

WINTER BIRD POPULATION STUDY: 1994

<i>Habitat</i>	<i>State/ Prov.</i>	<i>Compiler</i>	<i>Plot Size (ha)</i>	<i>Ind. per 40 ha</i>	<i>Num. spp.</i>	<i>Hrs Obs.</i>	<i>Yrs Study</i>
Broadleaf Forests							
1. Coast Live Oak Woodland	CA	R. Beidleman	25.0	100	36	16.9	1
2. Willow Riparian Woodland and Edge	CA	D. Riensche	8.1	1026	59	16.5	2
3. Mixed Upland Broadleaf Forest	DC	S.A. Briggs	14.2	336	41	88.0	35
4. Oak-Maple Bottomland	MA	L.E. Taylor	6.7	98.5	8	11.8	13
5. Mature Deciduous Floodplain Forest	MD	D. Gauthey	17.8	298	34	17.5	43
6. Upland Second-growth Oak-Hickory Forest	MS	H. Moore	10.0	456	33	24.5	6
7. Mature Urban Deciduous Forest I	NY	D.S. Künstler	10.1	10.6	8	9.4	2
8. Beech-Maple Swamp Forest	OH	N.J. Moore	8.3	244	21	14.2	8
9. Mature Broadleaf Forest	OH	C.W. Saunders	16.0	104	18	18.6	2
10. Riparian Deciduous Forest	OH	E.J. Tramer	18.0	273	31	19.9	6
11. Black Willow-White Ash Forest	ON	M.F.G. Clark	13.0	45.0	14	10.0	11
12. Regenerating Northern Hardwoods	PA	J.C. Haney	15.0	42.7	15	19.3	1
13. Sugar Maple-Mixed Hardwood Forest	PA	R.A. Ickes	9.7	161	21	24.8	11
Needleleaf Forests							
14. Ponderosa Pine Forest	CO	L. Hering	8.1	196	19	21.1	14
15. Mature Longleaf Pine Forest I	GA	R.T. Engstrom	20.0	382	41	16.0	2
16. Mature Longleaf Pine Forest II	GA	L.D. Carlile	20.0	384	47	16.6	2
17. Longleaf Pine-Bluestem Forest	LA	K. Moore	25.0	52.6	26	15.2	1
18. Mature Red Spruce Forest	ME	T.P. Skaling	16.0	28.3	12	28.0	5
19. Upland Scotch Pine Plantation	NY	E.W. Brooks	9.3	48.4	10	14.1	10
20. Old-growth Hemlock-White Pine Forest	PA	J.C. Haney	15.0	45.3	11	21.8	1
21. Old-growth White Pine-Hemlock Forest	PA	J.C. Haney	18.2	75.4	19	23.1	2
22. Mature Eastern Larch Forest	PQ	M.D. Demers	25.0	89.8	8	16.8	4

WINTER BIRD POPULATION STUDY: 1994 (Continued)

Habitat	State/ Provi.	Compiler	Plot Size (ha)	Ind. per 40 ha	Num. spp.	Hrs Obs.	Yrs Study
Broadleaf/Needleleaf Forests							
23. Ponderosa Pine-Scrub Oak Forest	CO	B.J. Freiburger	12.0	38.0	12	10.3	4
24. Mature Broadleaf-Coniferous Forested Wetland	CT	T. Harrington	21.5	186	29	16.5	3
25. Mixed Pine and Deciduous Forest	IN	J.D. Webster	14.5	77.2	21	19.7	9
26. Maple-Pine-Oak Second-growth Forest	MA	W.E. Davis, Jr.	11.8	27.4	12	12.0	18
27. Upland Mixed Pine-Spruce-Hardwood Plantation	NY	E.W. Brooks	16.6	40.7	13	12.8	20
28. Coniferous-Deciduous Forest	ON	M.F.G. Clark	9.2	73.4	9	9.3	9
29. Mid-successional Appalachian Oak Forest	PA	C.P. Schaadt	15.0	24.0	12	17.0	1
30. Old-growth Beech-Hemlock Forest I	PA	J.C. Haney	12.0	58.6	7	13.7	1
31. Old-growth Beech-Hemlock Forest II	PA	J.C. Haney	12.0	33.9	7	12.0	1
32. Old-growth Hemlock-Mixed Hardwood Forest I	PA	J.C. Haney	15.0	129	19	25.1	2
33. Old-growth Hemlock-Mixed Hardwood Forest II	PA	C.P. Schaadt	15.0	56.3	13	19.0	2
34. Remnant Old-growth Hemlock-Mixed Hardwood Forest	PA	C.P. Schaadt	15.0	48.0	15	19.7	2
35. Mature Deciduous-Coniferous Forest with Stream	TN	S.J. Stedman	10.2	255	43	14.0	5
Mixed Habitats							
36. Suburban Cemetery	AL	T.A. Imhof	15.0	643	37	40.0	15
37. Suburban University Campus	CA	K. Gazzaniga	28.2	443	32	17.3	3

WINTER BIRD POPULATION STUDY: 1994 (Continued)

<i>Habitat</i>	<i>State/ Prov.</i>	<i>Compiler</i>	<i>Plot Size (ha)</i>	<i>Ind. per 40 ha</i>	<i>Num. spp.</i>	<i>Hrs Obs.</i>	<i>Yrs Study</i>
38. Floodplain Forest and Cultivated Bottomland	NY	V.M. Pitzrick	51.8	53.2	28	16.1	24
39. Field, Ridge, Shrubby Trees, and Woods	ON	M.F.G. Clark	5.8	107	13	8.3	1
40. Urban Park	SC	D.M. Forsythe	25.9	340	37	17.2	7
Non-forested Wetlands							
41. Coastal Freshwater Marsh	CA	J.P. Kelly	10.5	444	48	8.2	9
Shrublands							
42. Coastal Sage Scrub—Flood Basin	CA	T.P. Ryan	13.2	499	33	7.6	2
43. Coastal Scrub	CA	T. Gardali	8.1	498	25	30.5	7
44. Disturbed Coastal Scrub A	CA	K. Carney	4.7	1001	34	12.8	5
45. Disturbed Coastal Scrub B	CA	S. Oppenheimer	8.1	683	26	16.3	6
Successional Fields							
46. Abandoned Upland Pasture	NY	V.M. Pitzrick	8.0	108	19	7.7	11
Cultivated							
47. Mixed Croplands	PA	P.W. Schwalbe	40.5	45.7	8	6.5	12

1. COAST LIVE OAK WOODLAND

ARBOLEDA COSTANERA DE ROBLE

RICHARD & LINDA BEIDLEMAN

766 Bayview Ave., Pacific Grove CA 93950

Location: California; Monterey Co.; Carmel; Garland Ranch Regional Park; 36°30'N, 121°45'W; Monterey Quadrangle, USGS. **Continuity:** New. **Size:** 25.0 ha. **Description of Plot:** A roughly rectangular plot dominated by a heavily vegetated evergreen oak woodland. There are a few interspersed brushland sites and two canyons with deciduous trees in the intermittent creek bottom. The canopy is dominated by coast live oak, California buckeye, and California bay. The understory is dominated by western poison oak and snowberry. The ground cover is dominated by hedge nettle and a diversity of ferns. **Edge:** The plot is surrounded by similar woodland, but with more open brushland beyond to the W. In the broad, flat valley to the N some distance, there is disturbed grassland and a wooded stream bottom. **Topography and Elevation:** The plot is located on a relatively steep, N-facing sedimentary foothills slope. There are two narrow N-S canyons, one with an upper pond and intermittent creek, the other with a creeklet which was dry this season. Minimum elevation 61 m, maximum 183 m. **Weather:** Mean temperature 13.8°C (range 7–19°C). There were several rainy periods, but not during visits. Precipitation was lower than normal and much less than during the preceding winter. **Coverage:** 16.9 hrs; 8 visits (7 mornings, 1 afternoon): 17, 20 Jan; 1, 4, 8, 11, 28 Feb; 2 Mar. **Count:** Ruby-crowned Kinglet, 8.4 ind./visit (8 visits); Bushtit, 7.0 (5); Chestnut-backed Chickadee, 6.5 (8); Townsend's Warbler, 6.5 (7); Cedar Waxwing, 3.4 (2); Rufous-sided Towhee, 3.4 (6); Wrentit, 3.1 (8); Steller's Jay, 2.5 (7); Yellow-rumped Warbler, 2.5 (4); Plain Titmouse, 2.1 (7); Bewick's Wren, 1.9 (7); Scrub Jay, 1.8 (7); Anna's Hummingbird, 1.6 (6); Northern Flicker, 1.5 (7); Dark-eyed Junco, 1.5 (4); Red-shouldered Hawk, 1.1 (6); American Crow, 1.1 (3); Turkey Vulture, 1.0 (5); White-tailed Kite, 0.8 (4); Sharp-shinned Hawk, 0.5 (4); Red-tailed Hawk, 0.5 (4); Band-tailed Pigeon, 0.5 (2); Hairy Woodpecker, 0.5 (3); Winter Wren, 0.5 (3); Orange-crowned Warbler, 0.5 (1); Brown Creeper, 0.4 (2); American Robin, 0.4 (1); Rock Dove, 0.3 (1); Mallard, 0.1 (1); Mourning Dove, 0.1 (1); White-throated Swift, 0.1 (1); Acorn Woodpecker, 0.1 (1); Violet-green Swallow, 0.1 (1); Common Raven, 0.1 (1); Hermit Thrush, 0.1 (1); Varied Thrush, 0.1 (1). **Total:** 36 species; 62.6 ind./visit (100 ind./40 ha). **Remarks:** There were consistently three mixed-species group territories, usually containing chickadees, titmice, kinglets, and Townsend's Warblers, and less often Yellow-rumped Warbler, Bushtit, Bewick's Wren, Brown Creeper, and Hairy Woodpecker. Most species favored the canopy. Rufous-sided Towhee, Wrentit, Bewick's Wren, and Scrub Jay were brushland indicators, while Winter Wren and Steller's Jay were only in the canyon riparian ecosystem. Species of birds occupying the N valley, with its disturbed grassland and wooded creekbottom, seldom entered the oak woodland. **Acknowledgments:** Thanks to District Naturalist Natalie Schaefer for pertinent information.

2. WILLOW RIPARIAN WOODLAND AND EDGE

ARBOLADO DE SAUCE RIVEREÑO Y BORDE

DAVE RIENSCHÉ

East Bay Regional Park District, Coyote Hills Regional Park
8000 Patterson Ranch Road, Fremont CA 94555

Site Number: CA9292061. **Location:** California; Alameda Co.; Fremont; Coyote Hills Regional Park; 37°34'N, 122°5'W; Newark Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 8.1 ha. **Description of Plot:** See *J. Field Ornithol.* 64(Suppl.):35 (1993) and 65(Suppl.):8 (1994). **Weather:** Mean temperature 9.0°C (range 3.3–13.3°C). Thundershowers during one visit and drizzle during another. By mid-February, the region had received 45% of its normal rainfall. **Coverage:** 16.5 hrs; 9 visits (mornings): 15, 19, 28 Dec; 10, 18, 26 Jan; 2, 5, 8 Feb. **Count:** Golden-crowned Sparrow, 26.4 ind./visit (9 visits); White-crowned Sparrow, 23.9 (9);

Bushtit, 23.1 (9); Song Sparrow, 19.9 (9); Yellow-rumped Warbler, 17.4 (9); House Finch, 13.3 (9); Ruby-crowned Kinglet, 9.6 (9); European Starling, 6.9 (8); Black-crowned Night-Heron, 6.4 (5); Chestnut-backed Chickadee, 5.2 (9); Bewick's Wren, 4.4 (9); Marsh Wren, 4.3 (9); Northern Flicker, 4.0 (8); Hermit Thrush, 3.9 (9); California Towhee, 3.4 (8); Mallard, 3.0 (3); Anna's Hummingbird, 2.7 (9); Fox Sparrow, 2.7 (7); Scrub Jay, 2.6 (9); White-tailed Kite, 2.3 (9); Lincoln's Sparrow, 1.8 (7); Greater Yellowlegs, 1.7 (2); Common Yellowthroat, 1.7 (8); Green-Winged Teal, 1.3 (1); Black Phoebe, 1.3 (8); Red-winged Blackbird, 1.3 (3); Sora, 1.0 (7); Northern Harrier, 0.9 (6); Tree Swallow, 0.9 (1); Rufous-sided Towhee, 0.9 (5); Virginia Rail, 0.8 (5); Least Sandpiper, 0.8 (1); Sharp-shinned Hawk, 0.7 (6); Cooper's Hawk, 0.7 (4); Red-shouldered Hawk, 0.7 (6); Downy Woodpecker, 0.7 (5); Ring-necked Pheasant, 0.6 (3); Lesser Yellowlegs, 0.4 (1); Barn Owl, 0.4 (2); Nuttall's Woodpecker, 0.4 (2); American Pipit, 0.2 (1); Pied-billed Grebe, 0.2 (1); American Bittern, 0.2 (2); Great Egret, 0.2 (1); Peregrine Falcon, 0.2 (1); Long-billed Dowitcher, 0.2 (1); Common Snipe, 0.2 (2); Mourning Dove, 0.2 (1); American Robin, 0.2 (1); Northern Mockingbird, 0.2 (2); Great Blue Heron, 0.1 (1); Snowy Egret, 0.1 (1); Red-tailed Hawk, 0.1 (1); American Kestrel, 0.1 (1); Merlin, 0.1 (1); American Coot, 0.1 (1); Belted Kingfisher, 0.1 (1); Say's Phoebe, 0.1 (1); Loggerhead Shrike, 0.1 (1). **Total:** 59 species; 208 ind./visit (1026 ind./40 ha). **Other Observers:** Marty Morrow, Steve and Robin Wiley. **Acknowledgments:** The East Bay Regional Park District who kindly provided the time to work on the project, Wanda Spitzer for typing this report, and Birding Parks Partners: Marty Morrow, Steve and Robin Wiley for helping with the field work.

3. MIXED UPLAND BROADLEAF FOREST

BOSQUE MIXTO DE HOJA ANCHA DE ALTURAS

SHIRLEY A. BRIGGS

7605 Honeywell Lane, Bethesda MD 20814-1029

Site Number: DC1060009. **Location:** District of Columbia; Washington; Glover-Archbold Park; 38°55'N, 77°5'W; Washington West Quadrangle, USGS. **Continuity:** Established 1960; 35 yr. **Size:** 14.2 ha. **Description of Plot:** See *Aud. Field Notes* 14:502-503 (1960). **Weather:** Mean temperature 2.8°C. Snow during three visits. Ice on ground during two visits and patchy snow during one visit. Several days in late January were around -32°C with snow and freezing rain that left many cm of solid ice on the ground and heavy glazing on trees and shrubs. Monthly data [temperature for month (% difference from last year), precipitation for month (% difference from last year)]: Jan 2.2°C (-38%), 11 cm (+31%); Feb 2.2°C (+6%), 11 cm (+78%); Mar 7.2°C (-7%), 21 cm (+19%). Source: U.S. Weather Bureau. **Coverage:** 88.0 hrs; 30 visits (29 mornings, 1 afternoon): 6, 13, 20 Dec; 11, 13, 18, 20, 25, 31 Jan; 2, 5, 6, 7, 9, 11, 13, 20, 22, 25, 28 Feb; 1, 4, 6, 7, 13, 23 Mar. **Count:** American Crow, 21.7 ind./visit (29 visits); Carolina Chickadee, 19.0 (30); Tufted Titmouse, 12.4 (30); Common Grackle, 8.9 (12); House Finch, 8.0 (28); Red-bellied Woodpecker, 6.0 (30); White-breasted Nuthatch, 5.2 (30); Carolina Wren, 5.0 (29); Northern Cardinal, 4.7 (26); Downy Woodpecker, 4.0 (30); Mourning Dove, 3.6 (23); White-throated Sparrow, 2.5 (15); House Sparrow, 2.2 (14); Northern Flicker, 1.7 (22); Dark-eyed Junco, 1.7 (17); Canada Goose, 1.7 (1); European Starling, 1.6 (14); Hairy Woodpecker, 1.4 (18); Pileated Woodpecker, 0.9 (16); Red-tailed Hawk, 0.8 (14); Ring-billed Gull, 0.7 (6); Rock Dove, 0.7 (6); Northern Mockingbird, 0.7 (17); Blue Jay, 0.6 (11); American Robin, 0.6 (8); American Goldfinch, 0.6 (7); Song Sparrow, 0.4 (11); Winter Wren, 0.3 (6); Tundra Swan, 0.3 (2); Turkey Vulture, 0.3 (4); Sharp-shinned Hawk, 0.2 (5); Yellow-bellied Sapsucker, 0.2 (6); Brown Creeper, 0.2 (4); Fish Crow, 0.1 (2); Eastern Phoebe, 0.1 (2); Mallard, 0.1 (1); Red-shouldered Hawk, 0.1 (2); Rufous-sided Towhee, 0.1 (2); Golden-crowned Kinglet, 0.0 (1); Ruby-crowned Kinglet, 0.0 (1); Hermit Thrush, 0.0 (1). **Total:** 41 species; 119 ind./visit (336 ind./40 ha). **Remarks:** The hours of coverage was the highest ever. One observer made visits during bad weather and observed large flocks of grackles going through the trees, perhaps instead of flying. Most were seen 18 January to 11 February, with flocks of 45, 45, 35, 80, and 30. Only one such flock has been recorded before. Weather that may cause them to move may usually keep observers away. **Other Observers:** Mary D'Imperio, Ann Feather, Susse Wright.

