

WINTER BIRD POPULATION STUDY: 1991

Habitat	State/ Prov.	Compiler	Plot Size (ha)	Ind. per 40 ha	Num. spp.	Hr obs.	Yr study
Broadleaf Forest							
1. Mixed Upland Broadleaf Forest	DC	S.A. Briggs	14.2	344.0	34	56.3	32
2. Oak-Maple Bottomland	MA	L.E. Taylor	6.7	61.3	9	10.0	10
3. Mature Deciduous Floodplain Forest	MD	D. Gauthey	17.8	241.0	38	33.5	40
4. Upland Second-Growth Oak-Hickory Forest	MS	H. Moore	10.0	494.0	33	24.0	3
5. Disturbed Bottomland Oak-Gum-Cypress Forest	MS	G.Alexander, Jr.	11.4	285.0	30	13.8	21
6. Isolated Beech-Maple Woods	NY	R.M. Marshall	13.5	62.0	11	14.2	3
7. Isolated Maple-Birch-Ash Swamp	NY	W.P. Brown	17.2	49.4	11	13.6	1
8. White Ash-Red Maple Forest	NY	G.R. Maxwell	16.2	243.0	31	10.0	5
9. Riparian Deciduous Forest	OH	E.J. Tramer	18.0	296.0	30	22.0	3
10. Black Willow-White Ash Forest	ON	M.F. Clark	13.0	95.4	16	13.0	8
11. Sugar Maple-Mixed Hardwood Forest	PA	R.A. Ickes	9.7	145.0	18	24.6	9
12. Mature Mesic Oak Forest	RI	D. Filippini	10.6	27.1	13	21.0	1
13. Semievergreen Broadleaf Forest	TA	J. Rupert	23.0	145.0	62	30.5	1
Needleleaf Forest							
14. Coastal Monterey Pine Forest	CA	R.G. Beidleman	40.5	109.0	40	24.0	2
15. Mature Red Spruce Forest	ME	T.P. Skaling	16.0	22.5	11	27.5	2
16. Upland Scotch Pine Plantation	NY	E.W. Brooks	9.3	66.8	7	8.0	7
17. Mature Eastern Larch Forest	PQ	M.D. Demers	25.0	81.2	10	17.0	1
18. Mature White Pine Forest	RI	W.R. Eddleman	10.1	107.0	11	16.0	1
Broadleaf/Needleleaf Forest							
19. Ponderosa Pine-Scrub Oak Forest	CO	R.P. DeFusco	13.8	36.9	16	14.0	1
20. Maple-Pine-Oak Second-Growth Forest	MA	W.E. Davis, Jr.	11.8	19.5	8	12.0	15
21. Upland Mixed Pine-Spruce-Hardwood Plantation	NY	E.W. Brooks	16.6	33.7	11	12.3	17
22. Coniferous-Deciduous Forest	ON	M.F. Clark	9.2	69.6	13	12.0	6

WINTER BIRD POPULATION STUDY: 1991 (Continued)

Habitat	State/ Prov.	Compiler	Plot Size (ha)	Ind. per 40 ha	Num. spp.	Hr obs.	Yr study
23. Mature Deciduous-Coniferous Forest With Stream	TN	S.J. Stedman	10.2	208.0	35	14.8	2
24. Old-Growth Mixed Mesophytic Forest	TN	P.B. Hamel	9.4	86.8	17	23.3	1
Mixed Habitat							
25. Suburban Cemetery	AL	T.A. Imhof	15.0	1065.0	40	20.0	12
26. Floodplain Forest And Cultivated Bottomland	NY	V.M. Pitzrick	51.8	22.9	22	7.8	21
27. Field, Ridge, And Shrubby Trees	ON	M.F. Clark	6.6	139.0	17	10.4	6
28. Urban Park	SC	D.M. Forsythe	25.9	419.0	43	19.0	5
Non-forested Wetlands							
29. Coastal Freshwater Marsh	CA	J. Kelly	10.5	774.0	57	8.5	6
30. Coastal Riparian Marsh	CA	J.W. Evans	17.5	3449.0	81	23.1	2
31. Barrier Beach And Saltwater Estuary	FL	R.W. Loftin	213.0	594.0	67	20.8	14
32. Saltwater Lagoon	TX	K.L. Mitchell	150.0	1477.0	46	6.0	1
Shrubland							
33. Coastal Scrub	CA	S. Dougill	8.1	306.0	34	19.5	3
34. Disturbed Coastal Scrub A	CA	M. Silkey	4.7	372.0	29	22.0	2
35. Disturbed Coastal Scrub B	CA	E. Ruhten	8.1	296.0	28	21.0	2
36. Chihuahuan Desert Scrub	NM	C.I. Sandell	16.0	103.0	18	9.9	1
Successional Field							
37. Brushland (Old Field Succession)	IN	J.D. Webster	17.1	48.5	18	25.7	8
38. Abandoned Upland Pasture	NY	V.M. Pitzrick	8.0	65.0	15	5.7	8
Cultivated							
39. Mixed Croplands	PA	G.P. Schwalbe	40.5	15.4	6	6.9	9

1. MIXED UPLAND BROADLEAF FOREST**BOSQUE MIXTO DE HOJA ANCHA DE ALTURA**

SHIRLEY A. BRIGGS

7605 Honeywell Lane
Bethesda, Maryland 20814

Location: District of Columbia; Washington; Glover-Archbold Park; 38°55'N, 77°5'W; Washington West Quadrangle, USGS. **Continuity:** Established 1960; 32 yr. **Size:** 14.2 ha. **Description of Plot:** See *Aud. Field Notes* 14:502-503. **Weather:** Mean temperature 6.9°C. Snow depth, 2.5 cm on one visit. **Coverage:** 56.3 hrs; 13 visits (mornings): First, 3 Jan., last, 17 Mar. **Count:** Carolina Chickadee, 28.0 ind./visit, (13 visits); American Crow, 16.3, (13); Tufted Titmouse, 12.9, (13); House Finch, 11.5, (13); Carolina Wren, 8.5, (13); Mourning Dove, 8.2, (13); White-breasted Nuthatch, 5.6, (13); Downy Woodpecker, 4.8, (13); Red-bellied Woodpecker, 3.8, (13); Northern Cardinal, 3.5, (13); European Starling, 3.2, (13); White-throated Sparrow, 2.1, (9); American Robin, 1.6, (3); Dark-eyed Junco, 1.5, (7); Hairy Woodpecker, 1.1, (9); Pileated Woodpecker, 1.1, (8); House Sparrow, 1.0, (6); Rock Dove, 0.9, (4); Northern Mockingbird, 0.9, (6); Northern Flicker, 0.8, (10); Red-tailed Hawk, 0.7, (9); Brown Creeper, 0.7, (6); Red-shouldered Hawk, 0.6, (8); Winter Wren, 0.5, (4); American Goldfinch, 0.5, (4); Mallard, 0.3, (2); Sharp-shinned Hawk, 0.3, (4); Yellow-bellied Sapsucker, 0.3, (3); Turkey Vulture, 0.2, (3); Ring-billed Gull, 0.2, (2); Golden-crowned Kinglet, 0.2, (3); Ruby-crowned Kinglet, 0.2, (2); Song Sparrow, 0.2, (1); Yellow-rumped Warbler, 0.1, (1); Fox Sparrow, 0.1 (1). **Total:** 35 species; 122 ind./visit (344 ind./40 ha). **Remarks:** In comparison with earlier counts, the average number of individuals per trip was 122, somewhat above the average for the 32 years of the census. **Other Observers:** Mary D'Imperio, Ann Feather.

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

LEE E. TAYLOR

28 Bellington Street
Arlington, Massachusetts 02174

Location: Massachusetts; Middlesex Co.; Waltham; Metropolitan State Hospital; 42°24'N, 71°12'W; Lexington Quadrangle, USGS. **Continuity:** Established 1982; 10 yr. **Size:** 6.7 ha. **Description of Plot:** See *Am. Birds* 37:31-32 (1983). **Weather:** Mean temperature -4°C (range -9-2°C). Mean snow depth 7.4 cm (range 0-25 cm). Temperatures were well above seasonal average, and snowfall well below with only one significant snowstorm on 11 Jan. **Coverage:** 10 hrs; 11 visits (mornings): 26 Dec.; 1, 5, 6, 13, 19, 21, 27 Jan.; 2, 3, 10 Feb. **Count:** Black-capped Chickadee, 5.2 ind./visit, (9 visits); Tufted Titmouse, 1.4, (5); White-breasted Nuthatch, 1.1, (5); Downy Woodpecker, 0.9, (5); Brown Creeper, 0.6, (7); Golden-crowned Kinglet, 0.6, (4); Hairy Woodpecker, 0.2, (2); American Crow, 0.2, (1); American Robin, 0.1, (1). **Total:** 9 species; 10.3 ind./visit (61.3 ind./40 ha).

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

DICK GAUTHEY

6603 Reynard Drive
Springfield, Virginia 22152

Location: Maryland; Montgomery Co.; Glen Echo; Cabin John Island; 38°58'N, 77°8'W; Falls Church Quadrangle, USGS. **Continuity:** Established 1947; 40 yr. **Size:** 17.8 ha.

Description of Plot: See *Aud. Field Notes* 2:155–156. **Weather:** Mean temperature 2.3°C (range –4–6°C). **Coverage:** 33.5 hrs; 10 visits (9 mornings, 1 afternoon): 5, 10, 13, 18, 25, 30 Jan.; 3, 5, 11 Feb. **Count:** Carolina Chickadee, 30.2 ind./visit, (10 visits); American Goldfinch, 12.9, (9); Golden-crowned Kinglet, 7.8, (9); American Crow, 7.0, (10); Tufted Titmouse, 7.0, (10); Carolina Wren, 5.4, (10); Downy Woodpecker, 4.8, (10); Mallard, 3.3, (5); Northern Cardinal, 3.3, (8); Canada Goose, 2.3, (4); White-throated Sparrow, 2.0, (6); Brown Creeper, 1.9, (8); Belted Kingfisher, 1.7, (9); White-breasted Nuthatch, 1.7, (8); Red-bellied Woodpecker, 1.6, (9); Great Blue Heron, 1.5, (9); Wood Duck, 1.5, (3); Pileated Woodpecker, 1.5, (10); European Starling, 1.5, (5); Mourning Dove, 1.2, (4); Winter Wren, 1.0, (5); House Finch, 1.0, (2); American Black Duck, 0.8, (4); Hairy Woodpecker, 0.8, (7); Cedar Waxwing, 0.6, (1); Common Merganser, 0.5, (3); Northern Mockingbird, 0.4, (2); Northern Flicker, 0.3, (3); Field Sparrow, 0.3, (2); Song Sparrow, 0.3, (3); Red-tailed Hawk, 0.2, (2); Yellow-rumped Warbler, 0.2, (1); Black-crowned Night-Heron, 0.1, (1); Turkey Vulture, 0.1, (1); Sharp-shinned Hawk, 0.1, (1); Barred Owl, 0.1, (1); Yellow-bellied Sapsucker, 0.1, (1); Fish Crow, 0.1, (1). **Total:** 38 species; 107 ind./visit (241 ind./40 ha). **Remarks:** One of the warmest winters on record resulted in open water on the plot all winter and the largest populations of herons, ducks, and kingfishers. Numbers of species and individuals seen per trip were the most ever recorded. Golden-crowned Kinglets, sporadic before the mid 1980s, were the third most common species. **Other Observers:** John Eliot, Dick Homan and Letty Limbach.

4. UPLAND SECOND-GROWTH OAK–HICKORY FOREST

BOSQUE SECUNDARIO ROBLE–NOGAL DEL ALTURAS

HAL MOORE

1 Lakeside Drive

Vicksburg, Mississippi 39180

Location: Mississippi; Warren Co.; Vicksburg; Lake Park Tract; 32°14'N, 90°49'W; Big Black Miss Quadrangle, USGS. **Continuity:** Established 1989; 3 yr. **Size:** 10.0 ha. **Description of Plot:** See *J. Field Ornithol.* 61 (Suppl.):8 (1990). All of the Sassafras on this plot have died. Some were up to 50.8 cm dbh. **Weather:** Mean temperature: 7.6°C (range 0–19°C). Unusually warm weather with many cloudy days and several with fog. **Coverage:** 24 hrs; 12 visits (mornings): 15, 19, 26, 29 Dec.; 1, 12, 16, 17, 22, 28 Jan.; 1, 4 Feb. **Count:** Red-bellied Woodpecker, 20.3 ind./visit, (12 visits); Common Grackle, 18.2, (4); Tufted Titmouse, 17.7, (12); Carolina Wren, 11.7, (12); Carolina Chickadee, 6.4, (12); Yellow-rumped Warbler, 5.7, (11); Blue Jay, 5.0, (12); American Crow, 4.6, (12); Hermit Thrush, 4.4, (12); Ruby-crowned Kinglet, 3.7, (12); Northern Cardinal, 3.5, (9); Downy Woodpecker, 2.9, (11); White-throated Sparrow, 2.9, (11); Yellow-bellied Sapsucker, 2.7, (12); Red-headed Woodpecker, 2.2, (12); American Goldfinch, 2.0, (8); Eastern Bluebird, 1.8, (7); Rusty Blackbird, 1.7, (1); Northern Flicker, 1.1, (8); Golden-crowned Kinglet, 1.0, (9); American Robin, 0.9, (5); Red-shouldered Hawk, 0.8, (7); Eastern Phoebe, 0.7, (5); Pileated Woodpecker, 0.5, (4); Brown Thrasher, 0.2, (2); Pine Warbler, 0.2, (3); Barred Owl, 0.2, (2); Hairy Woodpecker, 0.2, (2); Brown Creeper, 0.2, (2); Wood Duck, 0.1, (1); Turkey Vulture, 0.1, (1); House Wren, 0.1, (1); Purple Finch, 0.1, (1). **Total:** 33 species; 124 ind./visit (494 ind./40 ha).

