

WINTER BIRD POPULATION STUDY: 1995

Habitat	State/ Prov.	Comptier	Plot Size (ha)	Incl. per 40 ha	Num. spp.	Hrs Obs.	Yrs Study
<b>Broadleaf Forests</b>							
1. Willow Riparian Woodland and Edge	CA	D. Riensche	8.1	751	61	25.8	3
2. Mixed Upland Broadleaf Forest	DC	S.A. Briggs	14.2	413	36	93.5	36
3. Mature Deciduous Floodplain Forest	MD	D. Gauthey	17.8	299	36	34.4	44
4. Upland Second-growth Oak-Hickory Forest	MS	H. Moore	10.0	326	29	24.4	7
5. Young White Ash-Red Maple Forest on Lake Shore	NY	G.R. Maxwell	16.2	113	23	10.0	8
6. Mature Broadleaf Forest	OH	C.W. Saunders	16.0	65.8	16	17.1	3
7. Riparian Deciduous Forest	OH	E.J. Tramer	18.0	287	26	19.1	7
8. Upland Hardwood Forest I	OH	J.L. Fussman	22.0	67.7	12	12.8	1
9. Upland Hardwood Forest II	OH	J.L. Fussman	22.0	54.3	12	10.9	1
10. Black Willow-White Ash Forest	ON	M.F.G. Clark	13.0	168	21	14.2	12
11. Oak-Maple Ridge-top Forest	PA	B.C. Daub	19.3	13.1	8	20.1	7
12. Oak-Maple Slope Forest	PA	B.C. Daub	16.9	31.6	16	22.3	7
13. Sugar Maple-Mixed Hardwood Forest	PA	R.A. Ickes	9.7	141	18	24.8	12
<b>Needleleaf Forests</b>							
14. Ponderosa Pine Forest	CO	L. Hering	8.1	132	16	14.3	15
15. Longleaf Pine-Bluestem Forest	LA	K. Moore	25.0	121	33	14.2	2
16. Mature Red Spruce Forest	ME	T.P. Skaling	16.0	145	17	28.0	6
17. Upland Scotch Pine Plantation	NY	E.W. Brooks	9.3	119	14	10.3	11

## WINTER BIRD POPULATION STUDY: 1995 (Continued)

<i>Habitat</i>	<i>State/ Prov.</i>	<i>Plot Size (ha)</i>	<i>Ind. per 40 ha</i>	<i>Num. spp.</i>	<i>Hrs Obs.</i>	<i>Yrs Study</i>
<b>Broadleaf/Needleleaf Forests</b>						
18. Ponderosa Pine-Scrub Oak Forest	CO	12.0	189	19	13.0	5
19. Maple-Pine-Oak Second-growth Forest	MA	11.8	16.4	8	12.0	19
20. Upland Mixed Pine-Spruce-Hardwood Plantation	NY VT	16.6 12.3	79.0 65.0	13 10	13.3 14.5	21 1
21. Sloped Mixed Deciduous-Coniferous Forest						
<b>Mixed Habitats</b>						
22. Suburban Cemetery	AL	15.0	514	35	35.0	16
23. Urban Nature Preserve	CA	16.2	463	47	18.3	2
24. Urban Nature Preserve II	CA	10.0	328	40	14.9	1
25. Suburban Bird Sanctuary	NY	10.8	253	24	7.6	1
26. Field, Ridge, Shrubby Trees, and Woods	ON	5.8	172	13	9.0	2
<b>Non-forested Wetlands</b>						
27. Coastal Freshwater Marsh	CA	10.5	334	47	7.8	10
28. Man-made Tidal Lagoon	CA	5.3	3597	32	5.7	6
<b>Successional Fields</b>						
29. Brushland (Old-field Succession)	IN	17.1	63.9	29	25.0	10
30. Abandoned Upland Pasture	NY	8.0	83.1	17	6.2	12
31. Old Pasture Shrub with Hedgerows and Seasonal Wet Area	VT	11.1	32.0	12	13.5	2
<b>Cultivated</b>						
32. Mixed Croplands	PA	40.5	22.1	6	6.0	13

## 1. WILLOW RIPARIAN WOODLAND AND EDGE

ARBOLADO DE SAUCE RIVEREÑO Y BORDE

DAVE RIENSCHÉ, MARTY MORROW & CHRIS GARCIA

*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; 3 yr. **Size:** 8.1 ha. **Description of Plot:** See *J. Field Ornithol.* 64(Suppl.):35 (1993) and 65(Suppl.):8 (1994). **Weather:** Mean start temp. 10.5°C (range 2.2–18.0°C). There was heavy rain during one visit, drizzle during another, and fog during a third. By mid-February, the region had received 107% of its normal rainfall. By the end of the rainy season, it was the fourth wettest on record. **Coverage:** 25.8 hrs; 13 visits (8 mornings, 1 afternoon, 4 evenings): 8, 17, 22, 28, 31 Dec; 6, 13, 17, 28 Jan; 3, 7, 10, 17 Feb. **Count:** Golden-crowned Sparrow, 22.8 ind./visit (12 visits); Bushtit, 13.3 (12); White-crowned Sparrow, 13.1 (11); Song Sparrow, 12.8 (13); House Finch, 12.4 (10); Ruby-crowned Kinglet, 9.4 (13); Yellow-rumped Warbler, 7.4 (11); American Robin, 6.1 (11); Marsh Wren, 5.2 (11); Mallard, 5.0 (9); Chestnut-backed Chickadee, 4.5 (9); Fox Sparrow, 4.2 (13); Northern Flicker, 3.2 (13); California Towhee, 3.2 (11); Red-winged Blackbird, 2.9 (3); Hermit Thrush, 2.2 (8); Tricolored Blackbird, 1.8 (3); White-tailed Kite, 1.6 (13); Barn Owl, 1.6 (10); Black Phoebe, 1.5 (11); Western Scrub-Jay, 1.5 (8); Bewick's Wren, 1.4 (9); Western Meadowlark, 1.3 (2); Common Yellowthroat, 1.2 (9); Virginia Rail, 1.1 (6); Sora, 1.0 (8); Anna's Hummingbird, 0.9 (8); Lincoln's Sparrow, 0.8 (5); Northern Harrier, 0.7 (8); Red-tailed Hawk, 0.7 (7); Brewer's Blackbird, 0.6 (2); European Starling, 0.5 (4); Cooper's Hawk, 0.5 (6); American Bittern, 0.4 (3); Nuttall's Woodpecker, 0.4 (5); Downy Woodpecker, 0.4 (4); Great Blue Heron, 0.3 (4); Common Moorhen, 0.3 (3); Killdeer, 0.3 (3); Loggerhead Shrike, 0.3 (4); Purple Finch, 0.3 (1); Pied-billed Grebe, 0.2 (3); Turkey Vulture, 0.2 (2); Red-shouldered Hawk, 0.2 (3); Greater Yellowlegs, 0.2 (2); Long-billed Dowitcher, 0.2 (1); Great Egret, 0.2 (1); Snowy Egret, 0.2 (2); Black-crowned Night-Heron, 0.2 (2); Sharp-shinned Hawk, 0.2 (2); Ring-necked Pheasant, 0.2 (1); Long-eared Owl, 0.2 (1); American Crow, 0.2 (1); Spotted Towhee, 0.2 (3); American Kestrel, 0.1 (1); Merlin, 0.1 (1); Peregrine Falcon, 0.1 (1); Black Rail, 0.1 (1); Common Snipe, 0.1 (1); Great Horned Owl, 0.1 (1); Belted Kingfisher, 0.1 (1). **Total:** 61 species; 152 ind./visit (751 ind./40 ha). **Other Observer:** Marcelino Madrigal. **Acknowledgments:** The East Bay Regional Park District who kindly provided the time to work on the project, Wanda Splitler for typing the report, and Birding Parks Partners: Penni Savage and Sara Lyn Billingsley for helping with the field work.

## 2. 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; 36 yr. **Size:** 14.2 ha. **Description of Plot:** See *Aud. Field Notes* 14:502–503 (1960). **Weather:** Mean start temp. 3.8°C. Weather Bureau average for the period was 4.7°C. There was snow during one visit and drizzle during two visits. The ground was snow-covered during three visits and there were patches of ice or snow during one visit. Monthly data [temperature for month (% difference from 30-yr average), precipitation for month (difference from normal)]: Jan 4°C (+4.9%), 8.2 cm (+1.3 cm); Feb 1°C (–3.1%), 4.3 cm (–2.5 cm); Mar 9°C (+2%), 5.4 cm (–2.6 cm). Source: U.S. Weather Bureau. **Coverage:** 93.5 hrs; 32 visits (mornings): 2 Jan–13 Mar. **Count:** American Robin, 23.8 ind./visit (23 visits); American Crow, 22.8 (32); Carolina Chickadee, 19.7 (32); Tufted Titmouse, 17.7 (32); House Finch, 11.8 (32); Northern Cardinal, 6.8 (29); Mourning Dove, 6.2 (28); Carolina Wren, 5.5 (32); Downy Woodpecker, 5.3 (32); Red-bellied Woodpecker, 5.0 (32); White-breasted Nuthatch, 4.5 (32); European

Starling, 2.5 (12); House Sparrow, 1.9 (16); Northern Flicker, 1.8 (22); White-throated Sparrow, 1.4 (16); Ring-billed Gull, 1.3 (12); Rock Dove, 1.3 (8); Hairy Woodpecker, 1.3 (20); Common Grackle, 1.2 (12); Red-tailed Hawk, 0.9 (24); Pileated Woodpecker, 0.8 (20); Eastern Towhee, 0.6 (16); Dark-eyed Junco, 0.4 (5); Blue Jay, 0.3 (7); Canada Goose, 0.3 (2); Turkey Vulture, 0.3 (4); Winter Wren, 0.3 (5); Northern Mockingbird, 0.2 (6); Sharp-shinned Hawk, 0.1 (3); American Goldfinch, 0.1 (3); Red-shouldered Hawk, 0.1 (3); Song Sparrow, 0.1 (2); Mallard, 0.1 (1); Yellow-bellied Sapsucker, 0.1 (2); Herring Gull, 0.0 (1); Eastern Screech-Owl, 0.0 (1). **Total:** 36 species; 146 ind./visit (413 ind./40 ha). **Remarks:** After the exceptionally cold winter of 1994, this winter was relatively normal or somewhat warmer for January and March and only a little colder in February. Last year we had record flocks of grackles passing through the woods during the most severe weather (rather than trying to fly over?), whereas this year we had record flocks of American Robins that usually seek warmer or more protected winter woods. Many years we have had none at all, and the highest previous count was 666 total individuals in 1986. Carolina Wren numbers increased by 0.5 ind./visit over last year, which was 6.5 ind./visit below the high of 1993. The coverage was 5.5 hours over the high of 1994. **Other Observers:** Mary D'Imperio, Ann Feather, Susse Wright.

