30'N$, $105^{\circ}03'W$; Chamela, Jalisco, Mexico (Mexican government quadrangle). **Size:**

3.7 ha. **Continuity:** New. **Description of Area:** The census was located on the "Bosque de Enseñanza" which is the arboretum at Estacion de Biología "Chamela". Dominant trees: *Jatropha* sp., *Bursera* sp. and *Ipomoea* sp. Many of the larger trees supported epiphytic growth. **Edge:** The surrounding area was all similar habitat except for the compound of research and teaching labs, office, and dorms about 50 m S, across the road. **Topography:** The trail through the plot starts at a high point on the entrance road, leads down the side of a rocky outcrop and then along a ravine. The trail then comes back along the hillside on the opposite ravine making an elliptical path back to the entrance trail. The ravine runs NW and then back to the NE. **Elevation:** 34–98 m. **Weather:** No precipitation fell during the census period. Night temperatures averaged 21°C and day time highs averaged 32°C. **Coverage:** 10 visits; 10–15 Jan.; 25.5 hr, averaging 4.25 hr/day; censuses were combined with mist net coverage throughout the day, generally from 0700–0930, 1100–1300, and 1700–1845. One census after dark. **Count:** Inca Dove, 3 (81); Nashville Warbler, 3; Common Ground Dove, 2; Golden-cheeked Woodpecker, 1; Ladder-backed Woodpecker, 1; Western Flycatcher, 1; Dusky-capped Flycatcher, 1; Brown-crested Flycatcher, 1; Rose-throated Becard, 1; Blue-gray Gnatcatcher, 1; Yellow-winged Cacique, 1; Gray Hawk, +; Roadside Hawk, +; White-tipped Dove, +; Lilac-crowned Parrot, +; Mottled Owl, +; Cinnamon Hummingbird, +; Blue-throated Hummingbird, +; Magnificent Hummingbird, +; Citreoline Trogon, +; Pale-billed Woodpecker, +; Ivory-billed Woodcreeper, +; Ash-throated Flycatcher, +; Nutting's Flycatcher, +; Thick-billed Kingbird, +; San Blas Jay, +; Sinaloa Wren, +; Bell's Vireo, +; Solitary Vireo, +; Warbling Vireo, +; Orange-crowned Warbler, +; Tropical Parula Warbler, +; Black-throated Gray Warbler, +; Ovenbird, +; Red-breasted Chat, +; Yellow-breasted Chat, +; Black-headed Grosbeak, +; Blue Bunting, +; Olive Sparrow, +; Streak-backed Oriole, +. **Average Total:** 21 birds (567/km²). **Visitors:** Seen overhead were Turkey Vulture and Rough-winged Swallow. Seen adjacent to the plot, but not on it were Collared Forest Falcon, Wagler's Chachalaca, Least Pygmy-Owl, Ferruginous Pygmy-Owl, Buff-collared Nightjar, Common Potoo, Broad-billed Hummingbird, Plain-capped Starthroat, Masked Tityra, White-throated Robin, Grayish Saltator, and Yellow Grosbeak. **Remarks:** Dense ground vegetation made it very difficult to get off the maintained trail.