5. DISTURBED BOTTOMLAND OAK–GUM–CYPRESS FOREST

BOSQUE INUNDABLE PERTURBADO DE ROBLE–GOMA–CIPRÉS

G. EDWARD ALEXANDER, JR.

930 S. Washington

Greenville, Mississippi 38701

Location: Mississippi; Washington Co.; Hollandale; LeRoy Percy State Park; 33°10'N, 90°57'W; Swan Lake NW Quadrangle, USGS. **Continuity:** Established 1971; 21 yr. **Size:**

11.4 ha. **Description of Plot:** See *Aud. Field Notes* 25:638–639 (1971). Bottomland hardwood forest with several artificial canals and a gravel road through the plot. These canals were cut, and the road improved, in 1975. Although the area has regenerated, Buttonbush and Cattails dominate the canal edge, and unidentified shrub and grass species along the road. **Weather:** Mean temperature 6.2°C (range 2–11°C). **Coverage:** 13.8 hrs; 8 visits (6 morning, 2 afternoon): 5, 12, 16, 19, 25 Jan.; 2, 9, 16 Feb. **Count:** Common Grackle, 23.6 ind./visit, (6 visits); White-throated Sparrow, 14.0, (7); Dark-eyed Junco, 7.9, (6); Tufted Titmouse, 4.2, (8); Golden-crowned Kinglet, 3.5, (7); Blue Jay, 3.1, (8); Carolina Chickadee, 3.0, (8); Carolina Wren, 2.7, (8); Ruby-crowned Kinglet, 2.7, (8); Northern Cardinal, 2.4, (8); Downy Woodpecker, 2.1, (8); American Robin, 2.0, (3); Red-bellied Woodpecker, 1.9, (8); Northern Flicker, 1.1, (4); Yellow-rumped Warbler, 1.0, (2); Hermit Thrush, 0.8, (4); Red-winged Blackbird, 0.8, (3); Pine Warbler, 0.6, (2); Hairy Woodpecker, 0.5, (3); Eastern Phoebe, 0.5, (4); American Goldfinch, 0.5, (2); Pileated Woodpecker, 0.4, (2); Rusty Blackbird, 0.4, (2); Winter Wren, 0.2, (2); Solitary Vireo, 0.2, (1); Song Sparrow, 0.2, (2); Swamp Sparrow, 0.2, (1); Red-tailed Hawk, 0.1, (1); Brown Creeper, 0.1, (1); Rufous-sided Towhee, 0.1, (1). **Total:** 30 species; 81.1 ind./visit (285 ind./40 ha). **Remarks:** Populations of many species, particularly Yellow-rumped Warblers, were low, perhaps due to the absence of Poison Ivy berries. Yellow-bellied Sapsuckers were absent.

6. ISOLATED BEECH-MAPLE WOODS

BOSQUE AISLADO DE HAYA-ARCE

ROBERT M. MARSHALL

Cornell Laboratory of Ornithology

159 Sapsucker Woods Road

Ithaca, New York 14850

Location: New York; Tompkins Co.; Ithaca; Sapsucker Woods West; 42°29'N, 76°27'W; Ithaca East Quadrangle, USGS. **Continuity:** Established 1989; 3 yr. **Size:** 13.5 ha. **Description of Plot:** See *J. Field Ornithol.* 61 (Suppl.):37–38 (1990). **Weather:** Mean temperature: –4°C (range –12–2°C). Mean snow depth 6.6 cm (range trace–16 cm). **Coverage:** 14.2 hrs; 11 visits (mornings): 11, 14, 18, 21, 24, 28 Jan.; 1, 4, 11, 13, 15 Feb. **Count:** Black-capped Chickadee, 9.2 ind./visit, (8 visits); White-breasted Nuthatch, 4.5, (11); Downy Woodpecker, 2.1, (10); Brown Creeper, 1.5, (8); Tufted Titmouse, 1.2, (6); Hairy Woodpecker, 1.1, (5); American Crow, 1.1, (4); Red-tailed Hawk, 0.1, (1); Ruffed Grouse, 0.1, (1); Blue Jay, 0.1, (1); Red-breasted Nuthatch, 0.1, (1). **Total:** 11 species; 20.9 ind./visit (62 ind./40 ha). **Remarks:** At least 12 bird feeders occur at the Sanctuary's headquarters. All are within 150 m of the NE edge of the plot. **Other Observers:** Scott Sutcliffe, Rick Bonney, William P. Brown.

7. ISOLATED MAPLE-BIRCH-ASH SWAMP

ANEGADO AISLADO DE ARCE-ABEDUL-FRESNO

WILLIAM P. BROWN

Cornell Laboratory of Ornithology

159 Sapsucker Woods Road

Ithaca, New York 14850

Location: New York; Tompkins Co.; Dryden; Sapsucker Woods East; 42°29'N, 76°27'W; Ithaca East Quadrangle, USGS. **Continuity:** New. **Size:** 17.2 ha. **Description of Plot:** The study site is dominated by two forest types. The southernmost 8.5 ha is poorly-drained and dominated by Silver Maple, Yellow Birch, Red Ash, and snags (mostly American Elm, White Pine, and Hemlock). Nearly all of this portion contains standing water (up to 1.5 m deep) during the winter and well into the breeding season. The canopy is open throughout this portion. Ground cover is nearly continuous and consists of several fern species, Highbush Blueberry, and saplings. The remaining, northernmost portion of the plot is comprised of

Sugar Maple, American Beech, Pignut Hickory, White Oak, Red Oak, and American Basswood, and varies from poorly-drained to well-drained. The canopy is closed and shrub and ground cover are sparse and comprised mainly of saplings. In the center of the plot lies a 0.5 ha stand of Eastern Hemlock. Canopy height for the entire plot ranges from 17–34 m. A detailed, quantitative vegetation summary is given in Litwin, T.S. 1986. Factors affecting avian diversity in a northeastern woodlot. Ph.D. Thesis, Cornell University. **Edge:** Second-growth separating the Sanctuary from Tompkins County Airport to the N was eliminated completely during the fall of 1990 to comply with FAA regulations, and remains completely open and unvegetated. The W edge is bordered by Sapsucker Woods Road (ca. 15 m wide) and then the forested west plot (see WBPS #6). A small pond, house, and then similar forest border to the S. To the E lies a stand of White Pine, buildings, and successional fields. **Topography:** Plot slopes very gently to the S. Poorly-drained area is irregular with nurse logs and depressions. **Weather:** Mean temperature 1.3°C (range –6–10°C). Mean snow depth 5.2 cm (range 0–9.5 cm). **Coverage:** 13.6 hrs; 9 visits (mornings): 29 Jan.; 4, 5, 6, 8, 12, 13, 15, 18 Feb. **Count:** Black-capped Chickadee, 8.9 ind./visit, (9 visits); White-breasted Nuthatch, 2.1, (7); Downy Woodpecker, 2.0, (6); Brown Creeper, 1.9, (7); Tufted Titmouse, 1.7, (6); Red-breasted Nuthatch, 1.4, (5); American Crow, 1.3, (6); Hairy Woodpecker, 1.1, (6); Pileated Woodpecker, 0.4, (3); Northern Cardinal, 0.2, (2); American Robin, 0.1, (1). **Total:** 11 species; 21.2 ind./visit (49.4 ind./40 ha).

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

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

GEORGE R. MAXWELL

RD1 Box 179C

Red Creek, New York 13143

Location: New York; Wayne Co.; Fair Haven; Metzger Road - Blind Sodus Bay; 43°20'N, 76°44'W; Oswego Quadrangle, USGS. **Continuity:** Established 1987; 5 yr. **Size:** 16.2 ha. **Description of Plot:** See *J. Field Ornithol.* 60 (Suppl.):17 (1989). **Weather:** Mean temperature 0.2°C (range –10–7°C). Mean snow depth 2.8 cm (range 0–8 cm). **Coverage:** 10 hrs; 10 visits (5 mornings, 5 afternoons): 13, 14, 17, 19, 25 Jan.; 2, 8, 14, 21, 28 Feb. **Count:** Canada Goose, 25.0 ind./visit, (3 visits); House Finch, 23.2, (10); Ring-billed Gull, 8.8, (4); House Sparrow, 7.2, (10); Mourning Dove, 6.7, (8); Black-capped Chickadee, 5.5, (10); American Goldfinch, 4.4, (8); American Tree Sparrow, 2.3, (8); Cedar Waxwing, 2.0, (2); Downy Woodpecker, 1.6, (10); White-breasted Nuthatch, 1.6, (10); Northern Cardinal, 1.5, (8); Blue Jay, 1.3, (7); European Starling, 1.3, (6); Red-bellied Woodpecker, 1.2, (9); American Crow, 1.1, (5); Dark-eyed Junco, 0.8, (4); Hairy Woodpecker, 0.6, (6); Tufted Titmouse, 0.4, (4); Song Sparrow, 0.4, (4); Common Merganser, 0.2, (1); Ruffed Grouse, 0.2, (1); Great Black-backed Gull, 0.2, (1); Great Horned Owl, 0.2, (1); American Robin, 0.2, (1); Pine Siskin, 0.2, (2); Northern Harrier, 0.1, (1); Cooper's Hawk, 0.1, (1); Red-tailed Hawk, 0.1, (1); Northern Flicker, 0.1, (1); Pileated Woodpecker, 0.1, (1). **Total:** 31 species; 98.6 ind./visit (243 ind./40 ha). **Acknowledgments:** My thanks to the following students for assistance: Glen Allouche, Scott Butler, Brian Dinklemeyer, Jennifer Ford, Bridget LaRose, Kristin, Lesczynski, Scott Prindle, Mary Riddick, Chris Siebert, Chris Smallman, Lora Strine, Korri Traficante, Charles Walker, Kevin Wallace, Thea Wallace.

9. RIPARIAN DECIDUOUS FOREST

BOSQUE DECIDUO RIVEREÑO

ELLIOT J. TRAMER

Department of Biology

University of Toledo

Toledo, Ohio 43606

Location: Ohio; Lucas Co.; Waterville; Old Canal Lands; 41°27'N, 83°46'W; Grand Rapids Quadrangle, USGS. **Continuity:** Established 1989; 3 yr. **Size:** 18.0 ha. **Description of**

Plot: See *J. Field Ornithol.* 61 (Suppl.):43 (1990). **Weather:** Mean temperature 1°C (range -5-7°C). Mean snow depth 1 cm (range 0-10 cm). A winter lacking in weather extremes. No record cold or warmth during census period, and snow cover was infrequent and never persistent. **Coverage:** 22 hrs; 10 visits (9 mornings, 1 afternoon): 19, 22 Dec.; 8, 15, 19, 29 Jan.; 2, 9, 12, 19 Feb. **Count:** House Finch, 31.1 ind./visit, (10 visits); Mourning Dove, 20.1, (10); Cedar Waxwing, 13.7, (4); Dark-eyed Junco, 12.4, (10); White-breasted Nuthatch, 7.2, (10); Tufted Titmouse, 6.3, (10); Downy Woodpecker, 5.8, (10); European Starling, 5.3, (6); Northern Cardinal, 5.3, (10); Black-capped Chickadee, 5.1, (10); Blue Jay, 2.7, (10); American Goldfinch, 2.7, (8); Brown Creeper, 2.1, (9); Carolina Wren, 2.0, (9); Song Sparrow, 1.7, (7); Red-bellied Woodpecker, 1.6, (10); House Sparrow, 1.6, (6); Golden-crowned Kinglet, 1.5, (8); Hairy Woodpecker, 1.4, (10); American Robin, 0.7, (5); White-throated Sparrow, 0.7, (4); Winter Wren, 0.6, (5); White-crowned Sparrow, 0.5, (5); Cooper's Hawk, 0.3, (3); Yellow-rumped Warbler, 0.3, (2); American Crow, 0.2, (2); Red-breasted Nuthatch, 0.2, (2); Red-tailed Hawk, 0.1, (1); Great Horned Owl, 0.1, (1); American Tree Sparrow, 0.1, (1). **Total:** 30 species; 133 ind./visit (296 ind./40 ha). **Remarks:** A large increase in plot use by House Finches and Northern Cardinals was observed, mostly at feeders. Winter Wren and White-crowned Sparrow are new to the plot. Northern Flicker and Pine Siskin were absent for the first time.