### 3. 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; 44 yr. **Size:** 17.8 ha. **Description of Plot:** See *Aud Field Notes* 2:155–156 (1948). **Weather:** Mean start temp. 1.9°C (range –4–14°C). Mean snow depth 1.0 cm (range 0–10 cm). The ground was bare on nine visits. Warmer than average December followed by a record warm January. No snow until the second week of February. The river was generally high with the island being inaccessible for a few days in the middle of January. **Coverage:** 34.4 hrs; 10 visits (mornings): 6, 12, 14(2), 21, 22, 27(2) Jan; 3, 10 Feb. **Count:** Carolina Chickadee, 33.3 ind./visit (10 visits); European Starling, 13.9 (5); American Goldfinch, 11.7 (9); Mallard, 10.0 (8); Tufted Titmouse, 9.6 (10); Carolina Wren, 6.6 (10); Downy Woodpecker, 6.0 (10); Northern Cardinal, 5.6 (9); Red-bellied Woodpecker, 4.0 (10); American Crow, 3.3 (8); American Robin, 2.9 (7); Dark-eyed Junco, 2.8 (3); House Finch, 2.7 (7); White-throated Sparrow, 2.5 (5); White-breasted Nuthatch, 2.3 (9); Canada Goose, 2.0 (1); Pileated Woodpecker, 1.9 (10); Song Sparrow, 1.7 (5); Winter Wren, 1.3 (7); Golden-crowned Kinglet, 1.2 (4); Brown Creeper, 1.1 (8); Belted Kingfisher, 0.9 (8); Barred Owl, 0.8 (8); American Black Duck, 0.7 (3); Mourning Dove, 0.7 (2); Ruby-crowned Kinglet, 0.7 (6); Northern Flicker, 0.6 (4); Hairy Woodpecker, 0.5 (3); Red-tailed Hawk, 0.3 (3); Northern Mockingbird, 0.3 (3); Pied-billed Grebe, 0.2 (1); Great Blue Heron, 0.2 (2); Wood Duck, 0.2 (1); Yellow-bellied Sapsucker, 0.2 (2); Red-shouldered Hawk, 0.1 (1); Fish Crow, 0.1 (1). **Total:** 36 species; 133 ind./visit (299 ind./40 ha). **Remarks:** Starlings were numerous for the first time since 1985, but occurred in foraging flocks of 25, 46, and 60 individuals. Prior to 1985, starlings numbered 10 to 50 per visit but were birds that roosted on site. Since 1985, few roost on site. The average number of birds, less starlings, (119 ind./visit) was near the average for the past four years and contrasts to the average of 88 for the prior 15 years. Mild weather is likely a major factor. **Other Observers:** John Eliot, Dick Homan, Letty Limbach.

### 4. UPLAND SECOND-GROWTH OAK-HICKORY FOREST

#### BOSQUE SECUNDARIO ROBLE-NOGAL DE ALTURAS

HAL MOORE

1 Lakeside Dr., Vicksburg MS 39180-9710

**Location:** Mississippi; Warren Co.; Vicksburg; Lake Park Tract; 32°14'N, 90°49'W; Big Black Quadrangle, USGS. **Continuity:** Established 1989; 7 yr. **Size:** 10.0 ha. **Description of Plot:** See

*J. Field Ornithol.* 61(Suppl.):8 (1990) and 64(Suppl.):8 (1993). **Weather:** Mean start temp. 6.4°C (range -2-17°C). Intermittent light rain during two visits. It was warmer than normal with normal precipitation. **Coverage:** 24.4 hrs; 12 visits (mornings): 18, 21, 22, 27, 28 Dec; 4, 5, 10, 11, 15, 17, 21 Jan. **Count:** Red-bellied Woodpecker, 10.6 ind./visit (12 visits); Carolina Wren, 9.6 (12); Yellow-rumped Warbler, 8.6 (12); American Goldfinch, 6.5 (12); Tufted Titmouse, 6.3 (12); Carolina Chickadee, 5.8 (11); Hermit Thrush, 4.5 (11); American Crow, 3.3 (12); White-throated Sparrow, 3.3 (8); Yellow-bellied Sapsucker, 3.3 (12); Downy Woodpecker, 3.2 (12); Ruby-crowned Kinglet, 3.0 (10); Eastern Bluebird, 2.3 (6); Pileated Woodpecker, 1.8 (12); Northern Cardinal, 1.5 (10); Red-shouldered Hawk, 1.4 (11); Blue Jay, 1.3 (8); Golden-crowned Kinglet, 1.0 (4); Northern Flicker, 0.9 (6); Eastern Phoebe, 0.9 (9); Hairy Woodpecker, 0.7 (7); Fish Crow, 0.7 (5); Black Vulture, 0.3 (1); Turkey Vulture, 0.3 (3); American Robin, 0.3 (3); Red-tailed Hawk, 0.1 (1); Mourning Dove, 0.1 (1); Brown Thrasher, 0.1 (1); Orange-crowned Warbler, 0.1 (1). **Total:** 29 species; 81.4 ind./visit (326 ind./40 ha). **Remarks:** The vultures were actively searching the woods during and after deer-hunting season.

## 5. YOUNG WHITE ASH-RED MAPLE FOREST ON LAKE SHORE

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

GEORGE R. MAXWELL

*RDI, Box 179C, Red Creek NY 13143*

**Site Number:** NY1686026. **Location:** New York; Wayne Co.; Fair Haven; Metzger Road, Blind Sodus Bay; 43°20'N, 76°44'W; Oswego Quadrangle, USGS. **Continuity:** Established 1987; 8 yr. **Size:** 16.2 ha. **Description of Plot:** See *J. Field Ornithol.* 60(Suppl.):17 (1989) and 64(Suppl.):49-50 (1993). **Weather:** Mean start temp. 0.0°C (range -9-5°C). Mean snow depth 6.0 cm (range 0-25 cm). The ground was bare on six visits. **Coverage:** 10.0 hrs; 10 visits (afternoons): 23 Dec; 1, 2, 22, 27, 28, 29 Jan; 11, 16, 17 Feb. **Count:** Wild Turkey, 6.2 ind./visit (3 visits); Ring-billed Gull, 6.2 (2); House Finch, 5.8 (7); Dark-eyed Junco, 5.5 (6); American Robin, 4.5 (5); House Sparrow, 4.0 (7); Black-capped Chickadee, 3.2 (10); European Starling, 1.5 (1); American Tree Sparrow, 1.5 (7); Mourning Dove, 1.2 (5); Tufted Titmouse, 1.1 (5); Great Black-backed Gull, 1.0 (3); American Crow, 0.8 (4); Blue Jay, 0.7 (3); Cedar Waxwing, 0.7 (2); White-breasted Nuthatch, 0.6 (5); Northern Cardinal, 0.5 (3); Downy Woodpecker, 0.2 (2); White-throated Sparrow, 0.2 (1); Ruffed Grouse, 0.1 (1); Pileated Woodpecker, 0.1 (1); Brown Creeper, 0.1 (1); American Goldfinch, 0.1 (1). **Total:** 23 species; 45.8 ind./visit (113 ind./40 ha). **Remarks:** The large Wild Turkey numbers were due to flocks feeding on wild grape in the forest and along the lake. **Acknowledgments:** My thanks to the following students for their assistance: Barbara Dukelow, Stephen Hunsberger, Michael Lanuti, Kimberly Matteson, James McNair, Greg Schumm, Greg Sumner.

## 6. 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; 3 yr. **Size:** 16.0 ha. **Description of Plot:** See *J. Field Ornithol.* 63(Suppl.):52 (1992). **Weather:** Mean start temp. -6.2°C (range -12-4°C). Mean snow depth 4.4 cm (range 0-10 cm). The ground was bare on three visits. There were flurries on one visit. **Coverage:** 17.1 hrs; 10 visits (mornings): 30 Dec; 2, 15, 22, 29 Jan; 4, 5, 11, 19, 20 Feb. **Count:** White-breasted Nuthatch, 5.5 ind./visit (10 visits); Tufted Titmouse, 5.4 (10); Carolina Chickadee, 4.0 (10); Red-bellied Woodpecker, 2.8 (9); Downy Woodpecker, 1.5 (9); Hairy Woodpecker, 1.3 (9); Pileated Woodpecker, 1.0 (6); Brown Creeper, 1.0 (7); Carolina Wren, 0.9 (4); American Robin, 0.7 (2); Northern

Cardinal, 0.6 (5); Golden-crowned Kinglet, 0.5 (4); Northern Flicker, 0.4 (3); Blue Jay, 0.3 (1); American Crow, 0.2 (1); Winter Wren, 0.2 (2). **Total:** 16 species; 26.3 ind./visit (65.8 ind./40 ha). **Remarks:** The total number of individuals (26.3/visit) declined relative to the 1993 (51.6) and 1994 (41.5) studies. From 1994 to 1995, the most significant declines were with Red-bellied Woodpeckers and Hairy Woodpeckers. **Other Observers:** Mark Bauer, Anita Buck. **Acknowledgments:** We thank John Klein and the Hamilton County Park District for the use of the site.