24. MIXED PINE AND DECIDUOUS FOREST

BOSQUE DE PINO MIXTO Y DECIDUO

DAN WEBSTER

Hanover College
Hanover, IN 47243

Location: Indiana; Jefferson Co.; Hanover; 38°42'00"N 85°35'06"W; Kent Quadrangle, USGS. **Size:** 14.53 ha. **Continuity:** Established 1977; 6 intermittent yrs. **Description of Area:** See *Amer.Birds* 32:27–28 (1978). Some change is evident in 11 years; quite a few of the large pines are standing dead or have fallen. **Water:** The smaller creek was dry for most of the winter, but the larger creek was open and flowing each count day. **Weather:** The winter was slightly warmer than average and distinctly drier, with very little snow. During counts, temperatures ranged from –18 to 13°C, winds from 2–24 kph from varied directions, sky from clear (3 times) to partly cloudy (4 times) to overcast (3 times). The only precipitation during counts was one 20-min snow flurry. Snow cover on count days was none (6 times) or patchy (4 times), but never over 0.6 cm deep. **Coverage:** 9 complete visits; 8, 19, 26, 29 Dec.; 2, 14, 16, 25 Jan; 5 (partial), 6 Feb.; visits 1–3.3 hr (average 149 min), with 3 observers on 2 visits, 2 observers on 2 visits, and 1 observer on 5 visits. In addition, 1 abbreviated day visit by 1 observer made the total 38 study-hours. **Count:** Mourning Dove, 6 (41); Carolina Chickadee, 4 (28); Downy Woodpecker, 3 (21); Golden-crowned Kinglet, 3; Eastern Bluebird, 3; American Robin, 3; Purple Finch, 3; Red-bellied Woodpecker, 2; Northern Flicker, 2; Pileated Woodpecker, 2; Blue Jay, 2; Tufted Titmouse, 2; White-breasted Nuthatch, 2; Yellow-rumped Warbler, 2; Northern Cardinal, 2; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 1; American Crow, 1; Brown Creeper, 1; Carolina Wren, 1; American Goldfinch, 1; Red-headed Woodpecker, +; Red-breasted Nuthatch, +;

European Starling, +. **Average Total:** 47 birds (323/km²). **Remarks:** Only the Red-bellied Woodpecker, Pileated Woodpecker, titmouse, chickadee, kinglet, and cardinal were noted on all visits. **Other Observers:** Dwight Chamberlain, Jennifer McDonald, Mark Messerle, Jackson Webster, and Marcus Webster.

25. BLACK GREASEWOOD-SALTGRASS ASSOCIATION

ASOCIACIÓN DE "GREASEWOOD-SALTGRASS"

RITA D. DIXON

P.O. Box 3113

La Grande, OR 97850

Location: Oregon; Union Co.; La Grande; 45°17'N 117°58'W; Conley Quadrangle, USGS. **Size:** 8.1 ha. **Continuity:** New. **Description of Area:** The stand has not been disturbed for at least 63 years. The vegetation structure based on five 0.04-ha circular samples is comprised of [figures after each give relative density (%), frequency, relative frequency, in that sequence]: Black Greasewood, 96, 80, 73; rabbitbrush, 2, 20, 18; Resinweed, 2, 10, 9. Shrub stems/ha, 48,400. Ground cover 75%, comprised of Saltgrass, Wheatgrass, Yarrow, and various grasses and forbs. There is a shallow ditch which runs diagonally across the plot and a barely discernible road across the southern section. **Edge:** The study area is part of a shrubland of about 32 ha. It is bordered by the same habitat to the W; pastureland to the N; a gravel road and cultivated field to the E; and a private home/horse corral to the S. **Topography and Elevation:** Flat with a slight depression; 822–825 m. **Water:** There are 2 intermittent pools of 7.9 and 20.1 m diameter; depth 1.6–2.4 cm. The pools dry out by late spring. The pools were frozen on 4 out of 10 visits. **Food:** There were abundant grass seeds, but only minimal forage on the shrubs. **Weather:** Temperatures for 12 Jan.- 4 Feb. averaged a high of 1.6 and a low of -6.7°C. The highest temperature recorded was 7.8 and the lowest -17°C. Temperatures remained at or below freezing on 5 days, and remained above freezing on 2 nights. On 7 out of 10 visits the ground was covered with 8–10 cm of snow. **Coverage:** 10 visits; 12 Jan.- 4 Feb.; 12 hrs; 1025–1400 (9 visits), 1530–1635 (25 Jan.); average visit: 70 min. **Count:** Gray Partridge, 7 (84); Ring-necked Pheasant, 1 (12); Common Raven, 1; Northern Harrier 1; Northern Shrike 1; American Tree Sparrow 1; Western Meadowlark 1; Black-billed Magpie +. **Average Total:** 13 birds (256/km²). **Remarks:** Gray Partridge were noted on 6 visits and occurred in a tight flock, Northern Shrike and Common Raven were noted on 5 visits, American Tree Sparrow on 4 visits, Black-billed Magpie on 2 visits, and Western Meadowlark on 1 trip. Several roost areas of the Gray Partridge were noted. Although the Northern Harrier was recorded on only 3 visits, there was always one or more present just outside the study area. **Acknowledgments:** Mr. C. Ehrman Bates kindly allowed me to use his land for a study area; Dr. Karen Antell provided botanical confirmations and use of the Eastern Oregon State College herbarium.