10. BLACK WILLOW-WHITE ASH FOREST

BOSQUE DE SAUCE NEGRO-FRESNO BLANCO

MICHAEL F. CLARK

27 Skyline Drive

Dundas, Ontario L9H 3S3

Location: Ontario; Municipality of Hamilton-Wentworth; Cootes Paradise; 43°16'N, 79°56'W. **Continuity:** Established 1984; 8 yr. **Size:** 13.0 ha. **Description of Plot:** See *J. Field Ornithol.* 60 (Suppl.):9 (1989). **Weather:** Mean temperature 1.3°C (range -11-17°C). Mean snow depth 4 cm (range 0-12.5 cm). The ground was free of snow on three visits. **Coverage:** 13 hrs; 8 visits (5 mornings, 3 afternoon); 8, 26 Dec.; 2, 5 Jan.; 2, 23 Feb.; 2, 9 Mar. **Count:** Black-capped Chickadee, 13.5 ind./visit, (7 visits); Canada Goose, 7.1, (2); Brown Creeper, 2.2, (5); Downy Woodpecker, 2.1, (6); White-breasted Nuthatch, 1.4, (6); Golden-crowned Kinglet, 1.1, (1); American Goldfinch, 1.0, (3); Red-winged Blackbird, 0.5, (1); Great Blue Heron, 0.4, (1); Belted Kingfisher, 0.4, (3); Northern Flicker, 0.4, (3); Pileated Woodpecker, 0.4, (2); Red-tailed Hawk, 0.1, (1); Hairy Woodpecker, 0.1, (1); American Crow, 0.1, (1); Northern Cardinal, 0.1, (1). **Total:** 16 species; 31.0 ind./visit (95.4 ind./40 ha). **Remarks:** The 248 birds detected this year was the third highest total in eight yr, up 66 birds from the seven-yr mean of 182. The total number of species also was the third highest. Bark foragers accounted for 68.5% of the total, which is typical for this plot. Northern Flicker, Pileated Woodpecker, and Canada Goose were observed for the first time in three yr.

11. SUGAR MAPLE-MIXED HARDWOOD FOREST

BOSQUE MIXTO DE MADERAS DURAS-ARCE DE ALMIBAR

ROY A. ICKES

Washington and Jefferson College

Washington, Pennsylvania 15301

Location: Pennsylvania; Washington Co.; Washington; 40°8'N, 80°11'W; Washington East Quadrangle, USGS. **Continuity:** Established 1983; 9 yr. **Size:** 9.7 ha. **Description of Plot:** See *Am. Birds* 37:55-56. **Weather:** Mean temperature -3.2°C (range -12-4°C). Mean snow depth 1.3 cm (range 0-2.5 cm). Temperatures were average for the census period, snowfall below average. **Coverage:** 24.6 hrs; 8 visits (mornings): 8, 10, 14, 15, 19, 23, 25, 29 Jan. **Count:** Tufted Titmouse, 7.5 ind./visit, (8 visits); White-breasted Nuthatch, 6.5,

(8); Downy Woodpecker, 5.0, (8); Carolina Chickadee, 3.2, (8); Red-bellied Woodpecker, 3.1, (8); Black-capped Chickadee, 1.9, (7); Blue Jay, 1.6, (6); Golden-crowned Kinglet, 1.0, (4); Mourning Dove, 0.8, (1); Hairy Woodpecker, 0.8, (5); Dark-eyed Junco, 0.8, (1); Carolina Wren, 0.6, (4); Song Sparrow, 0.6, (2); Pileated Woodpecker, 0.5, (4); Brown Creeper, 0.5, (3); Northern Cardinal, 0.5, (2); Ruffed Grouse, 0.2, (2); Northern Flicker, 0.1, (1). **Total:** 18 species; 35.2 ind./visit (145 ind./40 ha). **Remarks:** Total numbers for the titmouse, nuthatch, and both chickadee species were well below average, and the total number of individuals was the lowest since the first year of the study. Dark-eyed Junco and Song Sparrow were new to the plot. **Acknowledgments:** Thanks to Ernest Abernathy for the use of his property.

12. MATURE MESIC OAK FOREST

BOSQUE MÉSICO MADURO DE ROBLE

DANA FILIPPINI

67 Scrabbletown Road
North Kingston, RI 02852

Location: Rhode Island; Kent Co.; Coventry Center; Parker Woodland; 41°43'N, 71°42'W; Coventry Center Quadrangle, USGS. **Continuity:** New. **Size:** 10.6 ha. **Description of Plot:** Plot consists of a mesic S-facing slope with abundant rock outcrops. A small stream runs along the S boundary of the plot. The plot is dominated by oaks and hickories, with a relatively open understory consisting mostly of young overstory species and occasional clumps of Sweet Pepperbush (*Clethra alnifolia*). A foot trail roughly surrounds the plot, intersecting it on the southernmost portion. The plot is located within the 260 ha Parker Woodland owned by the Audubon Society of Rhode Island. See also BBC #45. **Edge:** Similar forest occurs for > 100 m on all sides of the plot. **Topography:** The plot generally slopes to the S, and the topography is rolling with glacially-formed kettleholes, none of which hold water. **Weather:** Mean temperature 1.5°C (range -8-9°C). Light snow cover was present on two visits. Temperatures were above average and snowfall below average for the duration of the count period. **Coverage:** 21 hrs; 11 visits (8 mornings, 3 afternoon): 18, 20, 26, 27 Jan.; 2, 3, 12, 16 Feb. **Count:** Black-capped Chickadee, 1.5 ind./visit, (6 visits); Golden-crowned Kinglet, 1.4, (7); Downy Woodpecker, 0.7, (7); Blue Jay, 0.6, (4); White-breasted Nuthatch, 0.6, (5); Red-breasted Nuthatch, 0.5, (5); Red-bellied Woodpecker, 0.5, (2); Red-tailed Hawk, 0.4, (4); Hairy Woodpecker, 0.4, (2); American Crow, 0.2, (2); Tufted Titmouse, 0.2, (2); Brown Creeper, 0.2, (2); Sharp-shinned Hawk, 0.1, (1). **Total:** 13 species; 7.2 ind./visit (27.1 ind./40 ha). **Other Observers:** Dierdre Robinson. **Acknowledgments:** David Rodrigues and the Audubon Society of Rhode Island granted permission to conduct the census on this property. W.R. Eddleman assisted with surveying the plot and report preparation.

13. SEMI-EVERGREEN BROADLEAF FOREST

BOSQUE DE HOJA ANCHA SEMI-SIEMPREVERDE

JEFF RUPERT & ROGER L. BOYD

Biology Department
Baker University
Baldwin City, Kansas 66006

Site Number: TM0091016. **Location:** Tamaulipas, Mexico; Gomez Farias; Ant Trail at Rancho Ceilito; 23°22'N, 99°14'W. **Continuity:** New. **Size:** 23.0 ha. **Description of Plot:** The area is a typical semi-evergreen forest that previously was more widespread along the lowlands E of the Sierra Oriental S of Ciudad Victoria. The forest is dominated by several species of large trees (dbh 110 cm; mean ht. = 14 m [range, 10-20 m]), with a fairly dense understory of saplings, shrubs, and armed terrestrial bromeliads, locally known as Huapilla. Dominant canopy trees include Aquiche, Madrone, and Orejon, all > 100 yr old. **Edge:**

Surrounded by similar forest, pasture, sugar cane fields, and a citrus orchard. **Topography:** Minimum elevation 100 m, maximum 110 m. The plot slopes S and is crossed by four streams running N-S, which create a ridge and streambed topography with a maximum relief of 10 m. **Weather:** Mean temperature 19.9°C (range 14–24°C). **Coverage:** 30.5 hrs; 11 visits (7 mornings, 4 afternoons): 28, 29, 31 Dec.; 11, 12, 13, 14, 15, 17 Jan. **Count:** Golden-crowned Warbler, 7.1 ind./visit, (8 visits); Brown Jay, 5.1, (7); Boatbill Flycatcher, 4.3, (8); Dusky-capped Flycatcher, 4.2, (9); Red-ored Parrot, 4.1, (9); Solitary Vireo, 3.5, (6); Blue-gray Gnatcatcher, 2.8, (6); Social Flycatcher, 2.6, (7); Wilson's Warbler, 2.6, (9); Audubon's Oriole, 2.4, (5); Masked Tityra, 2.3, (6); Altamira Oriole, 2.3, (6); Black-headed Saltator, 1.8, (3); Black-and-white Warbler, 1.8, (5); Elegant Trogon, 1.7, (6); Thicket Tinamou, 1.5, (7); Black Vulture, 1.5, (5); Couch's Kingbird, 1.5, (5); Ruby-crowned Kinglet, 1.5, (5); Blue-crowned Motmot, 1.4, (5); Pale-billed Woodpecker, 1.4, (8); Ivory-billed Woodcreeper, 1.4, (6); Orange-crowned Warbler, 1.4, (6); Melodious Blackbird, 1.3, (5); Clay-colored Robin, 1.3, (2); Rose-throated Becard, 1.2, (6); White-crowned Parrot, 1.1, (2); Squirrel Cuckoo, 1.1, (4); Linedated Woodpecker, 1.1, (8); Black-throated Green Warbler, 1.1, (5); Green Jay, 1.0, (3); Turkey Vulture, 0.9, (3); White-tipped Dove, 0.9, (3); Tropical Parula, 0.9, (4); Crimson-collared Grosbeak, 0.9, (3); Plain Chachalaca, 0.8, (2); Grey-colored Becard, 0.8, (4); Spot-breasted Wren, 0.8, (4); Olive Sparrow, 0.7, (5); Bronze-winged Woodpecker, 0.6, (4); Hooded Grosbeak, 0.6, (1); Yellow-throated Euphonia, 0.6, (2); Roadside Hawk, 0.5, (4); Ferruginous Pygmy-Owl, 0.5, (4); Mottled Owl, 0.5, (4); Golden-fronted Woodpecker, 0.5, (5); Smoky-brown Woodpecker, 0.5, (4); White-eyed Vireo, 0.5, (5); Fantailed Warbler, 0.5, (2); Rose-breasted Grosbeak, 0.4, (4); Eastern Phoebe, 0.3, (3); Brown-crested Flycatcher, 0.3, (3); Northern Oriole, 0.3, (2); American Kestrel, 0.2, (2); Red-crowned Parrot, 0.2, (1); Northern Mockingbird, 0.2, (2); Flame-colored Tanager, 0.1, (1); Gray Hawk, 0.1, (1); Common Ground-Dove, 0.1, (1); Greater Pewee, 0.1, (1); Carolina Wren, 0.1, (1); Black-headed Grosbeak, 0.1, (1). **Total:** 62 species; 83.6 ind./visit (145 ind./40 ha). **Remarks:** Most birds were part of mixed foraging flocks. An average of three flocks moved through the plot on a daily basis, concentrating on fruiting trees. **Other Observers:** Jan and Jon Boyd, James Balch, Mike Hubbard, Kristen Mitchell, Travis Tollefson, Shane Wells, Susan Wilson, Kerry Wright.

14. COASTAL MONTEREY PINE FOREST

BOSQUE CONSTANERO DE PINO MONTEREY

RICHARD G. BEIDLEMAN

766 Bayview Avenue

Pacific Grove, California 93950

Location: California; Monterey Co.; Carmel; Point Lobos State Reserve; 36°31'N, 121°56'W; Monterey Quadrangle, USGS. **Continuity:** Established 1975; 2 yr. **Size:** 40.5 ha. **Description of Plot:** The plot includes a majority of the Monterey Pine forest in the Reserve: a dense, shady, relatively undisturbed S section of mature pines with scattered oaks and a limited understory; a NW section, which used to be an open woodland with large old pines and many dense saplings, now kept open by controlled burning and contains fallen trunks, weeds, dense *Ceanothus*, and fewer mature trees. Within the plot are trails, two short utility roads, and one park residence. **Edge:** On the S and W brush and grassland. To the N lies a pine forest and brushland, separated from the plot by a narrow paved road, and on the E a dense pine forest continues across Highway One. **Topography:** The plot is on a very low, gentle L-shaped ridge facing the Pacific Ocean to the S and W. There are two prominent hills, one at the corner of the L and the other at the S end. **Weather:** Mean temperature 15°C (range 12–16°C). A dry mild period, continuing a four-year drought. **Coverage:** 24 hrs; 8 visits (6 mornings, 2 afternoon): 8, 21, 28 Jan.; 7, 8, 15, 18, 25 Feb. **Count:** Pygmy Nuthatch, 30.8 ind./visit, (8 visits); Ruby-crowned Kinglet, 16.4, (8); Dark-eyed Junco, 9.3, (8); Hairy Woodpecker, 5.7, (8); Bushtit, 5.0, (5); Chestnut-backed Chickadee, 4.5, (7); Yellow-rumped Warbler, 4.0, (6); Winter Wren, 3.2, (8); Steller's Jay, 3.0, (8); Northern Flicker, 2.7, (8); Hermit Thrush, 2.6, (7); Scrub Jay, 2.4, (5); California Quail, 2.2, (4);

Golden-crowned Sparrow, 2.2, (4); Pine Siskin, 1.6, (4); Brown Creeper, 1.4, (7); Black Phoebe, 1.3, (6); American Crow, 1.1, (5); Bewick's Wren, 1.1, (7); Rufous-sided Towhee, 1.0, (4); Hutton's Vireo, 0.9, (5); White-crowned Sparrow, 0.9, (6); Wren-tit, 0.8, (4); Turkey Vulture, 0.6, (2); Red-tailed Hawk, 0.6, (4); Band-tailed Pigeon, 0.6, (1); Acorn Woodpecker, 0.6, (5); House Finch, 0.6, (4); Anna's Hummingbird, 0.5, (3); Red-breasted Sapsucker, 0.4, (2); Red-breasted Nuthatch, 0.4, (1); Townsend's Warbler, 0.4, (2); American Robin, 0.2, (2); Fox Sparrow, 0.2, (2); American Kestrel, 0.1, (1); Killdeer, 0.1, (1); White-throated Swift, 0.1, (1); Downy Woodpecker, 0.1, (1); Golden-crowned Kinglet, 0.1, (1); Song Sparrow, 0.1, (1). **Total:** 40 species; 110 ind./visit (109 ind./40 ha). **Remarks:** A controlled burn this winter destroyed snags used by Black Phoebe and other species. The formerly abundant Golden-crowned Kinglet was observed only once. Sixteen new species were recorded, the most conspicuous being the Bushtit. The pine stands seem to have a lower diversity of species, except where burning has produced openings. **Other Observers:** Linda Havighurst Beidleman, Carol Beidleman. **Acknowledgments:** Tisa Fleming-Parsons of Point Lobos State Reserve.