## 7. RIPARIAN DECIDUOUS FOREST

### BOSQUE DECIDUO RIVEREÑO

ELLIOT J. TRAMER

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**Location:** Ohio; Lucas Co.; Waterville; Old Canal Lands; 41°27'N, 83°46'W; Grand Rapids Quadrangle, USGS. **Continuity:** Established 1989; 7 yr. **Size:** 18.0 ha. **Description of Plot:** See *J. Field Ornithol.* 61(Suppl.):43 (1990). **Weather:** Mean start temp. 0.6°C (range -8-7°C). Mean snow depth 3.4 cm (range 0-8 cm). The ground was bare on four visits and there were patches of snow on one visit. It was a very mild winter overall, with only a few significant snows and temperatures averaging well above normal. The lowest temperature during the study period was -17°C on 12 February; the highest was 16°C on 13 and 14 January. February was one of the driest on record, with a total precipitation of 0.89 cm for the month. Due to persistent dry conditions, the old canal bed contained no water this winter. **Coverage:** 19.1 hrs; 9 visits (mornings): 13, 20, 25 Dec; 11, 18, 26 Jan; 3, 14, 19 Feb. **Count:** American Crow, 26.1 ind./visit (6 visits); House Finch, 25.3 (9); Dark-eyed Junco, 14.4 (9); Mourning Dove, 8.7 (6); Downy Woodpecker, 6.7 (9); White-breasted Nuthatch, 6.7 (9); House Sparrow, 6.3 (8); Northern Cardinal, 5.9 (9); European Starling, 5.0 (5); Tufted Titmouse, 4.7 (9); Blue Jay, 3.2 (8); Black-capped Chickadee, 2.9 (9); American Goldfinch, 1.9 (7); Carolina Wren, 1.6 (8); Red-bellied Woodpecker, 1.4 (9); Song Sparrow, 1.4 (9); Hairy Woodpecker, 1.3 (9); Brown Creeper, 1.2 (4); Golden-crowned Kinglet, 0.9 (3); Northern Flicker, 0.7 (5); Yellow-rumped Warbler, 0.6 (3); American Tree Sparrow, 0.6 (1); White-throated Sparrow, 0.6 (5); Cooper's Hawk, 0.4 (4); Red-tailed Hawk, 0.4 (4); American Robin, 0.1 (1). **Total:** 26 species; 129 ind./visit (287 ind./40 ha). **Remarks:** There were abundant walnut and hackberry crops, but basswood, buckthorn, and box elder crops were poor. The total number of species was the lowest since the study began in 1989. Mourning Dove, Black-capped Chickadee, Northern Cardinal, American Tree Sparrow, and American Goldfinch numbers declined compared to 1993-94. American Crow numbers increased. Cedar Waxwings were absent for only the second time in the seven years of the study.

## 8. UPLAND HARDWOOD FOREST I

### BOSQUE DE MADERAS DURAS DE ALTURAS I

JENNIFER L. FUSSMAN

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**Location:** Ohio; Delaware Co.; Delaware; Kraus Wilderness Preserve; 40°15'N, 83°7'W; Powell Quadrangle, USGS. **Continuity:** New. **Size:** 22.0 ha. **Description of Plot:** A rectangular plot (280 × 766 m) with a closed canopy dominated by American beech, sugar maple, white oak, and red oak. The stand is 80-100 years of age with a mean canopy height of 36.5 m. The understory and ground cover are dominated by saplings and seedlings of the canopy species. A small creek with a maximum width of 1 m and a maximum depth of 0.5 m runs E-W through the center of the plot. A small pond with a surface area of 2700 m<sup>2</sup> and a maximum depth of 1.5 m is also present. **Edge:** The plot is bordered on one side by the same habitat and on the other three sides by development in the form of a clear-cut, above-ground reservoir, and residential lawns. The plot lies within a tract of similar habitat 51-100 ha in size,

and only about 10% of the surrounding area is forested. **Topography and Elevation:** The plot is nearly level except for steep slopes down to the creek. Maximum elevation 275 m. **Weather:** Mean start temp.  $-2.9^{\circ}\text{C}$  (range  $-14$ – $11^{\circ}\text{C}$ ). Mean snow depth 7.8 cm (range 0–30 cm). The ground was bare on three visits. There was light snowfall during the first visit. **Coverage:** 12.8 hrs; 8 visits (6 mornings, 2 afternoons): 24 Jan; 5, 9, 14, 21, 24 Feb; 1, 4 Mar. **Count:** Tufted Titmouse, 12.1 ind./visit (8 visits); Carolina Chickadee, 6.5 (7); White-breasted Nuthatch, 4.8 (8); Blue Jay, 3.8 (8); Downy Woodpecker, 2.8 (8); Northern Cardinal, 2.4 (5); Red-bellied Woodpecker, 2.3 (7); American Crow, 1.1 (7); Hairy Woodpecker, 1.0 (3); Red-tailed Hawk, 0.4 (3); Mourning Dove, 0.1 (1); Pileated Woodpecker, 0.1 (1). **Total:** 12 species; 37.3 ind./visit (67.7 ind./40 ha). **Remarks:** Six feeders (filled with sunflower seeds, mixed seeds, and cracked corn) are located on lawns bordering the plot. This may be important since the six most abundant bird species are common feeder visitors.

## 9. UPLAND HARDWOOD FOREST II

### BOSQUE DE MADERAS DURAS DE ALTURAS II

JENNIFER L. FUSSMAN

*Dept. of Zoology, The Ohio State Univ., 1735 Neil Ave., Columbus OH 43210*

**Location:** Ohio; Delaware Co.; Delaware; Bohannon Scientific Preserve;  $40^{\circ}22'\text{N}$ ,  $83^{\circ}0'\text{W}$ ; Kilbourne Quadrangle, USGS. **Continuity:** New. **Size:** 22.0 ha. **Description of Plot:** A bent rectangular plot (800 × 800 m) with a closed canopy dominated by American beech, sugar maple, white oak, and red oak. The stand is 80–100 years of age with a mean canopy height of 36.5 m. The understory and ground cover are dominated by saplings and seedlings of the canopy species. **Edge:** The plot is bordered on three sides by similar forest and on one side by a cliff that drops down to a small river (maximum width 10 m; maximum depth 1.5 m). There is also a small pond nearby. The plot lies within a tract of similar habitat >500 ha in size. **Topography and Elevation:** The plot is slightly undulating with a maximum elevation of 275 m. **Weather:** Mean start temp.  $-0.6^{\circ}\text{C}$  (range  $-15$ – $10^{\circ}\text{C}$ ). Mean snow depth 4.6 cm (range 0–15 cm). The ground was bare on four visits. There was very light rain during the first visit. **Coverage:** 10.9 hrs; 8 visits (5 mornings, 3 afternoons): 16 Dec; 17, 28 Jan; 7, 11, 19, 26, 28 Feb. **Count:** White-breasted Nuthatch, 6.4 ind./visit (8 visits); Tufted Titmouse, 5.8 (8); Carolina Chickadee, 3.6 (7); Canada Goose, 3.1 (4); American Crow, 2.6 (7); Red-bellied Woodpecker, 2.5 (7); Downy Woodpecker, 2.1 (7); Blue Jay, 1.3 (5); Brown Creeper, 1.0 (6); Hairy Woodpecker, 0.8 (3); Red-tailed Hawk, 0.5 (4); Pileated Woodpecker, 0.3 (2). **Total:** 12 species; 29.9 ind./visit (54.3 ind./40 ha). **Remarks:** The bird population fluctuated with temperature, and several species increased or decreased in abundance within the season. This could indicate movement into and out of the plot from the large surrounding forest.

## 10. 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;  $43^{\circ}16'\text{N}$ ,  $79^{\circ}56'\text{W}$ . **Continuity:** Established 1984; 12 yr. **Size:** 13.0 ha. **Description of Plot:** See *J. Field Ornithol.* 60(Suppl.):9 (1989). **Weather:** Mean start temp.  $9.0^{\circ}\text{C}$  (range 3– $18^{\circ}\text{C}$ ). Mean snow depth 0.7 cm (range 0–2 cm). The ground was bare on three visits, and there were bare patches on two others. There was rain and sleet during one visit. The creek running through the plot was often ice free, and on at least two visits up to half the plot was covered with 1.5 cm of standing water. A considerably milder and drier winter than last year's near record cold. The 4-month temperatures were close to normal, averaging  $0.6^{\circ}\text{C}$  above the 30-yr mean. Snowfall for the area was under the 30-yr mean by 4.4 cm per month. Winds were lighter than normal for the study period. Source: Environment Canada. **Coverage:** 14.2 hrs; 8 visits

(4 mornings, 4 afternoons): 3, 21, 26 Dec; 25 Jan; 18 Feb; 5, 11, 16 Mar. **Count:** Canada Goose, 26.4 ind./visit (6 visits); Black-capped Chickadee, 14.5 (8); Brown Creeper, 3.0 (6); Downy Woodpecker, 2.1 (7); White-breasted Nuthatch, 2.1 (6); Winter Wren, 1.1 (7); American Goldfinch, 1.0 (3); Blue Jay, 0.9 (2); Hairy Woodpecker, 0.8 (5); Wood Duck, 0.4 (1); European Starling, 0.4 (3); American Tree Sparrow, 0.4 (1); Mallard, 0.3 (1); Belted Kingfisher, 0.3 (2); Pileated Woodpecker, 0.3 (2); American Robin, 0.3 (1); Northern Cardinal, 0.3 (1); Great Blue Heron, 0.1 (1); Red-tailed Hawk, 0.1 (1); American Crow, 0.1 (1); Song Sparrow, 0.1 (1). **Total:** 21 species; 54.8 ind./visit (168 ind./40 ha). **Remarks:** This winter's milder temperatures attracted a record 438 total individuals (plot average is 212) and the second highest species total in 12 years. Overwintering foraging and roosting Canada Geese had the highest individual species total, surpassing by 65 birds their overall previous total (146) for the other four years they were noted. The highest daily count, 96 birds (60 geese), was noted on 25 Jan. Bark foragers were the most numerous guild noted with 6 species and 182 total individuals (42% of plot total). Chickadee, creeper, Blue Jay, and Winter Wren totals were also well over their 12-yr averages. Wood Ducks were new to the plot. The speckled alder crop was abundant, and box elder seeds were moderately available on the plot.

