

BREEDING BIRD CENSUS: 2001

1. IRRIGATED MIXED WILLOW RIPARIAN BOSQUE RIBEREÑO DE SAUCE, IRRIGADO

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Location: California; Mono Co.; Mono City; Wilson Creek; 38°03'N, 119°09'W; Lundy & Negit Island Quadrangles, USGS. **Continuity:** Established 2000; 2 yr. **Size:** 15 ha. **Description of Plot:** For at least a century, Wilson Creek's primary purpose has been that of a ditch, transporting water to Mono Lake after being extracted from Mill Creek and passed through a hydroelectric plant. Wilson Creek is a part of a large system of flooded and irrigated pasture used for sheep grazing. Main stem stream supports narrowleaf and yellow willow in narrow strips and up to 50 m-wide patches respectively. The canopy of mostly yellow willow barely exceeds 5 m. Nearly continuous ground cover is primarily Mexican and Nevada rush, creeping wild rye, and woolley sedge. Edge: Less than 25% of the plot's perimeter is bordered by the same habitat, as the plot encompasses a 3-km section of the stream and is bordered by Great Basin sagebrush scrub, irrigated pasture, and a small sub-division. Topography and Elevation: The plot is nearly level with a slope of <5% grade. Elevation ranges from 2060 m to 2070 m. **Weather:** Mean temp., 15.6°C (range -4-35°C). Mean monthly (May-August) high and low temperatures were respectively higher and lower than long-term means (1950-1988, Western Regional Climate Center data for Lee Vining, CA). Mean monthly precipitation was below average in May and June and above average in July and August. **Coverage:** 350.5 h; 60 visits (57 sunrise, 3 sunset); 8 May-17 Jul. **Census:** Song Sparrow, 17.0 (45; 12N,11FL); Spotted Towhee, 10.5 (28; 1N); Yellow Warbler, 7.0 (19; 3N,2FL); Green-tailed Towhee, 4.0 (11); Northern Flicker, 2.0; Brewer's Sparrow, 1.5 (1N,3FL); American Kestrel, 1.0; Belted Kingfisher, 1.0; American Robin, 1.0; Common Yellowthroat, 1.0; Black-billed Magpie, col. (9N,12FL); Northern Rough-winged Swallow, col. (1N); Cliff Swallow, col. (4N,9FL); Red-winged Blackbird, col.

(2N,3FL); Gadwall, unk. (1N,7FL); Mallard, unk.; Green-winged Teal, unk. (1N); Mourning Dove, unk.; Savannah Sparrow, unk.; Western Meadowlark, unk. (2N,1FL); Brown-headed Cowbird, unk. (12N,9FL). **Total:** 21 species; 46.0 territories (123/40 ha). **Visitors:** Northern Pintail, Mountain Quail, Killdeer, Wilson's Snipe, Common Nighthawk, Hairy Woodpecker, Willow Flycatcher, Dusky Flycatcher, Western Kingbird, Loggerhead Shrike, Warbling Vireo, Pinyon Jay, Mountain Chickadee, Sage Thrasher, MacGillivray's Warbler, Western Tanager, Fox Sparrow, Black-headed Grosbeak, Brewer's Blackbird, Bullock's Oriole, Cassin's Finch. **Remarks:** Despite Wilson Creek's primary purpose as a water transport system, its riparian vegetation supported birds associated with early successional riparian vegetation. Bird species richness here includes species associated with the irrigated grasslands adjacent to the creek. Nonetheless, Wilson Creek supported fewer territories and species than Mono Lake's other primary tributary streams. Cowbirds parasitized 67% of potential host species (Yellow Warbler, Song Sparrow, and Red-winged Blackbird) nests. Predation accounted for 50% of all nest failures. We did not determine territorial densities for colonial species, nor for species difficult to document with the spot-mapping method due to their lack of vocalization or loosely held territory boundaries. We also did not map species that primarily used the irrigated pasture next to our study plots (Savannah Sparrow, Western Meadowlark), though their territories encompassed the riparian somewhat. These species' territories are indicated as "col" (colonial) or "unk." (unknown) above; nest numbers provide some indication of their prevalence. **Acknowledgements:** Financial and logistical support was provided by the National Fish and Wildlife Foundation, Bureau of Land Management Bishop Field Office, United States Forest Service Partners in Flight - Region 5, Inyo National Forest, Mono Lake Committee, California Department of Fish and Game, Mono Lake Tufa State Reserve, White Mountain Research Station - Eastern Sierra Institute for Collaborative Education, Joel Ellis, and Jan Simis. This is PRBO contribution No. 1525.

2. RECOVERING MIXED WILLOW-BLACK COTTONWOOD RIPARIAN I

BOSQUE RIBEREÑO DE ÁLAMO Y SAUCES,
EN RECUPERACIÓN I

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Location: California; Mono Co.; Lee Vining; Rush Creek; 37°56'N, 119°04'W; Lee Vining Quadrangle, USGS. **Continuity:** Established 2000; 2 yr. **Size:** 39 ha. **Description of Plot:** See *Western Birds* 35:197-209 (2004). **Weather:** Mean temp., 17.9°C (range -3-37°C). Mean monthly (May-August) high and low temperatures were respectively higher and lower than long-term means (1950-1988, Western Regional Climate Center data for Lee Vining, CA). Mean monthly precipitation was below average in May and June and above average in July and August. **Coverage:** 453.6 h; 92 visits (87 sunrise, 5 sunset); 5 May-28 Jul. **Census:** Yellow Warbler, 88.5 (91; 104N,105FL); Spotted Towhee, 29.0 (30; 5N,8FL); Song Sparrow, 24.5 (25; 18N,12FL); Green-tailed Towhee, 8.0 (8); American Robin, 7.0 (7; 5N,6FL); Northern Flicker, 4.0 (4; 3N,4FL); Willow Flycatcher, 3.0 (3; 2N,7FL); MacGillivray's Warbler, 3.0; Brewer's Sparrow, 3.0 (1N,3FL); Savannah Sparrow, 3.0; Black-headed Grosbeak, 3.0 (2N,3FL); Bewick's Wren, 2.0; House Wren, 2.0 (1N); American Dipper, 1.0 (1N); Bullock's Oriole, 1.0; Blue-gray Gnatcatcher, 0.5; Belted Kingfisher, +; Black-billed Magpie, col. (2N,4FL); Violet-green Swallow, col.; Northern Rough-winged Swallow, col. (2N); Red-winged Blackbird, col. (10N,11FL); Brewer's Blackbird, col. (4N,10FL); Gadwall, unk.; Mallard, unk. (3N,15FL); Green-winged Teal, unk. (1N,3FL); Spotted Sandpiper, unk. (4N,11FL); Mourning Dove, unk. (1N,1FL); Brown-headed Cowbird, unk. (47N,22FL). **Total:** 28 species; 182.5 territories (187/40ha). **Visitors:** Northern Pintail, California Quail, Black-crowned Night-Heron, Red-tailed Hawk, American Kestrel, Killdeer, Wilson's Snipe, Common Nighthawk, Red-breasted Sapsucker, Western Wood-Pewee, Gray Flycatcher, Dusky Flycatcher, Say's Phoebe, Western Kingbird, Warbling Vireo, Western Scrub-Jay, Pinyon Jay, Common Raven, Cliff Swallow, Marsh Wren, Mountain Bluebird, Sage Thrasher, Orange-crowned Warbler, Common Yellowthroat, Western Tanager, Sage Sparrow, Blue Grosbeak, Lazuli Bunting, Cassin's Finch, House Finch, Lesser Goldfinch. **Remarks:** The riparian breeding bird community demonstrated signs of recovery, eighteen and ten years after the cessation of complete stream diversions and livestock grazing, respectively. Shrub and ground nesters occurred in highest densities indicating the habitat value of the early successional stage vegetation (primarily Woods'

rose and a willow mix). Cavity and canopy nesters were scant, indicating the lack of available cavities or canopy trees for nesting sites. 2001 marked the first nesting record for the state endangered Willow Flycatcher on Rush Creek, likely representing a re-occupation of the stream by this species (see *Western Birds* 35:197-209 (2004)). Cowbirds parasitized 41% of potential host species' (Yellow Warbler, Song Sparrow, and Red-winged Blackbird) nests. Predation accounted for 56% of all nest failures. We did not determine territorial densities for colonial or polygamous species, nor for species difficult to document with the spot-mapping method due to their lack of vocalization or loosely held territory boundaries. These species' territories are indicated as "col." (colonial) or "unk." (unknown) above; nest numbers provide some indication of their prevalence. **Acknowledgements:** Financial and logistical support was provided by the National Fish and Wildlife Foundation, Bureau of Land Management Bishop Field Office, United States Forest Service Partners in Flight - Region 5, Inyo National Forest, Mono Lake Committee, California Department of Fish and Game, Mono Lake Tufa State Reserve, White Mountain Research Station - Eastern Sierra Institute for Collaborative Education, Joel Ellis, and Jan Simis. This is PRBO contribution No. 1522.

3. RECOVERING MIXED WILLOW-BLACK COTTONWOOD RIPARIAN II

BOSQUE RIBEREÑO DE ÁLAMO Y SAUCES,
EN RECUPERACIÓN II

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Location: California; Mono Co.; Lee Vining; Lee Vining Creek; 37°58'N, 119°06'W; Lee Vining Quadrangle, USGS. **Continuity:** Established 2000; 2 yr. **Size:** 24.5 ha. **Description of Plot:** Irregularly shaped; encompasses riparian vegetation associated with the stream corridor. The stream/vegetation are currently under passive restoration after decades of water diversion (until 1986), livestock grazing (until 1991), and a 1954 fire. Half of the plot contains large islands of sagebrush scrub or Woods' rose located between strips of narrowleaf, yellow, or shiny willow and black cottonwood saplings which lie along the braided side channels and main stem. The second half of the plot is characterized by dense stands of black cottonwood saplings and trees and mixed willow scrub, interspersed with soil, gravel, and cobble bars or patches of forbs consisting primarily of lupine, mugwort, Indian paintbrush, and bouncing Bette. Small stands of exotic white polar, Lombardi poplar,

and native Jeffrey pine represent the majority of the high canopy (mean 13 m, range 5–30 m). Overall, vegetation can be termed mid-successional with cottonwood saplings reaching 5 m. Edge: Less than 25% of the plot's perimeter is bordered by the same habitat, as the plot encompasses a 1.8 km section of a major watershed stream and is bordered by Great Basin sagebrush scrub. Topography and Elevation: The plot is nearly level with a slope of <5% grade. Elevation ranges from 1951 m to 1975 m. **Weather:** Mean temp., 16.2°C (range -4–34°C). Mean monthly (May–August) high and low temperatures were respectively higher and lower than long-term means (1950–1988, Western Regional Climate Center data for Lee Vining, CA). Mean monthly precipitation was below average in May and June and above average in July and August. **Coverage:** 433.9 h; 74 visits (73 sunrise, 1 sunset); 7 May–8 Aug. **Census:** Yellow Warbler, 31.5 (51; 29N,52FL); Song Sparrow, 22.0 (36; 12N,27FL); Spotted Towhee, 16.0 (26; 1N,4FL); Green-tailed Towhee, 12.0 (20; 3N,3FL); American Robin, 4.0 (7; 3N,3FL); Bullock's Oriole, 3.0 (5; 2N,8FL); Brewer's Sparrow, >2.0 (3N,4FL); European Starling, 2.0 (2N,12FL); American Kestrel, 1.0 (1N,5FL); Belted Kingfisher, 1.0; Northern Flicker, 1.0 (1N,6FL); Steller's Jay, 1.0 (1N); House Wren, 1.0 (1N); Lazuli/Indigo Bunting hybrid, 1.0 (1N); Lazuli Bunting, 1.0; Black-billed Magpie, col. (1N); Violet-green Swallow, col.; Northern Rough-winged Swallow, col. (1N); Red-winged Blackbird, col. (9N,8FL); Brewer's Blackbird, col. (15N,12FL); Mallard, unk. (2N); Green-winged Teal, unk. (2N); Killdeer, unk.; Spotted Sandpiper, unk. (10N,28FL); Brown-headed Cowbird, unk. (14N,3FL). **Total:** 25 species; 99.5 territories (162/40ha). **Visitors:** Common Nighthawk, Red-breasted Sapsucker, Hairy Woodpecker, Western Wood-Pewee, Willow Flycatcher, Dusky Flycatcher, Western Kingbird, Warbling Vireo, Western Scrub-Jay, Clark's Nutcracker, Cliff Swallow, Mountain Chickadee, Orange-crowned Warbler, MacGillivray's Warbler, Western Tanager, Black-headed Grosbeak, Cassin's Finch. **Remarks:** The riparian breeding bird community appeared to be responding to passive restoration efforts. Shrub and ground nesters occurred in highest densities indicating the habitat value of the early successional stage vegetation. Canopy and cavity nesters were beginning to occupy the emerging native black cottonwoods, but primarily used the exotics and native pines that have remained throughout periods of disturbance. Cowbirds parasitized 28% of potential host species' (Yellow Warbler, Song Sparrow, and Red-winged Blackbird) nests. Predation accounted for 68% of all nest failures. We did not determine densities for colonial or polygamous species, nor for species difficult to document with the spot-mapping method due to their lack of vocalization or loosely held territory boundaries. These species' are indicated as

“col.” (colonial) or “unk.” (unknown) above; nest numbers provide some indication of their prevalence. **Acknowledgements:** Financial and logistical support was provided by the National Fish and Wildlife Foundation, Bureau of Land Management Bishop Field Office, United States Forest Service Partners in Flight - Region 5, Inyo National Forest, Mono Lake Committee, California Department of Fish and Game, Mono Lake Tufa State Reserve, White Mountain Research Station - Eastern Sierra Institute for Collaborative Education, Joel Ellis, and Jan Simis. This is PRBO contribution No. 1523.