15. MATURE RED SPRUCE FOREST

BOSQUE MADURO DE ABETOS ROJOS

THOMAS P. SKALING

10 Cumberlands Stree
Brunswick, Maine 04011

Location: Maine; Somerset Co.; West Forks; Boise Cascade Tract; 45°25'N, 70°10'W; Enchanted Pond Quadrangle, USGS. **Continuity:** Established 1990; 2 yr. **Size:** 16.0 ha. **Description of Plot:** See *J. Field Ornithol.* 61 (Suppl.):57 (1990). **Weather:** Mean temperature -10°C (range -22-1°C). Mean snow depth 32.9 cm (range 10-61 cm). The average temperature during the study period was one degree C above average. Total precipitation was 25 cm, 3 cm above average; snowfall was 157 cm, 25 cm above average. Data source: Northeast Regional Climate Center, Cornell University, and on-site instruments. **Coverage:** 27.5 hrs; 10 visits (mornings): 12, 15 Dec.; 9, 11, 24, 26 Jan.; 8, 16, 21 Feb.; 6 Mar. **Count:** Golden-crowned Kinglet, 1.5 ind./visit, (9 visits); Hairy Woodpecker, 1.2, (8); Boreal Chickadee, 1.2, (5); Ruffed Grouse, 1.1, (7); Black-capped Chickadee, 1.1, (7); Downy Woodpecker, 1.0, (7); Common Raven, 0.6, (3); Blue Jay, 0.5, (3); Red-breasted Nuthatch, 0.4, (3); Northern Goshawk, 0.3, (3); Pileated Woodpecker, 0.1, (1). **Total:** 11 species; 9.0 ind./visit (22.5 ind./40 ha). **Acknowledgments:** I thank Boise Cascade for their continued support of this project.

16. UPLAND SCOTCH PINE PLANTATION

PALNTACIÓN EN ALTURA DE PINO ESCOCÉS

ELIZABETH W. BROOKS

1435 Waterwells Road
Alfred Station, New York 14803

Location: New York; Allegany Co.; Alfred; Foster Plantation; 42°7'N, 77°45'W; Andover Quadrangle, USGS. **Continuity:** Established 1984; 7 yr. **Size:** 9.3 ha. **Description of Plot:** See *Aud. Field Notes* 23:743-744 (1969). **Weather:** Mean temperature -0.9°C (range -5-1°C). Mean snow depth 8.2 cm (range 1-19 cm). See WBPS #21 for general summary. **Coverage:** 8 hrs; 8 visits (6 morning, 2 afternoon): 17, 28 Dec.; 3, 5, 7, 9, 14, 19 Jan. **Count:** Black-capped Chickadee, 12.4 ind./visit, (8 visits); Ruffed Grouse, 2.6, (7); Brown Creeper, 0.4, (3); Wild Turkey, 0.2, (1); Hairy Woodpecker, 0.1, (1); Blue Jay, 0.1, (1); Red-breasted Nuthatch, 0.1, (1). **Total:** 7 species; 16.0 ind./visit (68.8 ind./40 ha). **Remarks:** Hairy Woodpecker was a new species for the study area. All species were at or below average numbers, perhaps reflecting the generally poor winter populations in the area; a marked contrast from the spectacular winter finch populations observed during the previous

winter. **Acknowledgments:** Appreciation to Phil Foster and Cynthia Clements for permission to use the study area.

17. MATURE EASTERN LARCH FOREST

BOSQUE MADURO DE ALERCE

MARC D. DEMERS

10 Cartier

La Tuque, Québec

Canada G9X 3L6

Site Number: PQ2891005. **Location:** Quebec; Lavolette/Champlain Co.; La Tuque; Golf-woods; 47°27'N, 72°47'W. **Continuity:** New. **Size:** 25.0 ha. **Description of Plot:** The plot's canopy is dominated by Eastern Larch, Jack Pine, and Balsam Fir, the subcanopy and shrub layer by Trembling Aspen, willow, Staghorn Sumac, and Red-berried Elder. **Edge:** The plot is surrounded by a trail large enough to accommodate an automobile. A steep cliff ca. 40 m in height separates the N edge from a residential area. A hydro-dam complex on the St. Maurice river borders on the W, a golf course on the S, and a paper mill on the E. **Topography:** The terrain is flat except for a streambed that drops ca. 5 m. Minimum elevation 5 m, maximum 15 m. **Weather:** Mean temperature -11.3°C (-28 – 4°C). **Coverage:** 17 hrs; 8 visits (6 mornings, 2 afternoon: 22 Dec.; 5, 20, 26 Jan.; 2, 9, 16, 23 Feb. **Count:** Evening Grosbeak, 19.6 ind./visit, (7 visits); Black-capped Chickadee, 10.8, (8); Pine Siskin, 8.8, (4); American Goldfinch, 5.5, (3); Common Raven, 3.5, (7); Blue Jay, 1.6, (5); Red-breasted Nuthatch, 0.4, (3); Hairy Woodpecker, 0.2, (2); European Starling, 0.2, (1); Red Crossbill, 0.1, (1). **Total:** 10 species; 50.7 ind./visit (81.2 ind./40 ha). **Remarks:** Flocks of Common Redpoll, which have been observed regularly on the plot in previous years, were absent this winter. Ravens, however, appear to be increasing significantly.

18. MATURE WHITE PINE FOREST

BOSQUE MADURO DE PINO BLANCO

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Department of Natural Resources Science

University of Rhode Island

Kingston, Rhode Island 02881

Location: Rhode Island; Washington Co.; West Kingston; Marion Eppley Wildlife Sanctuary; 41°30'N, 71°35'W; Slocum Quadrangle, USGS. **Continuity:** New. **Size:** 10.1 ha. **Description of Plot:** See *J. Field Ornithol.* 62 (Suppl.):54–55 (1991). **Weather:** Mean temperature -2.4°C (range -8 – 1°C). Mean snow depth 0 cm. **Coverage:** 16 hrs; 11 visits (mornings): 1, 5, 19, 20, 29 Jan.; 2, 3, 4, 5, 9, 10 Feb. **Count:** Black-capped Chickadee, 16.3 ind./visit, (11 visits); Red-breasted Nuthatch, 5.9, (11); Brown Creeper, 1.5, (8); Tufted Titmouse, 1.0, (4); Blue Jay, 0.8, (6); Downy Woodpecker, 0.5, (4); White-breasted Nuthatch, 0.4, (3); Hairy Woodpecker, 0.2, (2); Great Horned Owl, 0.1, (1); American Robin, 0.1, (1); Northern Cardinal, 0.1, (1). **Total:** 11 species; 26.9 ind./visit (107 ind./40 ha). **Remarks:** A major feeding station is located 0.75km NE of the plot, and a backyard feeder occurs 150 m SE of the plot. **Other Observers:** David M. Clayton and Nancy W. Clayton. **Acknowledgments:** Thanks to Patrick Dorcas and the Audubon Society of Rhode Island for permission to use the site.

19. PONDEROSA PINE-SCRUB OAK FOREST**BOSQUE DE PINO PONDEROSA-MATORRAL DE ROBLE**

RUSSELL P. DEFUSCO

*USAFA/DFB**Colorado Springs, Colorado 80840*

Location: Colorado; El Paso Co.; Colorado Springs; USAFA Winter Bird Survey; 38°57'N, 104°50'W; Pikeview Quadrangle, USGS. **Continuity:** Established 1991; New. **Size:** 13.8 ha. **Description of Plot:** See *J. Field Ornithol.* 62 (Suppl.):56-67 (1991). This WBPS study site is the same plot used for the BBC. The 13.8 ha plot is divided into 12 100x115 m grids. Grid corners are each permanently marked with stakes and plastic tape. **Weather:** Mean temperature 2.7°C (range -26-13°C). Mean snow depth 2.6 cm (range 0-13 cm). Weather patterns typical except for one unusually cold period in Dec. when temperatures dipped to -34°C. **Source:** USAF Academy airfield, located 2 km E of the study area. **Coverage:** 14 hrs; 11 visits (3 morning, 7 afternoon, 1 evening): 21, 29 Dec.; 16 Jan.; 10, 11, 14, 17, 24, 26 Feb.; 1 Mar. **Count:** Dark-eyed Junco, 4.3 ind./visit, (10 visits); Black-billed Magpie, 1.5, (7); Mountain Chickadee, 1.4, (5); Pine Siskin, 1.4, (3); Pygmy Nuthatch, 1.1, (2); Rufous-sided Towhee, 0.7, (6); Scrub Jay, 0.6, (2); Black-capped Chickadee, 0.5, (2); White-breasted Nuthatch, 0.4, (3); Cassin's Finch, 0.3, (2); Northern Flicker, 0.2, (2); American Crow, 0.2, (2); Red-tailed Hawk, 0.1, (1); Downy Woodpecker, 0.1, (1); Brown Creeper, 0.1, (1); American Robin, 0.1, (1). **Total:** 16 species; 12.7 ind./visit (36.9 ind./40 ha). **Other Observers:** Tony Vasquez.

20. MAPLE-PINE-OAK SECOND-GROWTH FOREST**BOSQUE SECUNDARIO DE ARCE-PINO-ROBLE**

WILLIAM E. DAVIS, JR.

*College of Basic Studies**Boston University**Boston, Massachusetts 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; 15 yr. **Size:** 11.8 ha. **Description of Plot:** See *Am. Birds* 31:50-51 (1977). **Weather:** Mean temperature 0°C (range -7-7°C). Mean snow depth 1.3 cm (range 0-10 cm). For Dec., Jan., and Feb., respectively, temperature departures from normal were 3.9, -0.1, and 3.0°C; equivalent precipitation departures were, -3.3, -1.9, and -5.4 cm. Ground was bare on 10 trips. **Source:** U.S. National Weather Service, Boston. **Coverage:** 12 hrs; 12 visits (mornings): 17, 19, 20, 26 Dec.; 2, 3, 13, 19 Jan.; 2, 3, 9, 11 Feb. **Count:** Black-capped Chickadee, 3.1 ind./visit, (8 visits); American Crow, 0.8, (7); White-breasted Nuthatch, 0.6, (4); Tufted Titmouse, 0.5, (3); Golden-crowned Kinglet, 0.3, (4); Ruffed Grouse, 0.2, (2); Turkey Vulture, 0.1, (1); Downy Woodpecker, 0.1, (1). **Total:** 8 species; 5.7 ind./visit (19.5 ind./40 ha). **Remarks:** The largest mixed-species flock contained five chickadees and 1 nuthatch. The Turkey Vulture was observed soaring < 30 m above the trees and appeared to be foraging.

**21. UPLAND MIXED PINE-SPRUCE-HARDWOOD
PLANTATION****PLANTACIONES MEXTAS DE PINO-ABETO MAERAS DURAS EN ALTURA**

ELIZABETH W. BROOKS

*1435 Waterwells Road**Alfred Station, New York 14803*

Location: New York; Allegany Co.; Alfred; Philips Creek State Reforestation Tract; 42°8'N, 77°45'W; Andover Quadrangle, USGS. **Continuity:** Established 1974; 17 yr. **Size:** 16.6 ha.