## 11. OAK-MAPLE RIDGE-TOP FOREST

### BOSQUE DE ROBLE-ARCE DE TOPE DE COLINAS

BETSY C. DAUB

*Hawk Mountain Sanctuary, RR 2, Box 191, Kempton PA 19529*

**Site Number:** PA1382312. **Location:** Pennsylvania; Berks Co.; Eckville; Owl's Head; 40°44'N, 75°50'W; New Ringgold Quadrangle, USGS. **Continuity:** Established 1983; 7 yr. **Size:** 19.3 ha. **Description of Plot:** See *Am. Birds* 37:55 (1983). The stand age of the plot ranges from 61–150 years. Around the turn of the century, some areas were cut for blueberry and charcoal production, but no cutting has occurred for at least 61 years. **Weather:** Mean start temp. –2.2°C (range –11–2.2°C). Mean snow depth 0.7 cm (range 0–10 cm). The ground was bare on ten visits. **Coverage:** 20.1 hrs; 12 visits (mornings): 22, 24, 25, 29 Jan; 2, 11, 14, 19, 21, 25 Feb; 1, 2 Mar. **Count:** Black-capped Chickadee, 3.7 ind./visit (10 visits); White-breasted Nuthatch, 1.3 (7); Hairy Woodpecker, 0.4 (3); Downy Woodpecker, 0.3 (2); Tufted Titmouse, 0.3 (3); Ruffed Grouse, 0.2 (2); Red-tailed Hawk, 0.1 (1); Barred Owl, 0.1 (1). **Total:** 8 species; 6.3 ind./visit (13.1 ind./40 ha). **Remarks:** This is the first WBPS on this plot since 1988. **Other Observers:** Phil Campbell, Steve Thorpe, Jack Holcomb, John Puschock, Kerry Grim, Jorje Zalles, Laurie Goodrich, Keith Bildstein. **Acknowledgments:** Hawk Mountain Sanctuary contribution number 30.

## 12. OAK-MAPLE SLOPE FOREST

### BOSQUE DE ROBLE-ARCE DE LADERAS

BETSY C. DAUB

*Hawk Mountain Sanctuary, RR 2, Box 191, Kempton PA 19529*

**Site Number:** PA1382313. **Location:** Pennsylvania; Berks Co.; Eckville; River of Rocks; 40°45'N, 75°50'W; New Ringgold Quadrangle, USGS. **Continuity:** Established 1983; 7 yr. **Size:** 16.9 ha. **Description of Plot:** See *Am. Birds* 37:55 (1983). The stand age of the plot ranges from 61–150 years. Around the turn of the century, some areas were cut for blueberry and charcoal production, but no cutting has occurred for at least 61 years. **Weather:** Mean start temp. –3.3°C (range –15–4°C). Mean snow depth 4.2 cm (range 0–20.3 cm). The ground was bare on eight visits. **Coverage:** 22.3 hrs; 12 visits (mornings): 22, 24, 25, 27 Jan; 1, 5, 8, 13, 15, 18, 22 Feb; 1 Mar. **Count:** Black-capped Chickadee, 5.2 ind./visit (9 visits); Downy Woodpecker, 1.7 (7); White-breasted Nuthatch, 1.2 (7); Red-bellied Woodpecker, 0.9 (8); Hairy Woodpecker, 0.7 (5); Tufted Titmouse, 0.7 (4); Pileated Woodpecker, 0.6 (5); American Crow, 0.5 (2); Ruby-crowned Kinglet, 0.4 (2); Mourning Dove, 0.3 (1); Brown Creeper,

0.3 (2); Ruffed Grouse, 0.3 (3); Red-breasted Nuthatch, 0.3 (2); Blue Jay, 0.2 (1); Golden-crowned Kinglet, 0.2 (1); Great Horned Owl, 0.1 (1). **Total:** 16 species; 13.3 ind./visit (31.6 ind./40 ha). **Remarks:** This is the first WBPS on this plot since 1988. **Other Observers:** Jack Holcomb, Kerry Grim, Steve Thorpe, Jorje Zalles, Matt Brett, Jim Brett, Keith Bildstein. **Acknowledgments:** Hawk Mountain Sanctuary contribution number 31.

### 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; 12 yr. **Size:** 9.7 ha. **Description of Plot:** See *Am. Birds* 37:55-56 (1983). **Weather:** Mean start temp. -4.3°C (range -9--1°C). Mean snow depth 2.9 cm (range 0-8 cm). The ground was bare on four visits. Mean temperature was slightly below average. Mean snow depth was about average. **Coverage:** 24.8 hrs; 8 visits (mornings): 22, 23, 26, 27 Dec; 3, 28, 30, 31 Jan. **Count:** Carolina Chickadee, 6.3 ind./visit (8 visits); Tufted Titmouse, 5.4 (8); Downy Woodpecker, 4.6 (8); White-breasted Nuthatch, 4.3 (8); Black-capped Chickadee, 4.0 (8); Red-bellied Woodpecker, 1.9 (7); Northern Cardinal, 1.6 (4); Dark-eyed Junco, 1.6 (3); Mourning Dove, 0.9 (4); Wild Turkey, 0.8 (1); Blue Jay, 0.8 (5); Golden-crowned Kinglet, 0.6 (3); Northern Flicker, 0.5 (2); Pileated Woodpecker, 0.4 (2); Hairy Woodpecker, 0.3 (2); Brown Creeper, 0.3 (2); Cooper's Hawk, 0.1 (1); Song Sparrow, 0.1 (1). **Total:** 18 species; 34.3 ind./visit (141 ind./40 ha). **Remarks:** Numbers are still decreasing for Tufted Titmouse and White-breasted Nuthatch, the fifth consecutive year. However, chickadee totals are above average. The lowest number of individuals ever, 44 below the 11-yr average. **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; 15 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 start temp. 6.9°C (range -1-14°C). The ground was bare on five visits, and there was patchy snow cover on six visits. It was one of the warmest, driest winters on record. Source: *Boulder Daily Camera*. **Coverage:** 14.3 hrs; 11 visits (mornings): 10, 23 Nov; 1, 15, 23 Dec; 10, 24 Jan; 3, 10, 20 Feb; 4 Mar. **Count:** Pygmy Nuthatch, 11.4 ind./visit (10 visits); Mountain Chickadee, 5.1 (10); Dark-eyed Junco, 2.7 (7); Steller's Jay, 1.5 (7); Black-billed Magpie, 1.5 (7); White-breasted Nuthatch, 1.3 (6); Pine Siskin, 0.6 (2); American Robin, 0.5 (4); Hairy Woodpecker, 0.5 (5); Common Raven, 0.5 (2); Black-capped Chickadee, 0.4 (2); Northern Flicker, 0.3 (3); Red-tailed Hawk, 0.2 (2); Brown Creeper, 0.2 (1); Downy Woodpecker, 0.1 (1); House Finch, 0.1 (1). **Total:** 16 species; 26.8 ind./visit (132 ind./40 ha). **Other Observer:** Barbara Beall. **Acknowledgments:** Dave Hallock performed and prepared the quantitative survey of vegetation in July 1992.

### 15. 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:** Established 1994; 2 yr. **Size:** 25.0 ha. **Description of Plot:** See

*J. Field Ornithol.* 66(Suppl.):16 (1995). **Weather:** Mean start temp. 4.0°C (range -2-19°C). **Coverage:** 14.2 hrs; 8 visits (mornings): 5, 8, 9, 11 Jan; 1, 2, 8, 9 Feb. **Count:** Pine Warbler, 19.3 ind./visit (8 visits); American Goldfinch, 17.4 (6); Yellow-rumped Warbler, 9.3 (8); Dark-eyed Junco, 6.3 (6); White-throated Sparrow, 6.1 (8); Red-cockaded Woodpecker, 2.1 (7); Ruby-crowned Kinglet, 1.8 (8); Carolina Chickadee, 1.5 (6); Brown-headed Nuthatch, 1.5 (3); American Crow, 1.3 (5); Red-bellied Woodpecker, 1.1 (6); Eastern Bluebird, 1.0 (3); Hermit Thrush, 1.0 (7); Yellow-bellied Sapsucker, 0.8 (6); Tufted Titmouse, 0.6 (3); Henslow's Sparrow, 0.6 (3); Northern Bobwhite, 0.5 (1); Solitary Vireo, 0.5 (4); Blue Jay, 0.4 (2); Carolina Wren, 0.4 (3); Brown Thrasher, 0.4 (3); Bachman's Sparrow, 0.4 (3); Pileated Woodpecker, 0.3 (2); American Robin, 0.3 (2); Orange-crowned Warbler, 0.3 (1); Sharp-shinned Hawk, 0.1 (1); American Kestrel, 0.1 (1); American Woodcock, 0.1 (1); Eastern Phoebe, 0.1 (1); House Wren, 0.1 (1); Golden-crowned Kinglet, 0.1 (1); Northern Cardinal, 0.1 (1); Eastern Towhee, 0.1 (1). **Total:** 33 species; 75.8 ind./visit (121 ind./40 ha). **Remarks:** A selective timber cut was conducted in the plot during November. The cut is believed to have had a negligible effect on the bird population due to the limited amount of timber removed, but slash on the ground could have made the area more attractive to Dark-eyed Juncos.