4. OAK-MAPLE BOTTOMLAND**BOSQUE DE ROBLE-ARCE EN TIERRAS BAJAS**

LEE E. TAYLOR

28 Bellington St., Arlington MA 02174

Location: Massachusetts; Middlesex Co.; Waltham; Metropolitan State Hospital; 42°24'N, 71°12'W; Lexington Quadrangle, USGS. **Continuity:** Established 1982; 13 yr. **Size:** 6.7 ha. **Description of Plot:** See *Am. Birds* 37:31-32 (1983). **Weather:** Mean temperature -9.7°C (range -22-0°C). Mean snow depth 29.2 cm (range 10-53 cm). Snow flurries during one visit and significant wind during another. Record-breaking cold and snowfall. **Coverage:** 11.8 hrs; 12 visits (mornings): 31 Dec; 1, 2, 9, 15, 16, 17, 22, 23, 30 Jan; 5, 6 Feb. **Count:** American Crow, 6.7 ind./visit (3 visits); Black-capped Chickadee, 3.6 (8); Tufted Titmouse, 2.7 (7); White-breasted Nuthatch, 1.6 (7); Downy Woodpecker, 1.3 (7); Blue Jay, 0.6 (5); Red-tailed Hawk, 0.1 (1); Brown Creeper, 0.1 (1). **Total:** 8 species; 16.5 ind./visit (98.5 ind./40 ha).

5. MATURE DECIDUOUS FLOODPLAIN FOREST**BOSQUE DECIDUO MADURO INUNDABLE**

DICK GAUTHEY

6603 Reynard Dr., Springfield VA 22152

Location: Maryland; Montgomery Co.; Glen Echo; Cabin John Island; 38°58'N, 77°8'W; Falls Church Quadrangle, USGS. **Continuity:** Established 1947; 43 yr. **Size:** 17.8 ha. **Description of Plot:** See *Aud Field Notes* 2:155-156 (1948). **Weather:** Mean temperature -2.6°C (range -11-2°C). Mean snow depth 1.4 cm (range 0-7 cm). The ground was bare on one visit and there were patches of ice on three others. Period was one of coldest on record. Water was open on first two visits and mostly closed thereafter. Precipitation was mostly sleet and freezing rain resulting in a heavy ice covering during the last three weeks of January and again in mid-February. High water and ice prevented visits during those periods. **Coverage:** 17.5 hrs; 5 visits (mornings): 2, 8 Jan; 4, 5, 7 Feb. **Count:** Carolina Chickadee, 35.8 ind./visit (5 visits); Common Grackle, 16.0 (1); Tufted Titmouse, 12.4 (5); Mallard, 9.6 (4); Carolina Wren, 7.6 (5); Northern Cardinal, 5.4 (5); Downy Woodpecker, 5.2 (5); White-throated Sparrow, 4.0 (4); American Goldfinch, 4.0 (4); Red-bellied Woodpecker, 3.8 (5); Song Sparrow, 3.8 (5); American Crow, 3.0 (4); Winter Wren, 3.0 (4); Canada Goose, 2.4 (3); White-breasted Nuthatch, 2.4 (4); Golden-crowned Kinglet, 2.0 (4); American Black Duck, 1.8 (3); Mourning Dove, 1.8 (2); Pileated Woodpecker, 1.6 (4); Brown Creeper, 1.0 (3); Great Blue Heron, 0.8 (3); Northern Flicker, 0.8 (3); Turkey Vulture, 0.6 (2); Red-shouldered Hawk, 0.6 (3); Belted Kingfisher, 0.6 (2); European Starling, 0.6 (1); Yellow-bellied Sapsucker, 0.4 (2); Hairy Woodpecker, 0.4 (1); House Finch, 0.4 (1); Pied-billed Grebe, 0.2 (1); Common Merganser, 0.2 (1); Sharp-shinned Hawk, 0.2 (1); Ruby-crowned Kinglet, 0.2 (1); Northern Mockingbird, 0.2 (1). **Total:** 34 species; 133 ind./visit (298 ind./40 ha). **Other Observer:** Dick Homan.

6. UPLAND SECOND-GROWTH OAK-HICKORY FOREST**BOSQUE SECUNDARIO ROBLE-NOGAL DE ALTURAS**

HAL MOORE

1 Lakeside Dr., Vicksburg MS 39180

Location: Mississippi; Warren Co.; Vicksburg; Lake Park Tract; 32°14'N, 90°49'W; Big Black Quadrangle, USGS. **Continuity:** Established 1989; 6 yr. **Size:** 10.0 ha. **Description of Plot:** See *J. Field Ornithol.* 61(Suppl.):8 (1990) and 64(Suppl.):8 (1993). **Weather:** Mean temperature 4.3°C (range 0-10°C). Some fog during two visits. **Coverage:** 24.5 hrs; 12 visits (mornings): 15, 16, 27, 30 Dec; 5, 10, 20, 28, 30 Jan; 3, 6, 7 Feb. **Count:** Tufted Titmouse, 15.9 ind./visit (12 visits); Red-bellied Woodpecker, 14.8 (12); Carolina Wren, 9.3 (12); Carolina Chickadee,

7.9 (12); Yellow-rumped Warbler, 7.3 (12); White-throated Sparrow, 6.8 (9); Hermit Thrush, 5.4 (12); Northern Cardinal, 4.1 (12); Blue Jay, 3.7 (8); American Crow, 3.7 (12); Common Grackle, 3.6 (3); Yellow-bellied Sapsucker, 3.2 (12); Ruby-crowned Kinglet, 3.2 (12); Downy Woodpecker, 3.0 (12); Eastern Bluebird, 2.9 (9); American Goldfinch, 2.8 (8); Red-headed Woodpecker, 2.5 (12); Northern Flicker, 2.3 (12); Golden-crowned Kinglet, 2.3 (8); Cedar Waxwing, 2.3 (3); Pileated Woodpecker, 1.4 (8); American Robin, 1.2 (9); Red-shouldered Hawk, 0.9 (7); White-breasted Nuthatch, 0.9 (5); Black Vulture, 0.5 (3); Turkey Vulture, 0.5 (3); House Finch, 0.4 (3); Mourning Dove, 0.3 (2); Eastern Phoebe, 0.3 (3); Brown Thrasher, 0.3 (3); Pine Warbler, 0.3 (3); Fish Crow, 0.1 (1); Rufous-sided Towhee, 0.1 (1). **Total:** 33 species; 114 ind./visit (456 ind./40 ha). **Remarks:** The vultures were actively searching for food during and after deer-hunting season.

7. MATURE URBAN DECIDUOUS FOREST I

BOSQUE DECIDUO MADURO URBANO I

DAVID S. KÜNSTLER

*City of New York Department of Parks and Recreation,
Van Cortlandt and Pelham Bay Parks Administrator's Office,
1 Bronx River Parkway, Bronx NY 10462*

Site Number: NY0989093. **Location:** New York; Bronx Co.; New York City; Hunter Island, Pelham Bay Park; 40°52'N, 73°47'W; Mount Vernon Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 10.1 ha. **Description of Plot:** See *J. Field Ornithol.* 61(Suppl.):38-39 (1990). **Weather:** Mean temperature 4.2°C (range -5.0-7.2°C). Snow cover on all visits. Drizzle during one visit. **Coverage:** 9.4 hrs; 9 visits (1 morning, 8 afternoons): 2, 22, 28 Feb; 2, 4, 5, 8, 11, 14, Mar. **Count:** American Crow, 0.8 ind./visit (5 visits); Tufted Titmouse, 0.8 (4); White-breasted Nuthatch, 0.4 (3); Blue Jay, 0.2 (2); Red-tailed Hawk, 0.1 (1); Red-bellied Woodpecker, 0.1 (1); European Starling, 0.1 (1); Northern Cardinal, 0.1 (1). **Total:** 8 species; 2.7 ind./visit (10.6 ind./40 ha). **Remarks:** There was a surprising and consistent lack of birds through the count period. No birds were sighted during the eighth visit. **Acknowledgments:** Thanks to Robert A. Bealin and Linda P. Dockeray for their support.

8. BEECH-MAPLE SWAMP FOREST

BOSQUE PANTANOSO DE HAYA-ARCE

NELSON J. MOORE & SCOTT A. CUNNINGHAM

Dept. of Biological Sciences, Ohio Northern Univ., Ada OH 45810

Location: Ohio; Hardin Co.; Ada; Moore-Shadley Woods; 40°43'N, 83°48'W; Alger Quadrangle, USGS. **Continuity:** Established 1975; 8 yr. **Size:** 8.3 ha. **Description of Plot:** See *Am. Birds* 29:760-761 (1975). **Weather:** Mean temperature -2.7°C (range -18-27°C). Mean snow depth 4.3 cm (range 0-13 cm). The ground was bare on four visits. During January and early February there were considerable amounts of snow and extremely cold temperatures. No snow cover during the last three visits. **Coverage:** 14.2 hrs; 11 visits (4 mornings, 7 afternoons): 3, 8, 28, 29, 30 Jan; 7, 8, 11, 19, 20, 21 Feb. **Count:** Dark-eyed Junco, 8.9 ind./visit (10 visits); White-breasted Nuthatch, 5.3 (11); Tufted Titmouse, 5.0 (10); Downy Woodpecker, 4.5 (11); Blue Jay, 3.7 (9); Carolina Chickadee, 3.6 (11); House Sparrow, 3.5 (7); American Robin, 3.0 (10); House Finch, 3.0 (7); Northern Cardinal, 2.6 (9); American Crow, 2.3 (9); Red-bellied Woodpecker, 1.7 (9); American Tree Sparrow, 1.5 (8); American Goldfinch, 0.7 (2); Red-tailed Hawk, 0.4 (3); Northern Flicker, 0.4 (3); Mourning Dove, 0.2 (2); Horned Lark, 0.2 (1); Canada Goose, 0.1 (1); Hairy Woodpecker, 0.1 (1); Carolina Wren, 0.1 (1). **Total:** 21 species; 50.7 ind./visit (244 ind./40 ha). **Remarks:** Two feeders in the plot contained black-oil sunflower seeds.

9. MATURE BROADLEAF FOREST**BOSQUE DE HOJA ANCHA MADURO**

CHARLES W. SAUNDERS*, DAVID STYER & STEVE PELIKAN

*5561 Carlsbad Court, Fairfield OH 45014

Site Number: OH1591043. **Location:** Ohio; Hamilton Co.; Harrison; Miami Whitewater Forest; 39°15'N, 84°46'W; Hooven Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 16.0 ha. **Description of Plot:** See *J. Field Ornithol.* 63(Suppl.):52 (1992). **Weather:** Mean temperature -6.3°C (range -24-10.5°C). Mean snow depth 1.5 cm (range 0-10 cm). The ground was bare on six visits. The temperature was > 0°C during the last visit only. **Coverage:** 18.6 hrs; 10 visits (mornings): 31 Dec; 2, 9, 15, 23, 29, 30 Jan; 5, 6, 19 Feb. **Count:** Tufted Titmouse, 8.9 ind./visit (10 visits); White-breasted Nuthatch, 6.3 (10); Carolina Chickadee, 5.7 (10); Red-bellied Woodpecker, 5.0 (10); American Crow, 3.1 (6); Downy Woodpecker, 2.6 (10); Hairy Woodpecker, 2.4 (10); Blue Jay, 2.1 (6); Brown Creeper, 0.9 (7); Northern Flicker, 0.8 (7); Northern Cardinal, 0.7 (4); Dark-eyed Junco, 0.7 (3); Great Horned Owl, 0.6 (6); Pileated Woodpecker, 0.6 (5); Carolina Wren, 0.5 (4); American Robin, 0.4 (2); Golden-crowned Kinglet, 0.1 (1); Song Sparrow, 0.1 (1). **Total:** 18 species; 41.5 ind./visit (104 ind./40 ha). **Remarks:** Compared to our 1993 study, we saw statistically significant ($p < 0.01$) declines in Red-bellied Woodpeckers, Carolina Wrens, and Golden-crowned Kinglets. We suspect this was due to the colder winter. The third week of January was very cold, with the low in Cincinnati (-31°C) within 1°C of a record. Spring migration had already started by our last visit, as judged by the arrival of robins and grackles in the Cincinnati area. Three of the four American Robins recorded were found on 19 February. **Other Observers:** Wayne Wauligman, Mark Bauer. **Acknowledgments:** We thank John Klein and the Hamilton County Park District for the use of the site.

10. RIPARIAN DECIDUOUS FOREST**BOSQUE DECIDUO RIVEREÑO**

ELLIOT J. TRAMER

Dept. of Biology, The University of Toledo, Toledo OH 43606

Location: Ohio; Lucas Co.; Waterville; Old Canal Lands; 41°27'N, 83°46'W; Grand Rapids Quadrangle, USGS. **Continuity:** Established 1989; 6 yr. **Size:** 18.0 ha. **Description of Plot:** See *J. Field Ornithol.* 61(Suppl.):43 (1990). **Weather:** Mean temperature -1.6°C (range -10-10°C). Mean snow depth 4.9 cm (range 0-15 cm). The ground was bare on two visits and there were patches of ice and snow on two others. It was the coldest winter since 1978, with record low temperatures on three days during the study period. Snowfall was well above normal, with extensive snow cover from 21 December through 18 February and from 23 February into March. The old canal bed was frozen through most of the study period. **Coverage:** 19.9 hrs; 9 visits (mornings): 14, 26 Dec; 3, 13, 22, 30 Jan; 6, 12, 19 Feb. **Count:** House Finch, 28.0 ind./visit (9 visits); Dark-eyed Junco, 13.0 (9); Mourning Dove, 12.2 (8); European Starling, 8.7 (7); Northern Cardinal, 7.3 (9); Downy Woodpecker, 7.0 (9); American Crow, 6.6 (6); White-breasted Nuthatch, 6.3 (9); Tufted Titmouse, 5.7 (9); Black-capped Chickadee, 4.1 (9); Blue Jay, 3.2 (8); House Sparrow, 3.1 (9); American Goldfinch, 3.0 (7); Carolina Wren, 1.9 (9); American Tree Sparrow, 1.9 (7); Red-bellied Woodpecker, 1.7 (9); Hairy Woodpecker, 1.7 (9); Northern Flicker, 1.3 (9); Red-breasted Nuthatch, 1.2 (7); Brown Creeper, 1.0 (6); Red-tailed Hawk, 0.8 (7); Song Sparrow, 0.8 (5); Cedar Waxwing, 0.7 (1); American Robin, 0.3 (3); Purple Finch, 0.3 (3); Cooper's Hawk, 0.2 (2); White-throated Sparrow, 0.2 (2); Common Redpoll, 0.2 (1); Red-shouldered Hawk, 0.1 (1); Great Horned Owl, 0.1 (1); Golden-crowned Kinglet, 0.1 (1). **Total:** 31 species; 123 ind./visit (273 ind./40 ha). **Remarks:** Basswood and hackberry fruits were unusually abundant early in winter. Northern Cardinal numbers recovered after a dip last year. Other significant increases occurred in Mourning Dove, Downy Woodpecker, Northern Flicker, Red-breasted Nuthatch, and European Starling. Precipitous drops occurred in the numbers of Cedar Waxwing, House Sparrow, and Golden-crowned Kinglet. The kinglet was seen only once, the lowest abundance

since the study was begun in 1989. Red-shouldered Hawk and Common Redpoll were new to the study. There was no obvious mortality due to the severe weather; even the "sensitive" Carolina Wrens appeared to survive the winter. Yellow-rumped Warbler was not detected for the first time.