Description of Plot: See *Am. Birds* 28:699-700. **Weather:** Mean temperature -1.1°C (range -7 - 7°C). Mean snow depth 7.5 cm (range trace-17 cm). Average temperature in Dec. (0.4°C) was 3.8° warmer than average, while Jan. average temperature (-5.1°C) was normal. Snowfall in Dec. (43.8 cm) was average, while Jan. snowfall (66 cm) was 30 cm above average. **Coverage:** 12.3 hrs; 9 visits (5 mornings, 4 afternoons); 16, 29 Dec.; 2, 4, 6, 8, 13, 15, 27 Jan. **Count:** Black-capped Chickadee, 9.1 ind./visit, (9 visits); Wild Turkey, 1.8, (2); Ruffed Grouse, 0.8, (4); Brown Creeper, 0.7, (4); Evening Grosbeak, 0.4, (2); Downy Woodpecker, 0.3, (3); Golden-crowned Kinglet, 0.3, (2); Blue Jay, 0.2, (2); Pileated Woodpecker, 0.1, (1); American Crow, 0.1, (1); Red-breasted Nuthatch, 0.1, (1). **Total:** 11 species; 14.0 ind./visit (33.7 ind./40 ha). **Remarks:** Total individuals was the lowest since censusing began in 1974. All species except turkey were below the 17-year averages, but these figures may reflect a generally poor winter bird population in the area this year, rather than any habitat-specific trend. **Acknowledgments:** Appreciation to Rick Walker of the Alfred Cooperative Weather Station for weather data.

22. CONIFEROUS-DECIDUOUS FOREST

BOSQUE DE CONÍFEROS-DECIDUO

MICHAEL F.G. CLARK

27 Skyline Drive
Dundas, Ontario L9H 3S3

Location: Ontario; Municipality of Hamilton-Wentworth; $43^{\circ}14'\text{N}$, $80^{\circ}2'\text{W}$. **Continuity:** Established 1986; 6 yr. **Size:** 9.2 ha. **Description of Plot:** See *J. Field Ornithol.* 60 (Suppl.): 11 (1989). **Weather:** Mean temperature 1.8°C (range -11 - 13°C). Mean snow depth 3.3 cm (range 0-11 cm). Snow was absent on three visits. **Coverage:** 12 hrs; 8 visits (5 mornings, 3 afternoon); 23, 28 Dec.; 3, 19 Jan.; 6 Feb.; 1, 2, 10 Mar. **Count:** Black-capped Chickadee, 10.5 ind./visit, (8 visits); Pine Siskin, 1.3, (2); Northern Cardinal, 1.1, (4); Downy Woodpecker, 0.6, (4); White-breasted Nuthatch, 0.6, (3); Hairy Woodpecker, 0.4, (3); Brown Creeper, 0.4, (2); Blue Jay, 0.3, (1); American Crow, 0.3, (2); Golden-crowned Kinglet, 0.3, (1); Ruffed Grouse, 0.1, (1); Mourning Dove, 0.1, (1); American Robin, 0.1, (1). **Total:** 13 species; 16.0 ind./visit (69.6 ind./40 ha). **Remarks:** The total number of birds was the second lowest in six yr and was nearly 100 birds below the mean for the first five yr (225.4). Chickadees continue to dominate (65.6%), and bark foragers prevailed over other foraging groups (79.7%, 6 sp.). The near total absence of cones and mild weather likely account for the low total number of birds.

23. MATURE DECIDUOUS-CONIFEROUS FOREST WITH STREAM

BOSQUE MADURO DECIDUO-Y-DE CONIFEROS CON ARROYO

STEPHEN J. & BARBARA H. STEDMAN

2675 Lakeland Drive
Cookeville, Tennessee 38501

Location: Tennessee; Putnam Co.; Cookeville; Old Cookeville Filtration Plant; $36^{\circ}8'\text{N}$, $85^{\circ}27'\text{W}$; Cookeville East Quadrangle, USGS. **Continuity:** Established 1990; 2 yr. **Size:** 10.2 ha. **Description of Plot:** See *J. Field Ornithol.* 62 (Suppl.):17 (1991). Maintenance work along the powerline right-of-way that cuts through the N edge expanded the right-of-way strip from five to 15 m wide, resulting in the loss of many mature trees and significant erosion on the steep slopes of the right-of-way. **Weather:** Mean temperature 1.4°C (range -5 - 11°C). Jan. and Feb. were wetter and milder than average. Only one snowfall of 2.5 cm occurred. **Coverage:** 14.8 hrs; 10 visits (mornings): 1, 5, 12, 17, 23, 25 Jan.; 1, 11, 13, 21 Feb. **Count:** Northern Cardinal, 5.4 ind./visit, (10 visits); Carolina Chickadee, 5.1, (10); House Finch, 4.5, (9); Tufted Titmouse, 4.0, (10); American Goldfinch, 4.0, (9); Carolina

Wren, 3.4, (10); European Starling, 2.4, (2); Yellow-rumped Warbler, 2.4, (10); Song Sparrow, 2.3, (9); White-throated Sparrow, 2.0, (7); White-breasted Nuthatch, 1.9, (10); Field Sparrow, 1.9, (2); Mourning Dove, 1.7, (7); Downy Woodpecker, 1.7, (9); Rock Dove, 1.3, (4); Golden-crowned Kinglet, 1.2, (9); Rufous-sided Towhee, 1.1, (7); American Crow, 1.0, (7); Belted Kingfisher, 0.8, (6); Red-bellied Woodpecker, 0.8, (8); Blue Jay, 0.7, (6); Swamp Sparrow, 0.7, (5); Winter Wren, 0.6, (6); Eastern Phoebe, 0.5, (5); Great Blue Heron, 0.4, (4); Sharp-shinned Hawk, 0.2, (2); Red-shouldered Hawk, 0.2, (2); Hairy Woodpecker, 0.1, (1); Northern Flicker, 0.1, (1); Brown Creeper, 0.1, (1); Eastern Bluebird, 0.1, (1); Chipping Sparrow, 0.1, (1); Red-winged Blackbird, 0.1, (1); Brown-headed Cowbird, 0.1, (1); Purple Finch, 0.1, (1). **Total:** 35 species; 53.0 ind./visit (208 ind./40 ha). **Remarks:** The 50% reduction in the number of birds observed, compared with last year, was probably due to a poorer food crop. Maintenance work along the powerline right-of-way may also have accounted for reduced populations.

24. OLD-GROWTH MIXED MESOPHYTIC FOREST

BOSQUE MIXTO MESOFÍTICO VIEJO

PAUL B. HAMEL

Tennessee Department of Environment and Conservation
701 Broadway
Nashville, Tennessee 37243

Site Number: TN2191033. **Location:** Tennessee; Grundy Co.; Collins; Savage Gulf State Natural Area; 35°27'N, 85°35'W; Collins Quadrangle, USGS. **Continuity:** New. **Size:** 9.4 ha. **Description of Plot:** Site is part of ca. 200 ha old-growth stand on the W edge of the Cumberland Plateau. Eastern Hemlock, Tulip Tree, Sugar Maple, American Basswood, and Sweet Buckeye comprise 68% of the overstory importance value. The understory is dominated by Flowering Dogwood, Sugar Maple, Eastern Hemlock, American Beech, and Common Witch-hazel. Ground cover dominated by *Hepatica acutiloba*, *Parthenocissus quinquefolia*, Big-rooted Heuchera, Christmas Fern, Small Jack-in-the-pulpit, Cinnamon Fern, and Sugar Maple saplings. The plot contains many downed logs, snags, and rock. Overstory basal area 50.7 m:s2/ha; density 468 stems/ha; sapling density 753 stems/ha; shrub density 12,897 stems/ha. **Edge:** Bordered by similar forest to 1 km E, 0.5 km N, and 1 km W. South edge borders a 30 m cliff with second-growth oak-pine forest. **Topography:** Steeply-sloping, 30–45% (occasionally 70%), on N aspect with considerable talus. **Weather:** Mean temperature 7°C (range –1–16°C). Snow accumulation 1 cm on one visit. **Coverage:** 23.3 hrs; 9 visits (6 mornings, 3 afternoon): 13, 20, 26 Jan.; 24 Feb.; 16 Mar. **Count:** Carolina Chickadee, 4.3 ind./visit, (8 visits); Golden-crowned Kinglet, 4.2, (8); Winter Wren, 3.2, (9); Carolina Wren, 2.1, (8); Purple Finch, 1.1, (2); Downy Woodpecker, 0.9, (5); Hairy Woodpecker, 0.7, (6); Pileated Woodpecker, 0.7, (9); Eastern Phoebe, 0.7, (4); Northern Cardinal, 0.7, (4); White-breasted Nuthatch, 0.6, (4); Ruffed Grouse, 0.3, (3); Yellow-bellied Sapsucker, 0.3, (3); Barred Owl, 0.2, (2); Brown Creeper, 0.2, (2); Tufted Titmouse, 0.1, (1); American Robin, 0.1, (1). **Total:** 17 species; 20.4 ind./visit (86.8 ind./40 ha). **Remarks:** Previous work on this plot was conducted by: Robertson. 1979. Breeding birds in a virgin mixed mesophytic forest in the western escarpment of the Cumberland Plateau. M.S. thesis, Biology Dept., Austin Peay State University; and, Sherman, 1990. Characteristics of old-growth forests of Savage Gulf State Natural Area, Tennessee. **Acknowledgments:** The work was made possible by a grant from the Center of Excellence for the Study of Field Biology of Land Between the Lakes in the Biology Department of Austin Peay State University. I am indebted to the staff of South Cumberland Recreation Area, particularly Wayne Morrison, for logistical support.

25. SUBURBAN CEMETERY

CEMETERIA SUB-URBANO

THOMAS A. IMHOF

1036 Pike Road

Birmingham, Alabama 35218

Location: Alabama; Jefferson Co.; Birmingham; Oakland Cemetery; 33°29'N, 86°54'W; Bessemer Quadrangle, USGS. **Continuity:** Established 1978; 12 yr. **Size:** 15.0 ha. **Description of Plot:** See *Am. Birds* 34:18-19 (1980). **Weather:** Mean temperature 10.6°C (range 1-20). Dec. and Jan. were dry, Feb. near average rainfall. By the end of Feb., however, precipitation for 1991 was 7.5 cm below average. **Coverage:** 20 hrs; 20 visits (17 morning, 2 afternoon, 1 evening): 4, 10, 15, 21, 26, 30 Dec.; 5, 7, 14, 19, 27, 29 Jan.; 3, 7, 12, 18, 23, 24, 28 Feb.; 4 Mar. **Count:** Common Grackle, 204 ind./visit, (20 visits); European Starling, 43.6, (20); House Finch, 39.6, (20); House Sparrow, 19.5, (20); Rock Dove, 17.5, (20); American Robin, 16.1, (16); Mourning Dove, 11.6, (20); Blue Jay, 7.2, (20); Northern Mockingbird, 5.4, (20); Northern Cardinal, 4.5, (20); White-throated Sparrow, 3.7, (14); Brown-headed Cowbird, 3.1, (5); Rufous-sided Towhee, 2.8, (18); Red-winged Blackbird, 2.8, (9); Rusty Blackbird, 2.7, (10); Carolina Chickadee, 2.2, (20); Tufted Titmouse, 2.1, (20); American Crow, 2.0, (20); Northern Flicker, 1.9, (20); Red-bellied Woodpecker, 0.8, (12); Yellow-rumped Warbler, 0.8, (10); Carolina Wren, 0.8, (12); Red-tailed Hawk, 0.6, (11); Ruby-crowned Kinglet, 0.6, (10); Cedar Waxwing, 0.6, (2); Song Sparrow, 0.4, (6); Brown Thrasher, 0.3, (5); American Goldfinch, 0.3, (3); Dark-eyed Junco, 0.2, (3); Yellow-bellied Sapsucker, 0.2, (3); Golden-crowned Kinglet, 0.2, (4); Purple Finch, 0.2, (3); American Kestrel, 0.2, (3); Red-headed Woodpecker, 0.1, (2); Brown Creeper, 0.1, (2); Cooper's Hawk, 0.1, (1); Killdeer, 0.1, (1); American Woodcock, 0.1, (1); Downy Woodpecker, 0.1, (1); White-breasted Nuthatch, 0.1, (1). **Total:** 40 species; 399 ind./visit (1065 ind./40 ha). **Remarks:** Many Water Oaks remained in foliage all winter.