## 16. 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; 6 yr. **Size:** 16.0 ha. **Description of Plot:** See *J. Field Ornithol.* 61(Suppl.):57 (1990). **Weather:** Mean start temp. -6.7°C (range -20-2°C). Mean snow depth 18.2 cm (range 5-35 cm). Light snow or snow flurries during four visits. The winter of 1994-95 was gentle in this region. The average daily temperature at the plot was -8.8°C, 2.0°C warmer than normal. Precipitation totalled 21 cm, a -6 cm departure from normal. Snowfall was 165 cm, 61 cm below normal levels. The pond and small stream were frozen throughout the study period. Source: Northeast Regional Climate Center, Cornell University, and on-site instruments. **Coverage:** 28.0 hrs; 10 visits (mornings): 7, 10 Dec; 4, 19, 21 Jan; 2, 15, 18 Feb; 2, 16 Mar. **Count:** White-winged Crossbill, 18.4 ind./visit (10 visits); Black-capped Chickadee, 8.0 (10); Golden-crowned Kinglet, 5.8 (10); Red-breasted Nuthatch, 5.4 (10); Pine Siskin, 5.1 (8); Boreal Chickadee, 4.2 (10); Evening Grosbeak, 4.1 (6); Dark-eyed Junco, 1.8 (6); Downy Woodpecker, 1.2 (9); Ruffed Grouse, 1.0 (7); Hairy Woodpecker, 0.9 (7); Blue Jay, 0.6 (4); Pileated Woodpecker, 0.5 (5); Northern Goshawk, 0.3 (3); Gray Jay, 0.2 (1); Purple Finch, 0.2 (1); Black-backed Woodpecker, 0.1 (1). **Total:** 17 species; 57.8 ind./visit (145 ind./40 ha). **Remarks:** Count totals for the number of species and individual birds far exceeded those of any previous WBPS done on the plot. Seventeen species were found to be using the plot this winter, compared to the 5-yr average of 12 and the previous high of 14. The number of individuals per visit climbed to 57.8, compared to the 5-yr average of 17.4 and the previous high of 40.4. The high count totals appeared to reflect the extremely heavy spruce cone crop and the mild winter conditions. One-third of the total individual count was attributable to a large flock of White-winged Crossbills which was present throughout the study period. **Acknowledgments:** I thank Boise Cascade for their continued support of this project.

## 17. 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; 11 yr. **Size:** 9.3

ha. **Description of Plot:** See *Aud. Field Notes* 23:743–744 (1969) and *Am. Birds* 38:38 (1984). **Weather:** Mean start temp. 0.3°C (range –5.6–4.4°C). Mean snow depth 6.5 cm (range 0–20.4 cm). The ground was partially bare on three visits. **Coverage:** 10.3 hrs; 8 visits (6 mornings, 2 afternoons): 19, 23, 27, 28 Dec; 2, 3, 8 Jan; 20 Feb. **Count:** Black-capped Chickadee, 13.5 ind./visit (8 visits); Ruffed Grouse, 6.8 (8); Golden-crowned Kinglet, 2.5 (6); Red-breasted Nuthatch, 1.5 (6); Blue Jay, 1.0 (4); Cedar Waxwing, 0.8 (1); American Tree Sparrow, 0.4 (3); Northern Cardinal, 0.3 (2); Dark-eyed Junco, 0.3 (1); Purple Finch, 0.3 (2); Sharp-shinned Hawk, 0.1 (1); Downy Woodpecker, 0.1 (1); Brown Creeper, 0.1 (1); American Goldfinch, 0.1 (1). **Total:** 14 species; 27.6 ind./visit (119 ind./40 ha). **Remarks:** Golden-crowned Kinglet and Ruffed Grouse were at record high numbers. This mild winter was a marked contrast to last winter's severe cold and heavy snow cover. Numbers for every species except Brown Creeper were at or above the 10-yr averages for the plot. The overall total was the highest since 1990, which was a winter finch invasion year. **Other Observer:** Peter Gradoni. **Acknowledgments:** Appreciation to Cynthia Clements and Phil Foster for permission to use their land; to Rick Walker for weather data; and to Peter Gradoni for doing two visits.

## 18. PONDEROSA PINE–SCRUB OAK FOREST

### BOSQUE DE PINO PONDEROSA–MATORRAL DE ROBLE

RUSSELL P. DEFUSCO, HERBERT J. FINCH & JAMES W. WEISSMANN

*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; 5 yr. **Size:** 12.0 ha. **Description of Plot:** See *J. Field Ornithol.* 62(Suppl.):56–57 (1991). **Weather:** Mean start temp. 1.6°C (range –14–16°C). Snow cover was 1–5% on five visits; the ground was bare on five visits. Temperatures were above normal and precipitation was below normal throughout the study period. **Coverage:** 13.0 hrs; 10 visits (7 mornings, 3 afternoons): 29, 30 Dec; 5, 9, 12, 23, 24 Jan; 1, 3, 24 Feb. **Count:** Pygmy Nuthatch, 21.0 ind./visit (10 visits); Pine Siskin, 16.6 (10); Mountain Chickadee, 7.3 (10); Dark-eyed Junco, 3.8 (8); White-breasted Nuthatch, 2.9 (9); Black-capped Chickadee, 1.4 (6); Downy Woodpecker, 0.8 (4); Cassin's Finch, 0.7 (2); Northern Flicker, 0.5 (3); Hairy Woodpecker, 0.4 (3); American Crow, 0.3 (2); Red Crossbill, 0.2 (1); Sharp-shinned Hawk, 0.1 (1); Northern Goshawk, 0.1 (1); Red-tailed Hawk, 0.1 (1); Great Horned Owl, 0.1 (1); Steller's Jay, 0.1 (1); Common Raven, 0.1 (1); House Finch, 0.1 (1). **Total:** 19 species; 56.6 ind./visit (189 ind./40 ha). **Remarks:** There were several Abert squirrels residing in the plot. Several coyote were noted just N of the plot. **Other Observers:** John Obringer, James Kent, John Stutts, Mike Babler, Greg Speigts, Zack Weissmann.

## 19. 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; 19 yr. **Size:** 11.8 ha. **Description of Plot:** See *Am. Birds* 31:50–51 (1977). **Weather:** Mean start temp. –3.0°C (range –11.7–5.0°C). Mean snow depth 0.6 cm (range 0–5.1 cm). The ground was bare on ten visits. For December, January, and February, respectively, temperature departures from normal were 2.7, 3.3, and –1.0°C; equivalent precipitation departures were 3.5, 1.9, and –2.7 cm. Source: U.S. National Weather Service, Boston. **Coverage:** 12.0 hrs; 12 visits (mornings): 15, 18, 20, 23 Dec; 3, 4, 6, 20 Jan; 3, 12, 17, 25 Feb. **Count:** Black-capped Chickadee, 2.0 ind./visit (7 visits); White-breasted Nuthatch, 0.9 (6); Tufted Titmouse, 0.6 (3); Downy Woodpecker, 0.3 (2); Blue Jay, 0.3 (2); Dark-eyed Junco, 0.3 (2); American Crow, 0.3 (1); American Robin, 0.1 (1). **Total:** 8 species; 4.8 ind./visit (16.4 ind./

40 ha). **Remarks:** A male Downy Woodpecker was drumming on 2 February. On 18 December a foraging flock contained eight chickadees; on 3 January two titmice, three chickadees, two nuthatches, and one jay; on 17 February five chickadees, one male and one female Downy Woodpecker, and two nuthatches. On 12 February the remains of a freshly-killed Ruffed Grouse were found.

## 20. 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; 21 yr. **Size:** 16.6 ha. **Description of Plot:** See *Am. Birds* 28:699-700 (1974). **Weather:** Mean start temp. 0.8°C (range -3.9-6.1°C). Mean snow depth 3.6 cm (range 0-7.6 cm). The ground was bare on one visit and partially bare on another four. There was some fog during one visit and light drizzle during another. The stream remained open all winter. **Coverage:** 13.3 hrs; 9 visits (6 mornings, 3 afternoons): 14, 16, 20, 23, 26, 27, 30 Dec; 1, 7 Jan. **Count:** Black-capped Chickadee, 15.1 ind./visit (9 visits); Red-breasted Nuthatch, 5.0 (9); Golden-crowned Kinglet, 4.1 (9); Brown Creeper, 2.3 (8); Blue Jay, 2.0 (7); Ruffed Grouse, 1.1 (5); American Crow, 1.1 (4); Hairy Woodpecker, 0.6 (4); Wild Turkey, 0.4 (2); Purple Finch, 0.4 (2); Downy Woodpecker, 0.2 (1); White-breasted Nuthatch, 0.2 (2); Cooper's Hawk, 0.1 (1). **Total:** 13 species; 32.8 ind./visit (79.0 ind./40 ha). **Remarks:** Totals were double what they were in last year's severe winter, but about average for the 21 years the study has been done. **Acknowledgments:** Appreciation to Rick Walker for weather data.

## 21. SLOPED MIXED DECIDUOUS-CONIFEROUS FOREST

BOSQUE DE PENDIENTE MIXTO DE DECIDUO-CONIFEROS

FRED MERRILL

Vermont Conservation Biology, RR#1, Box 565, Woodstock VT 05091

**Location:** Vermont; Windsor Co.; Taftsville; High Pastures Road; 43°37'N, 72°30'W; Quechee Quadrangle, USGS. **Continuity:** New. **Size:** 12.3 ha. **Description of Plot:** See *J. Field Ornithol.* 63(Suppl.):87-88 (1992). **Weather:** Mean start temp. -1.4°C (range -15-11°C). Mean snow depth 7.6 cm (range 0-30 cm). The ground was bare on two visits. The seasonal pond was frozen during the study period, and the streams were frozen on one visit. A very mild and dry winter (only one major storm), but the ground remained snow covered after December. **Coverage:** 14.5 hrs; 8 visits (mornings): 19, 25, 31 Dec; 8, 15, 20, 22, 29 Jan. **Count:** Black-capped Chickadee, 8.3 ind./visit (8 visits); Pine Siskin, 3.8 (1); Blue Jay, 2.1 (8); White-breasted Nuthatch, 1.8 (8); Dark-eyed Junco, 1.1 (3); Purple Finch, 0.9 (5); American Crow, 0.6 (4); Common Raven, 0.6 (3); Pine Grosbeak, 0.5 (2); Brown Creeper, 0.4 (3). **Total:** 10 species; 20.0 ind./visit (65.0 ind./40 ha). **Remarks:** A good seed year for hornbeam and yellow birch. Mammal sign in the area: raccoon (2 pair), fisher (1 pair), red squirrel (at least 5 pair), and porcupine (1 carcass).