4. REMNANT BLACK COTTONWOOD RIPARIAN FOREST

REMANENTES DE BOSQUE RIBEREÑO DE ÁLAMO

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Location: California; Mono Co.; Mono City; Mill Creek; 38°03'N, 119°08'W; Lundy Quadrangle, USGS. **Continuity:** Established 2000; 2 yr. **Size:** 15 ha. **Description of Plot:** Irregularly shaped; encompasses riparian vegetation associated with the stream which has been diverted for hydroelectric power generation and irrigation for at least a century. Minimal stream flows maintained a remnant but decadent black cottonwood riparian forest. Jeffrey pines comprise most of the canopy on the upstream end of the plot (mean 13 m, range 5–20 m). Many of Mill Creek's historic “bottomland riparian” side channels consist of unvegetated cobble or have been replaced by upland Great Basin sagebrush scrub. Although still greatly compromised, stream flow has been higher and nearly year-round in recent years; patches of narrowleaf or yellow willow, Woods' rose, forbs, sedges, and grasses are regenerating and black cottonwood saplings make up a fair amount of the understory. Mill Creek takes a near 90-degree turn in the middle of the study plot; the lower half of the plot is far less vegetated than the upper section. Edge: Less than 25% of the plot's perimeter is bordered by the same habitat, as the plot encompasses a 3 km section of a major watershed stream and is bordered by Great Basin sagebrush scrub and a small subdivision. Topography and Elevation: The plot is nearly level with a slope of <5%. Elevation ranges from 1972 m to 2048 m. **Weather:** Mean temp., 18.6°C (range -1–36°C). Mean monthly (May–August) high and low temperatures were respectively higher and lower than long-term means (1950–1988, Western Regional Climate Center data for Lee Vining, CA). Mean monthly precipitation was below average in May and June and above average in

July and August. **Coverage:** 308.9 h; 75 visits (68 sunrise, 7 sunset). 6 May–13 Aug. **Census:** Spotted Towhee, 19.0 (51; 7N,8FL); Bewick's Wren, 7.5 (20; 1N,2FL); Northern Flicker, 6.0 (16; 6N,4FL); American Robin, 6.0 (11N,6FL); European Starling, 6.0 (5N,11FL); Yellow Warbler, 6.0 (14N,3FL); Brewer's Sparrow, 6.0; House Wren, 5.0 (13; 4N,13FL); Song Sparrow, 5.0 (4N,1FL); Green-tailed Towhee, 4.5 (12; 1N); American Kestrel, 4.0 (11; 3N,8FL); Bullock's Oriole, 4.0 (3N,5FL); Hairy Woodpecker, 2.0 (1N); Western Wood-Pewee, 2.0 (1N,2FL); Cassin's Finch, 2.0 (1N); Killdeer, 1.0; Belted Kingfisher, 1.0; Bushtit, 1.0 (1N,2FL); Lazuli Bunting, 1.0 (1N); Juniper Titmouse, 0.5 (1N,3FL); Blue-gray Gnatcatcher, + (1N,4FL); Black-billed Magpie, col. (5N,7FL); Violet-green Swallow, col.; Brewer's Blackbird, col. (15N,16FL); Mallard, unk. (4N); California Quail, unk.; Mourning Dove, unk.; Brown-headed Cowbird, unk. (12N,5FL). **Total:** 28 species; 89.5 territories (239/40 ha). **Visitors:** Mountain Quail, Great Blue Heron, Black-crowned Night-Heron, Cooper's Hawk, Great Horned Owl, Common Nighthawk, Red-breasted Sapsucker, Downy Woodpecker, Willow Flycatcher, Gray Flycatcher, Dusky Flycatcher, Black Phoebe, Warbling Vireo, Steller's Jay, Western Scrub-Jay, Pinyon Jay, Clark's Nutcracker, Common Raven, Northern Rough-winged Swallow, Cliff Swallow, Mountain Chickadee, American Dipper, Sage Thrasher, Orange-crowned Warbler, MacGillivray's Warbler, Common Yellowthroat, Western Tanager, Black-headed Grosbeak, Red-winged Blackbird, Yellow-headed Blackbird, Great-tailed Grackle. **Remarks:** Total bird density here was lower than Mono Lake's other tributary streams, but remnant black cottonwood and Jeffrey pine forest here supported many more cavity and canopy nesters. Cowbirds parasitized 48% of potential host species' (Spotted Towhee, Yellow Warbler, Song Sparrow, and Lazuli Bunting) nests. Predation accounted for 67% of all nest failures. Cowbirds and predators were associated with the housing development adjacent to Mill Creek: large flocks of cowbirds foraged at bird feeders and two banded adult breeders (American Robin, Green-tailed Towhee) were killed by housecats. We did not determine territorial densities for colonial species, nor for species difficult to document with the spot-mapping method due to their lack of vocalization or loosely held territory boundaries. These species' are indicated as "col" (colonial) or "unk." (unknown) above; nest numbers provide some indication of their prevalence. **Acknowledgements:** Financial and logistical support was provided by the National Fish and Wildlife Foundation, Bureau of Land Management Bishop Field Office, United States Forest Service Partners in Flight - Region 5, Inyo National Forest, Mono Lake Committee, California Department of Fish and Game, Mono Lake Tufa State Reserve,

White Mountain Research Station - Eastern Sierra Institute for Collaborative Education, Joel Ellis, and Jan Simis. This is PRBO contribution No.1524.

5. MIXED HARDWOOD POLETIMBER

BOSQUE MIXTO MADERERO

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Site Number: CT1265009. **Location:** Connecticut; Litchfield Co.; Litchfield; White Memorial Foundation–Wheeler Hill; 41°42'N, 73°13'W; Litchfield Quadrangle, USGS. **Continuity:** Established 1965; 35 yr. **Size:** 8.5 ha. **Description of Plot:** See Aud. Field Notes 19:609–610 (1965) and J. Field Ornithol. 64(Suppl.):36 (1993). Rapidly growing Asiatic bittersweet, Japanese barberry, and multiflora rose are routinely cut along the trails. **Weather:** Mean start temp., 24.5°C (range 15–30°C). Temperatures were close to average in May (13.8°C vs. 14.2°C) and June (18.9°C vs. 18.5°C). They were below normal in July (18.7°C vs. 21.2°C). May and June were much wetter than normal, while July was much drier than normal. May had a total of 11.3 cm of rain fall over the course of ten days. The average May rainfall is 10.6 cm. June had eight wet days, with a total of 19.3 cm of rain. Normal June rainfall is 9.9 cm. July had 12 wet days, but only 3.8 cm of rain. Normal July rainfall is 13.2 cm. All data are from the White Memorial Foundation's weather station. **Coverage:** 19.0 h; 10 visits (1 sunrise, 4 sunset); 4, 11, 19, 29 May; 5, 14, 25 Jun; 5, 13, 21 Jul. **Census:** Ovenbird, 11.5 (54; 1N,37FL); Red-eyed Vireo, 9.5 (45; 14FL); Veery, 9.0 (42; 18FL); Eastern Towhee, 9.0 (1N,16FL); Gray Catbird, 6.5 (31; 2N,23FL); Wood Thrush, 5.5 (26; 12FL); Tufted Titmouse, 4.5 (21; 2N,31FL); American Redstart, 4.0 (19; 16FL); Common Yellowthroat, 4.0 (9FL); Black-capped Chickadee, 3.5 (16; 1N,20FL); American Robin, 3.5 (1N,11FL); Chestnut-sided Warbler, 3.5 (11FL); Scarlet Tanager, 3.5 (5FL); Blue Jay, 3.0 (14; 1N,6FL); Black-and-white Warbler, 3.0 (1N,9FL); Northern Cardinal, 3.0 (2N,6FL); Wild Turkey, 1.5 (8FL); Downy Woodpecker, 1.5 (3FL); Great Crested Flycatcher, 1.5; American Crow, 1.5 (1N,7FL); Mourning Dove, 1.0; Red-bellied Woodpecker, 1.0; Eastern Wood-Pewee, 1.0; Eastern Phoebe, 1.0 (2N,9FL); Yellow-throated Vireo, 1.0; White-breasted Nuthatch, 1.0 (6FL); Blue-winged Warbler, 1.0 (3FL); Yellow Warbler, 1.0 (4FL); Rose-breasted Grosbeak, 1.0; Brown-headed Cowbird, 1.0 (2FL); Baltimore Oriole, 1.0; House Finch, 1.0 (4FL); American Goldfinch, 1.0; Cooper's Hawk, 0.5; Broad-winged Hawk, 0.5; Barred Owl, 0.5; Hairy Woodpecker, 0.5; Northern Flicker, 0.5; Warbling Vireo, 0.5; Fish Crow, 0.5; House Wren, 0.5; Blue-gray Gnatcatcher, 0.5; Hermit Thrush, 0.5; Cedar Waxwing,

0.5; Song Sparrow, 0.5 (4FL); Red-winged Blackbird, 0.5; Common Grackle, 0.5 (4FL); Purple Finch, 0.5; Pileated Woodpecker, +. **Total:** 49 species; 113.0 territories (532/40 ha). **Visitors:** Black-throated Green Warbler. **Remarks:** The total number of species remained at a record-high 49 for the second year in a row. Species composition was much the same as last year, except for the addition of Eastern Wood-Pewee, Hermit Thrush, Warbling Vireo, and Common Grackle; and the loss of American Woodcock, Brown Creeper, Black-throated Blue Warbler, and Black-throated Green Warbler. The number of territories increased to 113.0 this year; up from 108.0 last year, and 83.5 in 1999. The record-high was 120.5 in 1983, while the 1991–2000 average is 93. Ovenbird continued to be the most common species for the tenth consecutive year, with an increase to 11.5 territories this year. Red-eyed Vireo moved into the number two spot, while Veery dropped to number three; tied with Eastern Towhee (which increased by 1.5 territories from last year). Other Observer: John Eykelhoff.

6. SECOND-GROWTH HARDWOOD FOREST BOSQUE SECUNDARIO DE MADERAS DURAS

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Site Number: CT2765006. **Location:** Connecticut; Litchfield Co.; Morris; White Memorial Foundation; 41°42'N, 73°12'W; Litchfield Quadrangle, USGS. **Continuity:** Established 1965; 35 yr. **Size:** 10.1 ha. **Description of Plot:** See Aud. Field Notes 19:590–591 (1965) and J. Field Ornithol. 64(Suppl.):37–38 (1993). **Weather:** Mean start temp., 21.9°C (range 17–28°C). Temperatures were close to average in May (13.8°C vs. 14.2°C) and June (18.9°C vs. 18.5°C). They were below normal in July (18.7°C vs. 21.2°C). May was a little wetter than normal, with a total of 11.3 cm of rain falling over the course of ten days. The average May rain total is 10.6 cm. June was much wetter than normal, with a total of 19.3 cm of rain falling over the course of eight days. Normal June rainfall is 9.9 cm. July ended-up being much drier than normal, despite twelve days with at least a little rain. The total for the month was only 3.8 cm of rain, compared to an average July figure of 13.2 cm. The seasonal streams and wetland dried up by 6 July. All data are from the White Memorial Foundation's weather station. **Coverage:** 16.5 h; 10 visits (1 sunrise, 7 sunset); 7, 14, 27 May; 7, 16, 25 Jun; 6, 16, 20, 27 Jul. Maximum number of observers/visit, 3. **Census:** Red-eyed Vireo, 16.0 (63; 22FL); Ovenbird, 12.5 (50; 2N,28FL); Veery, 11.0 (44; 16FL); Eastern Wood-Pewee, 4.0 (16); American Robin, 4.0 (2N,16FL); Tufted Titmouse, 3.5 (14; 1N,13FL); Wood Thrush, 3.5 (1N,10FL); American

Redstart, 3.5 (8FL); Scarlet Tanager, 3.5 (10FL); Great Crested Flycatcher, 2.5; Black-capped Chickadee, 2.5 (1N,11FL); Gray Catbird, 2.5 (6FL); Yellow-bellied Sapsucker, 2.0; Blue Jay, 2.0 (3FL); American Crow, 2.0 (2N,8FL); Common Yellowthroat, 2.0 (3FL); Wild Turkey, 1.5 (1N,9FL); Downy Woodpecker, 1.5 (1N,4FL); Eastern Towhee, 1.5; Northern Cardinal, 1.5 (2FL); Red-bellied Woodpecker, 1.0 (2FL); Hairy Woodpecker, 1.0 (1N,3FL); Northern Flicker, 1.0 (3FL); Eastern Phoebe, 1.0 (4FL); Yellow-throated Vireo, 1.0; White-breasted Nuthatch, 1.0 (1N,5FL); Blue-gray Gnatcatcher, 1.0; Chestnut-sided Warbler, 1.0; Black-and-white Warbler, 1.0 (3FL); Rose-breasted Grosbeak, 1.0; Brown-headed Cowbird, 1.0; Baltimore Oriole, 1.0 (2FL); American Goldfinch, 1.0; Broad-winged Hawk, 0.5; Mourning Dove, 0.5; Pileated Woodpecker, 0.5; Hermit Thrush, 0.5; Cedar Waxwing, 0.5; Black-throated Green Warbler, 0.5; Louisiana Waterthrush, 0.5; Song Sparrow, 0.5; Red-tailed Hawk, +. **Total:** 42 species; 100.0 territories (396/40 ha). **Visitors:** Eastern Kingbird, Magnolia Warbler. **Remarks:** The number of breeding species dropped to 42 this year, which is two less than the 10-year average. The number of territories also decreased this year, but it was very close to the 10-year average of 101. Most species experienced small declines this year, but American Redstart and Gray Catbird each declined by 1.5 territories from last year. Barred Owl, Brown Creeper, Least Flycatcher, Pine Warbler, Blackburnian Warbler, Chipping Sparrow, Purple Finch, and House Finch disappeared entirely from the plot. By contrast, Ovenbird increased by 1.5 territories to a record-high figure of 12.5. Seven species increased by 0.5 or 1.0 territory each compared to last year. Red-tailed Hawk and Yellow-throated Vireo returned after a two-year absence. Black-throated Green Warbler was a new species for this plot (at least since 1992). Red-eyed Vireo remained the most abundant species. **Other Observers:** Eric Adam, John Eykelhoff, and Ray Packard.