11. BLACK WILLOW-WHITE ASH FOREST

BOSQUE DE SAUCE NEGRO-FRESNO BLANCO

MICHAEL F.G. CLARK

27 Skyline Dr., Dundas ON L9H 3S3

Location: Ontario; Municipality of Hamilton-Wentworth; Dundas; Cootes Paradise; 43°16'N, 79°56'W. **Continuity:** Established 1984; 11 yr. **Size:** 13.0 ha. **Description of Plot:** See *J. Field Ornithol.* 60(Suppl.):9 (1989). **Weather:** Mean temperature -4.7°C (range -15-9°C). Mean snow depth 16.1 cm (range 0-30 cm). The ground was bare on two visits. Some snowfall during two visits. Water was frozen solid for most of the winter. A very cold winter. The average temperature for January (-11.7°C) was the second lowest on record and was 5.5°C below the norm. Temperatures averaged 4°C below the 30-yr average (-2.1°C) from December through March. Snowfall averaged 21.7 cm above the norm per month. Source: Environment Canada. **Coverage:** 10.0 hrs; 8 visits (6 mornings, 2 afternoons): 11, 24, 26 Dec; 22 Jan; 19, 26 Feb; 16, 19 Mar. **Count:** Black-capped Chickadee, 6.8 ind./visit (7 visits); Brown Creeper, 2.4 (4); Downy Woodpecker, 1.0 (6); White-breasted Nuthatch, 1.0 (4); Hairy Woodpecker, 0.5 (2); American Crow, 0.5 (2); Carolina Wren, 0.4 (2); Winter Wren, 0.4 (2); unidentified species, 0.3 (2); Great Blue Heron, 0.3 (2); Northern Cardinal, 0.3 (2); finch species, 0.3 (2); Pine Siskin, 0.3 (1); Double-crested Cormorant, 0.1 (1); Red-tailed Hawk, 0.1 (1); woodpecker species, 0.1 (1); American Goldfinch, 0.1 (1). **Total:** 14 species; 14.6 ind./visit (45.0 ind./40 ha). **Remarks:** The extremely cold winter (especially January) likely accounted in part for the plot's third lowest total count (117 individuals, 11-yr average is 191). The total of 14 species is approximately 2.5 below average. Bark foragers dominated once again, totaling 84 individuals (72% of total, 5 species). Black-capped Chickadees accounted for 46% of the total individuals. Double-crested Cormorant (11 December) was new to this plot.

12. REGENERATING NORTHERN HARDWOODS

BOSQUES NORTEÑO DE MADERAS DURAS REGENERADO

J. CHRISTOPHER HANEY & CHARLES P. SCHAADT

*Wildlife Technology Program, School of Forest Resources,
The Pennsylvania State University, College Place, DuBois PA 15801-3199*

Location: Pennsylvania; Clearfield Co.; DuBois; Treasure Lake Plot; 41°11'N, 78°43'W; Sabula Quadrangle, USGS. **Continuity:** New. **Size:** 15.0 ha. **Description of Plot:** See BBC #33. **Weather:** Mean temperature -6.0°C (range -23-3°C). Mean snow depth 23.2 cm (range 0-70 cm). The ground was bare on three visits. Some snowfall during six visits. Temperature and precipitation departures, respectively, from the 30-yr means for: Dec, daily high -0.7°C, daily low -0.1°C, +3.1 cm; Jan, daily high -3.6°C, daily low -3.3°C, +1.6 cm; Feb, daily high -1.2°C, daily low -1.1°C, -0.5 cm. Source: DuBois-Jefferson Co. Regional Airport. These statistics do not fully describe one of the most severe winters on record. Temperatures plunged to -32°C, there were only 24-36 hours between storms, and total snowfall exceeded 3 m, much of which remained on the ground continuously from mid-December through the end of February. **Coverage:** 19.3 hrs; 10 visits (mornings): 1, 6, 11, 13 Dec; 2, 6, 12, 16 Jan; 9, 12 Feb. **Count:** Black-capped Chickadee, 4.9 ind./visit (9 visits); Wild Turkey, 2.3 (1); White-breasted Nuthatch, 2.0 (9); Tufted Titmouse, 1.9 (7); Downy Woodpecker, 1.1 (7); Brown Creeper, 0.9 (6); Hairy Woodpecker, 0.6 (5); American Crow, 0.6 (4); Blue Jay, 0.4 (3); Evening Grosbeak, 0.4 (3); Common Raven, 0.3 (3); Common Redpoll, 0.3 (1); Ruffed Grouse, 0.1

(1); Pileated Woodpecker, 0.1 (1); American Goldfinch, 0.1 (1). **Total:** 15 species; 16.0 ind./visit (42.7 ind./40 ha). **Remarks:** There was almost no mast for food this winter. **Acknowledgments:** We thank Larry Lentz, Jeffrey Sowl, and David Wright, all of the Center for Rural Pennsylvania, Carl Schlentner at Cook Forest State Park, and David deCalesta at Allegheny National Forest, USFS, for making this study possible. This plot is part of an on-going investigation of old-growth forest supported by funds from Pennsylvania State University CES Research and Development grants, the DuBois Educational Foundation, and the Center for Rural Pennsylvania.

13. SUGAR MAPLE–MIXED HARDWOOD FOREST

BOSQUE MIXTO DE MADERAS DURAS–ARCE DE ALMIBAR

ROY A. ICKES

Washington and Jefferson College, Washington PA 15301

Location: Pennsylvania; Washington Co.; Washington; Abernathy Property; 40°8'N, 80°11'W; Washington East Quadrangle, USGS. **Continuity:** Established 1983; 11 yr. **Size:** 9.7 ha. **Description of Plot:** See *Am. Birds* 37:55–56 (1983). **Weather:** Mean temperature -4.9°C (range -12 – 1°C). Mean snow depth 14.3 cm (range 5–25 cm). Mean temperature was slightly below average. Mean snow depth was very much above average. **Coverage:** 24.8 hrs; 8 visits (mornings): 11, 22, 23, 25, 29, 30, 31 Jan; 5 Feb. **Count:** Tufted Titmouse, 7.1 ind./visit (8 visits); Blue Jay, 4.9 (8); Carolina Chickadee, 4.8 (8); White-breasted Nuthatch, 4.4 (8); Downy Woodpecker, 4.1 (8); Black-capped Chickadee, 3.3 (8); Red-bellied Woodpecker, 2.9 (8); Dark-eyed Junco, 1.8 (4); Northern Cardinal, 1.1 (5); Wild Turkey, 1.0 (1); Brown Creeper, 0.8 (4); Golden-crowned Kinglet, 0.5 (2); White-throated Sparrow, 0.5 (1); Mourning Dove, 0.4 (2); Hairy Woodpecker, 0.4 (3); Pileated Woodpecker, 0.4 (3); Northern Flicker, 0.3 (1); Eastern Bluebird, 0.3 (1); Cooper's Hawk, 0.1 (1); Yellow-bellied Sapsucker, 0.1 (1); American Crow, 0.1 (1). **Total:** 21 species; 39.0 ind./visit (161 ind./40 ha). **Remarks:** Lowest totals ever for Tufted Titmouse and White-breasted Nuthatch, with the latter 16 individuals below last year's previous low. The fourth consecutive year for reduced numbers of these species. The Blue Jay total was more than twice the previous high, at least three every visit. This was the most total species for the plot, four above average. Perhaps the heavy snow cover was a factor. **Acknowledgments:** Thanks to Ernest Abernathy for the use of his property.

14. PONDEROSA PINE FOREST

BOSQUE DE PINO PONDEROSA

LOUISE HERING

1055 Adams Circle, Apt. 1118, Boulder CO 80303

Location: Colorado; Boulder Co.; Boulder; Enchanted Mesa; 39°50'N, 105°16'W; Boulder Quadrangle, USGS. **Continuity:** Established 1966; 14 yr. **Size:** 8.1 ha. **Description of Plot:** See *Aud. Field Notes* 8:372 (1954) and *J. Field Ornithol.* 64(Suppl.):61 (1993). **Weather:** Mean temperature 6.1°C (range -1 – 16°C). Mean snow depth 2.2 cm (range 0–20 cm). The ground was bare on one visit and there was patchy snow cover on 12 visits. November through March temperatures were above normal and precipitation was below normal. Source: *Boulder Daily Camera*. **Coverage:** 21.1 hrs; 15 visits (mornings): 24, 31 Oct; 15, 22 Nov; 4, 10, 24 Dec; 9, 15, 22 Jan; 5, 20, 27 Feb; 6, 13 Mar. **Count:** Pygmy Nuthatch, 17.1 ind./visit (14 visits); Mountain Chickadee, 7.4 (15); Black-billed Magpie, 3.3 (12); Steller's Jay, 2.6 (13); White-breasted Nuthatch, 2.6 (13); Brown Creeper, 1.5 (6); Dark-eyed Junco, 1.2 (7); Black-capped Chickadee, 0.7 (5); Downy Woodpecker, 0.5 (8); Pine Siskin, 0.5 (3); Northern Flicker, 0.5 (7); Hairy Woodpecker, 0.4 (6); American Robin, 0.4 (4); House Finch, 0.3 (2); Red Crossbill, 0.3 (1); Townsend's Solitaire, 0.2 (2); Common Raven, 0.1 (1); Cooper's Hawk, 0.1 (1); Red-tailed Hawk, 0.1 (1). **Total:** 19 species; 39.7 ind./visit (196 ind./40 ha). **Other Observer:** Barbara Beall.

15. MATURE LONGLEAF PINE FOREST I

BOSQUE DE PINO DE HOJA LARGA MADURO I

R. TODD ENGSTROM

Tall Timbers Research Station, Route 1 Box 678, Tallahassee FL 32312-9712

Site Number: GA0493114. **Location:** Georgia; Thomas Co.; Thomasville; Wade Tract (west side); 30°45'N, 84°0'W; Pine Park and Thomasville Quadrangles, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 20.0 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):15 (1994). The titi stringer was dry this year. **Weather:** Mean temperature 5.0°C (range -3-14°C). Light to heavy frost occurred on three mornings. It was foggy during one visit. **Coverage:** 16.0 hrs; 8 visits (mornings): 11, 21, 23, 24, 25, 26, 27 Jan; 1 Feb. **Count:** Yellow-rumped Warbler, 80.9 ind./visit (8 visits); Rufous-sided Towhee, 17.4 (8); Blue Jay, 10.8 (8); White-throated Sparrow, 10.3 (7); Red-headed Woodpecker, 7.3 (8); Northern Cardinal, 5.6 (8); White-breasted Nuthatch, 5.3 (8); Brown-headed Nuthatch, 5.3 (8); Red-cockaded Woodpecker, 5.0 (7); Common Yellowthroat, 4.6 (8); House Wren, 4.4 (8); Pine Warbler, 4.3 (5); Northern Bobwhite, 4.1 (2); Mourning Dove, 4.1 (7); Yellow-bellied Sapsucker, 2.3 (8); Tufted Titmouse, 2.3 (7); Eastern Phoebe, 2.1 (7); Northern Mockingbird, 2.0 (8); Red-bellied Woodpecker, 1.6 (6); Northern Flicker, 1.6 (7); Eastern Bluebird, 1.5 (5); Ruby-crowned Kinglet, 0.9 (3); Loggerhead Shrike, 0.9 (5); Eastern Meadowlark, 0.9 (5); Carolina Wren, 0.8 (5); Brown Thrasher, 0.8 (5); American Goldfinch, 0.8 (4); Hairy Woodpecker, 0.6 (4); Red-tailed Hawk, 0.5 (4); American Kestrel, 0.4 (3); Pileated Woodpecker, 0.4 (3); Wood Duck, 0.3 (1); Sharp-shinned Hawk, 0.3 (2); Gray Catbird, 0.3 (2); Bachman's Sparrow, 0.3 (2); Great Horned Owl, 0.1 (1); Downy Woodpecker, 0.1 (1); Carolina Chickadee, 0.1 (1); American Robin, 0.1 (1); Solitary Vireo, 0.1 (1); Henslow's Sparrow, 0.1 (1). **Total:** 41 species; 191 ind./visit (382 ind./40 ha). **Remarks:** The plot was burned in 1992 and the ground cover was denser than in Mature Longleaf Pine Forest II, which is 100 m to the E. Large flocks of Yellow-rumped Warblers foraged throughout the forest, particularly on waxmyrtle which was fruiting. A large mixed flock of White-throated Sparrows and Northern Cardinals was active around the titi stringer and a dried-up ephemeral pond. Wood Ducks were noticeably scarce because of the dry conditions. Red-headed Woodpeckers, which are usually rare to absent in this forest during the winter, were abundant. **Acknowledgments:** Thanks to Larry Carlile for assistance in summarizing the data and to the Wade family for access to their property.

16. MATURE LONGLEAF PINE FOREST II

BOSQUE DE PINO DE HOJA LARGA MADURO II

LAWRENCE D. CARLILE*

Tall Timbers Research Station, Route 1 Box 678, Tallahassee FL 32312-9712

Site Number: GA0493113. **Location:** Georgia; Thomas Co.; Thomasville; Wade Tract; 30°45'N, 84°0'W; Pine Park and Thomasville Quadrangles, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 20.0 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):15-16 (1994). The ephemeral pond was completely dry this year. **Weather:** Mean temperature 5.0°C (range 0-12°C). Winds were gusty on two visits. It was overcast or foggy during three visits. **Coverage:** 16.6 hrs; 8 visits (mornings): 10, 11, 24, 25, 26, 27 Jan; 1, 2 Feb. **Count:** Yellow-rumped Warbler, 37.6 ind./visit (8 visits); Chipping Sparrow, 23.1 (7); Palm Warbler, 18.1 (7); Common Yellowthroat, 10.6 (8); Blue Jay, 7.6 (8); Brown-headed Nuthatch, 7.4 (8); Rufous-sided Towhee, 7.4 (8); Pine Warbler, 7.0 (8); Tufted Titmouse, 6.4 (8); House Wren, 6.1 (8); Bachman's Sparrow, 5.9 (8); Red-bellied Woodpecker, 5.8 (8); Red-cockaded Woodpecker, 5.6 (8); White-breasted Nuthatch, 5.4 (8); Mourning Dove, 5.0 (8); Ruby-crowned Kinglet, 3.0 (8); Northern Cardinal, 3.0 (8); Northern Flicker, 2.9 (8); Eastern Phoebe, 2.9 (8); Carolina Wren, 2.3 (8); Carolina Chickadee, 2.1 (7); Eastern Bluebird, 1.9 (6); Yellow-bellied Sapsucker, 1.8 (7); Loggerhead Shrike, 1.4 (7); Pileated Woodpecker, 1.1 (6); Cedar Waxwing, 1.1 (1); White-throated Sparrow, 1.1 (4); Hairy Woodpecker, 1.0 (5); Red-headed Woodpecker, 0.9 (4); Downy Woodpecker, 0.8 (2); Solitary Vireo, 0.8 (3); American Goldfinch, 0.6 (2); American Kestrel, 0.5 (4); Common Ground-Dove, 0.5 (1); Swamp Sparrow,