## 22. 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; 16 yr. **Size:** 15.0 ha. **Description of**

**Plot:** See *J. Field Ornithol.* 63(Suppl.):88–89 (1992) and 66(Suppl.):92 (1995). **Weather:** Mean start temp. 8.5°C (range –5.0–18.3°C). El Niño winter; December–February rainfall on the plot was 44.37 cm (normal for Birmingham is 38.36 cm). Temperatures were warm; eight starting temperatures were above 10°C. The coldest weather of the winter was 30 January to 14 February when there were two 2.5 cm snows and a low of –9.4°C. **Coverage:** 35.0 hrs; 69 visits (18 full visits–14 mornings; 4 afternoons, plus 51 partial visits): 1, 5, 9, 12, 17, 20, 28 Dec; 2, 8, 9, 16, 19 Jan; 21, 22, 23, 25, 27 Feb; 1 Mar. **Count:** European Starling, 75.8 ind./visit (69 visits); American Robin, 26.6 (69); House Finch, 24.1 (69); Mourning Dove, 14.7 (69); House Sparrow, 13.4 (69); Rock Dove, 8.8 (69); Northern Mockingbird, 4.7 (69); Blue Jay, 3.5 (69); Common Grackle, 3.5 (21); Northern Cardinal, 3.3 (69); Tufted Titmouse, 2.5 (69); Carolina Chickadee, 2.4 (69); American Crow, 1.7 (59); Northern Flicker, 1.4 (50); Red-bellied Woodpecker, 1.1 (56); Carolina Wren, 0.9 (58); Eastern Towhee, 0.9 (36); Cedar Waxwing, 0.6 (6); Red-tailed Hawk, 0.4 (27); White-throated Sparrow, 0.4 (9); Brown-headed Cowbird, 0.3 (1); Yellow-rumped Warbler, 0.3 (8); Yellow-bellied Sapsucker, 0.2 (12); Red-winged Blackbird, 0.2 (3); Rusty Blackbird, 0.2 (2); White-breasted Nuthatch, 0.2 (10); Ruby-crowned Kinglet, 0.1 (7); Song Sparrow, 0.1 (5); American Kestrel, 0.1 (5); Loggerhead Shrike, 0.1 (5); Downy Woodpecker, 0.1 (5); Sharp-shinned Hawk, 0.0 (1); Cooper's Hawk, 0.0 (2); Chipping Sparrow, 0.0 (2); American Goldfinch, 0.0 (1). **Total:** 35 species; 193 ind./visit (514 ind./40 ha). **Remarks:** On 21 January, I ruptured my left Achilles tendon; balance of visits were done by car with comparable results. In February, power company cut trees and shrubs on hedgerow edge under right-of-way for about 150 m. Regular species missed this year include: Red-headed Woodpecker, Brown Creeper, Winter Wren, Golden-crowned Kinglet, Brown Thrasher, Field Sparrow, Dark-eyed Junco, and Purple Finch. **Other Observers:** Joseph A. Imhof, Juanita T. Goodson.

### 23. URBAN NATURE PRESERVE

#### RESERVA NATURAL URBANA

LINDA & RICHARD BEIDLEMAN

766 Bayview Ave., Pacific Grove CA 93950

**Location:** California; Monterey Co.; Carmel; Mission Trail Park; 36°33'N, 121°56'W; Monterey Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 16.2 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):25–26 (1994). **Weather:** Mean start temp. 16.6°C (range 10–23°C). This was one of the wettest winters on record along the California coast; it is remarkable that there was no rain during visits. Temperatures tended to be moderate. However, there were many gale-force winds. **Coverage:** 18.3 hrs; 9 visits (7 mornings, 2 afternoons): 20 Dec; 3, 11, 24, 29 Jan; 9, 21, 23 Feb; 6 Mar. **Count:** Bush-tit, 16.4 ind./visit (7 visits); Golden-crowned Sparrow, 16.4 (9); Western Scrub-Jay, 13.7 (9); American Robin, 12.7 (9); Yellow-rumped Warbler, 12.4 (9); Chestnut-backed Chickadee, 11.1 (9); Mourning Dove, 9.1 (8); American Crow, 8.7 (9); Ruby-crowned Kinglet, 8.2 (9); Acorn Woodpecker, 8.0 (9); House Finch, 7.1 (9); Townsend's Warbler, 7.0 (9); California Gull, 5.7 (7); Song Sparrow, 5.7 (9); Band-tailed Pigeon, 4.7 (5); Dark-eyed Junco, 4.3 (7); White-crowned Sparrow, 4.2 (8); Rock Dove, 4.1 (7); Pygmy Nuthatch, 3.4 (8); Bewick's Wren, 2.6 (8); California Towhee, 2.3 (7); Anna's Hummingbird, 2.2 (8); Spotted Towhee, 2.2 (8); Cedar Waxwing, 2.1 (1); California Quail, 1.8 (4); European Starling, 1.4 (4); Red-shouldered Hawk, 1.2 (8); Northern Flicker, 1.2 (8); Downy Woodpecker, 1.0 (6); Fox Sparrow, 1.0 (6); Red-tailed Hawk, 0.7 (5); Black Phoebe, 0.7 (4); Steller's Jay, 0.6 (4); Red-winged Blackbird, 0.6 (1); Lesser Goldfinch, 0.4 (2); Brown Creeper, 0.3 (3); Hermit Thrush, 0.3 (3); Hutton's Vireo, 0.3 (3); Orange-crowned Warbler, 0.3 (2); Sharp-shinned Hawk, 0.2 (2); Cooper's Hawk, 0.2 (2); Wrentit, 0.2 (2); Lincoln's Sparrow, 0.2 (2); Turkey Vulture, 0.1 (1); American Kestrel, 0.1 (1); Winter Wren, 0.1 (1); Pine Siskin, 0.1 (1). **Total:** 47 species; 188 ind./visit (463 ind./40 ha). **Remarks:** This ecological island, surrounded by urbanization, is maintaining a relatively stable winter bird population, both with respect to species and numbers, since first being studied in 1992–93. However, the population of Golden-crowned Sparrows was much lower this winter, while there were more California Quail, Band-tailed Pigeons, American Crows,

Bushtits, Ruby-crowned Kinglets, Yellow-rumped Warblers, and Song Sparrows. Although this was an extremely wet and windy winter, the weather appeared to have little deleterious impact on the birds, despite minor flooding. The diversity of habitats, combined with the moderate winter climate, geographical location, and minimal human influence, attract an unusually large number of winter species (47 this year, 52 in 1993) compared with other WBPS throughout North America. Out of 53 WBPSs done in 1993, only three others exceeded 47 species. It will be interesting to note the effect of a proposed development adjacent to the park on future populations.

## 24. URBAN NATURE PRESERVE II

### RESERVA NATURAL URBANA II

RICHARD & LINDA BEIDLEMAN

766 Bayview Ave., Pacific Grove CA 93950

**Location:** California; Alameda Co.; Albany; Albany Hill Park; 37°54'N, 122°18'W; Richmond Quadrangle, USGS. **Continuity:** New. **Size:** 10.0 ha. **Description of Plot:** The J-shaped plot includes the flat top and upper slopes of Albany Hill, which support a mature forest of planted eucalyptus trees (blue gum and manna gum), an understory of poison oak and toyon shrubs, and patches of grassland. The steep N slope has a closed-canopy woodland of coast live oak, with some California hazelnut and dense understory, leveling into a narrow grassland strip and a deciduous creekbottom (El Cerrito Creek) crowded with bushy arroyo willows. There are a paved parking area, a residential road into the area, and a system of developed and crude trails. There are two bird feeders in the plot. **Edge:** The plot borders a lower hillside residential area to the E and S. To the W, eucalyptus trees extend down to a line of high-rise apartments then two busy and noisy freeways and finally the bay. To the N on the flats beyond El Cerrito Creek, there are residences and a creekside minipark with a small pond. The native hillside oak woodland extends beyond the plot to the NW a short distance. **Topography and Elevation:** Albany Hill is an isolated sedimentary prominence near the E shoreline of San Francisco Bay, with a gradual slope from the summit down towards the S, and steep slopes on the other three sides. This is the only such hill along the immediate East Bay shore, which otherwise is a flat plain near sea level. Minimum elevation 8 m, maximum 99 m. **Weather:** Mean start temp. 13.6°C (range 8–19°C). This was one of the wettest winters on record along the California coast; it is remarkable that there was no rain during visits. Temperatures tended to be moderate. **Coverage:** 14.9 hrs; 8 visits (7 mornings, 1 afternoon): 18 Dec; 16, 17, 20 Jan; 2, 5, 19, 27 Feb. **Count:** Dark-eyed Junco, 11.0 ind./visit (8 visits); California Towhee, 9.6 (8); Bushtit, 9.4 (5); Chestnut-backed Chickadee, 7.8 (7); Mourning Dove, 4.3 (7); Western Scrub-Jay, 4.3 (8); Lesser Goldfinch, 4.3 (7); American Robin, 3.8 (6); Yellow-rumped Warbler, 3.8 (7); House Finch, 3.5 (7); Anna's Hummingbird, 3.4 (8); Steller's Jay, 2.3 (6); Ruby-crowned Kinglet, 2.3 (7); Northern Flicker, 1.3 (5); Golden-crowned Sparrow, 1.1 (3); Downy Woodpecker, 1.0 (5); California Gull, 0.9 (4); Hermit Thrush, 0.9 (3); Red-tailed Hawk, 0.8 (5); Bewick's Wren, 0.6 (4); Townsend's Warbler, 0.6 (5); Song Sparrow, 0.6 (4); Turkey Vulture, 0.5 (1); Allen's Hummingbird, 0.5 (3); American Crow, 0.5 (2); Spotted Towhee, 0.5 (3); Brown Creeper, 0.4 (2); Black Phoebe, 0.3 (2); Red-breasted Nuthatch, 0.3 (2); Wrentit, 0.3 (2); Northern Mockingbird, 0.3 (2); Orange-crowned Warbler, 0.3 (1); White-crowned Sparrow, 0.3 (2); Sharp-shinned Hawk, 0.1 (1); Great Horned Owl, 0.1 (1); Red-breasted Sapsucker, 0.1 (1); Varied Thrush, 0.1 (1); MacGillivray's Warbler, 0.1 (1); Fox Sparrow, 0.1 (1); House Sparrow, 0.1 (1). **Total:** 40 species; 81.9 ind./visit (328 ind./40 ha). **Remarks:** This city park, with its isolated, vegetated hill and associated creekbottom, surrounded by urban development, represents an ecological island. It supports a diversity of winter birds that generally only stray into adjacent areas. Most species occur in the oak woodland and deciduous creekbottom, with their native trees and bushes. The upper-slope eucalyptus forest has little birdlife except in brushy sites and especially around the bordering bird-feeding station. Understandably, many birds were habitat-specific: Steller's Jay, Mourning Dove, flicker, and birds of prey in the open eucalyptus forest; Western Scrub-Jay, towhees, Bushtit, Bewick's Wren, and Wrentit in the brushy areas; chickadee, junco, Varied

and Hermit Thrushes, and kinglet in the oak woodland; and hummingbirds, warblers, robin, finches, and sparrows in the deciduous creekbottom. The birds seemed little affected by the very wet winter weather. **Acknowledgments:** Thanks to Dr. Barbara Ertter for botanical information.