7. CENTRAL HARDWOOD FOREST WITH SCATTERED PINE BOSQUE CENTRAL DE MADERAS DURAS CON PIÑOS DISPERSOS

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Location: District of Columbia; Washington; Rock Creek Park; 38°57'N, 77°3'W; Washington West Quadrangle, USGS. **Continuity:** Established 1948; 52 yr. **Size:** 26.3 ha. **Description of Plot:** See Aud. Field Notes 2:153–154 (1948). **Weather:** Mean start temp., 16.1°C (range 4–24°C). Six visits were clear, four were partly cloudy (one with light-intermittent rain), three were cloudy (two with rain or fog and drizzle).

Coverage: 29.2 h; 13 visits (10 sunrise, 0 sunset); 3, 7, 14, 21, 29 Apr; 5, 12, 27 May; 6, 9, 23, 30 Jun; 7 Jul.
Census: Ovenbird, 14.0 (21); Wood Thrush, 13.5 (21; 1FL); Red-eyed Vireo, 13.0 (20); Acadian Flycatcher, 12.0 (18); Tufted Titmouse, 10.5 (16; 4FL); Northern Cardinal, 7.5 (11); Northern Flicker, 7.0 (11); Carolina Chickadee, 6.0 (9; 3FL); Downy Woodpecker, 5.5 (8); Red-bellied Woodpecker, 4.5 (7); Brown-headed Cowbird, 4.0 (6); Carolina Wren, 3.5 (5); Hairy Woodpecker, 3.0 (5; 1N); Eastern Wood-Pewee, 3.0; American Crow, 3.0 (1FL); White-breasted Nuthatch, 3.0; American Robin, 3.0; Eastern Towhee, 3.0; Pileated Woodpecker, 1.0 (1N); Blue-gray Gnatcatcher, 1.0; Gray Catbird, 1.0; Louisiana Waterthrush, 1.0; Scarlet Tanager, 1.0; Song Sparrow, 1.0; Indigo Bunting, 1.0; Mourning Dove, 0.5; Eastern Phoebe, +. **Total:** 27 species; 126.5 territories (192/40 ha). **Visitors:** Mallard, Red-tailed Hawk, Chimney Swift, Great Crested Flycatcher, Yellow-throated Vireo, Blue Jay, Veery, European Starling, Black-and-white Warbler, Common Grackle. **Remarks:** There were barely enough maps this year, and data were a bit weak for some species.

8. MIXED UPLAND BROADLEAF FOREST

BOSQUE MIXTO DE HOJA ANCHA DE ALTURAS

MARY E. D'IMPERIO
 4000 Cathedral Ave. NW, #106B
 Washington DC 20016

Site Number: DC1060009. **Location:** District of Columbia; Washington; Glover-Archbold Park; 38°55'N, 77°5'W; Washington West Quadrangle, USGS. **Continuity:** Established 1959; 43 yr. **Size:** 14.2 ha. **Description of Plot:** See Aud. Field Notes 14:502-503 (1960). There is some new construction on a major scale beginning outside the southwest corner but bordering the plot. **Weather:** Mean start temp., 14.6°C (range 1–27°C). Sixteen visits were clear, one was partly cloudy, 10 were cloudy (3 drizzling). **Coverage:** 55.0 h; 27 visits (0 sunrise, 0 sunset); 25, 28 Mar; 1, 4, 7, 12, 15, 17, 20, 26, 29 Apr; 2, 5, 10, 12, 15, 17, 20, 24, 27, 31 May; 2, 8, 10, 14 Jun; 8, 15 Jul. **Census:** Carolina Wren, 28.0 (79; 1N,7FL); Northern Cardinal, 17.0 (48; 1N); Tufted Titmouse, 15.0 (42; 2N,6FL); Red-eyed Vireo, 13.0 (37); Red-bellied Woodpecker, 12.5 (35; 1N); Gray Catbird, 12.5 (1FL); Carolina Chickadee, 12.0 (34; 7FL); Veery, 10.0 (28); Wood Thrush, 8.5 (24); Downy Woodpecker, 8.0 (23; 1N,14+FL); Northern Flicker, 8.0 (1N,2FL); White-breasted Nuthatch, 8.0; American Crow, 7.0 (20; 4N,16+FL); Eastern Towhee, 5.5 (15); Acadian Flycatcher, 5.0 (14); American Robin, 5.0; Eastern Wood-Pewee, 4.5 (13); Blue-gray Gnatcatcher, 4.0 (11; 1N,1FL); Hairy Woodpecker, 3.5 (10; 1N,1FL); Pileated Woodpecker, 3.0 (8); Blue Jay, 3.0 (3N,3FL); Common Grackle, 3.0 (4FL); Great Crested Flycatcher, 2.0 (1N); House Finch, 2.0; Mourning Dove, 1.5 (1N);

House Wren, 1.5; Northern Mockingbird, 1.5; House Sparrow, 1.5 (1N); Mallard, 1.0; Red-shouldered Hawk, 1.0; Chimney Swift, 1.0; European Starling, 1.0 (2N,7+FL); Song Sparrow, 0.5. **Total:** 33 species; 210.5 territories (593/40 ha). **Visitors:** Turkey Vulture, Sharp-shinned Hawk, Eastern Phoebe, White-eyed Vireo, Fish Crow, Northern Parula, Ovenbird, Louisiana Waterthrush, Common Yellowthroat, Scarlet Tanager, Brown-headed Cowbird, American Goldfinch. **Remarks:** There are steadily increasing numbers of runners, bikers, and people with dogs off leash. There are also an increasing number of deer; 16 were seen along with many heavily used deer trails. Other Observer: Nancy Benco.

9. OAK-MAPLE-POPLAR HOLLOW

BOSQUE DE ROBLE-ARCE-ALAMO HUECO

LINDA INGRAM
 Nolde Forest Environmental Education Center
 2910 New Holland Road
 Reading PA 19607

Site Number: PA1093123. **Location:** Pennsylvania; Berks Co.; Reading; Nolde Forest, Buck Hollow; 40°17'N, 75°57'W; Reading Quadrangle, USGS. **Continuity:** Established 1993; 9 yr. **Size:** 11.3 ha. **Description of Plot:** See J. Field Ornithol. 65(Suppl.):61 (1994). **Weather:** Mean start temp., 14.1°C (range 4–29°C). There was some mist during one visit. It was a very dry period with wind calm on 16 of 17 visits. Normal May temperatures: mean 16.7°C, minimum 11.1°C, maximum 22.2°C. Source: National Climatic Data Center, Asheville, NC (2000). **Coverage:** 32.8 h; 17 visits (17 sunrise, 0 sunset); 22, 23(2), 29, 30 Apr; 10, 13, 17, 19, 23, 24, 29, 31 May; 4, 7, 11, 16 Jun. **Census:** Wood Thrush, 7.0 (25); Red-eyed Vireo, 6.0 (21); Veery, 4.5 (16); Ovenbird, 4.5; Tufted Titmouse, 4.0 (14; 2FL); Scarlet Tanager, 4.0; Blue Jay, 2.5; Northern Cardinal, 2.5; Red-bellied Woodpecker, 2.0; Mourning Dove, 1.5; Pileated Woodpecker, 1.0; Eastern Wood-Pewee, 1.0; Downy Woodpecker, 0.5. **Total:** 13 species; 41.0 territories (145/40 ha). **Visitors:** Wild Turkey, Hairy Woodpecker, Northern Flicker, Great Crested Flycatcher, American Crow, White-breasted Nuthatch, Brown Creeper, Carolina Wren, American Robin, Gray Catbird, Cedar Waxwing, Black-and-white Warbler, Worm-eating Warbler, Chipping Sparrow, American Goldfinch. **Remarks:** There is a crow roost outside the census area to the north and east in predominately evergreen habitat. Yellow-breasted Chat was heard on three separate visits widely spread about the census area (two times in April and once in July). Carolina Wren was seen 23 March outside the census area. It was heard twice on 4 July and five times on 11 July, all widely spread. **Other Observers:** Richard Bonnett, Nancy Kennedy, Kenneth

Lebo, Patricia Mangas, Barry Pounder, Phyllis Reynolds, Lynn Scheirer, William Ulrich, and David Reynolds.

10. OAK-MAPLE RIDGE-TOP FOREST

BOSQUE DE ROBLE-ARCE DE TOPE DE COLINAS

DAVID R. BARBER
Hawk Mountain Sanctuary
1700 Hawk Mountain Road
Kempton PA 19529

Site Number: PA1382312. **Location:** Pennsylvania; Berks Co.; Kempton; Owl's Head; 40°44'N, 75°50'W; New Ringgold Quadrangle, USGS. **Continuity:** Established 1982; 20 yr. **Size:** 19.4 ha. **Description of Plot:** See Am. Birds 37:55 (1983). **Weather:** Mean start temp., 14.4°C (range 4–19°C). Six days had clear skies, two days were partly cloudy (16–50% cloud cover), three days were mostly cloudy (51–75% cloud cover), and one day was overcast (>75% cloud cover). One day was calm (0 on Beaufort scale), ten days had light winds (1 or 2 on Beaufort), and one day was breezy (3 on Beaufort). **Coverage:** 22.0 h; 12 visits (12 sunrise); 23, 25 Apr; 24, 29 May; 2, 5, 13, 18, 19, 21, 24, 27 Jun. **Census:** Ovenbird, 13.5 (28; 4N,10FL); Red-eyed Vireo, 3.5 (7); Blue Jay, 3.0 (6); Common Yellowthroat, 3.0; Scarlet Tanager, 3.0; Hermit Thrush, 2.5; Downy Woodpecker, 2.0; Great Crested Flycatcher, 1.5; Eastern Towhee, 1.5; Indigo Bunting, 1.5; Cedar Waxwing, 1.0; Baltimore Oriole, 1.0; Wood Thrush, 0.5; Rose-breasted Grosbeak, 0.5; Mourning Dove, +. **Total:** 15 species; 38.0 territories (78/40 ha). **Visitors:** Yellow-billed Cuckoo, Hairy Woodpecker, Eastern Wood-Pewee, Black-capped Chickadee, White-breasted Nuthatch, Veery, Black-and-white Warbler, American Goldfinch. **Other Observers:** David Kruel, Mark Vukovich.

11. OAK-MAPLE SLOPE FOREST

BOSQUE DE ROBLE-ARCE DE LADERAS

DAVID R. BARBER
Hawk Mountain Sanctuary
1700 Hawk Mountain Road
Kempton PA 19529

Site Number: PA1382313. **Location:** Pennsylvania; Berks Co.; Kempton; River of Rocks; 40°45'N, 75°50'W; New Ringgold Quadrangle, USGS. **Continuity:** Established 1982; 20 yr. **Size:** 16.9 ha. **Description of Plot:** See Am. Birds 37:55 (1983). **Weather:** Mean start temp., 14.3°C (range 5–19°C). Six days had clear skies, two days were partly cloudy (16–50% cloud cover), one day was mostly cloudy (51–75% cloud cover), and three days were overcast (>75% cloud cover). One day was calm (0 on Beaufort scale), eight days had light winds (1 or 2 on Beaufort), and three days were breezy

(3 on Beaufort). **Coverage:** 22.9 h; 12 visits (12 sunrise); 20, 23 Apr; 19, 24, 29 May; 4, 9, 13, 17, 19, 22, 26 Jun. **Census:** Red-eyed Vireo, 9.0 (21); Ovenbird, 9.0 (2N); Black-and-white Warbler, 3.0 (7); Scarlet Tanager, 3.0; Downy Woodpecker, 2.0; Tufted Titmouse, 2.0; Black-throated Green Warbler, 2.0; Hairy Woodpecker, 1.5; Wood Thrush, 1.5; Eastern Wood-Pewee, 1.0; Great Crested Flycatcher, 1.0; Blue Jay, 1.0; Black-capped Chickadee, 1.0; White-breasted Nuthatch, 1.0; Worm-eating Warbler, 1.0 (1N,2FL); Rose-breasted Grosbeak, 1.0; Brown-headed Cowbird, 1.0; Yellow-billed Cuckoo, 0.5; Pileated Woodpecker, 0.5; Indigo Bunting, 0.5. **Total:** 20 species; 42.5 territories (101/40 ha). **Visitors:** Wild Turkey, Northern Goshawk, Mourning Dove, Red-bellied Woodpecker, Northern Flicker, Blue-gray Gnatcatcher, Hermit Thrush, Cedar Waxwing, American Redstart, Common Yellowthroat, Northern Cardinal, Baltimore Oriole, American Goldfinch. **Other Observer:** Mark Vukovich.