26. FLOODPLAIN FOREST AND CULTIVATED BOTTOMLAND

BOSQUE INUNDABLE Y TIERRAS CULTIVADAS

VIVIAN MILLS PITZRICK

Amity Lake

Belmont, New York 14813

Location: New York; Allegany Co.; Scio; Maybee Plot; 42°10'N, 77°59'W; Wellsville Quadrangle, USGS. **Continuity:** Established 1971; 21 yr. **Size:** 51.8 ha. **Description of Plot:** See *Am. Birds* 25:644-645 (1971). **Weather:** Mean temperature -3.5°C (range -9-3.3°C). Mean snow cover 2.8 cm (range 0-7.6 cm). Temperatures averaged above normal. Precipitation for Dec., falling mostly as rain, was a record 21.8 cm. Although snow cover was unusually light throughout, a crust covered the ground on trips three through seven. **Coverage:** 7.8 hrs; 8 visits (mornings). 10, 15 Dec.; 2, 3, 10, 18 Jan.; 4, 8 Feb. **Count:** House Finch, 4.6 ind./visit, (4 visits); Evening Grosbeak, 3.9, (4); American Crow, 3.8, (7); American Goldfinch, 3.6, (5); Black-capped Chickadee, 3.5, (6); Mallard, 3.0, (2); American Black Duck, 1.6, (3); Mourning Dove, 1.3, (5); Ring-billed Gull, 1.1, (3); Common Merganser, 0.6, (2); Belted Kingfisher, 0.5, (3); Blue Jay, 0.4, (3); White-breasted Nuthatch, 0.4, (3); American Tree Sparrow, 0.3, (1); Purple Finch, 0.3, (1); Great Blue Heron, 0.1, (1); Sharp-shinned Hawk, 0.1, (1); Herring Gull, 0.1, (1); American Robin, 0.1, (1); European Starling, 0.1, (1); Northern Cardinal, 0.1, (1); House Sparrow, 0.1, (1). **Total:** 22 species; 29.6 ind./visit (22.9 ind./40 ha). **Remarks:** Comparing 1991 results with the 1971-1990 average (in parentheses): Total species, 22 (24); mean ind./visit, 30 (159); and excluding crow and Snow Bunting, 26 (105). The number of species remains constant, but the total number of individuals was the lowest ever. Waterfowl were scarce and Downy Woodpecker and Rock Dove were missing for the first time. The low bird population may be attributed, in part, to depletion of wild foods early in the season, snow crust on five visits,

the lack of corn gleanings and top dressings, and few nearby feeders. **Acknowledgments:** Thanks to Raymond Pitzrick for standing by with transportation and to Calvin Maybee for permission to use his property.

27. FIELD, RIDGE, AND SHRUBBY TREES

CAMPOS, COLINAS Y ARBUSTOS

MICHAEL F.G. CLARK

27 Skyline Drive

Dundas, Ontario L9H 3S3

Location: Ontario; Municipality of Hamilton-Wentworth; Dundas; 43°15'N, 79°54'W. **Continuity:** Established 1986; 6 yr. **Size:** 6.6 ha. **Description of Plot:** See *J. Field Ornithol.* 60 (Suppl.):14 (1989). **Weather:** Mean temperature -3.8°C (range -11-8°C). Mean snow depth 4.6 cm (range 0-16.5 cm). The plot was free of snow on three visits. **Coverage:** 10.4 hrs; 8 visits (6 morning, 2 afternoon): 1, 24, 31 Dec.; 4, 26 Jan.; 9, 26 Feb.; 7 Mar. **Count:** Black-capped Chickadee, 6.6 ind./visit, (8 visits); House Finch, 4.4, (6); American Tree Sparrow, 3.2, (8); Northern Cardinal, 2.3, (7); Dark-eyed Junco, 1.9, (2); Blue Jay, 1.4, (2); American Crow, 0.6, (4); Cedar Waxwing, 0.5, (1); European Starling, 0.5, (1); Red-tailed Hawk, 0.4, (2); Mourning Dove, 0.4, (1); Downy Woodpecker, 0.3, (2); Hairy Woodpecker, 0.1, (1); White-breasted Nuthatch, 0.1, (1); American Robin, 0.1, (1); Northern Mockingbird, 0.1, (1); American Goldfinch, 0.1, (1). **Total:** 17 species; 22.8 ind./visit (139 ind./40 ha). **Remarks:** Total number of birds observed decreased by 50.5% from last year, and by 19.9% from the previous 5-yr mean. Granivores were most abundant (59.2%, 7 sp.), then bark foragers (31%, 4 sp.), and, despite the heavy Black Cherry crop, frugivores only 5.4% (4 sp.). The gradual increase in chickadees perhaps indicates successional change. American Tree Sparrows, the most abundant species for the first 4 yr, were at their lowest level ever, possibly due to the invasion of House Finches over the last 3 yr.

28. URBAN PARK

PARQUE URBANO

DENNIS M. FORSYTHE

Department of Biology

The Citadel

Charleston, South Carolina 29409

Location: South Carolina; Charleston Co.; Charleston; Hampton Park; 32°48'N, 79°58'W; Charleston Quadrangle, USGS. **Continuity:** Established 1971; 5 yr. **Size:** 25.9 ha. **Description of Plot:** See *J. Field Ornithol.* 62 (Suppl.):20-21 (1991). **Weather:** Mean temperature 11.2°C (range -2-20°C). Temperatures and precipitation during 60-day period were above normal (rain 23 cm above average). **Coverage:** 19 hrs; 12 visits. **Count:** Ring-billed Gull, 121 ind./visit, (12 visits); European Starling, 34.7, (12); Rock Dove, 30.2, (12); Mourning Dove, 18.2, (12); Northern Mockingbird, 8.4, (12); Northern Flicker, 7.5, (12); American Robin, 7.2, (8); Northern Cardinal, 6.1, (11); Fish Crow, 4.9, (10); White-throated Sparrow, 4.4, (9); Ruby-crowned Kinglet, 3.4, (12); Blue Jay, 3.3, (12); Brown Thrasher, 3.1, (12); Boat-tailed Grackle, 3.1, (12); Killdeer, 2.4, (7); House Sparrow, 1.9, (9); Cedar Waxwing, 1.7, (1); Double-crested Cormorant, 1.6, (10); Downy Woodpecker, 1.5, (11); Red-bellied Woodpecker, 1.2, (10); Orange-crowned Warbler, 0.7, (6); Common Grackle, 0.7, (3); Dark-eyed Junco, 0.6, (4); White Ibis, 0.5, (3); Carolina Chickadee, 0.5, (4); Yellow-bellied Sapsucker, 0.3, (4); Loggerhead Shrike, 0.3, (4); Pine Warbler, 0.3, (3); Rufous-sided Towhee, 0.2, (3); Northern Oriole, 0.2, (3); Sharp-shinned Hawk, 0.2, (2); Red-tailed Hawk, 0.2, (2); American Kestrel, 0.2, (2); Tufted Titmouse, 0.2, (1); Laughing Gull, 0.1, (1); Herring Gull, 0.1, (1); Great Horned Owl, 0.1, (1); Belted Kingfisher, 0.1, (1); Solitary Vireo, 0.1, (1); Palm Warbler, 0.1, (1); Song Sparrow, 0.1, (1); Brown-headed

Cowbird, 0.1, (1); American Goldfinch, 0.1, (1). **Total:** 43 species; 271 ind./visit (419 ind./40 ha). **Acknowledgments:** I wish to thank the City of Charleston Parks Department for access and B. Powell for typing the census form.

29. COASTAL FRESHWATER MARSH

PANTANO COSTANERO DE AGUA DULCE

JOHN KELLY

Cypress Grove Preserve

P.O. Box 808

Marshall, California 94940

Location: California; Marin Co.; Marshall; Livermore Marsh; 38°10'N, 122°54'W; Tomales Quadrangle, USGS. **Continuity:** Established 1986; 6 yr. **Size:** 10.5 ha. **Description of Plot:** See *J. Field Ornithol.* 60 (Suppl.):64 (1989). **Weather:** Mean temperature 8.4°C (range 4–11°C). **Coverage:** 8.5 hrs; 8 visits (mornings): 10, 24 Jan.; 8, 13, 19, 22, 26, 28 Feb. **Count:** American Wigeon 38.2 ind./visit, (8 visits); Red-winged Blackbird, 20.6, (8); Yellow-rumped Warbler, 16.9, (8); Mallard, 14.6, (8); Song Sparrow, 14.5, (8); Dunlin, 11.1, (2); Golden-crowned Sparrow, 9.4, (6); American Coot, 8.4, (8); Least Sandpiper, 8.1, (8); Marsh Wren, 8.0, (8); White-crowned Sparrow, 5.1, (5); House Finch, 4.4, (6); California Quail, 4.2, (2); Cinnamon Teal, 4.1, (6); Canvasback, 3.5, (7); Tree Swallow, 2.9, (4); Green-Winged Teal, 2.7, (6); Ruddy Duck, 2.2, (6); Long-billed Dowitcher, 2.2, (2); Allen's Hummingbird, 2.0, (3); Bufflehead, 1.9, (6); Fox Sparrow, 1.5, (7); Black Phoebe, 1.3, (5); Black-crowned Night-Heron, 1.0, (4); Northern Harrier, 1.0, (5); Great Blue Heron, 0.9, (6); Northern Flicker, 0.9, (5); American Robin, 0.9, (5); Brown Towhee, 0.9, (4); Brewer's Blackbird, 0.9, (2); Greater Yellowlegs, 0.8, (5); Ruby-crowned Kinglet, 0.8, (6); Red-shouldered Hawk, 0.5, (4); Common Snipe, 0.5, (3); Belted Kingfisher, 0.5, (4); Chestnut-backed Chickadee, 0.5, (3); Golden-crowned Kinglet, 0.5, (2); Golden-crowned Warbler, 0.4, (1); Willet, 0.4, (2); Hermit Thrush, 0.4, (3); Wrentit, 0.4, (2); Savannah Sparrow, 0.4, (3); Lincoln's Sparrow, 0.4, (3); Snowy Egret, 0.2, (2); Turkey Vulture, 0.2, (1); Killdeer, 0.2, (1); Anna's Hummingbird, 0.2, (2); American Crow, 0.2, (1); Common Yellowthroat, 0.2, (2); Red-tailed Hawk, 0.1, (1); Virginia Rail, 0.1, (1); Semipalmated Plover, 0.1, (1); Mew Gull, 0.1, (1); Glaucous-winged Gull, 0.1, (1); Northern Shrike, 0.1, (1); European Starling, 0.1, (1); American Goldfinch, 0.1, (1). **Total:** 57 species; 203 ind./visit (774 ind./40 ha). **Remarks:** Drought continued through Feb. dramatically reducing the extent and depth of open water, and increasing the availability of open, muddy substrate and shallow water. These changes in hydrology probably accounted for increases in the numbers of shorebirds and decreases in the number of waterbirds, particularly diving ducks, from previous years. Decreases in Common Snipe probably were associated with the absence of standing water in the upper marsh. Much of the lower marsh flats, which are covered by open water during years with normal rainfall, were dominated by *Oenanthes sarmentosa*. Allen's Hummingbirds and Red-winged Blackbirds were mostly territorial males. The high winter count for the Black-crowned Night-Heron roost was 7 adults and one juvenile. **Acknowledgments:** Data were compiled by Susan Kelly. This work was supported by Chevron USA, Inc., and Audubon Canyon Ranch.

30. COASTAL RIPARIAN AND CATTAIL-BULRUSH MARSH

ANIGADO DE ENEAS-"BULRUSH" COSTANERO RIVEREÑO

JULES EVENS & RICHARD W. STALLCUP

P.O. Box 839

Point Reyes, California 94956

Location: California; Marin Co.; Point Reyes Station; Olema Marsh; 38°4'N, 122°49'W; Point Reyes Quadrangle, USGS. **Continuity:** Established 1990; 2 yr. **Size:** 17.5 ha. **De-**