0.5 (2); Brown Thrasher, 0.4 (3); Song Sparrow, 0.4 (2); Common Grackle, 0.4 (2); Wood Duck, 0.3 (1); Gray Catbird, 0.3 (2); Cooper's Hawk, 0.1 (1); Red-tailed Hawk, 0.1 (1); Great Horned Owl, 0.1 (1); American Crow, 0.1 (1); American Robin, 0.1 (1); Northern Mockingbird, 0.1 (1); Eastern Meadowlark, 0.1 (1). **Total:** 47 species; 192 ind./visit (384 ind./40 ha). **Remarks:** The plot was subjected to a prescribed burn on 15 June 1993. Grasses (especially wiregrass) responded by flowering profusely. The resulting seed crop, in addition to a sparse litter layer, may have accounted for increased abundances of Chipping Sparrow, Rufous-sided Towhee, and Northern Cardinal compared to last year. Yellow-rumped and Palm Warbler numbers increased dramatically compared to last year. The dry pond accounted for the decrease in Wood Duck numbers. Four Red-cockaded Woodpecker clans foraged on the plot. **Acknowledgments:** Thanks to R. Todd Engstrom for advice and to the Wade family for access to their property. *Present address: Fish & Wildlife Branch, AFZP-DEV-W, Fort Stewart GA 31314

17. LONGLEAF PINE-BLUESTEM FOREST

BOSQUE DE PINO DE HOJA LARGA Y TALLOAZUL

KENNETH MOORE

Walnut Creek Apts., Apt. 52, DeRidder LA 70634

Location: Louisiana; Vernon Parish; Ft. Polk; Fullerton Area; 31°5'N, 92°58'W; Fullerton Lake Quadrangle, USGS. **Continuity:** New. **Size:** 25.0 ha. **Description of Plot:** A square plot (500 x 500 m) with an open park-like stand of longleaf pine estimated to be between 61 and 100 years of age. There is very little understory. The ground cover is dominated by little bluestem with a small mixture of other grasses and forbs. A quantitative vegetation survey based on the method described by F.C. James & H.H. Shugart, Jr. (1970. *Aud. Field Notes* 24:727-736) yielded the following results: Trees, 7.6 cm diameter and over, based on 6 0.04-ha circular samples, 34/ha; total basal area 4.7 m²/ha. Species comprising 100% of the total number of trees [figures after each are trees/ha, relative density (%), relative dominance (%), and frequency (%): longleaf pine, 19, 56, 81, 83; loblolly pine, 8, 23, 13, 17; laurel oak, 3, 10, 1, 17; sweetgum, 6, 8, 3, 17; southern red oak, 1, 2, 0.2, 17; shortleaf pine, 1, 2, 2, 17; standing dead, 1, 2, 2, 17. Trees by diameter size class [figures after each are trees/ha, relative density (%), basal area in m²/ha, and relative dominance (%): A (7.6-15.2 cm) 9, 26, 0.1, 3; B (15.2-22.9 cm) 2, 6, 0.1, 2; C (22.9-38.1 cm) 9, 28, 1.1, 22; D (38.1-53.3 cm) 11, 32, 2.8, 61; E (53.3-68.6 cm) 1, 4, 0.6, 12; Shrub stems/ha, 457. Ground cover, 88%. Canopy cover, 61%; average canopy height, 19.0 m (range 9-29 m). Two small intermittent streams start just inside the plot and flow out; small bogs occur around each stream head. The stream heads provide the only dense cover found in the plot. **Edge:** Most (95%) of the plot's perimeter is bordered by the same habitat; the other 5% is a stream bed that contains loblolly pine, sweetbay, and oaks. The plot lies within a tract of similar habitat > 500 ha in size. **Topography and Elevation:** The plot has an uneven W-facing slope of < 5%. Minimum elevation 84 m, maximum 93 m. **Weather:** Mean temperature 4.8°C (range -2-13°C). January temperature was above normal, precipitation was twice normal. February temperature was near normal, precipitation below normal. **Coverage:** 15.2 hrs; 8 visits (mornings): 4, 5, 6 Jan; 1, 3, 4, 7, 9 Feb. **Count:** Pine Warbler, 7.4 ind./visit (8 visits); Red-winged Blackbird, 5.0 (1); Yellow-rumped Warbler, 3.6 (6); White-throated Sparrow, 3.4 (5); Red-cockaded Woodpecker, 2.0 (6); American Goldfinch, 1.5 (2); Ruby-crowned Kinglet, 1.1 (5); Carolina Chickadee, 1.0 (5); Yellow-bellied Sapsucker, 0.9 (6); American Crow, 0.9 (1); Carolina Wren, 0.9 (5); Bachman's Sparrow, 0.9 (4); Eastern Phoebe, 0.6 (4); Northern Flicker, 0.5 (2); Hermit Thrush, 0.5 (4); Red-bellied Woodpecker, 0.4 (2); Golden-crowned Kinglet, 0.4 (2); American Robin, 0.4 (2); Henslow's Sparrow, 0.4 (2); Downy Woodpecker, 0.3 (1); Hairy Woodpecker, 0.3 (2); Song Sparrow, 0.3 (1); Great Horned Owl, 0.1 (1); Pileated Woodpecker, 0.1 (1); Winter Wren, 0.1 (1); Brown Thrasher, 0.1 (1). **Total:** 26 species; 32.9 ind./visit (52.6 ind./40 ha). **Remarks:** Fewer birds were found in the stream head vegetation in February than in January. A 16.5 cm rainfall on 27 January cleared the stream beds of leaf litter, making them less attractive to ground-foraging birds.

18. MATURE RED SPRUCE FOREST

BOSQUE MADURO DE ABETOS ROJOS

THOMAS P. SKALING

10 Cumberland St., Brunswick ME 04011

Location: Maine; Somerset Co.; West Forks; Boise Cascade Tract; 45°25'N, 70°10'W; Enchanted Pond Quadrangle, USGS. **Continuity:** Established 1990; 5 yr. **Size:** 16.0 ha. **Description of Plot:** See *J. Field Ornithol.* 61 (Suppl.):46 (1990). **Weather:** Mean temperature -18.0°C (range $-30-0^{\circ}\text{C}$). Mean snow depth 62.4 cm (range 15–102 cm). Light snow or snow squalls during two visits. January 1994 was the coldest month recorded in this region of the state in 100 years. The average daily temperature was -18°C , a full 6°C departure from normal. Total snowfall for January was 110 cm (150% of normal). The first two weeks of February continued colder and snowier than average; the remainder of the winter fell within normal limits. The pond and small stream were frozen throughout the count period. Source: Northeast Regional Climate Center, Cornell University, and on-site instruments. **Coverage:** 28.0 hrs; 10 visits (mornings): 5, 9 Dec; 5, 9, 19, 30 Jan; 3, 18 Feb; 2, 17 Mar. **Count:** Black-capped Chickadee, 1.8 ind./visit (6 visits); Red-breasted Nuthatch, 1.8 (6); Golden-crowned Kinglet, 1.7 (6); Common Redpoll, 1.5 (3); Boreal Chickadee, 1.4 (6); Downy Woodpecker, 1.0 (6); Hairy Woodpecker, 0.7 (4); Blue Jay, 0.5 (5); Gray Jay, 0.4 (2); Pileated Woodpecker, 0.2 (2); Common Raven, 0.2 (2); Ruffed Grouse, 0.1 (1). **Total:** 12 species; 11.3 ind./visit (28.3 ind./40 ha). **Remarks:** Count totals for most species were significantly lower than averages for a second consecutive year. Several visits (5, 6, 7, 8) yielded no bird sightings. Again, severe weather conditions in January and early February were probably a major factor in the lower counts. Common Redpolls made their first showing in five years; Evening Grosbeaks were absent for the first time in five years. **Acknowledgments:** I thank Boise Cascade for their continued support of this project.

19. UPLAND SCOTCH PINE PLANTATION

PLANTACION DE PINO ESCOCES EN ALTURAS

ELIZABETH W. BROOKS

1435 Waterwells Road, Alfred Station NY 14803

Site Number: NY2470024. **Location:** New York; Allegany Co.; Alfred; Foster Plantation; 42°7'N, 77°45'W; Andover Quadrangle, USGS. **Continuity:** Established 1984; 10 yr. **Size:** 9.3 ha. **Description of Plot:** See *Aud. Field Notes* 23:743–744 (1969) and *Am. Birds* 38:38 (1984). **Weather:** Mean temperature -4.5°C (range $-8-2^{\circ}\text{C}$). Mean snow depth 36.7 cm (range 26.5–52 cm). There were flurries on two visits, it was misty on another and there was an ice coat on a fourth. Average temperature in January (-11.5°C) was 8°C colder than normal; February (-6.5°C) was 1°C colder than normal. Snowfall in January (81 cm) was 44 cm above normal; February (63 cm) was 33 cm above normal. Source: Alfred Cooperative Weather Station. **Coverage:** 14.1 hrs; 8 visits (3 mornings, 5 afternoons): 28 Dec; 3, 12, 22, 25 Jan; 4, 21, 22 Feb. **Count:** Black-capped Chickadee, 6.3 ind./visit (8 visits); Ruffed Grouse, 1.8 (6); Common Redpoll, 0.8 (3); Evening Grosbeak, 0.8 (3); Blue Jay, 0.5 (2); Brown Creeper, 0.4 (3); Purple Finch, 0.4 (1); Golden-crowned Kinglet, 0.3 (1); Sharp-shinned Hawk, 0.1 (1); Wild Turkey, 0.1 (1). **Total:** 10 species; 11.3 ind./visit (48.4 ind./40 ha). **Remarks:** Common Redpoll was a new species on the plot. The total number of individuals was the lowest ever, with chickadees at only half of the 9-yr average number. Multiflora rose hips along the W edge provided some food, but in general the poor food supply (the cone crop was generally poor) and severity of the winter probably caused the low counts. **Other Observer:** Peter Gradoni. **Acknowledgments:** Appreciation to Cynthia Clements and Phil Foster for permission to use the study area and to Rick Walker for weather data.

20. OLD-GROWTH HEMLOCK-WHITE PINE FOREST

BOSQUE DE EDAD AVANSADA DE PICEA-PINO BLANCO

J. CHRISTOPHER HANEY, JASON LYDIC & CHARLES P. SCHAADT

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Location: Pennsylvania; Forest Co.; Cooksburg; Henry Run; 41°20'N, 79°12'W; Cooksburg Quadrangle, USGS. **Continuity:** New. **Size:** 15.0 ha. **Description of Plot:** See BBC #55. **Weather:** Mean temperature -5.1°C (range -14-0°C). Some snowfall during six visits. See WBPS #12 for additional summary data. **Coverage:** 21.8 hrs; 10 visits (mornings): 16, 17, 21 Dec; 3, 6, 8, 11, 23, 25 Jan; 8 Feb. **Count:** Evening Grosbeak, 7.1 ind./visit (10 visits); Black-capped Chickadee, 4.3 (10); Golden-crowned Kinglet, 2.8 (9); Brown Creeper, 1.1 (7); Hairy Woodpecker, 0.6 (6); White-breasted Nuthatch, 0.6 (3); Red-bellied Woodpecker, 0.1 (1); Downy Woodpecker, 0.1 (1); Pileated Woodpecker, 0.1 (1); Red-breasted Nuthatch, 0.1 (1); Red Crossbill, 0.1 (1). **Total:** 11 species; 17.0 ind./visit (45.3 ind./40 ha). **Remarks:** In contrast to last year's bumper crops, essentially no mast (beechnut) or cones (hemlock, white pine) this winter; acorn crop good but oaks are quite rare on this plot. **Other Observers:** Jeff Richards, Brad Kirsch. **Acknowledgments:** We thank Larry Lentz, Jeffrey Sowl, and David Wright, all of the Center for Rural Pennsylvania, Carl Schlentner at Cook Forest State Park, and David deCalesta at Allegheny National Forest, USFS, for making this study possible. This plot is part of an on-going investigation of old-growth forest supported by funds from Pennsylvania State University CES Research and Development grants, the DuBois Educational Foundation, and the Center for Rural Pennsylvania.

21. OLD-GROWTH WHITE PINE-HEMLOCK FOREST

BOSQUE DE EDAD AVANSADA DE PINO BLANCO-PICEA

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Site Number: PA2493081. **Location:** Pennsylvania; Clarion Co.; Cooksburg; Hillside Tract; 41°20'N, 79°13'W; Cooksburg Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 18.2 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):73-74 (1994). **Weather:** Mean temperature -8.3°C (range -20--2°C). Mean snow depth 17.0 cm (range 0-40 cm). The ground was bare on two visits. Some snowfall during two visits. See WBPS #12 for additional summary data. **Coverage:** 23.1 hrs; 10 visits (mornings): 2, 9, 14 Dec; 1, 3, 10, 22, 23 Jan; 2, 7 Feb. **Count:** Black-capped Chickadee, 10.8 ind./visit (10 visits); Evening Grosbeak, 7.0 (10); Golden-crowned Kinglet, 5.8 (10); Downy Woodpecker, 1.8 (10); Blue Jay, 1.7 (7); Brown Creeper, 1.7 (9); Red-breasted Nuthatch, 1.4 (7); Hairy Woodpecker, 0.8 (7); Pileated Woodpecker, 0.7 (5); Wild Turkey, 0.6 (1); White-breasted Nuthatch, 0.5 (4); Winter Wren, 0.4 (2); Common Raven, 0.3 (3); Common Redpoll, 0.3 (3); Cooper's Hawk, 0.1 (1); Great Horned Owl, 0.1 (1); Cedar Waxwing, 0.1 (1); Purple Finch, 0.1 (1); American Goldfinch, 0.1 (1). **Total:** 19 species; 34.3 ind./visit (75.4 ind./40 ha). **Remarks:** In contrast to last year's bumper crops, essentially no mast (beechnut) or cones (hemlock, white pine) this winter; acorn crop good but oaks are quite rare on this plot. **Other Observer:** Robert Bodenhorn. **Acknowledgments:** We thank Larry Lentz, Jeffrey Sowl, and David Wright, all of the Center for Rural Pennsylvania, Carl Schlentner at Cook Forest State Park, and David deCalesta at Allegheny National Forest, USFS, for making this study possible. This plot is part of an on-going investigation of old-growth forest supported by funds from Pennsylvania State University CES Research and Development grants, the DuBois Educational Foundation, and the Center for Rural Pennsylvania.

22. MATURE EASTERN LARCH FOREST

BOSQUE MADURO DE ALERCE

MARC D. DEMERS

10 rue Cartier, La Tuque PQ G9X 3L6

Site Number: PQ2891005. **Location:** Quebec; Laviolette/Champlain Co.; La Tuque; Golf woods; 47°27'N, 72°47'W; La Tuque Quadrangle. **Continuity:** Established 1991; 4 yr. **Size:** 25.0 ha. **Description of Plot:** See *J. Field Ornithol.* 63(Suppl.):16 (1992). **Weather:** Mean temperature -16.1°C (range -33-11°C). There was very cold weather over several weeks with some record low temperatures. Snow cover was 38 cm on the first visit and 197 cm on the last visit. It snowed during two visits. **Coverage:** 16.8 hrs; 9 visits (6 mornings, 3 afternoons): 2, 9, 16, 23, 30 Jan; 6, 13, 20, 27 Feb. **Count:** Common Redpoll, 27.0 ind./visit (9 visits); Black-capped Chickadee, 15.4 (9); Evening Grosbeak, 7.0 (9); Blue Jay, 3.0 (5); Common Raven, 1.6 (8); Hoary Redpoll, 1.3 (3); Hairy Woodpecker, 0.6 (2); Pine Grosbeak, 0.2 (1). **Total:** 8 species; 56.1 ind./visit (89.8 ind./40 ha). **Remarks:** Not many birds this year. On one morning the temperature was about -51°C with the windchill factor.

23. PONDEROSA PINE-SCRUB OAK FOREST

BOSQUE DE PINO PONDEROSA-MATORRAL DE ROBLE

BRIAN J. FREIBURGER & HERBERT J. FINCH

HQ USAFA/DFB, U.S. Air Force Academy CO 80840

Location: Colorado; El Paso Co.; Colorado Springs; USAFA Winter Bird Survey; 38°57'N, 104°50'W; Pikeview Quadrangle, USGS. **Continuity:** Established 1991; 4 yr. **Size:** 12.0 ha. **Description of Plot:** See *J. Field Ornithol.* 62(Suppl.):56-57 (1991). **Weather:** Mean temperature 4.5°C (range -2-13°C). Mean snow depth 0.4 cm (range 0-3.8 cm). The ground was bare on eight visits. Temperatures were 1-2°C higher than average while precipitation was slightly lower than normal. Snow cover was 30% at the beginning of the study and decreased steadily until fresh snow fell on the day of the eighth visit. **Coverage:** 10.3 hrs; 10 visits (afternoons): 15 Dec; 6, 10, 11, 20, 21, 25, 27 Jan; 3, 11 Feb. **Count:** Pygmy Nuthatch, 3.3 ind./visit (7 visits); Mountain Chickadee, 2.3 (5); White-breasted Nuthatch, 1.5 (5); Dark-eyed Junco, 1.1 (2); Black-capped Chickadee, 0.9 (3); Brown Creeper, 0.8 (4); Black-billed Magpie, 0.5 (3); Northern Flicker, 0.3 (2); Downy Woodpecker, 0.2 (2); Steller's Jay, 0.2 (1); Pine Siskin, 0.2 (1); Great Horned Owl, 0.1 (1). **Total:** 12 species; 11.4 ind./visit (38.0 ind./40 ha). **Other Observer:** James S. Kent.