12. HARDWOOD BOTTOM

MADERAS DURAS ANEGADAS

PAUL A. KOEHLER
National Audubon Society
4542 Silver Bluff Road
Jackson SC 29831

Site Number: SC0495040. **Location:** South Carolina; Aiken Co.; Jackson; Silver Bluff Audubon Center and Sanctuary; 33°19'N, 81°52'W; Jackson Quadrangle, USGS. **Continuity:** Established 1995; 3 yr. **Size:** 11.4 ha. **Description of Plot:** See J. Field Ornithol. 67(Suppl.):49–50 (1996). **Weather:** Mean start temp., 16.7°C (range 10–31°C). The total rainfall during the census period was 11.51 cm (0.86 cm above normal). **Sources:** The Augusta Chronicle newspaper; National Weather Service, Columbia, SC; and the Silver Bluff Audubon Center and Sanctuary rain gauge. **Coverage:** 20.3 h; 10 visits (9 sunrise, 1 sunset); 2, 4, 8, 14, 16, 22, 24, 26, 30 May; 3 Jun. **Census:** Northern Parula, 16.0 (56); Blue-gray Gnatcatcher, 15.5 (54); Acadian Flycatcher, 14.5 (51); Red-eyed Vireo, 9.5 (33); Northern Cardinal, 7.0 (25); Carolina Wren, 4.0 (14); Downy Woodpecker, 3.0 (11); Carolina Chickadee, 3.0; Red-bellied Woodpecker, 2.0; Pileated Woodpecker, 2.0; Tufted Titmouse, 2.0; Summer Tanager, 2.0; Brown-headed Cowbird, 2.0; Wild Turkey, 1.0; Yellow-billed Cuckoo, 1.0; Eastern Wood-Pewee, 1.0; Great Crested Flycatcher, 1.0; Yellow-throated Vireo, 0.5; Indigo Bunting, 0.5. **Total:** 19 species; 87.5 territories (307/40 ha). **Visitors:** Wood Duck, Red-shouldered Hawk, Mourning Dove, Chimney Swift, Ruby-throated Hummingbird, Hairy Woodpecker, American Crow, Yellow-throated Warbler, Pine Warbler, Black-and-white Warbler, Prothonotary Warbler, Louisiana Waterthrush.

13. VIRGIN HARDWOOD SWAMP FOREST
BOSQUE PANTANOSO VIRGEN DE MADERAS
DURAS

MICHAEL DAWSON
Francis Beidler Forest
336 Sanctuary Road
Harleyville SC 29448

Location: South Carolina; Berkeley Co.; Harleyville; Francis Beidler Forest Sanctuary; 33°13'N, 80°20'W; Pringletown Quadrangle, USGS. **Continuity:** Established 1979; 12 yr. **Size:** 8.9 ha. **Description of Plot:** See Am. Birds 34:50 (1980) and J. Field Ornithol. 65(Suppl.):64 (1994). The plot is continuing to recover from the damage caused by hurricane Hugo in 1989. Scrubby areas are beginning to thin out as saplings increase in height and shade the forest floor. **Weather:** Mean start temp., 16.9°C (range 10–28°C). April and May were very dry and mild. The wind was consistently still during visits. **Coverage:** 15.5 h; 11 visits (10 sunrise, 0 sunset); 23, 29 Apr; 3, 5, 7, 12, 19, 20, 24, 27 May; 1 Jun. **Census:** Blue-gray Gnatcatcher, 15.0 (67); White-eyed Vireo, 7.0 (31); Northern Cardinal, 5.0 (22); Carolina Wren, 4.5 (20); Northern Parula, 4.5; Red-bellied Woodpecker, 4.0 (18); Red-eyed Vireo, 3.5 (16); Tufted Titmouse, 3.0 (13); Prothonotary Warbler, 3.0; Great Crested Flycatcher, 2.5; Downy Woodpecker, 2.0; Acadian Flycatcher, 2.0; American Crow, 2.0; Yellow-billed Cuckoo, 1.5; Pileated Woodpecker, 1.0; Carolina Chickadee, 1.0; White-breasted Nuthatch, 1.0; Summer Tanager, 1.0; Swainson's Warbler, 0.5. **Total:** 19 species; 64.0 territories (288/40 ha). **Visitors:** Red-shouldered Hawk, Barred Owl, Chimney Swift, Yellow-throated Vireo, Yellow-throated Warbler, Pine Warbler, Hooded Warbler. Other Observer: Norman Brunswig.

14. MATURE MAPLE-BEECH-BIRCH FOREST
BOSQUE MADURO DE ARCE-HAYA-ABEDUL

HAYDEN WILSON, LAURA J. MITCHELL* AND
 BONNIE JOHNSON
 *Cherokee National Forest
 P.O. Box 2010
 Cleveland TN 37312

Site Number: TN2392102. **Location:** Tennessee; Monroe Co.; Whigg Ridge, Cherokee National Forest; 35°19'N, 84°2'W; Big Junction Quadrangle, USGS. **Continuity:** Established 1992; 9 yr. **Size:** 10.2 ha. **Description of Plot:** See J. Field Ornithol. 64(Suppl.):57–58 (1993) and 66(Suppl.):63 (1995). **Weather:** Mean start temp., 15.7°C (range 11–24°C). **Coverage:** 22.7 h; 9 visits (5 sunrise, 4 sunset); 20, 21 May; 10, 11, 17, 18, 24, 25, 30 Jun. **Census:** Dark-eyed Junco, 25.5 (100; 4FL); Veery, 20.5 (80); Ovenbird, 14.5 (57); Blue-headed Vireo, 12.5 (49); Black-throated Blue Warbler, 5.0 (20); Red-eyed Vireo, 2.5; Blackburnian

Warbler, 2.5 (1FL); Black-capped Chickadee, 1.5; Hairy Woodpecker, 1.0; Tufted Titmouse, 1.0; White-breasted Nuthatch, 1.0; Chestnut-sided Warbler, 1.0; Rose-breasted Grosbeak, +. **Total:** 13 species; 88.5 territories (347/40 ha). **Visitors:** Ruffed Grouse, Barred Owl, Downy Woodpecker, Carolina Chickadee, Eastern Towhee. **Remarks:** Flyovers included Chimney Swift, American Crow, and Common Raven. **Acknowledgments:** We wish to acknowledge the logistical and financial support of the USDA Forest Service, Cherokee National Forest.

15. CEDAR FOREST
BOSQUE DE CEDRO

SCOTT R. ROBINSON
Bureau of Land Management
3815 N. Schreiber Way
Coeur d'Alene ID 83815

Site Number: ID6492039. **Location:** Idaho; Bonner Co.; Sagle; Gamble (Gamlin) Lake; 48°13'N, 116°23'W; Talache Quadrangle, USGS. **Continuity:** Established 1992; 10 yr. **Size:** 12.3 ha. **Description of Plot:** See J. Field Ornithol. 64(Suppl.):62 (1993) and 67(Suppl.):53–54 (1996). **Weather:** Mean start temp., 14.9°C (range 7–23°C). Temperatures were within the averages of the past ten years. **Coverage:** 14.7 h; 8 visits (4 sunrise, 4 sunset); 16, 17, 24, 25, 31 May; 1, 21, 22 Jun. **Census:** Townsend's Warbler, 5.5 (18); Chestnut-backed Chickadee, 5.0 (16); Red-breasted Nuthatch, 5.0; Swainson's Thrush, 5.0; Red-naped Sapsucker, 4.0 (13); Western Tanager, 4.0; Winter Wren, 3.5 (11; 1+FL); Plumbeous Vireo, 3.0 (10); Golden-crowned Kinglet, 3.0; Black-capped Chickadee, 2.0; American Robin, 2.0; Yellow-rumped Warbler, 1.5; Wild Turkey, 1.0; Pileated Woodpecker, 1.0; Dusky Flycatcher, 1.0; Common Raven, 1.0 (1N); Mountain Chickadee, 1.0; Orange-crowned Warbler, 1.0; Nashville Warbler, 1.0; Chipping Sparrow, 1.0; Black-headed Grosbeak, 1.0. **Total:** 21 species; 52.5 territories (171/40 ha). **Visitors:** Ruffed Grouse, Common Nighthawk, Rufous Hummingbird, Hairy Woodpecker, Northern Flicker, Western Wood-Pewee, Hammond's Flycatcher, Cordilleran Flycatcher, Gray Jay, White-breasted Nuthatch, Brown Creeper, Varied Thrush, Yellow Warbler, Dark-eyed Junco, Brown-headed Cowbird.

16. UPLAND CHRISTMAS TREE FARM
FINCAS DE ARBOLES DE NAVIDAD DE ALTURAS

ELIZABETH W. BROOKS
1435 Waterwells Road
Alfred Station, NY 14803

Site Number: NY2483108. **Location:** New York, Allegany Co., Andover; Kent Christmas Tree Farm;

42°10'N, 77°50'W; Andover Quadrangle, USGS. **Continuity:** Established 1983; 19 years. **Size:** 10.7 ha. **Description of Plot:** See Am. Birds 38:91 (1984). **Weather:** Mean start temp., 19.4°C (range 10–27.2°C). Data collected at the Alfred Cooperative Weather Station indicated that average daily temperatures in June (17.6°C) and July (18.0°C) were both above average. The June precipitation total (9.53 cm) was about average, but July (3.89 cm) was well below the 57-year mean. **Coverage:** 11.6 h; 9 visits (0 sunrise, 2 sunset); 8 Apr; 5, 12, 20, 27 Jun; 4, 11, 19, 27 Jul. **Census:** Chipping Sparrow, 19.0 (71; 2N); Song Sparrow, 16.0 (60; 3N,8FL); Cedar Waxwing, 7.0 (26; 1N); American Robin, 5.0 (19; 1N); Purple Finch, 4.0 (15); Yellow-rumped Warbler, 3.5 (13); Field Sparrow, 3.0 (11; 3N); Common Grackle, 3.0; American Goldfinch, 3.0; Mourning Dove, 2.0 (1N); Prairie Warbler, 2.0; Blue Jay, 1.5; American Woodcock, 1.0; Eastern Towhee, 1.0; Bobolink, 1.0; Brown-headed Cowbird, 1.0; Chestnut-sided Warbler, 0.5; Common Yellowthroat, 0.5; Grasshopper Sparrow, 0.5; Indigo Bunting, 0.5; Red-winged Blackbird, 0.5; Horned Lark, +. **Total:** 22 species; 75.5 territories (282/40 ha). **Visitors:** Yellow-billed Cuckoo, Eastern Kingbird, Red-eyed Vireo, Black-capped Chickadee, and Gray Catbird. **Remarks:** Number of territories (75.5) was down from last year but well above the mean (58). Common Grackles, a new species, nested in a section of mature (6–8 m) spruce. Savannah Sparrow was missing for the first time in the 19 years of the study. No nests were found parasitized by cowbirds. **Acknowledgments:** Appreciation to Rick Walker for weather data and to Tom and Kathy Kent for their continued interest and permission to conduct the study on their land.

17. UPLAND SCOTCH PINE PLANTATION PLANTACION DE PIÑO 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 1969; 33 consecutive years. **Size:** 9.3 ha. **Description of Plot:** See Aud. Field Notes 23:743–744 (1969), Am. Birds 38:38 (1984), J. Field. Ornithol. 66(Suppl.):69 (1995), and 1998 Upland Scotch Pine Plantation BBC (unpublished). **Weather:** Mean start temp., 21.4°C (range 17.8–26.7°C). For additional weather comments, see Upland Christmas Tree Farm BBC. **Coverage:** 9.2 h; 8 visits (0 sunrise, 5 sunset); 23 Apr; 7, 14, 21, 29 Jun; 6, 13, 21 Jul. **Census:** Common Yellowthroat, 5.0 (22); Magnolia Warbler, 4.0 (17);

American Robin, 3.5 (15); Yellow-rumped Warbler, 3.5; Dark-eyed Junco, 3.5; Chipping Sparrow, 3.0 (13); Cedar Waxwing, 2.5; Mourning Dove, 2.0; Blue Jay, 2.0; Chestnut-sided Warbler, 2.0; White-throated Sparrow, 2.0; Indigo Bunting, 2.0; Purple Finch, 2.0; Ovenbird, 1.5; Ruffed Grouse, 1.0; Yellow-bellied Sapsucker, 1.0; Black-capped Chickadee, 1.0; Golden-crowned Kinglet, 1.0; Eastern Towhee, 1.0; Song Sparrow, 1.0; Blue-headed Vireo, 0.5; Red-breasted Nuthatch, 0.5; House Wren, 0.5; Gray Catbird, 0.5; Blackburnian Warbler, 0.5. **Total:** 25 species; 47.0 territories (202/40 ha). **Visitors:** American Woodcock, Veery, Hermit Thrush, Brown Thrasher, American Redstart, Canada Warbler, Field Sparrow, and American Goldfinch. **Remarks:** American Woodcock, Alder Flycatcher, and Field Sparrow were missing; Nashville Warbler was missing after being observed during 17 of the past 21 years since its first appearance in 1977. Dark-eyed Junco numbers were the highest ever. **Acknowledgments:** Appreciation to Cynthia Clements and Phil Foster for permission to conduct the study on their land and to Rick Walker for weather data.