scription of Plot: See *J. Field Ornithol.* 62 (Suppl.):22-23 (1991). **Weather:** Mean temperature 1.8°C (range -2-5°C). Low rainfall and the coldest Dec. on record with over two weeks of sub-freezing temperatures (16 Dec-5 Jan.). **Coverage:** 23.1 hrs; 8 visits (mornings): 15 Nov.; 4, 15 Dec.; 5, 18 Jan.; 2, 15, 26 Feb. **Count:** Red-winged Blackbird, 544 ind./visit, (3 visits); Brewer's Blackbird, 325, (3); Tricolored Blackbird, 146, (3); European Starling, 56.2, (3); Pine Siskin, 55.9, (8); White-crowned Sparrow, 44.2, (7); Golden-crowned Sparrow, 40.4, (8); Song Sparrow, 30.0, (8); Purple Finch, 29.1, (8); Bushtit, 20.8, (8); Yellow-rumped Warbler, 19.5, (8); Marsh Wren, 16.1, (8); Fox Sparrow, 15.4, (8); Ruby-crowned Kinglet, 13.1, (7); American Robin, 10.5, (7); Virginia Rail, 9.9, (8); Chestnut-backed Chickadee, 9.0, (8); Mallard, 6.9, (7); House Finch, 6.9, (8); Dark-eyed Junco, 6.5, (8); Scrub Jay, 6.2, (8); Brown Towhee, 5.9, (8); California Quail, 5.6, (7); Acorn Woodpecker, 5.2, (7); American Wigeon, 5.1, (6); Hermit Thrush, 4.1, (7); Steller's Jay, 3.9, (7); Wrentit, 3.9, (8); Brown-headed Cowbird, 3.7, (1); Common Yellowthroat, 3.4, (7); Townsend's Warbler, 3.2, (5); Black Phoebe, 2.9, (8); Bewick's Wren, 2.9, (7); Varied Thrush, 2.9, (7); Green-Winged Teal, 2.7, (4); Winter Wren, 2.6, (5); Turkey Vulture, 2.4, (7); American Coot, 2.4, (7); Tree Swallow, 2.2, (3); Swamp Sparrow, 2.2, (7); Western Bluebird, 2.0, (3); Rufous-sided Towhee, 1.9, (8); Lincoln's Sparrow, 1.9, (8); Plain Titmouse, 1.8, (8); Downy Woodpecker, 1.6, (5); House Sparrow, 1.4, (4); Golden-crowned Kinglet, 1.3, (3); Hutton's Vireo, 1.3, (5); Northern Flicker, 1.1, (6); Cinnamon Teal, 1.0, (2); Red-shouldered Hawk, 1.0, (7); Nuttall's Woodpecker, 1.0, (5); Cedar Waxwing, 1.0, (1); Hairy Woodpecker, 0.9, (7); White-throated Sparrow, 0.9, (4); Sora, 0.8, (5); Anna's Hummingbird, 0.8, (5); Allen's Hummingbird, 0.8, (3); Great Blue Heron, 0.6, (5); Gadwall, 0.6, (3); Red-breasted Sapsucker, 0.6, (4); Pied-billed Grebe, 0.5, (4); Bufflehead, 0.5, (3); Black-shouldered Kite, 0.5, (4); Double-crested Cormorant, 0.4, (3); Wood Duck, 0.4, (2); Common Moorhen, 0.4, (1); Common Snipe, 0.4, (2); Savannah Sparrow, 0.4, (3); Ruddy Duck, 0.2, (2); Sharp-shinned Hawk, 0.2, (2); Cooper's Hawk, 0.2, (2); Red-tailed Hawk, 0.2, (2); Killdeer, 0.2, (2); Brown Creeper, 0.2, (2); Orange-crowned Warbler, 0.2, (2); Northern Harrier, 0.1, (1); American Kestrel, 0.1, (1); Belted Kingfisher, 0.1, (1); Violet-green Swallow, 0.1, (1); Northern Rough-winged Swallow, 0.1, (1). **Total:** 81 species; 1509 ind./visit (3449 ind./40 ha). **Remarks:** This study was conducted during the fifth and driest winter of an ongoing drought affecting central California. We suspect this perennial wetland has become more important to local avifauna as other fresh water sources have become less available. Use by waterfowl has increased, but this may be the result of maturation of the fresh water ponds and increasing cover of willow on the pond shores. The anomalous cold spell from mid-Dec. through early Jan. apparently affected small insectivores, with Marsh Wren, Ruby-crowned Kinglet, and Townsend's Warbler all experiencing a noticeable drop in population numbers. These population losses are masked when comparing this year's cumulative results with those from previous years because the numbers of kinglets and Townsend's Warblers, in particular, were higher than usual early in the season. **Acknowledgments:** Audubon Canyon Ranch, Inc. for funding, encouragement, and ongoing support. John Kelly, Phylis Faber, and Sonya Foray provided valuable field assistance and consultation.

31. BARRIER BEACH AND SALTWATER ESTUARY

ESTUARIOS DE AGUA SALADA Y PLAYAS DE BARRERA

ROBERT W. LOFTIN

University of North Florida
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Jacksonville, Florida 32216

Location: Florida; Duval Co.; Mayport; North Jetties Area; 30°25'N, 81°25'W; Mayport Quadrangle, USGS. **Continuity:** Established 1978; 14 yr. **Size:** 213.0 ha. **Description of Plot:** See *Am. Birds* 33:47-48 (1979). **Weather:** Mean temperature 16.1°C (range 7-20°C). One of the warmest winters in many years. **Coverage:** 20.8 hrs; 8 visits (2 mornings, 6 afternoon): 2, 25 Dec.; 1, 10, 21 Jan.; 6, 24, 28 Feb. **Count:** Herring Gull, 689.1 ind./

visit, (8 visits); Laughing Gull, 614.5, (8); Black Skimmer, 369, (8); Ring-billed Gull, 339.8, (8); Dunlin, 161, (8); Western Sandpiper, 138.5, (8); Sanderling, 121.6, (8); Brown Pelican, 109.3, (8); Forster's Tern, 106.2, (8); Royal Tern, 102.3, (8); Red Knot, 53.1, (6); Great Black-backed Gull, 46.5, (8); Double-crested Cormorant, 38.6, (8); Ruddy Turnstone, 37.9, (8); Short-billed Dowitcher, 36.2, (7); Semipalmated Plover, 26.4, (8); Black-bellied Plover, 23.5, (8); Red-breasted Merganser, 21.4, (8); Common Grackle, 19.8, (8); Yellow-rumped Warbler, 18.3, (7); Mourning Dove, 13.0, (8); Willet, 6.7, (8); Caspian Tern, 5.2, (8); Piping Plover, 5.0, (6); American Robin, 4.2, (2); Great Egret, 4.0, (8); Killdeer, 4.0, (7); Sandwich Tern, 3.6, (3); Red-winged Blackbird, 3.4, (6); Boat-tailed Grackle, 3.2, (4); Rufous-sided Towhee, 3.0, (6); Northern Gannet, 2.9, (3); European Starling, 2.6, (2); Savannah Sparrow, 2.4, (6); Great Blue Heron, 2.2, (8); Northern Mockingbird, 2.2, (6); Northern Cardinal, 1.9, (5); Snowy Egret, 1.8, (5); Osprey, 1.6, (8); Song Sparrow, 1.6, (6); Bonaparte's Gull, 1.4, (6); Belted Kingfisher, 1.4, (7); Hooded Merganser, 1.3, (4); Clapper Rail, 1.3, (2); Wilson's Plover, 1.3, (3); Palm Warbler, 1.1, (3); American Oystercatcher, 0.9, (4); American Kestrel, 0.8, (6); Lesser Black-backed Gull, 0.8, (5); Horned Grebe, 0.6, (3); Common Ground-Dove, 0.5, (3); Turkey Vulture, 0.4, (2); Northern Harrier, 0.4, (3); Common Yellowthroat, 0.4, (1); Common Loon, 0.2, (2); Tricolored Heron, 0.2, (2); House Wren, 0.2, (1); Ruby-crowned Kinglet, 0.2, (2); Swamp Sparrow, 0.2, (2); Peregrine Falcon, 0.1, (1); Marbled Godwit, 0.1, (1); Glaucous Gull, 0.1, (1); Yellow-bellied Sapsucker, 0.1, (1); Downy Woodpecker, 0.1, (1); Loggerhead Shrike, 0.1, (1); Orange-crowned Warbler, 0.1, (1); Field Sparrow, 0.1, (1). **Total:** 67 species; 3162 ind./visit (594 ind./40 ha). **Remarks:** Forster's Tern was at an all-time high, 106 vs. the 13-yr mean of 44, but Royal Tern was down (102 vs 217, respectively). All the common gulls except Great Black-backed have increased: comparing this year's mean with the 13-yr mean, Herring Gull (689 vs 486), Laughing Gull (614 vs 407), and Ring-billed Gull (339 vs 226). Black Skimmer also has increased (369 vs 245). However, many of the common sandpipers decreased: Dunlin (161 vs 242), Red Knot (53 vs 78), Ruddy Turnstone (37 vs 50), dowitcher (36 vs 69), Semipalmated Plover (26 vs 85) and Willet (6 vs 10). **Other Observers:** Robert Richter.

32. SALTWATER LAGOON

LAGUNA DE AGUA SALADA

KRISTEN MITCHELL & ROGER L. BOYD

*Biology Department
Baker University
Baldwin City, Kansas 66006*

Site Number: TX0791100. **Location:** Texas; Cameron Co.; Rio Hondo; Bayside Tour, Laguna Atascosa NWR; 26°13'N, 97°18'W; La Coma Quadrangle, USGS. **Continuity:** New. **Size:** 150.0 ha. **Description of Plot:** Part of the saltwater lagoon on Laguna Madre along the "Bayside Tour" at Laguna Atascosa National Wildlife Refuge. The plot is flooded daily by tidal water reaching a maximum depth of 0.5 m. The plot includes some mudflats in the NW corner. During periods of high winds from the N, the area of exposed mudflat increased in the N half. **Edge:** A 3 m sandy ridge with grass and *Opuntia* cactus to the W, a peninsula of sand and grass to the N, and open lagoon to the S and E. **Weather:** Mean temperature 15.4°C (range 8–24°C). **Coverage:** 6 hrs; 8 visits (6 mornings, 2 afternoons): 6, 7, 8, 9, 20, 21 Jan. **Count:** Western Sandpiper, 3609 ind./visit, (8 visits); Redhead, 937, (7); Long-billed Dowitcher, 490, (7); Willet, 127, (8); Dunlin, 98.1, (8); Northern Pintail, 46.7, (7); Black-bellied Plover, 36.2, (8); Long-billed Curlew, 30.9, (7); Ring-billed Gull, 20.0, (8); Reddish Egret, 14.3, (6); Snowy Plover, 13.0, (6); Sanderling, 12.4, (7); Ruddy Turnstone, 9.0, (6); Forster's Tern, 8.3, (5); Great Blue Heron, 7.5, (6); White Ibis, 7.1, (6); Herring Gull, 6.9, (7); Caspian Tern, 6.7, (5); Red-breasted Merganser, 5.5, (6); Laughing Gull, 5.1, (4); Double-crested Cormorant, 4.7, (4); American White Pelican, 4.5, (4); Least Sandpiper, 4.5, (5); unidentified shorebird ("peep"), 4.1, (2); Snow Goose, 3.9, (7); Semipalmated Plover, 3.7, (8); Piping Plover, 3.7, (7); Short-billed Dowitcher, 2.9, (4);

Gull-billed Tern, 2.6, (4); Stilt Sandpiper, 2.1, (2); Royal Tern, 1.8, (3); Snowy Egret, 1.3, (5); Osprey, 0.9, (4); Great Egret, 0.8, (5); Greater Yellowlegs, 0.8, (5); Horned Lark, 0.6, (1); American Wigeon, 0.5, (2); Little Blue Heron, 0.4, (2); Lesser Yellowlegs, 0.4, (1); Marbled Godwit, 0.4, (1); Black Duck, 0.2, (1); White-faced Ibis, 0.2, (1); Water Pipit, 0.2, (2); Tricolored Heron, 0.1, (1); Bufflehead, 0.1, (1); Peregrine Falcon, 0.1, (1). **Total:** 46 species; 5537 ind./visit (1477 ind./40 ha). **Other Observers:** Jan and Jon Boyd, Jeff Rupert, Mike Hubbard, James Balch, Shane Wells, Susan Wilson, Kerry Wright, Travis Tollefson. **Acknowledgments:** Thanks to Laguna Atascosa NWR staff for permitting us to conduct this study.

33. COASTAL SCRUB

MATORRAL COSTANERO

STEVE DOUGILL & GEOFFREY R. GEUPEL

Point Reyes Bird Observatory

4990 Shoreline Highway

Stinson Beach, California 94970

Location: California; Marin Co.; Bolinas; Palomarin Field Station; 37°55'N, 122°45'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1971; 3 yr. **Size:** 8.1 ha. **Description of Plot:** See *Am. Birds* 25:1003-1004 (1971). **Weather:** Mean temperature 11.1°C (range 7-14°C). Total precipitation during the study period was only 18.4 cm, continuing the drought conditions of the last four yr. **Coverage:** 19.5 hrs; 8 visits (mornings): 11, 16, 23, 28 Jan.; 6, 12 Feb.; 1, 4 Mar. **Count:** Wrentit, 9.8 ind./visit, (8 visits); Ruby-crowned Kinglet, 6.2, (8); Bushtit, 6.1, (5); Song Sparrow, 5.5, (8); Chestnut-backed Chickadee, 4.2, (5); Bewick's Wren, 4.1, (8); White-crowned Sparrow, 3.7, (8); European Starling, 3.4, (1); Scrub Jay, 2.6, (7); Rufous-sided Towhee, 2.4, (7); Northern Flicker, 1.9, (6); Yellow-rumped Warbler, 1.8, (6); Anna's Hummingbird, 1.6, (5); Golden-crowned Kinglet, 1.3, (4); Hermit Thrush, 1.0, (5); American Robin, 0.9, (5); Sharp-shinned Hawk, 0.6, (5); Red-breasted Nuthatch, 0.6, (2); Rufous-crowned Sparrow, 0.6, (3); Red-tailed Hawk, 0.5, (4); Golden-crowned Sparrow, 0.5, (3); Steller's Jay, 0.4, (3); Fox Sparrow, 0.4, (2); Allen's Hummingbird, 0.2, (2); Blue-gray Gnatcatcher, 0.2, (1); Western Meadowlark, 0.2, (2); California Towhee, 0.1, (1); Turkey Vulture, 0.1, (1); American Kestrel, 0.1, (1); Merlin, 0.1, (1); Downy Woodpecker, 0.1, (1); Tree Swallow, 0.1, (1); Common Raven, 0.1, (1); Purple Finch, 0.1, (1). **Total:** 34 species; 61.9 ind./visit (306 ind./40 ha). **Remarks:** Total species was the highest ever recorded on this mature coastal scrub plot. New species include Sharp-shinned Hawk, Downy Woodpecker, Tree Swallow, Red-breasted Nuthatch, Western Meadowlark, and European Starling. Species previously occurring in good numbers, but absent this year include: Pine Siskin, California Quail, and Dark-eyed Junco. An increase in the age and number of Douglas Fir probably resulted in the observed increase in Yellow-rumped Warblers, Golden-crowned Kinglets, and Chestnut-backed Chickadees from previous years. Record cold in Dec., combined with continued drought conditions, probably resulted in decreases in Ruby-crowned Kinglet, Bewick's Wren, Rufous-sided Towhee, and Song Sparrow. However, Bushtits remained in high densities throughout the winter and individuals mist-netted during the Dec. freeze had exceptionally large fat reserves. **Other Observers:** Elias A. Elias. **Acknowledgments:** We thank the Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 230.