## 25. SUBURBAN BIRD SANCTUARY

### SANTUARIO DE AVES SUBURBANO

MARY E. RICHARD & MICHAEL BRUST

*Theodore Roosevelt Sanctuary, Inc., 134 Cove Road, Oyster Bay NY 11771*

**Location:** New York; Nassau Co.; Oyster Bay; Theodore Roosevelt Memorial Bird Sanctuary; 40°52'N, 73°30'W; Hicksville Quadrangle, USGS. **Continuity:** New. **Size:** 10.8 ha. **Description of Plot:** See *J. Field Ornithol.* 63(Suppl.):91-92 (1992). There are 8 bird feeders in the plot. **Weather:** Mean start temp. -2.7°C (range -12-1°C). **Coverage:** 7.6 hrs; 7 visits (6 mornings, 1 evening): 29 Dec; 19, 27 Jan; 8, 17, 26 Feb; 12 Mar. **Count:** European Starling, 13.4 ind./visit (7 visits); House Finch, 13.0 (7); Mourning Dove, 6.6 (7); White-throated Sparrow, 4.7 (7); Northern Cardinal, 3.4 (7); Common Grackle, 3.4 (1); American Crow, 3.3 (7); Black-capped Chickadee, 3.0 (7); Downy Woodpecker, 2.7 (7); House Sparrow, 2.6 (7); Tufted Titmouse, 2.1 (7); Dark-eyed Junco, 2.0 (7); Red-bellied Woodpecker, 1.6 (7); White-breasted Nuthatch, 1.6 (7); Blue Jay, 1.4 (7); Rock Dove, 1.0 (2); Hairy Woodpecker, 0.7 (4); Red-tailed Hawk, 0.4 (3); Carolina Wren, 0.3 (2); Hermit Thrush, 0.3 (2); Northern Mockingbird, 0.3 (2); Sharp-shinned Hawk, 0.1 (1); Song Sparrow, 0.1 (1); American Goldfinch, 0.1 (1). **Total:** 24 species; 68.3 ind./visit (253 ind./40 ha). **Other Observers:** Steven Gomez, Denise Trezza.

## 26. 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:** Established 1994; 2 yr. **Size:** 5.8 ha. **Description of Plot:** See *J. Field Ornithol.* 60(Suppl.):14 (1989) and 66(Suppl.):27-28 (1995). **Weather:** Mean start temp. 0.4°C (range -10-10°C). Mean snow depth 3.4 cm (range 0-9 cm). The ground was bare on one visit, and there were bare patches on two others. It snowed during three visits. A considerably milder and drier winter than last year's near record cold. The 4-month temperatures were close to normal, averaging 0.6°C above the 30-yr mean. Snowfall for the area was under the 30-yr mean by 4.4 cm per month. Winds were lighter than normal for the study period. Source: Environment Canada. **Coverage:** 9.0 hrs; 8 visits (2 mornings, 6 afternoons): 10, 24, 29 Dec; 28 Jan; 11, 25, 28 Feb; 9 Mar. **Count:** Black-capped Chickadee, 11.5 ind./visit (8 visits); Dark-eyed Junco, 3.8 (3); Northern Cardinal, 2.6 (8); American Robin, 2.3 (4); American Tree Sparrow, 1.8 (5); Blue Jay, 1.1 (2); American Goldfinch, 0.6 (3); Downy Woodpecker, 0.4 (1); Ruffed Grouse, 0.3 (2); Hairy Woodpecker, 0.3 (2); American Crow, 0.3 (2); Red-tailed Hawk, 0.1 (1); Brown Creeper, 0.1 (1). **Total:** 13 species; 25.0 ind./visit (172 ind./40 ha). **Remarks:** The increase of 77 total individuals over last year for this newly configured plot is likely due to this year's considerably milder weather. Chickadee numbers (92) increased by 59% over last year, possibly because of the new woods sector and a notable increase in successional activity in many areas of the original plot. Bark foragers (4 species) were most numerous at 49% of total individuals, followed by seed eaters (3 species) with 33%. Count conditions were less than optimal on 11 Feb (3 birds) and 25 Feb (9 birds) because of falling snow. The seed supply from the unevenly distributed herbs was plentiful; staghorn sumac thickets and the isolated black cherry trees provided abundant

fruit. Some trees (box elder) produced good crops. There was a drop off in food availability by the end of January.

## 27. 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°10'N, 122°54'W; Tomales Quadrangle, USGS. **Continuity:** Established 1986; 10 yr. **Size:** 10.5 ha. **Description of Plot:** See *J. Field Ornithol.* 60(Suppl.):64 (1989) and 66(Suppl.):28–29 (1995). **Weather:** Mean start temp. 8.6°C (range 5–12°C). **Coverage:** 7.8 hrs; 7 visits (mornings): 18 Jan; 2, 10, 14, 16, 24, 27 Feb. **Count:** Song Sparrow, 12.3 ind./visit (7 visits); Marsh Wren, 9.1 (7); Bufflehead, 7.9 (7); Red-winged Blackbird, 7.9 (4); American Robin, 4.9 (7); Mallard, 4.4 (6); Ruby-crowned Kinglet, 3.7 (7); Virginia Rail, 3.0 (6); Tree Swallow, 2.7 (2); Ruddy Duck, 2.4 (6); White-crowned Sparrow, 2.1 (4); Pied-billed Grebe, 2.0 (7); Yellow-rumped Warbler, 2.0 (7); Allen's Hummingbird, 1.9 (5); Common Yellowthroat, 1.7 (5); Bushtit, 1.6 (2); Fox Sparrow, 1.6 (4); American Coot, 1.4 (5); Ring-necked Duck, 1.3 (1); Common Snipe, 1.3 (4); Great Blue Heron, 1.0 (5); Cinnamon Teal, 1.0 (3); Black Phoebe, 1.0 (4); Wrentit, 1.0 (5); Golden-crowned Sparrow, 1.0 (2); Purple Finch, 1.0 (3); Black-crowned Night-Heron, 0.7 (1); Bewick's Wren, 0.7 (4); Chestnut-backed Chickadee, 0.6 (2); California Towhee, 0.6 (3); Anna's Hummingbird, 0.4 (3); Belted Kingfisher, 0.4 (3); Hermit Thrush, 0.4 (2); Cooper's Hawk, 0.3 (1); Red-tailed Hawk, 0.3 (2); Sora, 0.3 (2); Winter Wren, 0.3 (2); Golden-crowned Kinglet, 0.3 (1); Great Egret, 0.1 (1); American Wigeon, 0.1 (1); Canvasback, 0.1 (1); Sharpshinned Hawk, 0.1 (1); Red-shouldered Hawk, 0.1 (1); American Kestrel, 0.1 (1); Glaucous-winged Gull, 0.1 (1); Northern Flicker, 0.1 (1); Varied Thrush, 0.1 (1). **Total:** 47 species; 87.7 ind./visit (334 ind./40 ha). **Remarks:** Black-crowned Night-Herons did not occupy the lower marsh bulrushes where a winter roost was formed in previous years. One male Allen's Hummingbird and two male Anna's Hummingbirds occupied breeding territories. Diving duck numbers remained low for the second winter. Coincidentally, one to four river otters (*Lutra canadensis*) occupied the marsh for the second 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.

## 28. MAN-MADE TIDAL LAGOON

LAGUNA ARTIFICIAL CON MAREA

CHARLES T.\* & PATRICIA H. COLLINS

*\*Dept. of Biology, California State University, Long Beach CA 90840*

**Location:** California; Los Angeles Co.; Long Beach; Shoreline Aquatic Park; 33°46'N, 118°11'W; Long Beach Quadrangle, USGS. **Continuity:** Established 1984; 6 yr. **Size:** 5.3 ha. **Description of Plot:** See *Am. Birds* 39:59 (1985). **Weather:** Seasonally mild with temperatures often above 21°C. There was very heavy rain in early January. Three visits were done at low tide, three at middle tide, and two at high tide. **Coverage:** 5.7 hrs; 8 visits (4 mornings, 4 afternoons): 18, 21, 29, 31 Dec; 28, 29 Jan; 4, 12 Feb. **Count:** American Coot, 178 ind./visit (8 visits); Ring-billed Gull, 112 (8); Black Skimmer, 47.8 (8); Western Gull, 28.8 (8); Western Sandpiper, 27.3 (4); California Gull, 18.9 (6); Marbled Godwit, 16.9 (8); Rock Dove, 15.4 (8); Willet, 9.0 (8); Eared Grebe, 3.4 (8); Sanderling, 2.5 (3); Pied-billed Grebe, 2.4 (8); Mew Gull, 2.3 (4); Lesser Scaup, 2.1 (4); Heermann's Gull, 1.9 (7); Caspian Tern, 1.9 (4); Mallard, 1.3 (8); Double-crested Cormorant, 1.1 (5); Ruddy Duck, 1.0 (4); Western Grebe, 0.4 (3); Snowy Egret, 0.4 (3); Glaucous-winged Gull, 0.4 (3); Belted Kingfisher, 0.4 (3); Blue-winged Teal, 0.3 (1); Cinnamon Teal, 0.3 (1); Herring Gull, 0.3 (2); American Crow, 0.3 (2); Red-breasted Merganser, 0.1 (1); Black-bellied Plover, 0.1 (1); Long-billed Curlew, 0.1 (1);

Long-billed Dowitcher, 0.1 (1); American Pipit, 0.1 (1). **Total:** 32 species; 477 ind./visit (3597 ind./40 ha). **Remarks:** There was an average of 18 species per visit (range 14–23). The variation in the total number of individuals per visit (range 348–642) was similar to that of previous years, although the average total was the highest ever. This was mostly due to the dramatic increase in the number of American Coots which were absent from the first four WBPSs at this site and increased from 43 ind./visit in 1993 to 178 ind./visit this year. A total of 55 species have been recorded during studies on this plot. Six species were added this year: Black Skimmer, Belted Kingfisher, Long-billed Curlew, Ruddy Duck, Red-breasted Merganser, and Blue-winged Teal. Many of the Black Skimmers were color banded, indicating they were from breeding colonies in Orange and San Diego Counties and the Salton Sea. There was often a lot of human activity in the surrounding public park which sometimes influenced count accuracy. A large public aquarium is being proposed for a site adjacent to this plot.