18. LOBLOLLY PINE PLANTATION PLANTACION DE PIÑO LOBLOLLY

PAUL A. KOEHLER
National Audubon Society
4542 Silver Bluff Road
Jackson SC 29831

Site Number: SC0493134. **Location:** South Carolina; Aiken Co.; Jackson; Silver Bluff Audubon Center and Sanctuary; 33°19'N, 81°52'W; Jackson Quadrangle, USGS. **Continuity:** Established 1993; 4 yr. **Size:** 9.7 ha. **Description of Plot:** See J. Field Ornithol. 65 (Suppl.):76 (1994). **Weather:** Mean start temp., 16.0°C (range 11–28°C). The total rainfall during the census period was 13.59 cm (2.58 cm above normal). Sources: The Augusta Chronicle newspaper; National Weather Service, Columbia, SC; and the Silver Bluff Audubon Center and Sanctuary rain gauge. **Coverage:** 19.0 h; 10 visits (9 sunrise, 1 sunset); 3, 7, 9, 15, 17, 23, 25, 28, 31 May; 4 Jun. **Census:** Pine Warbler, 4.5 (19); Summer Tanager, 4.5 (1N); Eastern Wood-Pewee, 2.0; Great Crested Flycatcher, 2.0; Carolina Chickadee, 2.0; Tufted Titmouse, 2.0; Indigo Bunting, 2.0; Brown-headed Cowbird, 2.0; Northern Cardinal, 1.5; Red-bellied Woodpecker, 1.0; Downy Woodpecker, 1.0; Red-eyed Vireo, 1.0; Carolina Wren, 1.0. **Total:** 13 species; 26.5 territories (109/40 ha). **Visitors:** Red-headed Woodpecker, Pileated Woodpecker, Yellow-throated Vireo, Blue Jay, American Crow, White-breasted Nuthatch, House Wren, Blue-gray Gnatcatcher, Eastern Towhee.

**19. CLIMAX HEMLOCK-WHITE PINE FOREST
WITH TRANSITION HARDWOODS**
BOSQUE CLIMAX DE PICEA-PIÑO BLANCO EN
TRANSICION A MADERAS DURAS

DAVID ROSGEN
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P.O. Box 368
Litchfield CT 06759

Site Number: CT2765008. **Location:** Connecticut; Litchfield Co.; Litchfield; White Memorial Foundation-Catlin Woods; 41°43'N, 73°12' W; Litchfield Quadrangle, USGS. **Continuity:** Established 1965; 35 yr. **Size:** 10.5 ha. **Description of Plot:** See Aud. Field Notes 19:594-595 (1965) and J. Field Ornithol. 67(Suppl.):60 (1996). Substantial regeneration (mainly seedling hemlocks) has occurred in the areas affected by blow-downs in 1998, 1999, and 2000. Only ten new blow-downs occurred this year. Hemlock woolly adelgid was found on six trees this year. The sub-canopy seems to be getting denser in much of this forest. Many low spots were flooded in May and June but completely dry in July. The wild food crop of all types seems to be excellent this year. **Weather:** Mean start temp., 23.4°C (range 12-32°C). Temperatures were close to average in May (13.8°C vs. 14.2°C) and June (18.9°C vs. 18.5°C). They were below normal in July (18.7°C vs. 21.2°C). May was a little wetter than normal, with a total of 11.3 cm of rain falling over the course of ten days. The average May rainfall is 10.6 cm. June was much wetter than normal, with a total of 19.3 cm of rain falling over the course of eight days. Normal June rainfall is 9.9 cm. July was much drier than normal, despite 12 wet days. Only 3.8 cm of rain fell, compared to an average of 13.2 cm. Source: White Memorial Foundation weather station. **Coverage:** 22.5 h; 11 visits (1 sunrise, 6 sunset); 3, 10, 17, 24 May; 1, 7, 10, 19, 28 Jun; 7, 12 Jul. Maximum number of observers/visit, 3. **Census:** Black-throated Green Warbler, 16.0 (61; 1N,41FL); Veery, 15.0 (57; 24FL); Ovenbird, 13.5 (51; 1N,27FL); Red-eyed Vireo, 11.0 (42; 13FL); Blackburnian Warbler, 10.5 (40; 13FL); Hermit Thrush, 7.0 (27; 17FL); Pine Warbler, 6.5 (25; 25FL); Blue-headed Vireo, 4.5 (17; 5FL); Scarlet Tanager, 4.5 (1N,9FL); Great Crested Flycatcher, 4.0 (15; 2N,10FL); Black-capped Chickadee, 4.0 (2N,18FL); Wood Thrush, 3.5 (13; 4FL); Black-and-white Warbler, 3.0 (11; 10FL); Wild Turkey, 2.5 (1N,22FL); Eastern Wood-Pewee, 2.5; Blue Jay, 2.5 (3FL); Yellow-rumped Warbler, 2.5 (3FL); Mourning Dove, 2.0 (2FL); Yellow-bellied Sapsucker, 2.0 (3FL); American Crow, 2.0 (2N,8FL); Canada Warbler, 2.0; Purple Finch, 2.0 (2N,8FL); Hairy Woodpecker, 1.5 (3FL); Pileated Woodpecker, 1.5 (2FL); Red-breasted Nuthatch, 1.5 (4FL); Brown Creeper, 1.5 (5FL); American Robin, 1.5 (6FL); Northern Cardinal, 1.5 (2FL); Broad-winged Hawk, 1.0 (1N,2FL); Tufted Titmouse, 1.0 (6FL); Brown-headed Cowbird, 1.0; Great Horned Owl, 0.5; Barred Owl, 0.5 (2FL); Downy

Woodpecker, 0.5; Northern Flicker, 0.5; White-breasted Nuthatch, 0.5; Winter Wren, 0.5; Gray Catbird, 0.5; Magnolia Warbler, 0.5; American Redstart, 0.5; Dark-eyed Junco, 0.5; Common Grackle, 0.5; American Goldfinch, 0.5; Blue-gray Gnatcatcher, +; Eastern Towhee, +. **Total:** 45 species; 141.0 territories (537/40 ha). **Visitors:** Red-bellied Woodpecker. **Remarks:** Populations of many bird species exploded this year; only a few declined but no more than by one or more territories. The total number of species climbed to 45 (from 42 last year), which is the second highest figure ever recorded in this plot (tied with 1985). The highest ever was 48 species in 1994. Greater habitat diversity due to succession in blow-down areas may be the reason for this increase. This may also be partially responsible for the massive increase in territorial males this year. Other factors could be young from 1999 and 2000 (both very productive years) returning to their natal area, immigration to this protected area from nearby properties being destroyed for development, and an abundant available food supply. Maybe it's a combination of these factors that caused the number of territorial males to soar to a record-shattering figure of 141.0. The previous high was last year's 124.0 territories; the previous 10-year average was 115. The species showing the greatest increases in numbers were those most positively affected by succession: Veery, Hermit Thrush, and Red-eyed Vireo. **Other Observers:** Eric Adam, Clara Buitrago, John Eykelhoff, and Russ Naylor.

**20. YOUNG MIXED HARDWOOD-CONIFER
STAND**

BOSQUE JOVEN-MIXTO DE MADERAS
DURAS/RODAL DE CONIFEROS

DAVID ROSGEN
White Memorial Conservation Center
P.O. Box 368
Litchfield CT 06759

Site Number: CT2778262. **Location:** Connecticut; Litchfield Co.; Morris; White Memorial Foundation-Pitch Road; 41°42'N, 73°10'W; Litchfield Quadrangle, USGS. **Continuity:** Established 1978; 24 yr. **Size:** 8.5 ha. **Description of Plot:** See Am. Birds 33:72 (1979). **Weather:** Mean start temp., 18.9°C (range 13-27°C). Temperatures were close to average in May (13.8°C vs. 14.2°C) and June (18.9°C vs. 18.5°C). They were below normal in July (18.7°C vs. 21.2°C). May was a little wetter than normal, June was much wetter than normal, and July was much drier than normal. May's rainfall total was 11.3 cm, compared to an average of 10.6 cm. Ten days experienced at least some precipitation in May. June's rainfall total was 19.3 cm, compared to an average of 9.9 cm. Eight days experienced at least some rainfall in June. July had showers on 12 days, but only 3.8 cm of rain fell,

compared to an average of 13.2 cm. Source: White Memorial Foundation weather station. **Coverage:** 14.5 h; 8 visits (1 sunrise, 7 sunset); 14, 24 May; 4, 9, 18 Jun; 2, 14, 25 Jul. **Census:** Veery, 10.5 (49; 12FL); Ovenbird, 9.5 (45; 20FL); Red-eyed Vireo, 9.0 (42; 9FL); Wood Thrush, 4.5 (21; 10FL); Scarlet Tanager, 4.5 (1N,13FL); Hermit Thrush, 3.5 (16; 7FL); Black-capped Chickadee, 3.0 (14; 2N,14FL); American Redstart, 3.0 (4FL); Great Crested Flycatcher, 2.5 (3FL); American Robin, 2.5 (2N,8FL); Gray Catbird, 2.5 (4FL); Louisiana Waterthrush, 2.5 (6FL); Yellow-bellied Sapsucker, 2.0; Eastern Wood-Pewee, 2.0; Tufted Titmouse, 2.0 (1N,12FL); White-breasted Nuthatch, 2.0 (1N,9FL); Blue Jay, 1.5 (3FL); American Crow, 1.5 (3FL); Blue-gray Gnatcatcher, 1.5 (4FL); Black-throated Blue Warbler, 1.5; Black-and-white Warbler, 1.5; Common Yellowthroat, 1.5; Eastern Towhee, 1.5; Northern Cardinal, 1.5 (4FL); Rose-breasted Grosbeak, 1.5; Wild Turkey, 1.0; Downy Woodpecker, 1.0; Hairy Woodpecker, 1.0; Pileated Woodpecker, 1.0; Eastern Phoebe, 1.0 (1N,4FL); Black-throated Green Warbler, 1.0; Baltimore Oriole, 1.0 (1N,3FL); American Goldfinch, 1.0; Mourning Dove, 0.5; Barred Owl, 0.5; Blue-headed Vireo, 0.5; Brown Creeper, 0.5; Chestnut-sided Warbler, 0.5; Magnolia Warbler, 0.5; Chipping Sparrow, 0.5; Brown-headed Cowbird, 0.5; Northern Flicker, +; Worm-eating Warbler, +; Purple Finch, +. **Total:** 44 species; 91.0 territories (428/40 ha). **Visitors:** Pine Warbler. **Remarks:** The number of species breeding in this plot dropped back to the 10-year average of 44 this year. The number of territorial males also decreased slightly, from 92.5 last year to 91.0 this year. This is only 2 territories less than the 10-year average, so it looks like bird numbers are fairly stable in this plot. A significant shake-up occurred among the five most common species, however, due to a combination of the continued increase in Veery and Ovenbird populations and a serious decline in Wood Thrush and American Redstart numbers. Veery rose to number one this year, from number three last year, and in 1999 and 1998. Their population has risen steadily: from 5.5 territories in 1998 to 6.0 in 1999 to 8.0 in 2000 to 10.5 this year. The second most common species this year, Ovenbird, also held this position in 1999 and last year. Red-eyed Vireo dropped to the number three spot this year after being number one last year and in 1999. Other Observer: Russ Naylor.

21. RIPARIAN WOODLAND

ARBOLADO RIVEREÑO

SCOTT R. ROBINSON

Bureau of Land Management

3815 N. Schreiber Way

Coeur d'Alene ID 83815

Location: Idaho; Kootenai Co.; Coeur d'Alene; Blackwell Island; 47°41'N, 116°48'W; Coeur d'Alene Quadrangle, USGS. **Continuity:** Established 1997; 5 yr.

Size: 8.9 ha. **Description of Plot:** See 1997 BBC report (unpublished). In preparation for the construction of a recreation site, 47 ponderosa pine trees were cut and removed from the plot. An additional 72 ponderosa pine, 18 hawthorn, 11 quaking aspen, and 3 others were transplanted to other locations within the plot. **Weather:** Mean start temp., 10.9°C (range 5–15°C). The mean start temperature of 10.9°C and the maximum of 15°C were the coldest reported temperatures during five years of censusing. The minimum of 5°C was comparable to the minimum of 4°C reported in 1997 and 1998. No flooding occurred this year. **Coverage:** 13.7 h; 8 visits (6 sunrise, 2 sunset); 15, 16, 24, 29 May; 4, 5, 18, 26 Jun. **Census:** American Robin, 5.5 (25); Yellow Warbler, 5.5; Tree Swallow, 4.0 (18; 2N); Song Sparrow, 4.0; European Starling, 3.0 (13; 2N); Yellow-rumped Warbler, 3.0; Red-winged Blackbird, 3.0; Brown-headed Cowbird, 3.0; Mountain Chickadee, 2.0 (1FL); Black-headed Grosbeak, 2.0; House Finch, 2.0; Black-capped Chickadee, 1.5; Canada Goose, 1.0; Mallard, 1.0; California Quail, 1.0; Spotted Sandpiper, 1.0; Rufous Hummingbird, 1.0; Northern Flicker, 1.0 (1N); Willow Flycatcher, 1.0; Gray Catbird, 1.0; Cedar Waxwing, 1.0; Spotted Towhee, 1.0; Brewer's Blackbird, 1.0; Bullock's Oriole, 1.0. **Total:** 24 species; 50.5 territories (227/40 ha). **Visitors:** Great Blue Heron, Osprey, Bald Eagle, Killdeer, Ring-billed Gull, Calliope Hummingbird, Western Wood-Pewee, Warbling Vireo, Violet-green Swallow, Barn Swallow, Common Yellowthroat, Chipping Sparrow. **Remarks:** The nests noted for Tree Swallow, European Starling, and Northern Flicker were in artificial nest boxes. Tree Swallows attempted a second breeding effort during this census.