24. MATURE BROADLEAF-CONIFEROUS FORESTED WETLAND

BOSQUE MADURO DE ARBOLES DE HOJA ANCHA-CONIFEROS

TOM HARRINGTON

30 South Windham Road, Willimantic CT 06226

Site Number: CT1291035. **Location:** Connecticut; Hartford Co.; Manchester; Oak Grove Nature Center; 41°46'N, 72°30'W; Manchester Quadrangle, USGS. **Continuity:** Established 1992; 3 yr. **Size:** 21.5 ha. **Description of Plot:** See *J. Field Ornithol.* 63(Suppl.):74 (1992). **Weather:** Mean temperature -5.0°C (range -16-2°C). Mean snow depth 20.9 cm (range 0-41 cm). The ground was bare on three visits. Trace of precipitation during two visits. Snowfall for the area was the greatest ever recorded. Snow cover reached nearly 1 m in some areas of the plot. **Coverage:** 16.5 hrs; 8 visits (mornings): 29 Dec; 1, 3, 30 Jan; 5, 19, 20, 22 Feb. **Count:** Black-capped Chickadee, 19.9 ind./visit (8 visits); Tufted Titmouse, 12.9 (8); House Finch, 12.8 (8); Blue Jay, 8.9 (8); Mallard, 8.3 (6); American Crow, 6.4 (8); American Goldfinch, 6.1 (8); Dark-eyed Junco, 5.4 (6); White-breasted Nuthatch, 4.1 (7); Golden-crowned Kinglet, 2.1 (5); European Starling, 2.0 (5); Northern Cardinal, 1.9 (7); Song Sparrow, 1.8

(5); Downy Woodpecker, 1.5 (7); White-throated Sparrow, 1.3 (3); Red-bellied Woodpecker, 0.8 (5); Red-breasted Nuthatch, 0.8 (4); Hairy Woodpecker, 0.6 (5); Mourning Dove, 0.5 (3); Belted Kingfisher, 0.5 (4); Carolina Wren, 0.4 (2); House Sparrow, 0.4 (1); American Robin, 0.3 (2); Common Merganser, 0.1 (1); Red-breasted Merganser, 0.1 (1); Northern Goshawk, 0.1 (1); American Woodcock, 0.1 (1); Northern Mockingbird, 0.1 (1); American Tree Sparrow, 0.1 (1). **Total:** 29 species; 100 ind./visit (186 ind./40 ha). **Remarks:** At times, travel through the snow on foot was extremely difficult. A Northern Goshawk landed in a tree above the nature center building on 5 February. Within five minutes, it was harassed and chased away by four American Crows. On 22 February, an American Woodcock was observed in the only open area around. This area was nearly 20 m² and the ground was just beginning to thaw.

25. MIXED PINE AND DECIDUOUS FOREST

BOSQUE MIXTO DE PINOS Y DE ARBOLES DECIDUO

J. DAN WEBSTER

Hanover College, Hanover IN 47243

Location: Indiana; Jefferson Co.; Hanover; 38°42'N, 85°35'W; Kent Quadrangle, USGS. **Continuity:** Established 1977; 9 yr. **Size:** 14.5 ha. **Description of Plot:** See *Am. Birds* 32:27-28 (1978). Two-thirds of the large pines are standing dead or have fallen. There was selective logging of larger trees in the adjacent woods near the W edge. **Weather:** Mean temperature -1.3°C (range -14-7°C). Mean snow depth 3.1 cm (range 0-15 cm). The ground was bare on three visits. Light rain or snow during four visits. The creek was totally frozen on one visit. December and the second half of February were average; January and the first half of February were colder and snowier than usual. **Coverage:** 19.7 hrs; 8 visits (mornings): 17 Dec; 5, 21, 31 Jan; 4, 12, 18, 21 Feb. Three additional partial visits were made (two for owls) but they are not included in the counts below. **Count:** Tufted Titmouse, 5.3 ind./visit (8 visits); Carolina Chickadee, 4.0 (8); Golden-crowned Kinglet, 3.6 (8); Blue Jay, 2.4 (6); Northern Cardinal, 2.1 (8); Downy Woodpecker, 1.6 (7); Red-headed Woodpecker, 1.4 (6); American Crow, 1.1 (5); Red-bellied Woodpecker, 1.0 (4); Red-breasted Nuthatch, 1.0 (4); Carolina Wren, 1.0 (4); Eastern Bluebird, 0.8 (2); White-breasted Nuthatch, 0.5 (2); American Robin, 0.5 (2); Pileated Woodpecker, 0.4 (3); Rufous-sided Towhee, 0.4 (3); Red-shouldered Hawk, 0.3 (2); Hairy Woodpecker, 0.3 (2); Dark-eyed Junco, 0.3 (2); Northern Flicker, 0.1 (1); European Starling, 0.1 (1). **Total:** 21 species; 28.0 ind./visit (77.2 ind./40 ha). **Remarks:** The following flew over the plot once during visits: Turkey Vulture, Rough-legged Hawk, American Kestrel, pair of Canada Geese, and Common Grackle. Crows, bluebirds, and starlings also flew over. The fresh remains of a cardinal, one day, suggested the presence of an unrecorded predator. The logging activity in the adjacent woods caused disturbance (tractor noise and crashing trees) in February. **Other Observers:** Dwight Chamberlain, Richard Davis.

26. MAPLE-PINE-OAK SECOND-GROWTH FOREST

BOSQUE SECUNDARIO DE ARCE-PINO-ROBLE

WILLIAM E. DAVIS, JR.

College of General Studies, Boston University, Boston MA 02215

Location: Massachusetts; Norfolk Co.; Foxboro; Town of Foxboro conservation land, off Willow and E. Sts.; 42°4'N, 71°12'W; Mansfield Quadrangle, USGS. **Continuity:** Established 1977; 18 yr. **Size:** 11.8 ha. **Description of Plot:** See *Am. Birds* 31:50-51 (1977). **Weather:** Mean temperature -7.5°C (range -13.3-2.2°C). Mean snow depth 19.0 cm (range 0-35.6 cm). The ground was bare on one visit. For December, January, and February, respectively, temperature departures from normal were 0.3, -3.6, and -1.9°C; equivalent precipitation departures were 4.3, 4.1, and -1.7 cm. Source: U.S. National Weather Service, Boston. **Coverage:** 12.0 hrs; 12 visits (mornings): 24, 27, 28, 30 Dec; 2, 6, 22, 23 Jan; 5, 6, 20, 27 Feb.

Count: Black-capped Chickadee, 3.3 ind./visit (8 visits); Tufted Titmouse, 1.8 (5); Red-breasted Nuthatch, 1.0 (6); Brown Creeper, 0.6 (5); Blue Jay, 0.5 (3); Downy Woodpecker, 0.3 (3); Golden-crowned Kinglet, 0.3 (3); White-breasted Nuthatch, 0.2 (1); Ruffed Grouse, 0.1 (1); Hairy Woodpecker, 0.1 (1); Winter Wren, 0.1 (1); Dark-eyed Junco, 0.1 (1). **Total:** 12 species; 8.1 ind./visit (27.4 ind./40 ha). **Remarks:** Woodpeckers were heard drumming on 27 December and 6 February. On 30 December a mixed-species foraging flock contained one Downy Woodpecker, six chickadees, one creeper, and one Red-breasted Nuthatch; on 5 February three chickadees and six titmice. On 6 January an avian-killed (feather marks in snow, no mammal tracks) grouse was found. American Crows were heard calling on five visits.

27. UPLAND MIXED PINE–SPRUCE–HARDWOOD PLANTATION

PLANTACION MIXTA DE PINO–ABETO–MADERAS DURAS EN ALTURAS

ELIZABETH W. BROOKS

1435 Waterwells Road, Alfred Station NY 14803

Site Number: NY2474107. **Location:** New York; Allegany Co.; Alfred; Philips Creek State Re-forestation Tract; 42°8'N, 77°45'W; Andover Quadrangle, USGS. **Continuity:** Established 1974; 20 yr. **Size:** 16.6 ha. **Description of Plot:** See *Am. Birds* 28:699–700 (1974). **Weather:** Mean temperature -3.8°C (range -9 – 9°C). Mean snow depth 31.0 cm (range 0–57 cm). The ground was bare on one visit. There were flurries on two visits. Average temperature in December (-3.9°C) was about normal; January (-11.5°C) was 8°C colder than normal. Snowfall in December (43 cm) was 2 cm above normal; January (81 cm) was 44 cm above normal. **Source:** Alfred Cooperative Weather Station. **Coverage:** 12.8 hrs; 8 visits (3 mornings, 5 afternoons): 17, 28, 31 Dec; 1, 10, 11, 22, 23 Jan. **Count:** Black-capped Chickadee, 9.1 ind./visit (8 visits); Red-breasted Nuthatch, 2.8 (8); Blue Jay, 1.3 (6); Brown Creeper, 1.1 (5); Common Redpoll, 0.8 (1); Hairy Woodpecker, 0.5 (4); American Crow, 0.4 (3); Evening Grosbeak, 0.4 (2); Pileated Woodpecker, 0.1 (1); Tufted Titmouse, 0.1 (1); Winter Wren, 0.1 (1); Golden-crowned Kinglet, 0.1 (1); Dark-eyed Junco, 0.1 (1). **Total:** 13 species; 16.9 ind./visit (40.7 ind./40 ha). **Remarks:** Tufted Titmouse was a new species, bringing the 20-yr cumulative list to 31 species. Only Black-capped Chickadee and Red-breasted Nuthatch were observed on every visit. Severe cold and heavy snow cover in January made censusing difficult, even on snowshoes. The total number of individuals was the second lowest since 1974. The poor food supply (the cone crop was poor) and severity of the winter probably were the major reasons for the low count. Selective logging of a section of Norway spruce and white pine began in September but was not carried on during the study period. **Acknowledgments:** Appreciation to Rick Walker for weather data.

28. CONIFEROUS–DECIDUOUS FOREST

BOSQUE DE DECIDUOS Y CONIFEROS

MICHAEL F.G. CLARK

27 Skyline Dr., Dundas ON L9H 3S3

Location: Ontario; Municipality of Hamilton-Wentworth; Dundas; Dundas Valley Plot #3; 43°14'N, 80°2'W. **Continuity:** Established 1986; 9 yr. **Size:** 9.2 ha. **Description of Plot:** See *J. Field Ornithol.* 60(Suppl.):11 (1989). **Weather:** Mean temperature -4.6°C (range -20 – 3°C). Mean snow depth 14.9 cm (range 0–27 cm). The ground was bare on two visits. Temperatures for the study period averaged 4°C below the 30-yr norm per month. Snowfall was 86.6 cm above normal for the study period, averaging 21.7 cm above the mean per month. **Source:** Environment Canada. **Coverage:** 9.3 hrs; 8 visits (6 mornings, 2 afternoons): 5, 22, 30 Dec; 15, 31 Jan; 3, 17, 19 Mar. **Count:** Black-capped Chickadee, 11.6 ind./visit (8 visits); Brown Creeper, 1.8 (3); Golden-crowned Kinglet, 1.8 (2); American Crow, 0.8 (2); White-breasted Nuthatch, 0.4 (2); Downy Woodpecker, 0.3 (2); Ruffed Grouse, 0.1 (1); Pileated Woodpecker, 0.1 (1); American Robin, 0.1 (1). **Total:** 9 species; 16.9 ind./visit (73.4 ind./40 ha). **Remarks:**

Record cold weather, near continuous snow cover, and lack of coniferous fruit contributed to the third lowest total count (135 individuals; 38% below average) in nine years. The total number of species was the lowest to date, approximately 3.5 below the mean. Bark foragers accounted for 6 species and 126 individuals (93% of the total count). White-breasted Nuthatch, Downy Woodpecker, and Hairy Woodpecker numbers were well below average.

29. MID-SUCCESSIONAL APPALACHIAN OAK FOREST

BOSQUE DE ROBLE DE LAS APALACEAS DE SUCESION MEDIANA

CHARLES P. SCHAADT & J. CHRISTOPHER HANEY

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Location: Pennsylvania; Jefferson Co.; Brockway; Brockport; 41°13'N, 78°44'W; Sabula Quadrangle, USGS. **Continuity:** New. **Size:** 15.0 ha. **Description of Plot:** A square plot (387 x 387 m) with a canopy dominated by red maple, sugar maple, red oak, and white oak. Associate species include American beech, black cherry, and eastern hemlock. There is almost no shrub layer, only some scarce and patchy rhododendron in the middle of the plot. **Edge:** The plot is located in a large stand (> 1620 ha) of mid-successional mixed hardwoods and conifers. It is surrounded by similar forest on the N, E, and S edges. There is an old logging road approximately 100 m to the N and an old field 400 m to the W. **Topography and Elevation:** The plot is on a generally flat, broad ridge top, gradually sloping toward the NE. There is a shallow ravine (< 10 m) in the SW corner. Minimum elevation 518 m, maximum 549 m. **Weather:** Mean temperature -0.8°C (range -7-5°C). See WBPS #12 for additional summary data. **Coverage:** 17.0 hrs; 8 visits (mornings): 4, 5, 6, 19, 20, 21, 26, 27 Feb. **Count:** Black-capped Chickadee, 4.0 ind./visit (8 visits); Hairy Woodpecker, 1.3 (7); White-breasted Nuthatch, 0.9 (4); Blue Jay, 0.8 (7); Golden-crowned Kinglet, 0.5 (4); Wild Turkey, 0.4 (1); Downy Woodpecker, 0.3 (2); Pileated Woodpecker, 0.3 (2); Red-breasted Nuthatch, 0.3 (2); Brown Creeper, 0.3 (2); Pine Grosbeak, 0.1 (1); American Goldfinch, 0.1 (1). **Total:** 12 species; 9.0 ind./visit (24.0 ind./40 ha). **Remarks:** The acorn crop was good. There is little use of the plot during winter aside from occasional hunting. Selective timber harvesting occurs consisting primarily of oak, maple, and black cherry of commercial value. **Other Observers:** Jocelyn Smerkar, Jeff Richards. **Acknowledgments:** We thank Larry Lentz, Jeffrey Sowl, and David Wright, all of the Center for Rural Pennsylvania, Carl Schlentner at Cook Forest State Park, and David deCalesta at Allegheny National Forest, USFS, for making this study possible. This plot is part of an on-going investigation of old-growth forest supported by funds from Pennsylvania State University CES Research and Development grants, the DuBois Educational Foundation, and the Center for Rural Pennsylvania.