26. RYE, CORN STUBBLE, AND SHORT GRASS

SIEMBRAS DE CENTENO-MAIZ Y HIERBAS BAJAS

PAUL W. SCHWALBE AND GLENNA P. SCHWALBE

546 Wilson St.

Jersey Shore, PA 17740

Location: Pennsylvania; Clinton Co.; Avis; 41°10'31"N 77°17'34"W; Jersey Shore Quadrangle, USGS. **Size:** 40.5 ha. **Continuity:** Established 1983; 6 consecutive yrs. **Description of Area:** See *Amer. Birds* 38:56–57 (1984). **Weather:** The ground was essentially bare except for the 7 Jan. and 1 Feb. visits (7.5 cm snow). **Coverage:** 9 visits; 3 study-hrs. **Count:** Rock Dove, 77 (193); European Starling, 18 (45); Horned Lark, 13 (33); American Crow, 1 (3); Eastern Meadowlark, 1; Red-tailed Hawk, +; American Kestrel, +. **Average Total:** 110 birds (277/m²). **Remarks:** No more than 3 species were seen on any one trip, however, 3 were seen on 4 of the visits.

27. SUGAR MAPLE-MIXED HARDWOOD FOREST
BOSQUE MIXTO DE MADERAS DURAS-ARCE DE ALMIBAR

ROY A. ICKES

W&J College

Washington, PA 15301

Location: Pennsylvania; Washington Co.; Washington; 40°08'N 80°11'W; Washington East Quadrangle, USGS. **Size:** 9.74 ha. **Continuity:** Established 1982; 6 consecutive yrs. **Description of Area:** See *Amer. Birds* 37:55-56 (1983). **Weather:** Temperature and snowfall for the 40-day study period seemed to be about average. The temperature remained below freezing on 16 days and remained above freezing on 6 nights. The temperature ranged from -16 to 16°C. Total snow accumulation was about 25 cm with the ground snow-covered on 20 days. **Coverage:** 8 visits; 4, 9, 12, 16-17, 22-23, 29 Jan.; 0800-1130 EST; 3 hrs on average. **Count:** Tufted Titmouse, 10 (103); White-breasted Nuthatch, 9 (93); Downy Woodpecker, 9; Carolina Chickadee, 7; Red-bellied Woodpecker, 5 (52); Black-capped Chickadee, 3 (31); Blue Jay, 2; Northern Cardinal, 1; Hairy Woodpecker, 1; Pileated Woodpecker, 1; Carolina Wren, 1; Eastern Bluebird, 1; Brown Creeper, +; Golden-crowned Kinglet, +; Cooper's Hawk, +; Ruffed Grouse, +; Mourning Dove, +. **Average Total:** 50 birds (515/km²). **Remarks:** The ratio used in the count for the 2 chickadee species was calculated from winter banding data for the area. Compared with the mean for 1983-87, most regularly occurring species increased slightly. The net results of these changes produced 8 more individuals than the 5-year average. The Mourning Dove was a new species for the plot. **Acknowledgments:** Thanks to Ernest Abernathy for the use of his property.