22. MIXED UPLAND FOREST

BOSQUE EN ALTURAS MIXTOS

LYNN BOWDERY, ALLAN BOWDERY, TOM SARRO, LIN

FAGAN AND BARBARA RUBIN

Daniel Smiley Research Center, Mohonk Lake

1000 Mountain Rest Road

New Paltz NY 12561

Site Number: NY1383002. **Location:** New York; Ulster Co.; New Paltz; Duck Pond Watershed; 41°46'N, 74°9'W; Mohonk Lake Quadrangle, USGS. **Continuity:** Established 1975; 7 yr. **Size:** 42.3 ha. **Description of Plot:** See Am. Birds 29:1083 (1975). A roughly rectangular plot (shortest side 335 m, longest 915 m) with a closed canopy dominated by red oak, sugar maple, and eastern hemlock. The stand is 61–100 years of age with a mean canopy height of 17 m (range 12–21 m). The understory is dominated by striped maple, sassafras, and witch-hazel. The ground cover is dominated by low blueberry, mountain laurel, and Virginia creeper. There is one pond with a maximum diameter of 61 m and a maximum depth of 2 m, there

is one permanent stream with a maximum width of 1.5 m and a maximum depth of 0.5 m, and there are several ephemeral streams. Edge: More than 75% of the plot's perimeter is bordered by the same habitat, and the plot lies within a tract of similar habitat >500 ha in size. Topography and Elevation: The plot has a SE-facing slope of >16% grade. Minimum elevation 183 m, maximum 274 m. **Weather:** Mean start temp., 14.3°C (range 8–24°C). The average temperature for May was 16°C (1.6°C above normal), and the precipitation was 10.5 cm (2% below average). The average temperature for June was 21.4°C (2.6°C above normal), and the precipitation was 13.0 cm (30% above average). Source: Mohonk Lake Cooperative Weather Station. **Coverage:** 33.7 h; 13 visits (12 sunrise, 1 sunset); 9, 14, 17, 21, 25, 29, 31 May; 5, 7, 12, 14, 18, 26 Jun. Maximum number of observers/visit, 6. **Census:** Red-eyed Vireo, 15.0 (14); Ovenbird, 13.5 (13); Eastern Wood-Pewee, 11.0 (10); Gray Catbird, 11.0 (1+FL); Scarlet Tanager, 11.0; Wood Thrush, 10.0 (9); Worm-eating Warbler, 9.0 (9); Common Yellowthroat, 6.0 (6); Tufted Titmouse, 5.5 (5); Black-and-white Warbler, 5.0 (5); Song Sparrow, 5.0; Rose-breasted Grosbeak, 5.0; Louisiana Waterthrush, 4.0 (4; 4+FL); Great Crested Flycatcher, 3.0 (3); Blue Jay, 3.0 (1FL); Baltimore Oriole, 3.0 (1FL); American Goldfinch, 3.0; Red-winged Blackbird, 2.5; Red-bellied Woodpecker, 2.0; Eastern Phoebe, 2.0; Black-capped Chickadee, 2.0; White-breasted Nuthatch, 2.0; Blue-winged Warbler, 2.0; American Redstart, 2.0; Brown-headed Cowbird, 2.0 (1FL); Mallard, 1.0; Common Snipe, 1.0 (1FL); Yellow-billed Cuckoo, 1.0; Downy Woodpecker, 1.0; Hairy Woodpecker, 1.0; Northern Flicker, 1.0; Pileated Woodpecker, 1.0; Eastern Kingbird, 1.0; Eastern Bluebird, 1.0 (2FL); Veery, 1.0; American Robin, 1.0; Cedar Waxwing, 1.0; Yellow Warbler, 1.0; Chipping Sparrow, 1.0; Northern Cardinal, 1.0; Ruby-throated Hummingbird, 0.5; Yellow-throated Vireo, 0.5; American Crow, 0.5; Common Grackle, 0.5. **Total:** 44 species; 156.5 territories (148/40 ha). **Visitors:** Wild Turkey, Great Blue Heron, Sharp-shinned Hawk, Red-tailed Hawk, Mourning Dove, Black-billed Cuckoo, Brown Creeper, Northern Mockingbird, Black-throated Blue Warbler, Yellow-rumped Warbler, Black-throated Green Warbler, Eastern Towhee, Swamp Sparrow, Indigo Bunting. **Other Observers:** Lisa Daddona, Ruth Elwell, Paul Huth, Becky Marshall, Becky Sarro, John Thompson, and Molly Trauten. **Acknowledgments:** Thanks for the cooperation of the Mohonk Preserve.

23. UPLAND MIXED PINE–SPRUCE–HARDWOOD PLANTATION

PLANTACION MIXTA DE

PIÑO–ABETO–MADERAS DURAS EN ALTURAS

ELIZABETH W. BROOKS

1435 Waterwells Road

Alfred Station, NY 14803

Site Number: NY2474107. **Location:** New York; Allegany Co., Ward; Phillips Creek State Reforestation Tract; 42°8'N, 77°45'W; Andover Quadrangle, USGS. **Continuity:** Established 1974; 28 consecutive years. **Size:** 16.6 ha. **Description of Plot:** See Am. Birds 28:699–700 (1974), J. Field Ornithol. 63 (Suppl.):79–80 (1992), and 66 (Suppl.):79–80 (1995). **Weather:** Mean start temp., 20.0°C (range 15.6–22.8°C). See Upland Christmas Tree Farm BBC for additional weather comments. **Coverage:** 10.7 h; 8 visits (0 sunrise, 3 sunset); 4, 11, 18, 25 Jun; 1, 8, 16, 27 Jul. **Census:** Magnolia Warbler, 9.0 (22); Blackburnian Warbler, 9.0; Dark-eyed Junco, 7.5 (18); Golden-crowned Kinglet, 7.0 (17); Black-throated Green Warbler, 7.0; Yellow-rumped Warbler, 5.5 (13); American Robin, 4.0 (10); Blue-headed Vireo, 3.0 (7; 1N,3FL); Red-breasted Nuthatch, 3.0; Common Yellowthroat, 2.5; Blue Jay, 2.0; Black-capped Chickadee, 2.0; Brown Creeper, 2.0; Winter Wren, 2.0; Mourning Warbler, 2.0; Purple Finch, 2.0; Broad-winged Hawk, 1.0; Yellow-bellied Sapsucker, 1.0; Hermit Thrush, 1.0; Wood Thrush, 1.0; Cedar Waxwing, 1.0; Chestnut-sided Warbler, 1.0; Ovenbird, 1.0; Chipping Sparrow, 1.0; Ruffed Grouse, 0.5; American Crow, 0.5; Song Sparrow, 0.5. **Total:** 27 species; 79.0 territories, (190/40 ha). **Visitors:** Sharp-shinned Hawk, Red-shouldered Hawk, Mourning Dove, Great Crested Flycatcher, Canada Warbler, Indigo Bunting, White-winged Crossbill, and American Goldfinch. **Remarks:** Total territories (79.0) was slightly below the 27-year average (85.3). Brown-headed Cowbird was missing for only the fifth time since 1974, and Indigo Bunting was missing for only the second time. Selective harvesting of red pine in a 4.9 ha section of the plot during the breeding season may have negatively affected Black-throated Green Warbler totals. **Acknowledgments:** Appreciation to Rick Walker and Dennis Smith for weather data.

24. FIELD, RIDGE, SHRUBBY TREES, AND WOODS
CAMPOS, COLINAS, ARBUSTOS Y BOSQUES

MICHAEL F. G. CLARK
101 Governor's Road, #708
Dundas ON L9H 6L7

Location: Ontario; Municipality of Hamilton-Wentworth; Dundas; Dundas Valley Plot #1; 43°15'N, 79°54'W. **Continuity:** Established 1994; 8 yr. **Size:** 5.8 ha. **Description of Plot:** See J. Field Ornithol. 60(Suppl.):14 (1989), 66(Suppl.):27-28 (1995), and 67(Suppl.):73-74 (1996). **Weather:** Mean start temp., 21.3°C (range 16.5-27.0°C). Temperatures for the 3-month study period were close to the 30-yr norm. Precipitation levels were 6% below the norm per month, with July's rainfall 72% below the norm. Source: Environment Canada. **Coverage:** 14.0 h; 8 visits (0 sunrise, 4 sunset); 2, 12, 26 May; 9, 14 Jun; 2, 3, 6 Jul. **Census:** Yellow Warbler, 42.0 (290); Gray Catbird, 28.0 (193); Song Sparrow, 11.0 (76; 1FL); Northern Cardinal, 8.0 (55); American Goldfinch, 8.0; Blue-winged Warbler, 5.0 (34); Field Sparrow, 5.0; Indigo Bunting, 4.0 (28); American Robin, 3.0 (21); Rose-breasted Grosbeak, 2.0; Baltimore Oriole, 2.0 (2FL); Northern Flicker, 1.0; Wood Thrush, 1.0; Eastern Towhee, 1.0; Common Grackle, 1.0; Brown-headed Cowbird, 1.0. **Total:** 16 species; 123.0 territories (848/40 ha). **Visitors:** Great Crested Flycatcher, Warbling Vireo, Blue Jay, Black-capped Chickadee, Brown Thrasher, Cedar Waxwing, Common Yellowthroat, Red-winged Blackbird, House Finch. **Remarks:** Slightly higher temperatures and lower rainfall than the 30-yr norms resulted in total breeding territories (123.0) about 6% below the 8-yr mean on this revised plot. As with last year, most breeding species were on the plot in early May. For the three most numerous foraging groups (warblers, seed-eaters, and mimids), the percentage of total breeding pairs was very close to the 8-yr mean. The two warbler species accounted for 38% and the seven seed-eaters for 32% for a total of 70% of all territories. Ongoing vegetative succession may account for the apparent decline in breeding Common Yellowthroats, Willow Flycatchers, and Brown Thrashers. Eastern Towhee and Wood Thrush were new this year, bringing the total number of breeding species over eight years to 32.

25. SHRUBBY TREES, RIDGE, AND WOODS
ARBUSTOS, COLINAS Y BOSQUES

MICHAEL F. G. CLARK
101 Governor's Road, #708
Dundas ON L9H 6L7

Location: Ontario; Municipality of Hamilton-Wentworth; Dundas; Dundas Valley Plot #2; 43°14'N,

80°0'W. **Continuity:** Established 1990; 9 yr. **Size:** 7.3 ha. **Description of Plot:** See J. Field Ornithol. 60(Suppl.):14-15 (1989) and 64(Suppl.):89 (1993). This plot continues to "thicken up" in its shrub layer areas. **Weather:** Mean start temp., 18.9°C (range 13-25°C). Temperatures for the 3-month study period were close to the 30-yr norm. Precipitation levels were 6% below the norm per month, with July's rainfall 72% below the norm. Source: Environment Canada. **Coverage:** 12.6 h; 8 visits (0 sunrise, 5 sunset); 7, 16, 23, 30 May; 13, 25, 28 Jun; 5 Jul. **Census:** Yellow Warbler, 14.0 (77); Gray Catbird, 13.0 (71); Northern Cardinal, 7.0 (38); American Robin, 3.0 (16); Song Sparrow, 3.0; Black-capped Chickadee, 2.0 (2FL); Wood Thrush, 2.0; Common Yellowthroat, 2.0; Eastern Towhee, 2.0; Indigo Bunting, 2.0; American Goldfinch, 2.0; Blue Jay, 1.0; Cedar Waxwing, 1.0; Blue-winged Warbler, 1.0; Field Sparrow, 1.0; Rose-breasted Grosbeak, 1.0; Brown-headed Cowbird, 1.0; Baltimore Oriole, 1.0. **Total:** 18 species; 59.0 territories (323/40 ha). **Visitors:** Downy Woodpecker, Pileated Woodpecker, Eastern Wood-Pewee, American Crow, Scarlet Tanager, Red-winged Blackbird. **Remarks:** Breeding territory totals have varied widely on this plot over its nine-year study history, ranging from 90.5 (23 species) in 1996 to 40.5 (10 species) in 1998. The more open north-facing half of the plot typically hosts many more breeders than the south-facing half, which is heavily wooded and steeply sloped up to the central ridge. This year's breeding pair total of 59.0 (18 species) is seven pairs below the nine-year mean. The top three breeders (Yellow Warbler, Gray Catbird, and Northern Cardinal) accounted for 58% of all breeding territories. Only two pairs of chickadees bred this year on this largely wooded plot; the nine-year mean for bark foragers (four species overall) is a low 2.8. Flycatchers, once regular breeders, have not bred for the past three study years.