30. OLD-GROWTH BEECH-HEMLOCK FOREST I

BOSQUE DE EDAD AVANSADA DE BEECH-PICEA I

J. CHRISTOPHER HANEY, ROBERT WILLIAMS & CHARLES P. SCHAADT

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Site Number: PA2493083. **Location:** Pennsylvania; McKean Co.; Ludlow; Tionesta Tract I; 41°39'N, 78°57'W; Ludlow Quadrangle, USGS. **Continuity:** New. **Size:** 12.0 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):88-89 (1994). **Weather:** Mean temperature -4.1°C (range -11-4°C). Some snowfall during one visit and sleet during another. See WBPS #12 for additional summary data. **Coverage:** 13.7 hrs; 7 visits (5 mornings, 2 afternoons): 12 Dec; 3, 6, 7, 23 Jan; 14, 17 Feb. **Count:** Evening Grosbeak, 7.4 ind./visit (5 visits); Black-capped Chickadee, 4.4 (7); Downy Woodpecker, 1.7 (4); Brown Creeper, 1.7 (5); Hairy Woodpecker, 1.3 (5); Golden-crowned Kinglet, 0.9 (4); Common Raven, 0.1 (1). **Total:** 7 species; 17.6 ind./visit (58.6 ind./40 ha). **Remarks:** In contrast to last year's bumper crops, essentially no

mast (beechnut) or cones (hemlock) this winter. Prolonged severe weather and the remote location of this plot precluded our making the minimum eight visits. **Other Observers:** Joel Blyler, Aaron Urey, Chris Clouser, Jeff Richards, Chad Diesinger, Todd Baumann. **Acknowledgments:** We thank Larry Lentz, Jeffrey Sowl, and David Wright, all of the Center for Rural Pennsylvania, Carl Schlentner at Cook Forest State Park, and David deCalesta at Allegheny National Forest, USFS, for making this study possible. This plot is part of an on-going investigation of old-growth forest supported by funds from Pennsylvania State University CES Research and Development grants, the DuBois Educational Foundation, and the Center for Rural Pennsylvania.

31. OLD-GROWTH BEECH–HEMLOCK FOREST II

BOSQUE DE EDAD AVANSADA DE BEECH–PICEA II

J. CHRISTOPHER HANEY, ROBERT WILLIAMS & CHARLES P. SCHAADT

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Site Number: PA2493084. **Location:** Pennsylvania; McKean Co.; Ludlow; Tionesta Tract II; 41°39'N, 78°56'W; Ludlow Quadrangle, USGS. **Continuity:** New. **Size:** 12.0 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):89–90 (1994). **Weather:** Mean temperature -3.1°C (range -9.5 – 1°C). Some snowfall during two visits and drizzle during another. See WBPS #12 for additional summary data. **Coverage:** 12.0 hrs; 6 visits (4 mornings, 2 afternoons): 12 Dec; 7, 23, 24 Jan; 14, 17 Feb. **Count:** Black-capped Chickadee, 2.5 ind./visit (4 visits); Evening Grosbeak, 2.3 (5); Brown Creeper, 2.0 (3); Downy Woodpecker, 1.5 (3); Hairy Woodpecker, 0.8 (2); Golden-crowned Kinglet, 0.7 (2); Pileated Woodpecker, 0.3 (2). **Total:** 7 species; 10.2 ind./visit (33.9 ind./40 ha). **Remarks:** In contrast to last year's bumper crops, essentially no mast (beechnut) or cones (hemlock) this winter. Prolonged severe weather and the remote location of this plot precluded our making the minimum eight visits. **Other Observers:** Joel Blyler, Aaron Urey, Chris Clouser, Jeff Richards, Chad Diesinger, Todd Baumann. **Acknowledgments:** We thank Larry Lentz, Jeffrey Sowl, and David Wright, all of the Center for Rural Pennsylvania, Carl Schlentner at Cook Forest State Park, and David deCalesta at Allegheny National Forest, USFS, for making this study possible. This plot is part of an on-going investigation of old-growth forest supported by funds from Pennsylvania State University CES Research and Development grants, the DuBois Educational Foundation, and the Center for Rural Pennsylvania.

32. OLD-GROWTH HEMLOCK–MIXED HARDWOOD FOREST I

BOSQUE DE EDAD AVANSADA Y MIXTO DE PICEA–MADERAS DURAS I

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Site Number: PA2493079. **Location:** Pennsylvania; Clarion and Forest Cos.; Cooksburg; Cathedral Stand; 41°21'N, 79°13'W; Cooksburg Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 15.0 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):90–91 (1994). **Weather:** Mean temperature -9.2°C (range -24 – -2°C). Mean snow depth 21.4 cm (range 0–50 cm). The ground was bare on two visits. Some snowfall during three visits. See WBPS #12 for additional summary data. **Coverage:** 25.1 hrs; 10 visits (mornings): 2, 9, 14 Dec; 1, 3, 10, 22, 23 Jan; 2, 7, Feb. **Count:** Black-capped Chickadee, 14.8 ind./visit (10 visits); Evening Grosbeak, 13.4 (9); Golden-crowned Kinglet, 8.3 (9); Hairy Woodpecker, 1.9 (9); Red-breasted Nuthatch, 1.7 (8); Downy Woodpecker, 1.6 (8); Brown Creeper, 1.5 (8); White-breasted Nuthatch, 1.2 (5); Blue Jay, 1.1 (5); Pileated Woodpecker, 0.9 (7); Common Raven, 0.4 (3); Tufted Titmouse, 0.3 (1); White-winged Crossbill, 0.3 (1); Common Redpoll, 0.3 (2); Pine Grosbeak, 0.2 (2); Red-tailed Hawk, 0.1 (1); Winter Wren, 0.1 (1); Purple Finch, 0.1 (1);

American Goldfinch, 0.1 (1). **Total:** 19 species; 48.3 ind./visit (129 ind./40 ha). **Remarks:** In contrast to last year's bumper crops, essentially no mast (beechnut) or cones (hemlock, white pine) this winter; acorn crop good but oaks are quite rare on this plot. **Other Observer:** Robert Bodenhorn. **Acknowledgments:** We thank Larry Lentz, Jeffrey Sowl, and David Wright, all of the Center for Rural Pennsylvania, Carl Schlentner at Cook Forest State Park, and David deCalesta at Allegheny National Forest, USFS, for making this study possible. This plot is part of an on-going investigation of old-growth forest supported by funds from Pennsylvania State University CES Research and Development grants, the DuBois Educational Foundation, and the Center for Rural Pennsylvania.

33. OLD-GROWTH HEMLOCK-MIXED HARDWOOD FOREST II

BOSQUE DE EDAD AVANSADA Y MIXTO DE PICEA-MADERAS DURAS II

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Site Number: PA2493080. **Location:** Pennsylvania; Clarion Co.; Cooksburg; Seneca Stand; 41°20'N, 79°13'W; Cooksburg Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 15.0 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):91-92 (1994). Eastern hemlock and American beech dominate the canopy; associate species include red and white oaks, white pine, yellow birch, sugar and red maples, and black cherry. There is almost no shrub layer; a few rhododendron are in the S third of the plot. Downed trees and branches create numerous deadfalls. A state park trail crosses the plot. **Weather:** Mean temperature -4.1°C (range -18-2°C). Some light fog during two visits. See WBPS #12 for additional summary data. **Coverage:** 19.0 hrs; 9 visits (mornings): 15, 16, 17, 18 Dec; 11, 12, 18, 27, 28 Feb. **Count:** Black-capped Chickadee, 6.9 ind./visit (9 visits); Golden-crowned Kinglet, 4.2 (9); Evening Grosbeak, 3.1 (8); White-breasted Nuthatch, 2.3 (8); Hairy Woodpecker, 1.7 (8); Brown Creeper, 0.9 (7); Blue Jay, 0.8 (3); Pileated Woodpecker, 0.3 (3); Downy Woodpecker, 0.2 (2); American Crow, 0.2 (2); Red-breasted Nuthatch, 0.2 (2); Tufted Titmouse, 0.1 (1); American Robin, 0.1 (1). **Total:** 13 species; 21.1 ind./visit (56.3 ind./40 ha). **Remarks:** In contrast to last year's bumper crops, essentially no mast (beechnut) or cones (hemlock, white pine) this winter; acorn crop good but oaks are quite rare on this plot. There is little human disturbance on the plot during winter; the dirt access road surrounding the plot is closed to all but foot travel and hunting is prohibited. **Other Observers:** Jocelyn Smreker, Jeff Richards. **Acknowledgments:** We thank Larry Lentz, Jeffrey Sowl, and David Wright, all of the Center for Rural Pennsylvania, Carl Schlentner at Cook Forest State Park, and David deCalesta at Allegheny National Forest, USFS, for making this study possible. This plot is part of an on-going investigation of old-growth forest supported by funds from Pennsylvania State University CES Research and Development grants, the DuBois Educational Foundation, and the Center for Rural Pennsylvania.

34. REMNANT OLD-GROWTH HEMLOCK-MIXED HARDWOOD FOREST

REMANENTE DE BOSQUE DE EDAD AVANSADA DE PICEA-MADERAS DURAS MIXTAS

CHARLES P. SCHAADT & J. CHRISTOPHER HANEY

*Wildlife Technology Program, School of Forest Resources,
The Pennsylvania State University, College Place, DuBois PA 15801-3199*

Site Number: PA2493082. **Location:** Pennsylvania; Clarion Co.; Cooksburg; Swamp Tract; 41°24'N, 79°13'W; Marienville West Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 15.0 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):92-93 (1994). **Weather:** Mean temperature -3.0°C (range -16-5°C). Some light fog during one visit. See WBPS #12

for additional summary data. **Coverage:** 19.7 hrs; 9 visits (mornings): 15, 17, 18 Dec; 30 Jan; 11, 12, 18, 27, 28 Feb. **Count:** Black-capped Chickadee, 6.7 ind./visit (9 visits); Golden-crowned Kinglet, 3.6 (7); Evening Grosbeak, 2.7 (8); White-breasted Nuthatch, 1.0 (5); Brown Creeper, 0.9 (4); American Crow, 0.7 (3); American Goldfinch, 0.6 (3); Hairy Woodpecker, 0.4 (4); Pileated Woodpecker, 0.4 (3); Pine Grosbeak, 0.3 (3); American Robin, 0.2 (1); White-winged Crossbill, 0.2 (2); Downy Woodpecker, 0.1 (1); Blue Jay, 0.1 (1); Tufted Titmouse, 0.1 (1). **Total:** 15 species; 18.0 ind./visit (48.0 ind./40 ha). **Remarks:** In contrast to last year's bumper crops, essentially no mast (beechnut) or cones (hemlock, white pine) this winter; acorn crop good but oaks are quite rare on this plot. There is little use of the plot in winter aside from occasional hunting. **Other Observers:** Jocelyn Smreker, Jeff Richards. **Acknowledgments:** We thank Larry Lentz, Jeffrey Sowl, and David Wright, all of the Center for Rural Pennsylvania, Carl Schlentner at Cook Forest State Park, and David de-Calesta at Allegheny National Forest, USFS, for making this study possible. This plot is part of an on-going investigation of old-growth forest supported by funds from Pennsylvania State University CES Research and Development grants, the DuBois Educational Foundation, and the Center for Rural Pennsylvania.

35. MATURE DECIDUOUS-CONIFEROUS FOREST WITH STREAM

BOSQUE MADURO DECIDUO-Y-DE CONIFEROS CON ARROYO

STEPHEN J. & BARBARA H. STEDMAN

2675 Lakeland Dr., Cookeville TN 38506

Location: Tennessee; Putnam Co.; Cookeville; City Lake Natural Area (Old Cookeville Filtration Plant); 36°8'N, 85°27'W; Cookeville East Quadrangle, USGS. **Continuity:** Established 1990; 5 yr. **Size:** 10.2 ha. **Description of Plot:** See *J. Field Ornithol.* 62(Suppl.):17 (1991) and 63(Suppl.):18-19 (1992). A 4-ha stand of mature hardwoods along the NW boundary was clear-cut in summer 1993. **Weather:** Mean temperature 0.6°C (range -5-7°C). About 8 cm of snow cover on 21 January with lesser amounts on 23 and 24 January. Drizzle during one visit. It was wetter and colder than normal in January. The temperature reached -24°C on 19 January, a record for that date. **Coverage:** 14.0 hrs; 10 visits (mornings): 10, 11, 21, 23, 24, 31 Jan; 4, 6, 7, 12 Feb. **Count:** European Starling, 6.8 ind./visit (8 visits); Northern Cardinal, 5.4 (10); Canada Goose, 4.9 (3); Tufted Titmouse, 4.7 (10); American Goldfinch, 4.2 (9); Carolina Chickadee, 4.0 (10); Mourning Dove, 3.4 (8); White-throated Sparrow, 3.4 (10); Yellow-rumped Warbler, 3.1 (9); Blue Jay, 2.8 (10); Hooded Merganser, 2.2 (4); Song Sparrow, 2.1 (9); House Finch, 1.8 (8); Carolina Wren, 1.7 (10); Downy Woodpecker, 1.1 (8); White-breasted Nuthatch, 1.1 (8); Eastern Bluebird, 1.1 (5); Rufous-sided Towhee, 0.9 (6); Field Sparrow, 0.9 (2); Ruby-crowned Kinglet, 0.8 (5); Belted Kingfisher, 0.7 (6); Red-bellied Woodpecker, 0.7 (6); Northern Flicker, 0.7 (7); American Crow, 0.7 (4); Eastern Phoebe, 0.6 (6); Golden-crowned Kinglet, 0.6 (3); Pied-billed Grebe, 0.5 (3); Great Blue Heron, 0.5 (5); American Black Duck, 0.5 (1); Mallard, 0.5 (1); Winter Wren, 0.5 (5); Hairy Woodpecker, 0.4 (3); American Robin, 0.4 (2); Brown Creeper, 0.3 (3); Rock Dove, 0.2 (1); Fox Sparrow, 0.2 (2); Sharp-shinned Hawk, 0.1 (1); Red-tailed Hawk, 0.1 (1); Eastern Screech-Owl, 0.1 (1); Yellow-bellied Sapsucker, 0.1 (1); Brown Thrasher, 0.1 (1); Swamp Sparrow, 0.1 (1); Purple Finch, 0.1 (1). **Total:** 43 species; 65.1 ind./visit (255 ind./40 ha). **Remarks:** Development of the site continues; since last report the settling basins of the old filtration plant were covered with a wooden deck (15 m x 15 m). The plot is also used as a collection site for old Christmas trees; on several days a wood chipper ran for 3-4 hours. Waterfowl numbers were increased by the freezing of most area lakes and ponds; the stream that runs through the plot remained open and kept part of the lake open, providing feeding and roosting areas for geese and ducks.

36. SUBURBAN CEMETERY

CEMENTERIO SUBURBANO

THOMAS A. IMHOF

1036 Pike Road, Birmingham AL 35218

Location: Alabama; Jefferson Co.; Birmingham; Oakland Cemetery; 33°29'N, 86°54'W; Bessemer Quadrangle, USGS. **Continuity:** Established 1978; 15 yr. **Size:** 15.0 ha. **Description of Plot:** See *J. Field Ornithol.* 63(Suppl.):88 (1992). **Weather:** Mean temperature 10.3°C (range 2.9–21.7°C). Precipitation for 1993 was deficient by 38 cm (mostly during the warm part of the year). Precipitation for January and February 1994 was in excess by 0.82 cm. Snow flurries were seen twice. Temperatures were about average but colder during the first 20 days of January, minimum -14.5°C (19 January), maximum 23.9°C (early February). **Coverage:** 40.0 hrs; 20 visits (13 mornings, 5 afternoons, 2 evenings): 2, 6, 9, 13, 24, 28 Dec; 10, 21, 23, 24, 27, 29 Jan; 3, 6, 9, 17, 19, 20, 25, 28 Feb. Coverage includes 60 partial visits of 0.33 hrs each. **Count:** Common Grackle, 83.9 ind./visit (16 visits); European Starling, 46.7 (19); American Robin, 19.1 (15); House Finch, 18.8 (19); Rock Dove, 14.0 (20); House Sparrow, 13.0 (20); Mourning Dove, 9.3 (20); Northern Mockingbird, 6.2 (20); Northern Cardinal, 5.7 (20); Blue Jay, 4.6 (20); Cedar Waxwing, 4.6 (4); Rufous-sided Towhee, 1.8 (15); Northern Flicker, 1.7 (18); Red-bellied Woodpecker, 1.6 (19); American Crow, 1.3 (13); Carolina Wren, 1.2 (16); White-throated Sparrow, 1.0 (8); Carolina Chickadee, 0.9 (8); Tufted Titmouse, 0.9 (10); Rusty Blackbird, 0.8 (3); Ruby-crowned Kinglet, 0.7 (10); Yellow-bellied Sapsucker, 0.6 (9); Red-tailed Hawk, 0.5 (9); Field Sparrow, 0.4 (4); Loggerhead Shrike, 0.3 (6); Song Sparrow, 0.3 (4); Brown-headed Cowbird, 0.3 (2); American Goldfinch, 0.3 (3); Yellow-rumped Warbler, 0.3 (4); Brown Thrasher, 0.2 (3); Red-winged Blackbird, 0.2 (1); Cooper's Hawk, 0.2 (3); Downy Woodpecker, 0.2 (3); White-breasted Nuthatch, 0.2 (2); American Kestrel, 0.1 (2); Killdeer, 0.1 (1); Fish Crow, 0.1 (1). **Total:** 37 species; 241 ind./visit (643 ind./40 ha). **Remarks:** Less habitat destruction in cemetery lately. Considerable interspecific antagonism effects populations of many birds, i.e. House Finch caused loss of Purple Finch and some House Sparrows. Mockingbird is probably responsible for fewer robins and thrashers. Crows harass Red-tailed Hawks, but Cooper's Hawks fight back at them. At least two Red-tailed Hawks were on the plot because both an adult and an immature were seen. Blackbirds that were not feeding on the plot were not counted. A coyote (*Canis latrans*) was seen once.