34. DISTURBED COASTAL SCRUB A

MATORRAL COSTANERO PERTURBADO A

MARIABETH SILKEY & GEOFFREY GEUPEL

Point Reyes Bird Observatory

4990 Shoreline Highway

Stinson Beach, California 94970

Location: California; Bolinas Co.; Marin; Palomarin Field Station; 37°55'N, 122°45'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1980; 2 yr. **Size:** 4.7 ha. **Description**

of Plot: See *Am. Birds* 26:987-988 (1972). **Weather:** Mean temperature 11.9°C (range 7-15°C). See WBPS #33. **Coverage:** 22 hrs; 8 visits (7 mornings, 1 afternoon): 12, 22, 28 Jan.; 6, 9, 14, 22 Feb.; 4 Mar. **Count:** Wrentit, 6.0 ind./visit, (8 visits); Golden-crowned Sparrow, 5.7, (7); Bushtit, 4.9, (3); Rufous-sided Towhee, 3.2, (7); Song Sparrow, 3.2, (7); California Quail, 3.0, (5); Bewick's Wren, 2.6, (7); Scrub Jay, 2.4, (8); Ruby-crowned Kinglet, 1.4, (5); White-crowned Sparrow, 1.4, (4); Northern Flicker, 1.3, (6); Anna's Hummingbird, 1.1, (5); Fox Sparrow, 1.1, (5); American Robin, 1.0, (6); Hermit Thrush, 0.8, (6); Steller's Jay, 0.6, (3); Yellow-rumped Warbler, 0.5, (2); California Towhee, 0.4, (3); Turkey Vulture, 0.4, (3); Tree Swallow, 0.4, (1); Common Raven, 0.4, (2); Chestnut-backed Chickadee, 0.4, (3); Golden-crowned Kinglet, 0.4, (2); Blue-gray Gnatcatcher, 0.4, (3); Red-tailed Hawk, 0.2, (2); Winter Wren, 0.2, (2); Black-shouldered Kite, 0.1, (1); Hutton's Vireo, 0.1, (1); Dark-eyed Junco, 0.1, (1). **Total:** 29 species; 43.7 ind./visit (372 ind./40 ha). **Remarks:** Total species was considerably lower than the previous census in 1980 when 38 were recorded. **Other Observers:** Steve Dougill. **Acknowledgments:** We thank the Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 304.

35. DISTURBED COASTAL SCRUB B

MATORRAL COSTANERO PERTURBADO B

ERIC RUHLEN & GEOFFREY GEUPEL

Point Reyes Bird Observatory

4990 Shoreline Highway

Stinson Beach, California 94970

Location: California; Marin Co.; Bolinas; Palomarin Field Station; 37°55'N, 122°45'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1980; 2 yr. **Size:** 8.1 ha. **Description of Plot:** See *Am. Birds* 25:1002-1003 (1971). **Weather:** Mean temperature 14.6°C (range 10-18°C). See WBPS #33. **Coverage:** 21 hrs; 8 visits (mornings): 11, 17, 26 Jan.; 5, 14, 21 Feb.; 4, 5 Mar. **Count:** Bushtit, 10.6 ind./visit, (4 visits); White-crowned Sparrow, 6.6, (7); Wrentit, 6.5, (8); Song Sparrow, 6.2, (8); Ruby-crowned Kinglet, 4.5, (8); California Quail, 4.4, (5); Golden-crowned Sparrow, 4.2, (8); Bewick's Wren, 2.7, (5); Scrub Jay, 2.1, (8); Fox Sparrow, 1.8, (6); Northern Flicker, 1.6, (4); Rufous-sided Towhee, 1.5, (5); Turkey Vulture, 1.3, (2); California Towhee, 1.0, (7); Chestnut-backed Chickadee, 0.8, (3); Pine Siskin, 0.8, (2); Black-shouldered Kite, 0.6, (5); Black Phoebe, 0.5, (2); Hermit Thrush, 0.5, (3); Sharp-shinned Hawk, 0.2, (2); Allen's Hummingbird, 0.2, (2); Common Raven, 0.2, (2); Dark-eyed Junco, 0.2, (2); American Kestrel, 0.1, (1); Anna's Hummingbird, 0.1, (1); Tree Swallow, 0.1, (1); Winter Wren, 0.1, (1); Blue-gray Gnatcatcher, 0.1, (1). **Total:** 28 species; 59.9 ind./visit (296 ind./40 ha). **Remarks:** While the total number of species was similar to previous yr, the number of California Quails, Scrub Jays, Wrentits, and Golden-crowned Sparrows recorded was higher than in previous yr. This increase is likely the result of an increase in shrub cover on this successional plot. Most other species decreased since previous winter censuses; the most notable being Hermit Thrush, Ruby-crowned Kinglet, and Robin. Sharp-shinned Hawks and Black-shouldered Kites, which were observed regularly hunting on the plot, also may have lowered densities or detectability. **Other Observers:** Elias A. Elias and Mariabeth Silkey. **Acknowledgments:** We thank the Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 514.

36. CHIHUAHUAN DESERT SCRUB

MATORRAL DESÉRTICO DE CHIHUAHUA

CATHERINE I. SANDELL

8101 N. Main

Las Cruces, NM 88001

Site Number: NM5691029. **Location:** New Mexico; Dona Ana Co.; Las Cruces; Dripping Springs Natural Area; 32°20'N, 106°36'W; Organ Peak Quadrangle, USGS. **Continuity:**

New. Size: 16.0 ha. **Description of Plot:** A rectangular (300 × 500 m) plot with vegetation typical of high Chihuahuan desert scrub, dominated by *Acacia constricta* and *Larrea tridentata* with *Mimosa biuncifera*, *Parthenium incanum*, *Prosopis glandulosa*, *Flourensia cernua*, and *Ferocactus wislinzenii*. Ground cover is ca 65%; low-growing shrubs and forbs include: *Gutierrezia sarothrae*, *Dalea formosa*, *Erioneuron pulchellum*, and a number of annuals. Grass cover is poor. There is a dry arroyo that transects the plot E–W. This more mesic habitat supports *Celtis reticulata*, *Fallugia paradoxa*, and *Rhus microphylla* in conjunction with the species described above. **Edge:** More than 75% of plot's perimeter is surrounded by similar habitat. **Topography and Elevation:** Minimum elevation 1610 m, maximum 1670 m. The plot slopes gently to the W. **Weather:** Mean temperature 7.1°C (range 2–18°C). Winter 1990–91 was considerably wetter than normal with a major rain at least once a month through Mar. **Coverage:** 9.9 hrs; 8 visits (6 morning, 2 evening): 13, 20 Jan.; 23 Feb.; 3, 8 Mar. **Count:** Black-throated Sparrow, 26.0 ind./visit, (8 visits); Dark-eyed Junco, 3.9, (5); Gambel's Quail, 2.5, (3); Brown Towhee, 2.0, (7); Bewick's Wren, 1.1, (4); Ruby-crowned Kinglet, 1.0, (4); White-crowned Sparrow, 1.0, (4); House Finch, 0.9, (3); Rufous-crowned Sparrow, 0.5, (2); Ladder-backed Woodpecker, 0.4, (3); Cactus Wren, 0.4, (2); Crissal Thrasher, 0.4, (2); Chipping Sparrow, 0.4, (1); White-winged Dove, 0.2, (2); Cooper's Hawk, 0.1, (1); Scrub Jay, 0.1, (1); Verdin, 0.1, (1); Rock Wren, 0.1, (1); Brewer's Sparrow, 0.1, (1). **Total:** 19 species; 41.2 ind./visit (103 ind./40 ha). **Other Observers:** Katie Skaggs.

37. BRUSHLAND (OLD FIELD SUCCESSION)

BREÑAL EN AVANZADA SUCESIÓN

J. DAN WEBSTER

Hanover College

Hanover, Indiana 47243

Location: Indiana; Jefferson Co.; Madison; Clifty Falls State Park; 38°45'N, 85°25'W; Madison West Quadrangle, USGS. **Continuity:** Established 1976; 8 yr. **Size:** 17.1 ha. **Description of Plot:** See *Am. Birds* 36:38 (1982). **Weather:** Mean temperature -1.7°C (range -6–2°C). Mean snow depth, trace. **Coverage:** 25.7 hrs; 11 visits (9 mornings, 2 evenings): 5, 10, 14, 24 Jan.; 1, 4, 12, 21, 23, 25 Feb. **Count:** White-throated Sparrow, 4.5 ind./visit, (8 visits); Northern Cardinal, 3.6, (8); Carolina Chickadee, 2.0, (8); Cedar Waxwing, 1.8, (1); American Robin, 1.7, (5); American Crow, 1.5, (7); Golden-crowned Kinglet, 0.9, (3); Song Sparrow, 0.9, (7); Rufous-sided Towhee, 0.7, (6); Northern Mockingbird, 0.6, (5); Northern Flicker, 0.4, (2); Carolina Wren, 0.4, (3); Blue Jay, 0.3, (3); Tufted Titmouse, 0.3, (2); Downy Woodpecker, 0.2, (2); European Starling, 0.2 (1); Field Sparrow, 0.2, (1); Red-shouldered Hawk, 0.1, (1); Northern Harrier, 0.1, (1); American Woodcock, 0.1, (1); Eastern Screech-Owl, 0.1, (1); Hairy Woodpecker, 0.1, (1); American Goldfinch, 0.1, (1). **Total:** 23 species; 20.9 ind./visit (48.5 ind./40 ha). **Remarks:** The remains of a crow on 4 Feb. suggested that the local Great-horned Owl had visited the plot. **Other Observers:** Dwight Chamberlain and Richard Davis.

38. ABANDONED UPLAND PASTURE

PASTIZAL DE ALTURAS ABANDONADO

VIVIAN MILLS PITZRICK

Amity Lake

Belmont, New York 14813

Location: New York; Allegany Co.; Scio; Saunders Plot; 42°13'N, 77°59'W; Wellsville North Quadrangle, USGS. **Continuity:** Established 1984; 8 yr. **Size:** 8.0 ha. **Description of Plot:** See *Am. Birds* 39:119 (1985). **Weather:** Mean temperature 0°C (range -9–6°C). Mean snow depth 9.8 cm (range 0–15 cm). Temperatures averaged above normal with most

precipitation in the form of rain. Although snow cover was unusually light, there was a heavy crust on trips three through seven. The intermittent stream was open for all but one trip. **Coverage:** 5.7 hrs; 8 visits (mornings): 29 Dec.; 5, 15, 19, 24, 28 Jan.; 2, 9 Feb. **Count:** Evening Grosbeak, 2.9 ind./visit, (7 visits); Black-capped Chickadee, 2.8, (7); Blue Jay, 1.6, (6); American Crow, 1.5, (8); Cedar Waxwing, 1.3, (1); White-breasted Nuthatch, 0.5, (2); Ruffed Grouse, 0.4, (2); American Robin, 0.4, (3); Purple Finch, 0.4, (1); Downy Woodpecker, 0.3, (2); Northern Cardinal, 0.3, (2); House Finch, 0.3, (2); Red-tailed Hawk, 0.1, (1); Pileated Woodpecker, 0.1, (1); American Goldfinch, 0.1, (1). **Total:** 15 species; 13 ind./visit (65 ind./40 ha). **Remarks:** Although the number of species was equal to the cumulative average, the total bird population was the lowest ever. The Pileated Woodpecker was new and the American Crow appeared on every visit. The American Tree Sparrow was missing for the first time. **Acknowledgments:** Thanks to Gail and Victor Funk for permission to use their property.

39. MIXED CROPLANDS

CULTIVOS MIXTOS

GLENNA P. & PAUL W. SCHWALBE

546 Wilson Street

Jersey Shore, Pennsylvania

Location: Pennsylvania; Clinton Co.; South Avis; South Avis Fields; 41°10'N, 77°17'W; Jersey Shore Quadrangle, USGS. **Continuity:** Established 1983; 9 yr. **Size:** 40.5 ha. **Description of Plot:** See *Am. Birds* 38:56-67 (1984). **Weather:** Mean temperature -0.7°C (range -7 - 9°C). Mean snow depth 3.6 cm (range 1-5 cm). **Coverage:** 6.9 hrs; 11 visits (7 mornings, 4 afternoons): 2, 4, 7, 9, 13, 14, 15, 21, 22, 23, 28 Jan. **Count:** Rock Dove, 7.5 ind./visit, (2 visits); Mourning Dove, 5.2, (5); Horned Lark, 2.5, (2); Red-tailed Hawk, 0.2, (2); Northern Harrier, 0.1, (1); American Kestrel, 0.1, (1). **Total:** 6 species; 15.6 ind./visit (15.4 ind./40 ha).