26. DESERT RIPARIAN-FRESHWATER MARSH
DESIERTO RIVEREÑO-PANTANO

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San Bernardino County Museum
2024 Orange Tree Lane
Redlands CA 92374-4560

Location: California; San Bernardino Co.; Morongo Valley; Big Morongo Wildlife Reserve; 34°3'N, 116°35'W; Morongo Valley Quadrangle, USGS. **Continuity:** Established 1977; 24 yr. **Size:** 15.4 ha. **Description of Plot:** See J. Field Ornithol. 62(Suppl.):76 (1991), 64(Suppl.):92-93 (1993), and 65(Suppl.):106-107 (1994). **Weather:** Mean start temp., 12.0°C (range 8-16°C). **Coverage:** 26.8 h; 8 visits (8 sunrise); 13, 20, 25 Apr; 2, 7, 16, 23, 30 May. **Census:** Lesser Goldfinch, 21.0 (55); Bewick's Wren, 18.0 (47; 2N,1FL); House Wren, 17.0 (44; 4N,4FL); Song

Sparrow, 16.0 (42; 2N); Spotted Towhee, 11.0 (29; 2N); Common Yellowthroat, 10.0 (26; 5N); House Finch, 9.0 (23; 3N); Bush-tit, 8.0 (21; 2N); Brown-headed Cowbird, 5.0 (13); Nuttall's Woodpecker, 4.0 (10; 2N); Western Scrub-Jay, 4.0 (3FL); Yellow-breasted Chat, 4.0; Summer Tanager, 4.0; Virginia Rail, 3.0 (8); Anna's Hummingbird, 3.0 (1N); Brown-crested Flycatcher, 3.0 (2N); Verdin, 3.0 (1N); California Thrasher, 3.0; European Starling, 3.0 (3N); Phainopepla, 3.0 (1N); Gambel's Quail, 2.0; Mourning Dove, 2.0; Black Phoebe, 2.0 (2N,4FL); Ash-throated Flycatcher, 2.0; California Towhee, 2.0; Cooper's Hawk, 1.0 (1N,3FL); Ladder-backed Woodpecker, 1.0 (1N,1FL); Oak Titmouse, 1.0; Yellow Warbler, 1.0; Blue Grosbeak, 1.0; Hooded Oriole, 1.0 (1N). **Total:** 31 species; 168.0 territories (436/40 ha). **Visitors:** Mountain Quail, Red-tailed Hawk, American Kestrel, Black-chinned Hummingbird, Costa's Hummingbird, Vermilion Flycatcher, Cassin's Kingbird, Western Kingbird, American Crow, Common Raven, Cactus Wren, Black-headed Grosbeak, Lazuli Bunting, Lawrence's Goldfinch. **Remarks:** The 31 species on 168 territories was down slightly from 2000 (170 territories). This year was the third year of drought since the El Niño year of 1997–98. Fifteen species decreased and eight species increased compared to last year. **Other Observers:** Dori Myers, Alice Ashbaugh, and Dee Zeller. **Acknowledgments:** San Bernardino County Museum, San Bernardino Valley Audubon Society, and Bureau of Land Management.

27. SHRUBBY SWAMP AND SEDGE HUMMOCKS PANTANO ARBUSTIVO-MOGOTE

DAVID ROSEN
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Litchfield CT 06759

Location: Connecticut; Litchfield Co.; Litchfield; White Memorial Foundation–North Shore Marsh; 41°43'N, 73°13'W; Litchfield Quadrangle, USGS. **Continuity:** Established 1965; 35 yr. **Size:** 8.1 ha. **Description of Plot:** See Aud. Field Notes 19:625–627 (1965). Succession is continuing in this plot despite several recent flooding events. Now, roughly one-third of the plot can be classified as a shrubby, young, mixed hardwood (mostly red maple) poletimber swamp. The middle third is shrub swamp (with an increasing amount of winterberry). The one-third closest to Bantam Lake is still a mixed shrub and sedge marsh. It is this last portion that is most often inundated in flooding events. The entire marsh was at least partially flooded from 21 May through 9 June this year. By mid-July, conditions had reversed to a near-drought situation. **Weather:** Mean start temp., 22.7°C (range 13–30°C). Temperatures were close to average in May (13.8°C vs. 14.2°C) and June (18.9°C vs. 18.5°C). They

were below normal in July (18.7°C vs. 21.2°C). May was a little wetter than normal, June was much wetter than normal, and July was much drier than normal. May's rainfall total was 11.3 cm, compared to an average of 10.6 cm. Ten days experienced at least some precipitation in May. June's rainfall total was 19.3 cm, compared to an average of 9.9 cm. Eight days experienced at least some rainfall in June. July had showers on 12 days, but only 3.8 cm of rain fell, compared to an average of 13.2 cm. Source: White Memorial Foundation weather station. **Coverage:** 21.0 h; 11 visits (1 sunrise, 4 sunset); 1, 8, 15, 21, 31 May; 7, 9, 18, 26 Jun; 3, 9 Jul. Maximum number of observers/visit, 3. **Census:** Red-winged Blackbird, 33.0 (163; 12N,126FL); Swamp Sparrow, 32.0 (158; 10N,111FL); Yellow Warbler, 27.0 (133; 12N,107FL); Common Yellowthroat, 14.5 (72; 3N,35FL); Gray Catbird, 14.0 (69; 4N,39FL); Song Sparrow, 7.0 (35; 4N,31FL); Common Grackle, 6.5 (32; 3N,21FL); Willow Flycatcher, 4.0 (20); Least Flycatcher, 4.0 (1N,8FL); Eastern Kingbird, 3.5 (17; 2N,13FL); American Goldfinch, 3.5 (6FL); Tree Swallow, 3.0 (15; 2N,17FL); Cedar Waxwing, 3.0 (7FL); Chestnut-sided Warbler, 3.0; Veery, 2.0 (3FL); Black-and-white Warbler, 2.0 (6FL); Northern Waterthrush, 2.0; Baltimore Oriole, 2.0 (1N,5FL); Mallard, 1.5 (1N,7FL); Virginia Rail, 1.5; Mourning Dove, 1.5; Downy Woodpecker, 1.5 (1N,4FL); Northern Flicker, 1.5; Alder Flycatcher, 1.5; Great Crested Flycatcher, 1.5 (4FL); Warbling Vireo, 1.5 (1N,5FL); Black-capped Chickadee, 1.5 (10FL); Blue-gray Gnatcatcher, 1.5; American Robin, 1.5 (7FL); American Redstart, 1.5 (4FL); Spotted Sandpiper, 1.0; Hairy Woodpecker, 1.0 (1N,4FL); Yellow-throated Vireo, 1.0 (3FL); Mute Swan, 0.5; Wood Duck, 0.5 (1N,10FL); Great Blue Heron, 0.5; American Woodcock, 0.5 (1N,3FL); Blue Jay, 0.5; Tufted Titmouse, 0.5; Northern Cardinal, 0.5 (2FL); Brown-headed Cowbird, 0.5; Brown Creeper, +; Marsh Wren, +. **Total:** 43 species; 191.0 territories (943/40 ha). **Visitors:** Red-eyed Vireo, American Crow, European Starling. **Remarks:** Continued vegetation succession in this plot is probably the reason why a record-high number of species was found this year. The previous record of 40 species was set last year. The number of species has been climbing steadily since 1997. The 10-year average for 1991–2000 is 35.7, so this is a significant increase in diversity. Woodland species, such as Veery and Black-and-white Warbler, are noticeably increasing. Mourning Dove, Blue Jay, and Tufted Titmouse are now establishing themselves in this plot, too. The number of territorial males decreased slightly this year (probably due to the flooding) to 191.0. Though 5.0 fewer than last year, this is still well above the 1991–2000 average of 162.2. Since Swamp Sparrow decreased by five territories from last year, while Red-winged Blackbird decreased by only one, the latter is now the most common species in the plot. Swamp

Sparrow dropped to the number two spot, while Yellow Warbler remained in third place with stable numbers. **Other Observers:** Eric Adam, John Eykelhoff, Ray Packard, and Bruce Sebastian.

28. COASTAL SCRUB

MATORRAL COSTANERO

ANTHONY DOTOLO
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 3820 Cypress Drive #11
 Petaluma CA 94954

Location: California; Marin Co.; Bolinas; Palomar Field Station; 37°55'N, 122°45'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1971; 27 yr. **Size:** 8.1 ha. **Description of Plot:** See Am. Birds 25:1003–1004 (1971). **Weather:** Mean start temp., 11°C (range 3–21°C). **Coverage:** 178.2 h; 68 visits (44 sunrise, 0 sunset). **Census:** Wrentit, 9.0 (44; 6N,14FL); Spotted Towhee, 4.0 (20; 1N); Bewick's Wren, 2.5 (2N); Purple Finch, 2.5; Chestnut-backed Chickadee, 2.0; Wilson's Warbler, 2.0; Song Sparrow, 2.0; White-crowned Sparrow, 2.0; Bushtit, 1.5; Allen's Hummingbird, 1.0; Band-tailed Pigeon, 0.5 (1N); Golden-crowned Kinglet, 0.5; Orange-crowned Warbler, 0.5; Red-tailed Hawk, +; Northern Flicker, +; Steller's Jay, +; Western Scrub-Jay, +; American Robin, +. **Total:** 18 species; 30.0 territories (148/40 ha). **Visitors:** None reported. **Remarks:** Wrentit territories declined by 38% compared to last year, with only 9.0 recorded this year. This was the lowest number of Wrentit territories since 1979. Spotted Towhee and White-crowned Sparrow territories decreased by 43% compared to last year, and 22% and 29%, respectively, compared to the average of the past five years. Bewick's Wren territories decreased from 3.5 in 2000 to 2.5 in 2001. Song Sparrow territories increased from 1.0 to 2.0 in 2001, falling in line with the average number of territories from the past five years. **Other Observers:** Grant Ballard and Roy Churchwell. **Acknowledgments:** We thank Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 1530.

29. DISTURBED COASTAL SCRUB A

MATORRAL PERTURBADO A

DENNIS JONGSOMJIT AND MAUREEN E. FLANNERY
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Location: California; Marin Co.; Bolinas; Palomar Field Station; 37°55'N, 122°45'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1972; 27 yr. **Size:** 4.7 ha. **Description of Plot:** See Am. Birds 26:987–988 (1972). **Weather:** Mean start temp., 11°C (range

3–21°C). **Coverage:** 164 h; 67 visits (27 sunrise, 0 sunset); 22, 27, 28, 29, 30 Mar; 2, 3, 4, 8–11, 16–18, 23–27 Apr; 2, 3, 5, 11, 13–17, 20, 21, 23–26, 28–30 May; 1–15, 17, 19, 22, 24–26, 28–30 Jun; 6, 9, 12–15, 17, 19 Jul. Maximum number of observers/visit, 3. **Census:** Song Sparrow, 5.5 (47; 5N,7FL); Wrentit, 4.0 (34; 5N,14FL); Spotted Towhee, 2.5 (3N,5FL); American Goldfinch, 2.0; California Quail, 1.0; Anna's Hummingbird, 1.0; Bewick's Wren, 1.0; Orange-crowned Warbler, 1.0; Allen's Hummingbird, 0.5; Western Scrub-Jay, 0.5; Bushtit, 0.5; American Robin, 0.5; Brown-headed Cowbird, 0.5; Northern Flicker, +; Chestnut-backed Chickadee, +; Western Bluebird, +; Swainson's Thrush, +; Wilson's Warbler, +; California Towhee, +; White-crowned Sparrow, +; Purple Finch, +. **Total:** 21 species; 20.5 territories (174/40 ha). **Visitors:** None reported. **Remarks:** Territory densities decreased 31% from 2000. This comes after a 33% increase in overall density from 1999 to 2000. Wrentit density fell 47% from 2000. Song Sparrow density fell 21% to its lowest level since 1995; Song Sparrow density had remained relatively stable since 1996. Spotted Towhee density dropped 44% following a generally increasing trend since 1996. Other species showing declines since 2000 include Bewick's Wren, Allen's Hummingbird, and Red-tailed Hawk. Species showing increases over last year include White-crowned Sparrow, Western Scrub-Jay, American Robin, Western Bluebird, and Brown-headed Cowbird. **Other Observers:** Geoff Geupel, Quresh Latif, Grant Ballard, and Anthony Dotolo. **Acknowledgments:** We thank Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 1531.

30. DISTURBED COASTAL SCRUB B

MATORRAL PERTURBADO B

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Location: California; Marin Co.; Bolinas; Palomar Field Station; 37°55'N, 122°46'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1971; 27 yr. **Size:** 8.1 ha. **Description of Plot:** See Am. Birds 25:1002 (1971) and J. Field Ornithol. 66(Suppl.):104 (1995). **Weather:** Mean start temp., 11°C (range 3–21°C). **Coverage:** 369.1 h; 86 visits (53 sunrise, 1 sunset). **Census:** Song Sparrow, 13.0 (64; 10N); Wrentit, 11.0 (54; 3N); Spotted Towhee, 5.0 (25; 2N); American Goldfinch, 3.5 (17); Bewick's Wren, 3.0 (15); Chestnut-backed Chickadee, 2.0; Anna's Hummingbird, 1.5; Western Scrub-Jay, 1.5; Swainson's Thrush, 1.5; Allen's Hummingbird, 1.0; Mourning Dove, 0.5; American Robin, 0.5; White-crowned Sparrow, 0.5; Brown-headed Cowbird, 0.5; California Quail, +; Northern Flicker, +; Hutton's Vireo, +; Orange-crowned Warbler, +; Wilson's

Warbler, +; California Towhee, +; Purple Finch, +. **Total:** 21 species; 45.0 territories (222/40 ha). **Visitors:** None reported. **Remarks:** Territory densities decreased by 8.5 territories relative to 2000; 1995 was the last year that so few territories (45.0) were reported. The number of Wrentit territories declined by 18.5% compared to last year. This was the lowest number of Wrentit territories since 1993. Spotted Towhee territories increased from 3.5 to 5.0. American Goldfinch territories decreased from 2000 (8.0 to 3.5). White-crowned Sparrow territories also decreased from last year, setting a record low since the census began. Song Sparrow territories increased this year (13.0) compared to the 2000 season (11.5); 1993 was the last time this many Song Sparrow territories were reported. Bewick's Wren lost a territory from the 2000 season. **Other Observers:** Grant Ballard, Geoff Geupel, Sacha Heath, Moe Flannery, and Quresh Latif. **Acknowledgments:** We thank Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 1532.