## 29. BRUSHLAND (OLD-FIELD SUCCESSION)

BREÑAL EN AVANZADA SUCESION

J. DAN WEBSTER

*Hanover College, Hanover IN 47243*

**Location:** Indiana; Jefferson Co.; Madison; Clifty Falls State Park; 38°45'N, 85°25'W; Clifty Falls and Madison West Quadrangles, USGS. **Continuity:** Established 1976; 10 yr. **Size:** 17.1 ha. **Description of Plot:** See *Am. Birds* 30:1056–1057 (1976), 31:61–62 (1977), 36:38 (1982), and *J. Field Ornithol.* 65(Suppl.):33–34 (1994). **Weather:** Mean start temp.  $-0.4^{\circ}\text{C}$  (range  $-14$ – $12^{\circ}\text{C}$ ). Mean snow depth 1.8 cm (range 0–8 cm). The ground was bare on six visits. January and the first half of February were average for the locality; December and the second half of February were milder than usual. The creek was open to partly open during the study. **Coverage:** 25.0 hrs; 9 visits (mornings): 1, 19, 26 Dec; 9, 13 Jan; 6, 14, 24, 27 Feb. Two additional evening visits for owls: 25 Feb; 6 Mar. **Count:** Northern Cardinal, 4.7 ind./visit (9 visits); Eastern Bluebird, 3.7 (6); White-throated Sparrow, 3.6 (9); American Crow, 2.6 (5); Blue Jay, 1.7 (6); Golden-crowned Kinglet, 1.3 (6); Dark-eyed Junco, 1.3 (3); Carolina Wren, 1.2 (6); Carolina Chickadee, 1.1 (5); Eastern Screech-Owl, 1.0 (2); Barred Owl, 1.0 (1); Tufted Titmouse, 0.9 (5); American Tree Sparrow, 0.8 (2); American Robin, 0.6 (4); Downy Woodpecker, 0.4 (4); Pileated Woodpecker, 0.4 (3); American Goldfinch, 0.4 (3); Northern Flicker, 0.3 (2); Northern Bobwhite, 0.2 (1); Mourning Dove, 0.2 (1); Northern Mockingbird, 0.2 (2); Field Sparrow, 0.2 (1); Song Sparrow, 0.2 (2); House Finch, 0.2 (1); Sharp-shinned Hawk, 0.1 (1); Red-tailed Hawk, 0.1 (1); American Woodcock, 0.1 (1); Yellow-rumped Warbler, 0.1 (1); Fox Sparrow, 0.1 (1). **Total:** 29 species; 27.3 ind./visit (63.9 ind./40 ha). **Remarks:** These additional species flew over the plot once during visits: Canada Goose (flock), Turkey Vulture (1), Cooper's Hawk (1), Sandhill Crane (flock), Killdeer (2), Rock Dove (1), European Starling (2), Red-winged Blackbird (2), Common Grackle (1). Most of them were probably migrating. Severe overbrowsing by deer was evident. The fruit and seed crops were poor. [The number of ind./visit was calculated using nine visits for all species except Eastern Screech-Owl and Barred Owl, which were calculated using only the two owling visits.—Ed.] **Other Observers:** Frank Cassel, Dwight Chamberlain, Richard Davis.

## 30. 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; 12 yr. **Size:** 8.0 ha. **Description of Plot:** See *Am. Birds* 39:119 (1985) and *J. Field Ornithol.* 63(Suppl.):109 (1992). **Weather:** Mean start

temp. 2.0°C (range -17.8–10.0°C). Mean snow depth 6.0 cm (range 0–20 cm). The ground was bare on four visits. December and January temperatures averaged 3.4°C above normal with little snow. February was 3°C colder than normal with the first two weeks being very cold. Lake Erie froze on 7 February (five weeks late). Total precipitation, mostly rain or light snow, was 1 cm below normal. The intermittent stream was open on all but the last visit. Source: Wellsville Water and Light. **Coverage:** 6.2 hrs; 8 visits (7 mornings, 1 afternoon): 13, 14, 16, 19, 23, 28 Jan; 1, 19 Feb. **Count:** Black-capped Chickadee, 3.0 ind./visit (8 visits); American Robin, 2.5 (6); American Crow, 2.4 (8); Blue Jay, 2.3 (7); American Tree Sparrow, 1.9 (3); Eastern Bluebird, 1.0 (2); Dark-eyed Junco, 0.9 (2); European Starling, 0.6 (1); Purple Finch, 0.6 (3); Northern Cardinal, 0.5 (3); White-breasted Nuthatch, 0.3 (2); Ruffed Grouse, 0.1 (1); Downy Woodpecker, 0.1 (1); Common Raven, 0.1 (1); Brown Creeper, 0.1 (1); Pine Siskin, 0.1 (1); American Goldfinch, 0.1 (1). **Total:** 17 species; 16.6 ind./visit (83.1 ind./40 ha). **Remarks:** Although the species total was normal, the number of individuals was 52% below the 11-yr average. Low numbers of individuals have been the norm for the past six years. Appearing for only the second time in the 12 years of the study were: Common Raven, Brown Creeper, and European Starling. The mild weather of December and January encouraged overwintering of Eastern Bluebird and American Robin. Feathers from a raptor kill were noted on the first visit. There was a good supply of buckthorn fruits, a small supply of multiflora rose hips and hawthorn fruits, and no pine cones or wild grapes. White-footed mice, in nest boxes on every visit, were unusually plentiful, and white-tailed deer tracks were seen regularly. Rabbits were also plentiful. **Other Observer:** Michael Pitzrick. **Acknowledgments:** Thanks to Michael Pitzrick for doing one visit and to Gail and Victor Funk for permission to use their property.

### 31. OLD PASTURE SHRUB WITH HEDGEROWS AND SEASONAL WET AREA

PASTIZAL ARBUSTIVO DE EDAD AVANSADA CON SETO VIVO Y AREA HUMEDA ESTACIONAL

FRED MERRILL

*Vermont Conservation Biology, RR#1, Box 565, Woodstock VT 05091*

**Site Number:** VT2793060. **Location:** Vermont; Windsor Co.; Taftsville; Austin's Pasture; 43°36'N, 72°30'W; Quechee Quadrangle, USGS. **Continuity:** Established 1993; 2 yr. **Size:** 11.1 ha. **Description of Plot:** See *J. Field Ornithol.* 65(Suppl.):34–35 (1994). **Weather:** Mean start temp. 3.1°C (range -7–14°C). Mean snow depth 4.5 cm (range 0–15 cm). The ground was bare on two visits. The streams were frozen on two visits. **Coverage:** 13.5 hrs; 8 visits (afternoons): 11, 25, 31 Dec; 8, 15, 20, 22, 29 Jan. **Count:** Black-capped Chickadee, 2.9 ind./visit (8 visits); Blue Jay, 1.4 (5); Ruffed Grouse, 0.8 (6); Dark-eyed Junco, 0.8 (2); Purple Finch, 0.8 (5); American Crow, 0.6 (4); White-breasted Nuthatch, 0.6 (4); American Goldfinch, 0.5 (1); Pine Grosbeak, 0.3 (1); Barred Owl, 0.1 (1); Hairy Woodpecker, 0.1 (1); Common Raven, 0.1 (1). **Total:** 12 species; 8.9 ind./visit (32.0 ind./40 ha). **Remarks:** A lot of seed was available on standing forbs and bare ground. Little snow cover after mid-January gave little protection to nival mammals. Populations of northern birds were low; ground feeders were present all year.

### 32. 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°10'N, 77°17'W; Jersey Shore Quadrangle, USGS. **Continuity:** Established 1983; 13 yr. **Size:** 40.5 ha. **Description of Plot:** See *Am. Birds* 38:56–57 (1984). This year the fields were composed of corn residue

(20.0 ha), soybean residue (19.7 ha), and hay (0.8 ha). **Weather:** Mean start temp.  $-0.1^{\circ}\text{C}$  (range  $-5.0$ – $6.7^{\circ}\text{C}$ ). The ground was bare on ten visits. Total precipitation for the winter (November–3 February) was 27.4 cm of rain. Snow/sleet totaled only 1.3 cm on 23 November and 3.8 cm on 6 January; it did not last as ground cover. The lowest temperature during the study period was  $-12.8^{\circ}\text{C}$ ; the highest was  $15^{\circ}\text{C}$ . **Coverage:** 6.0 hrs; 10 visits (mornings): 9, 11, 16, 17, 18, 23, 24, 26, 31 Jan; 2 Feb. **Count:** American Crow, 9.3 ind./visit (7 visits); Rock Dove, 9.2 (5); Mourning Dove, 2.8 (4); Horned Lark, 0.8 (2); Rough-legged Hawk, 0.2 (2); Red-tailed Hawk, 0.1 (1). **Total:** 6 species; 22.4 ind./visit (22.1 ind./40 ha). **Remarks:** Other than a 5-cm or so snow in December, there was no real measurable snowfall through the study period. This was true for the entire state of Pennsylvania other than in the lake effect belts in the NW. This may have been relevant to the low numbers of individuals recorded.