37. SUBURBAN UNIVERSITY CAMPUS

CAMPO UNIVERSITARIO SUBURBANO

KATHLEEN GAZZANIGA & MARK WIMER

Dept. of Biology, California State Univ., Long Beach CA 90840

Location: California; Los Angeles Co.; Long Beach; California State University (Upper Campus); 33°47'N, 118°7'W; Los Alamitos Quadrangle, USGS. **Continuity:** Established 1982; 3 yr. **Size:** 28.2 ha. **Description of Plot:** See *Am. Birds* 37:48 (1983). **Weather:** Mean temperature 11.3°C (range 7–15°C). It was mostly clear and mild, with some light winds. **Coverage:** 17.3 hrs; 11 visits (10 mornings, 1 evening): 14, 16, 19, 30 Dec; 7, 11, 21, 26, 28 Jan; 3, 12 Feb. **Count:** Yellow-rumped Warbler, 50.9 ind./visit (11 visits); European Starling, 45.0 (11); House Finch, 43.5 (11); Bush-tit, 25.4 (9); American Crow, 24.7 (11); House Sparrow, 18.8 (11); Cedar Waxwing, 18.5 (7); Rock Dove, 18.0 (11); Mourning Dove, 12.6 (11); Mired Conure, 9.5 (4); Spotted Dove, 6.4 (10); Allen's Hummingbird, 6.3 (11); American Robin, 5.9 (6); Northern Mockingbird, 5.6 (11); Anna's Hummingbird, 4.5 (11); Orange-crowned Warbler, 3.5 (11); American Goldfinch, 3.0 (5); Black Phoebe, 2.7 (11); Townsend's Warbler, 1.9 (10); hummingbird species, 1.3 (10); White-crowned Sparrow, 1.1 (5); Ruby-crowned Kinglet, 1.0 (8); Scrub Jay, 0.8 (6); Dark-eyed Junco, 0.4 (1); Sharp-shinned Hawk, 0.2 (2); American Kestrel, 0.2 (2); California Gull, 0.2 (1); Nashville Warbler, 0.2 (2); Red-shouldered Hawk, 0.1 (1); Red-tailed Hawk, 0.1 (1); Black-throated Gray Warbler, 0.1 (1); Western Tanager, 0.1 (1). **Total:** 32 species; 312 ind./visit (443 ind./40 ha). **Remarks:** The predominant species composition was similar to that of previous years, except Pine Siskins were absent. One Myrtle

Warbler type of Yellow-rumped Warbler was seen. One Blue-crowned Conure occurred on one visit, possibly a recent escapee. We saw significantly fewer species and had lower counts during the evening visit.

38. FLOODPLAIN FOREST AND CULTIVATED BOTTOMLAND

BOSQUE INUNDABLE Y TIERRAS CULTIVADAS

VIVIAN MILLS PITZRICK

5162 Amity Lake Road, Belmont NY 14813

Location: New York; Allegany Co.; Scio; Maybee Plot; 42°10'N, 77°59'W; Wellsville North Quadrangle, USGS. **Continuity:** Established 1971; 24 yr. **Size:** 51.8 ha. **Description of Plot:** See *Am. Birds* 25:644-645 (1971) and *J. Field Ornithol.* 65(Suppl.):26-27 (1994). The Genesee River has cut into the plot another 23 m, removing farmland in mid-plot and some trees on the S end and N of mid-plot. The beavers moved out of the study area. **Weather:** Mean temperature -2.6°C (range -7.8-0.6°C). Mean snow depth 15.2 cm (range 0-45.7 cm). The ground was bare on three visits. Temperatures averaged 1.4°C below normal with Lake Erie freezing on 1 January (on time). From 21 December, temperatures almost consistently near -18°C allowed deep snow accumulation. Precipitation, mostly snow, was 27.9 cm above normal. The Genesee River and nearly all pools remained at least partly open. Source: Wellsville Water and Light. **Coverage:** 16.1 hrs; 8 visits (7 mornings, 1 afternoon): 2, 6, 15, 20 Dec; 3, 11, 24 Jan; 7 Feb. **Count:** House Finch, 19.4 ind./visit (8 visits); Ring-billed Gull, 15.6 (1); Mourning Dove, 9.6 (6); Black-capped Chickadee, 6.5 (7); American Crow, 5.5 (8); American Tree Sparrow, 2.5 (5); Blue Jay, 1.5 (6); American Black Duck, 1.1 (2); House Sparrow, 1.0 (3); American Goldfinch, 0.9 (4); Mallard, 0.6 (2); White-breasted Nuthatch, 0.6 (5); Great Blue Heron, 0.5 (3); Northern Flicker, 0.4 (2); Northern Cardinal, 0.4 (1); Song Sparrow, 0.4 (2); Herring Gull, 0.3 (2); Belted Kingfisher, 0.3 (2); Red-bellied Woodpecker, 0.3 (2); Downy Woodpecker, 0.3 (2); European Starling, 0.3 (1); Dark-eyed Junco, 0.3 (2); Evening Grosbeak, 0.3 (2); Cooper's Hawk, 0.1 (1); Ruffed Grouse, 0.1 (1); Eastern Screech-Owl, 0.1 (1); Winter Wren, 0.1 (1); Brown-headed Cowbird, 0.1 (1). **Total:** 28 species; 68.9 ind./visit (53.2 ind./40 ha). **Remarks:** Comparing 1994 results with the 1971-1993 average (in parentheses): total species, 28 (26); mean ind./visit, 68.9 (146); and excluding American Crow and Snow Bunting, 63.4 (104). Although the number of species increased, that of individuals was 47% of the 23-yr average. At least partial causes for the low count were the deep snow cover and scarcity of food such as no top dressings, wild grapes, or rabbits. Also, box elder pods, sycamore fruits, and weed seeds were soon depleted. However, in addition to plentiful sumac fruit, there were two reliable feeders at the plot edge. Northern Flicker and Eastern Screech-Owl were new to the study, with feathers but no body parts of the latter being found near the river. **Acknowledgments:** Thanks to Dr. Stephen W. Eaton for identifying the feathers of the Eastern Screech-Owl kill, and to Calvin Maybee for permission to use his property.

39. FIELD, RIDGE, SHRUBBY TREES, AND WOODS

CAMPOS, COLINAS, ARBUSTOS Y BOSQUES

MICHAEL F.G. CLARK

27 Skyline Dr., Dundas ON L9H 3S3

Location: Ontario; Municipality of Hamilton-Wentworth; Dundas; Dundas Valley Plot #1; 43°15'N, 79°54'W. **Continuity:** New. **Size:** 5.8 ha. **Description of Plot:** See *J. Field Ornithol.* 60(Suppl.):14 (1989). Because of recent urban expansion into the plot's E sector, this very productive sector has been eliminated. The plot has now been extended to the W, almost to the Dundas Valley Plot #2. The S half and part of the N half of this new sector add woods and woods-thicket to the plot, leaving the predominant field habitat somewhat reduced. **Edge:** The S edge of the new W sector is continued woods or woods-thicket. Bordering the

W and N edges of this sector is an open area plus shrubs or small trees of varying densities. **Weather:** Mean temperature -3.3°C (range -12 – -3.5°C). Mean snow depth 17.8 cm (range 0–40 cm). The ground was bare on one visit. It snowed during two visits. The total of average temperatures for this very cold winter was -24.3°C (15.8°C below the 30-yr mean), averaging 4°C below normal per month. The average temperature for January (-11.7°C) was the second lowest on record. Snowfall averaged 21.7 cm over the norm per month, with a total increase of 86.6 cm. Source: Environment Canada. **Coverage:** 8.3 hrs; 8 visits (6 mornings, 2 afternoons): 20, 28, 31 Dec; 9, 29 Jan; 5 Feb; 8, 14 Mar. **Count:** Black-capped Chickadee, 7.3 ind./visit (8 visits); Pine Siskin, 2.5 (2); American Robin, 1.3 (3); American Tree Sparrow, 1.3 (4); Golden-crowned Kinglet, 1.0 (2); Northern Cardinal, 0.6 (2); Pine Grosbeak, 0.5 (1); Hairy Woodpecker, 0.3 (2); Cedar Waxwing, 0.3 (1); American Goldfinch, 0.3 (2); Downy Woodpecker, 0.1 (1); Blue Jay, 0.1 (1); House Finch, 0.1 (1). **Total:** 13 species; 15.5 ind./visit (107 ind./40 ha). **Remarks:** The changes in size and vegetative composition have resulted in a new continuity designation. The 124 total individuals is the second lowest for the plot, approximately 100 birds below the 9-yr mean (this year plus the eight years of the original plot). The severe weather and shifting of the plot away from area feeders and more sheltered conditions, may have reduced numbers considerably. House Finch numbers plummeted from a high of 162 individuals (1992–93) to one bird this year. Similarly, cardinal numbers fell from 51 to 5. Chickadees were the most numerous species with 58 total individuals (36% above the 9-yr mean). With 56% of the total individuals, bark foragers (4 species) outnumbered other feeding groups, perhaps indicating the plot's altered vegetative character.

40. URBAN PARK

PARQUE URBANO

DENNIS M. FORSYTHE

Dept. of Biology, The Citadel, 171 Moultrie St., Charleston SC 29409

Location: South Carolina; Charleston Co.; Charleston; Hampton Park; $32^{\circ}48'N$, $79^{\circ}58'W$; Charleston Quadrangle, USGS. **Continuity:** Established 1971; 7 yr. **Size:** 25.9 ha. **Description of Plot:** See *J. Field Ornithol.* 62(Suppl.):20–21 (1991). **Weather:** Mean temperature 8.1°C (range -5 – 18.3°C). **Coverage:** 17.2 hrs; 13 visits (11 mornings, 2 afternoons): 3, 11, 16, 20, 22, 31 Dec; 2, 11, 16, 20, 27 Jan; 1, 9 Feb. **Count:** Rock Dove, 70.1 ind./visit (13 visits); Ring-billed Gull, 56.1 (13); European Starling, 29.8 (13); House Sparrow, 10.5 (10); Northern Mockingbird, 8.4 (13); Blue Jay, 7.2 (13); Fish Crow, 4.7 (10); Northern Flicker, 4.1 (12); Brown Thrasher, 3.2 (11); Boat-tailed Grackle, 3.2 (12); Red-bellied Woodpecker, 2.7 (12); Northern Cardinal, 2.5 (13); Rufous-sided Towhee, 2.5 (12); Loggerhead Shrike, 2.5 (13); White-throated Sparrow, 2.5 (12); Yellow-bellied Sapsucker, 1.4 (8); Ruby-crowned Kinglet, 1.2 (8); White Ibis, 1.1 (4); Red-tailed Hawk, 0.9 (9); Downy Woodpecker, 0.8 (9); Brown-headed Cowbird, 0.8 (1); Double-crested Cormorant, 0.7 (6); Yellow-rumped Warbler, 0.7 (6); Common Grackle, 0.7 (6); House Finch, 0.4 (1); American Crow, 0.2 (2); American Robin, 0.2 (2); Northern Oriole, 0.2 (3); Tufted Titmouse, 0.2 (1); Solitary Vireo, 0.2 (2); Orange-crowned Warbler, 0.2 (2); Prairie Warbler, 0.2 (2); Dark-eyed Junco, 0.2 (1); Cooper's Hawk, 0.1 (1); American Kestrel, 0.1 (1); Great Horned Owl, 0.1 (1); American Goldfinch, 0.1 (1). **Total:** 37 species; 220 ind./visit (340 ind./40 ha).

41. COASTAL FRESHWATER MARSH

PANTANO COSTANERO DE AGUA DULCE

JOHN P. KELLY

Cypress Grove Preserve, P.O. Box 808, Marshall CA 94940

Location: California; Marin Co.; Marshall; Livermore Marsh; $38^{\circ}10'N$, $122^{\circ}54'W$; Tomales Quadrangle, USGS. **Continuity:** Established 1986; 9 yr. **Size:** 10.5 ha. **Description of Plot:** See

J. Field Ornithol. 60(Suppl.):64 (1989). Arroyo willows continue to increase in number, covering approximately 10% of the upper marsh in patches 3–7 m high. Cattail has increased to cover approximately 12% of the lower marsh, and bulrush covers 21% of the lower marsh. **Weather:** Mean temperature 7.6°C (range 5–11°C). **Coverage:** 8.2 hrs; 7 visits (mornings): 19, 28 Jan; 7, 14, 18, 23, 26 Feb. **Count:** Song Sparrow, 17.9 ind./visit (7 visits); Marsh Wren, 15.1 (7); American Coot, 10.4 (7); Black-crowned Night-Heron, 8.4 (7); Mallard, 7.4 (7); House Finch, 5.1 (3); Common Snipe, 4.9 (6); Bufflehead, 4.0 (7); Ruby-crowned Kinglet, 4.0 (7); Ruddy Duck, 3.7 (6); Red-winged Blackbird, 3.0 (3); Pied-billed Grebe, 2.9 (7); Yellow-rumped Warbler, 2.3 (5); White-crowned Sparrow, 2.3 (4); Wrentit, 2.1 (7); Common Yellowthroat, 2.0 (7); Golden-crowned Sparrow, 2.0 (4); Fox Sparrow, 1.7 (5); Virginia Rail, 1.6 (5); Lincoln's Sparrow, 1.3 (5); Bewick's Wren, 1.1 (5); Great Blue Heron, 1.0 (5); Anna's Hummingbird, 1.0 (5); Black Phoebe, 1.0 (4); European Starling, 1.0 (1); American Wigeon, 0.9 (2); Allen's Hummingbird, 0.9 (3); Northern Flicker, 0.9 (4); California Towhee, 0.9 (5); Belted Kingfisher, 0.7 (5); Bushtit, 0.7 (1); Canvasback, 0.6 (1); Cooper's Hawk, 0.4 (3); Tree Swallow, 0.4 (1); Swamp Sparrow, 0.4 (3); Cinnamon Teal, 0.3 (1); Ring-necked Duck, 0.3 (2); Northern Harrier, 0.3 (1); Chestnut-backed Chickadee, 0.3 (1); Great Egret, 0.1 (1); Common Goldeneye, 0.1 (1); Red-breasted Merganser, 0.1 (1); Turkey Vulture, 0.1 (1); Red-tailed Hawk, 0.1 (1); Winter Wren, 0.1 (1); Hermit Thrush, 0.1 (1); American Robin, 0.1 (1); Purple Finch, 0.1 (1). **Total:** 48 species; 116 ind./visit (444 ind./40 ha). **Remarks:** Fifteen Black-crowned Night-Herons occupied a winter roost in the lower marsh bulrushes. One male Allen's Hummingbird and three male Anna's Hummingbirds occupied breeding territories. Canvasback numbers decreased dramatically. Coincidentally, one or two river otters (*Lutra canadensis*) occupied the marsh for much of the winter. **Acknowledgments:** Field data were compiled by Sarah Tappen. This work was supported by Chevron U.S.A., Inc., San Francisco, CA, and Audubon Canyon Ranch, Stinson Beach, CA.