31. GRAZED COASTAL SCRUB MATORRAL COSTANERO PASTOREADO

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Location: California; Marin Co.; Bolinas; Palomar Field Station; 37°55'N, 122°45'W; Bolinas Quadrangle, USGS. **Continuity:** Established 1995; 7 yr. **Size:** 45.0 ha. **Description of Plot:** See J. Field Ornithol. 67(Suppl.):79 (1996). Active cattle grazing has occurred on this plot since at least 1994. There were short breaks in 1995 and 2001. The absence of cattle caused habitat changes mainly to the ground cover. Rush and grass height increased dramatically, averaging approximately 50 cm throughout many areas. In the flatter meadows, bull thistle and other forbs dominated the ground cover. **Weather:** Mean start temp., 11°C (range 3–21°C). **Coverage:** 429.8 h; 91 visits (70 sunrise, 0 sunset). **Census:** Song Sparrow, 21.0 (19; 12N,>9FL); Wrentit, 18.5 (16; 3N,>1FL); White-crowned Sparrow, 12.5 (11; 4N,>1FL); Grasshopper Sparrow, 9.0 (8; 4N,11FL); California Quail, 8.0 (7); Savannah Sparrow, 7.5 (7; 3N,1FL); Bewick's Wren, 7.0 (6); Western Scrub-Jay, 6.0 (5; 1N); Chestnut-backed Chickadee, 5.0 (4); Bushtit, 5.0 (2N); Wilson's Warbler, 5.0; Purple Finch, 5.0; Spotted Towhee, 4.0 (4; 1N); Brown-headed Cowbird, 3.5 (3); American Goldfinch, 3.5 (1N); Anna's Hummingbird, 3.0 (3); Allen's Hummingbird, 3.0; Olive-sided Flycatcher, 3.0; Swainson's Thrush, 3.0; Orange-crowned Warbler, 3.0; Steller's Jay, 2.0; California Towhee, 1.5; Brewer's Blackbird, 1.5 (1N,1FL); Northern Flicker, 1.0; Red-breasted Nuthatch, 1.0;

American Robin, 0.5; Red-tailed Hawk, +. **Total:** 27 species; 143.0 territories (127/40 ha). **Visitors:** Turkey Vulture, Osprey, Mourning Dove, Downy Woodpecker, Hutton's Vireo, American Crow, Common Raven, Violet-green Swallow, Cliff Swallow, Barn Swallow, Western Bluebird, Hermit Thrush, European Starling, Dark-eyed Junco, Red-winged Blackbird. **Remarks:** Territory densities decreased from 153.0 territories last year to 143.0 this year. The number of species decreased the past two years from an average of 31.7 species (1997–99) to 27 species in both 2000 and 2001. White-crowned Sparrow density continued to drop with a 51% decrease from its peak density in 1995 and a 22% decrease from last year. Spotted Towhee density decreased by 47% from 2000 to its lowest level ever. Bewick's Wren density decreased as well, to more than half its peak density in 1999 but within the same range of densities noted in 1995, 1996, and 1998. Song Sparrow territories were down 26% from 1996–99. Grasshopper Sparrow density increased greatly with 9.0 territories. Brown-headed Cowbirds parasitized 24% of the nests found on the plot. **Other Observers:** Moe Flannery, Dale Feiss, Regan Brooks, Diana Humple, Sacha Heath, Roy Churchwell, Grant Ballard, Diana Stralberg, Anthony Dotolo, Dennis Jongsomjit, and Peter Erwin. **Acknowledgments:** We thank the Point Reyes National Seashore for their cooperation. This is PRBO contribution No. 1533.

32. ABANDONED UPLAND PASTURE PASTIZAL DE ALTURAS ABANDONADO

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Location: New York; Allegany Co.; Scio; Saunders Plot; 42°13'N, 77°59'W; Wellsville North Quadrangle, USGS. **Continuity:** Established 1984; 18 yr. **Size:** 8.0 ha. **Description of Plot:** See Am. Birds 39:112 (1985) and J. Field Ornithol. 63 (Suppl.):109–110 (1992). **Weather:** Mean start temperature: 12.3°C (range 7–19°C). Deviations from the long-term averages: temperature, +1.4°C; precipitation, -1.3 cm. Source: Wellsville Water Treatment Plant. The warm, dry spring advanced the nesting season about two weeks. The intermittent stream was flowing throughout the study. **Coverage:** 6.8 h; 7 visits (0 sunrise, 0 sunset, 1 after sunset); 1 Apr; 4, 10, 23(2) May; 7, 22 Jun. The first visit was brief and in the evening to listen for American Woodcock. **Census:** Alder Flycatcher, 10.0 (50, 1N); Song Sparrow, 10.0 (2N); Yellow Warbler, 9.0 (45); American Goldfinch, 7.0 (35; 4N); Common Yellowthroat, 6.0 (30); Field Sparrow, 6.0; American Woodcock, 4.0 (20); Blue-winged Warbler, 4.0; Eastern Towhee, 4.0; Indigo Bunting, 4.0; Wood Thrush, 3.0 (15); Chestnut-sided Warbler, 3.0; Northern Flicker, 2.0;

Red-eyed Vireo, 2.0; Blue Jay, 2.0; Tree Swallow, 2.0 (2N,4FL); Black-capped Chickadee, 2.0; House Wren, 2.0 (2N,5FL); American Robin, 2.0 (1N,1FL); Gray Catbird, 2.0 (1N); Magnolia Warbler, 2.0; Prairie Warbler, 2.0 (1N); American Redstart, 2.0; Ovenbird, 2.0; Northern Cardinal, 2.0; Rose-breasted Grosbeak, 2.0 (1N); Tufted Titmouse, 1.0; Eastern Bluebird, 1.0 (2N,6FL); Veery, 1.0; Brown Thrasher, 1.0; Cedar Waxwing, 1.0 (1N); Yellow-rumped Warbler, 1.0; Scarlet Tanager, 1.0; Chipping Sparrow, 1.0; Baltimore Oriole, 1.0; Purple Finch, 1.0; Red-tailed Hawk, +; Ruffed Grouse, +; Yellow-bellied Sapsucker, +; American Crow +; Common Raven, +. **Total:** 41 species; 108 territories (540/40 ha). **Visitors:** Downy Woodpecker, Eastern Wood-Pewee, Least Flycatcher, Nashville Warbler, Red-winged Blackbird. **Remarks:** The first three visits were short and in the evening to listen for American Woodcock. Variation from the 17-year norm for number of species was +33% and for number of territories, -23%. The number of species was one less than last year which was the highest ever, but the population of territorial males was the lowest since the inception of the study in 1984. Great Blue Heron and Belted Kingfisher flew over the plot. Good nesting success was a reflection of the warm, dry season. Chief predators were American Crow, opossum, and raccoon. Abundant wild foods included rabbits, voles, weed seeds, hickory nuts, wild grapes, and fruit of gray-barked dogwood, buckthorn and honeysuckle. **Acknowledgments:** Sincere appreciation to Dana Harris for weather data and to Victor and Gail Funk for permission to use their property.

33. CLEAR-CUT-LONGLEAF PINE REGENERATION

REGENERACION DE FORMACION TALADA DE PIÑO DE HOJA-LARGA

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Site Number: SC0495053. **Location:** South Carolina; Barnwell Co.; Martin; Savannah River Site; 33°9'N, 81°32'W; Girard NE Quadrangle, USGS. **Continuity:** Established 1995; 7 yr. **Size:** 12.5 ha. **Description of Plot:** See J. Field Ornithol. 64(Suppl.):111 (1993) and 67(Suppl.):89-90 (1996). Because the site was initially clear-cut and replanted, the vegetation demonstrates growth and infilling each year. Planted longleaf pines are now approximately 4-10 m tall. Over most of the plot, the ground cover is sparse. Blackberry is common throughout the plot. There are also isolated clumps of dense vegetation (sweetgum, privet, and other shrubs); the largest of these is approximately 0.25 ha. The plot was burned since the 2000 census, reducing

the amount of shrub and ground cover compared to 1999 and 2000. **Weather:** Mean start temp., 20.8°C (range 14-34°C). The mean high temperature for May was 30°C (38-yr average is 29°C); mean low temperature was 17°C (38-yr average is 16°C). The range of temperatures for May was 11-36°C; mean daily temperature was 23°C. The mean high temperature for June was 30°C (38-yr average is 32°C); mean low temperature was 21°C (38-yr average is 16°C). The range of temperatures for June was 17-34°C; mean daily temperature was 25°C. Precipitation for January-June was 4.88 cm below the 50-yr average. The total rainfall in May and June was 3.59 cm above average. May precipitation was 12.17 cm. June precipitation was 12.37 cm. Measurable precipitation was recorded on eight days in May and 15 days in June. Source: Westinghouse Savannah River Co., Savannah River Technology Center, Nonproliferation Technologies Section. **Coverage:** 15.5 h; 10 visits (8 sunrise, 2 sunset); 8, 15, 18, 21, 24, 28 May; 4, 11, 19, 22 Jun. **Census:** Indigo Bunting, 4.0 (13); Northern Cardinal, 2.5; White-eyed Vireo, 2.0; Yellow-breasted Chat, 2.0; Eastern Towhee, 2.0; Blue Grosbeak, 2.0; Carolina Wren, 1.5; Brown Thrasher, 1.5; Pine Warbler, 1.5 (1N,2FL); Mourning Dove, 1.0; Carolina Chickadee, 1.0; Prairie Warbler, 1.0; Brown-headed Cowbird, 1.0; Blue Jay, 0.5. **Total:** 14 species; 23.5 territories (75/40 ha). **Visitors:** Common Ground-Dove, Common Nighthawk, Chuck-will's-widow, Whip-poor-will, Ruby-throated Hummingbird, Hairy Woodpecker, Pileated Woodpecker, Eastern Wood-Pewee, Great Crested Flycatcher, American Crow, Barn Swallow, Brown-headed Nuthatch, Blue-gray Gnatcatcher, Eastern Bluebird, Gray Catbird, Cedar Waxwing, Summer Tanager, Field Sparrow. **Acknowledgments:** We thank the Department of Energy and the Savannah River Forest Station of the U.S. Forest Service for financial support and access to the area.

34. CONVENTIONAL DAIRY FARM GANADERIAS CONVENCIONALES

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Boyertown PA 19512

Location: Pennsylvania; Berks Co.; Kempton; Terry Kunkel's farm; 40°37'N, 75°53'W; Hamburg Quadrangle, USGS. **Continuity:** Established 1989; 11 yr. **Size:** 23.1 ha. **Description of Plot:** See J. Field Ornithol. 61 (Suppl.):82-83 (1990), 66 (Suppl.):117 (1995), and 67 (Suppl.):90 (1996). Corn and alfalfa were the only planted crops this year, with approximately 70% of the total cropland in corn. Crops were more diversified in past years. With cattle permanently confined, there was no grazing in the permanent pasture this year during the census period. This

provided continuous cover of tall grasses and forbs (approximately 1 m). Shrubs and seedling trees have expanded outward from hedgerows, providing more brushy edge habitat. **Weather:** Mean start temp., 16.9°C (range 13–24°C). **Coverage:** 18.3 h; 8 visits (8 sunrise); 28 May; 7, 16, 24, 30 Jun; 6, 14, 21 Jul. **Census:** House Sparrow, 15.0 (26; 15N); Song Sparrow, 7.0 (12; 11FL); Indigo Bunting, 7.0 (4FL); Gray Catbird, 6.0 (10; 8FL); European Starling, 6.0 (10FL); Barn Swallow, 4.0 (7; 4N); Chipping Sparrow, 4.0 (4FL); House Wren, 3.0 (5; 6FL); Field Sparrow, 3.0 (7FL); Red-winged Blackbird, 3.0 (4FL); Willow Flycatcher, 2.0 (1FL); American Robin, 2.0; Common Yellowthroat, 2.0 (2FL); Northern Cardinal, 2.0 (2FL); American Goldfinch, 2.0; Mourning Dove, 1.0 (1FL); Belted Kingfisher, 1.0 (1N,1FL); Downy Woodpecker, 1.0 (1FL); Eastern Phoebe, 1.0 (1FL); Eastern Kingbird, 1.0; American Crow, 1.0 (2FL); Northern Rough-winged Swallow, 1.0 (2FL); Eastern Bluebird, 1.0 (1FL); Yellow Warbler, 1.0 (2FL); Brown-headed Cowbird, 1.0 (1FL); Baltimore Oriole, 1.0 (1FL); Red-tailed Hawk, + (2FL); Northern

Flicker, + (2FL); Great Crested Flycatcher, + (2FL); Blue Jay, + (2FL); Tufted Titmouse, + (2FL); Vesper Sparrow, +. **Total:** 32 species; 79.0 territories (137/40 ha). **Visitors:** Killdeer, Rock Dove, Ruby-throated Hummingbird, Red-bellied Woodpecker, Fish Crow, Black-capped Chickadee, Carolina Wren, Northern Mockingbird, Brown Thrasher, Cedar Waxwing, Blue-winged Warbler, Eastern Towhee, Common Grackle, Orchard Oriole, House Finch. **Remarks:** All 15 House Sparrow nests were found in buildings. Large flocks of European Starlings and Common Grackles that nested off the plot foraged on silage, waste grain, and in the manure storage basin during every visit (maximum of approximately 200 birds). American Robins again hunted for worms in the manure storage basin and flew off plot with their prey. Belted Kingfishers nested in the same road-bank burrow as last year, apparently fishing mostly off plot. A Song Sparrow pair raised a Brown-headed Cowbird fledgling. **Acknowledgments:** I would like to thank Terry Kunkel for permission to use his farm for this study.