42. COASTAL SAGE SCRUB-FLOOD BASIN

CUENCA INUNDABLE-MATORRAL COSTANERO DE SALVIA

THOMAS P. RYAN

Dept. of Biological Sciences, California State Univ., Long Beach CA 90840

Location: California; Los Angeles Co.; Claremont; Thompson Creek Wash; 34°9'N, 117°42'W; Mount Baldy Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 13.2 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):31 (1994). The only major disturbance to the area in the last 30 years was the recent removal of vegetation from the S and E portions of the plot. Large areas of mature laurel sumac and a large area of prickly pear cactus were removed. Now there is a small cactus patch in the S-central border. **Weather:** Mean temperature 16.1°C (range 12.7–21.1°C). Generally clear with high clouds. Less than 10 cm of rain fell during the study period. **Coverage:** 7.6 hrs; 8 visits (mornings): 23, 24, 25, 27 Dec; 22, 23 Jan; 6, 13 Feb. **Count:** Yellow-rumped Warbler, 68.9 ind./visit (8 visits); Bushtit, 30.8 (8); House Finch, 13.3 (8); Anna's Hummingbird, 9.9 (8); Wrentit, 6.6 (8); Scrub Jay, 5.5 (8); Ruby-crowned Kinglet, 5.5 (8); White-crowned Sparrow, 4.3 (8); California Thrasher, 2.3 (5); California Towhee, 2.3 (7); Bewick's Wren, 2.1 (8); California Quail, 2.0 (4); Cactus Wren, 1.5 (6); Band-tailed Pigeon, 1.3 (2); Mourning Dove, 1.3 (5); Lesser Goldfinch, 1.0 (4); Northern Flicker, 0.9 (4); American Crow, 0.8 (3); Rufous-sided Towhee, 0.8 (5); Red-tailed Hawk, 0.6 (4); American Kestrel, 0.5 (2); Northern Mockingbird, 0.5 (4); Say's Phoebe, 0.4 (3); Song Sparrow, 0.4 (2); Cooper's Hawk, 0.3 (2); Black Phoebe, 0.3 (2); Common Raven, 0.3 (1); Loggerhead Shrike, 0.3 (2); Turkey Vulture, 0.1 (1); Sharp-shinned Hawk, 0.1 (1); Nuttall's Woodpecker, 0.1 (1); Phainopepla, 0.1 (1); Purple Finch, 0.1 (1). **Total:** 33 species; 165 ind./visit (499 ind./40 ha). **Remarks:** Anna's Hummingbird numbers dropped between the fourth and fifth visits. I suspect females were incubating eggs because the majority of birds seen after 22 January were males. The plot has very thick underbrush, and visibility is limited in some areas. Many birds were identified by song alone, therefore, some non-vocal, secretive species, such as Bewick's Wren and Hermit Thrush, may be under represented in this study. Birds which feed on the seeds of laurel sumac and the insects on the bush, such

as House Finch and White-crowned Sparrow, were fewer in number. Species that use the cactus as foraging sites or as protection, such as Cactus Wren and California Thrasher, were also fewer in number. **Other Observer:** Janice L. Ryan.

43. COASTAL SCRUB

MATORRAL COSTANERO

THOMAS GARDALI & BRITTA DENISE HARDESTY

Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach CA 94970-9701

Location: California; Marin Co.; Bolinas; Palomarin Field Station; 37°55'N, 122°45'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1972; 7 yr. **Size:** 8.1 ha. **Description of Plot:** See *Am. Birds* 25:1003-1004 (1971). **Weather:** Mean temperature 8.6°C (range 4-16°C). Total precipitation during the study period was 28.9 cm. **Coverage:** 30.5 hrs; 8 visits (mornings): 6, 14, 18, 27 Jan; 4, 11, 22, 25 Feb. **Count:** Wrentit, 18.5 ind./visit (8 visits); Ruby-crowned Kinglet, 12.1 (8); Bushtit, 11.4 (7); Bewick's Wren, 8.4 (8); Rufous-sided Towhee, 7.6 (8); Song Sparrow, 6.6 (8); Golden-crowned Kinglet, 4.5 (8); American Robin, 3.8 (7); Anna's Hummingbird, 3.4 (8); Hermit Thrush, 3.3 (7); Fox Sparrow, 3.1 (8); Pine Siskin, 3.0 (6); White-crowned Sparrow, 2.9 (8); Scrub Jay, 2.6 (8); Dark-eyed Junco, 2.0 (4); California Quail, 1.8 (5); Northern Flicker, 1.6 (7); Chestnut-backed Chickadee, 1.6 (4); Yellow-rumped Warbler, 1.3 (4); Red Crossbill, 0.5 (1); Sharp-shinned Hawk, 0.3 (2); Hutton's Vireo, 0.3 (2); Cooper's Hawk, 0.1 (1); Steller's Jay, 0.1 (1); Winter Wren, 0.1 (1). **Total:** 25 species; 101 ind./visit (498 ind./40 ha). **Remarks:** The species richness (25 species) was similar to previous years, but lower than in 1991 (34). Bewick's Wren (58% increase), Rufous-sided Towhee (+36%), Golden-crowned Kinglet (+150%), Hermit Thrush (+74%), Fox Sparrow (+417%), and Bushtit (+178%) numbers were higher than last year and were all-time highs. Wrentit density increased 28% to the highest recorded density, correlating with an extremely productive breeding season (see 1993 Breeding Bird Census). Anna's Hummingbird detections increased five and one-half fold from last year to their highest recorded densities. The number of American Robins was a seven fold decrease from last year when they were at their highest recorded density; this was the only marked decrease, as they returned to numbers more similar to other years. Dark-eyed Juncos were detected on the plot for the first time in 11 years and Red Crossbills were observed for the first time. **Acknowledgments:** We thank the Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 682.

44. DISTURBED COASTAL SCRUB A

MATORRAL COSTANERO PERTURBADO A

KAREN CARNEY & BRITTA DENISE HARDESTY

Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach CA 94970-9701

Location: California; Marin Co.; Bolinas; Palomarin Field Station; 37°55'N, 122°45'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1980; 5 yr. **Size:** 4.7 ha. **Description of Plot:** See *Am. Birds* 26:987-988 (1972). **Weather:** Mean temperature 10.3°C (range 5-13°C). Total precipitation during the study period was 28.9 cm. **Coverage:** 12.8 hrs; 8 visits (mornings): 1, 13, 20, 26 Jan; 4, 14, 18, 28 Feb. **Count:** Bushtit, 16.8 ind./visit (6 visits); California Quail, 12.9 (7); Ruby-crowned Kinglet, 12.5 (8); Wrentit, 10.9 (8); Bewick's Wren, 8.4 (8); American Robin, 8.3 (5); Rufous-sided Towhee, 7.6 (8); Song Sparrow, 6.5 (8); Chestnut-backed Chickadee, 4.8 (7); White-crowned Sparrow, 4.6 (7); Golden-crowned Kinglet, 3.6 (6); Scrub Jay, 3.3 (8); Anna's Hummingbird, 2.6 (8); Northern Flicker, 2.3 (7); Pine Siskin, 2.1 (3); California Towhee, 2.0 (8); Dark-eyed Junco, 1.6 (4); Golden-crowned Sparrow, 1.3 (3); Hermit Thrush, 0.9 (5); Fox Sparrow, 0.8 (6); Purple Finch, 0.8 (2); Allen's Hummingbird, 0.6 (2); European Starling, 0.6 (2); Red-winged Blackbird, 0.6 (1); Western Bluebird, 0.3 (1); Varied Thrush, 0.3 (2); Northern Harrier, 0.1 (1); Sharp-shinned Hawk, 0.1 (1); Red-shouldered Hawk, 0.1 (1); Red-tailed Hawk, 0.1 (1); Downy Woodpecker, 0.1 (1); Tree Swallow, 0.1 (1);

Steller's Jay, 0.1 (1); Hutton's Vireo, 0.1 (1). **Total:** 34 species; 118 ind./visit (1001 ind./40 ha). **Remarks:** The total number of species observed (34) was slightly higher than last year, although there was a substantial increase in the total number of individuals detected. Six species had increases in number of individuals to their highest numbers ever, including Bewick's Wren (+347%), Bushtit (+379%), Rufous-sided Towhee (+126%), California Towhee (+100%), and Ruby-crowned Kinglet (+82%). The number of Dark-eyed Juncos reached a record high after being absent in 1993. Golden-crowned Sparrow and California Quail numbers also increased from last year (+900% and +16% respectively). American Robins were still present in high numbers but showed a 60% decrease from last year's record high, returning to numbers similar to other years. Song Sparrow, White-crowned Sparrow, Chestnut-backed Chickadee, Golden-crowned Kinglet, and Steller's Jay numbers decreased (-30%, -24%, -21%, -26%, and -94% respectively). New species this year included Downy Woodpecker and Northern Harrier. **Acknowledgments:** We thank the Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 681.

45. DISTURBED COASTAL SCRUB B

MATORRAL COSTANERO PERTURBADO B

SUZANNE OPPENHEIMER & BRITTA DENISE HARDESTY

Point Reyes Bird Observatory, 4990 Shoreline Highway, Stinson Beach CA 94970-9701

Location: California; Marin Co.; Bolinas; Palomarin Field Station; 37°55'N, 122°45'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1980; 6 yr. **Size:** 8.1 ha. **Description of Plot:** See *Am. Birds* 25:1002-1003 (1971). **Weather:** Mean temperature 8.4°C (range 4-13°C). Total precipitation during the study period was 28.9 cm. **Coverage:** 16.3 hrs; 8 visits (mornings): 6, 11, 20, 27 Jan; 1, 7, 15, 23 Feb. **Count:** Bushtit, 25.8 ind./visit (8 visits); Ruby-crowned Kinglet, 16.4 (8); Wrentit, 16.4 (8); Bewick's Wren, 12.1 (8); Song Sparrow, 11.5 (8); Golden-crowned Kinglet, 11.4 (8); Rufous-sided Towhee, 6.0 (7); Fox Sparrow, 5.3 (8); California Quail, 4.4 (5); Golden-crowned Sparrow, 3.6 (7); Pine Siskin, 3.5 (5); Hermit Thrush, 3.3 (8); White-crowned Sparrow, 3.1 (6); Anna's Hummingbird, 3.0 (7); Scrub Jay, 2.5 (7); Northern Flicker, 2.4 (8); American Robin, 2.4 (6); Chestnut-backed Chickadee, 1.5 (5); California Towhee, 1.5 (6); Western Bluebird, 0.6 (2); Dark-eyed Junco, 0.6 (2); Black Phoebe, 0.4 (2); Steller's Jay, 0.3 (2); Winter Wren, 0.3 (2); Red-tailed Hawk, 0.1 (1); Townsend's Warbler, 0.1 (1). **Total:** 26 species; 138 ind./visit (683 ind./40 ha). **Remarks:** Species richness increased 53% from last year (from 17 to 26 species) to a number more typical of other years. The total number of individuals was the highest since the plot was first studied in 1980. Species whose numbers increased from last year and reached all-time highs included: Wrentit (84% increase), Bewick's Wren (+137%), Ruby-crowned Kinglet (+222%), Golden-crowned Kinglet (not recorded last year), Anna's Hummingbird (+25%), Hermit Thrush (+94%), and Rufous-sided Towhee (+94%). Other species increasing in numbers this year included Pine Siskin (+67%) and Chestnut-backed Chickadee (+275%). Steller's Jay, Fox Sparrow, Western Bluebird, Townsend's Warbler, Winter Wren, Dark-eyed Junco, and Black Phoebe were all detected this year after being absent last year. Marked decreases in numbers were noted for California Towhee, California Quail, and White-crowned Sparrow (-50%, -59%, and -56% respectively). **Acknowledgments:** We thank the Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 683.

46. ABANDONED UPLAND PASTURE

PASTIZAL DE ALTURAS ABANDONADO

VIVIAN MILLS PITZRICK

5162 Amity Lake Road, Belmont NY 14813

Location: New York; Allegany Co.; Scio; Saunders Plot; 42°13'N, 77°59'W; Wellsville North Quadrangle, USGS. **Continuity:** Established 1984; 11 yr. **Size:** 8.0 ha. **Description of Plot:** See

Am. Birds 39:119 (1985) and *J. Field Ornithol.* 63(Suppl.):109 (1992). **Weather:** Mean temperature -3.1°C (range -10 – 5°C). Mean snow depth 25.8 cm (range 0–46 cm). The ground was bare on two visits. Temperatures averaged 1.4°C below normal with Lake Erie freezing on 1 January (on time). Precipitation, mostly snow, was 27.9 cm above normal. From 21 December, temperatures almost consistently near -18°C allowed deep snow accumulation. The intermittent stream was open on five visits because the heavy snow cover prevented the ground from freezing. Source: Wellsville Water and Light. **Coverage:** 7.7 hrs; 8 visits (mornings): 3, 16, 31 Dec; 13, 14 Jan; 3, 17, 24 Feb. **Count:** Cedar Waxwing, 9.4 ind./visit (1 visit); Blue Jay, 3.4 (8); Black-capped Chickadee, 2.5 (8); American Crow, 2.4 (7); Common Redpoll, 0.6 (1); Northern Cardinal, 0.5 (3); Common Raven, 0.4 (2); White-breasted Nuthatch, 0.4 (2); American Tree Sparrow, 0.4 (1); American Goldfinch, 0.4 (2); Downy Woodpecker, 0.3 (2); Cooper's Hawk, 0.1 (1); Red-tailed Hawk, 0.1 (1); Ruffed Grouse, 0.1 (1); Hairy Woodpecker, 0.1 (1); Pileated Woodpecker, 0.1 (1); Tufted Titmouse, 0.1 (1); Song Sparrow, 0.1 (1); Evening Grosbeak, 0.1 (1). **Total:** 19 species; 21.5 ind./visit (108 ind./40 ha). **Remarks:** The number of species was slightly above normal, but that of individuals was 63% below the 1984–1993 average. This low count is a reflection of the early scarcity of wild food, including rose hips, hawthorn fruits, and goldenrod galls, as well as the persistent and often-crusting snow. However, there was plentiful ear-corn in the open field off the E edge of the plot during the first two visits. Decreasing numbers of birds seem to be the norm. Cooper's Hawk, Common Raven, and Common Redpoll were new to the study. Tracks of white-tailed deer, rabbits and a fox were noted. **Acknowledgments:** Thanks to Gail and Victor Funk for permission to use their property.

47. MIXED CROPLANDS

CULTIVOS MIXTOS

PAUL W. & GLENNA P. SCHWALBE

546 Wilson St., Jersey Shore PA 17740

Location: Pennsylvania; Clinton Co.; South Avis; South Avis Fields; $41^{\circ}10'N$, $77^{\circ}17'W$; Jersey Shore Quadrangle, USGS. **Continuity:** Established 1983; 12 yr. **Size:** 40.5 ha. **Description of Plot:** See *Am. Birds* 38:56–57 (1984). This year the fields were composed of corn residue (27.9 ha), soybean residue (9.9 ha), fallow (1.9 ha), and hay (0.8 ha). **Weather:** Mean temperature -3.4°C (range -8.3 – 3.3°C). Mean snow depth 21.1 cm (range 0–44 cm). Total snowfall for the winter was > 222 cm; there were seven days when the temperature was below -17.8°C (the lowest recorded was -25.6°C). The ground was snow covered from 24 December through 2 April, except for 3 January when it was about half covered. The fields had > 20 cm of snow on five visits. There was snow during one visit and light snow during another. **Coverage:** 6.5 hrs; 10 visits (8 mornings, 2 afternoons): 1, 3, 13, 17, 22, 24, 25, 30, 31 Jan; 5 Feb. **Count:** Horned Lark, 23.0 ind./visit (2 visits); Rock Dove, 11.7 (3); Mourning Dove, 9.9 (2); American Crow, 1.1 (3); Common Raven, 0.2 (1); Snow Bunting, 0.2 (1); Northern Harrier, 0.1 (1); Rough-legged Hawk, 0.1 (1). **Total:** 8 species; 46.3 ind./visit (45.7 ind./40 ha). **Remarks:** On 25 January, the fields were covered with 12.3 cm of snow except where it had melted around the bases of the corn stubble, producing small pockets of exposed field. The large number of Rock Doves on that date were feeding around these short lengths of stubble. An ice storm preceding the 30 January visit had mostly filled in these depressions, possibly eliminating the availability of food. No birds were recorded on the 30 January visit, or on any of the five visits where the snow depth exceeded 20 cm.