

Final Report, Years 1 and 2

Breeding season avian use and nesting census of Milan Bottoms,
Rock Island County, Illinois

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EXECUTIVE SUMMARY

1. The Milan Bottoms (MB) bird community was censused at 51 points during the summers of 1999 and 2000 by Kelly McKay.
2. Ninety-one species were recorded, which makes this an unusually diverse bird community for a forest tract of this size.
3. The community was dominated by very large populations of a few species that prefer swampy backwaters and open, disturbed forest (e.g., Great Blue Heron, Wood Duck, Red-headed Woodpecker, Black-capped Chickadee, House Wren, Tree Swallow, Warbling Vireo, Prothonotary Warbler, American Redstart, Song Sparrow, Baltimore Oriole, Common Grackle, and Red-winged Blackbird). Several species occurred at higher abundances than have been estimated in any other forest site in Illinois (Wood Duck, Turkey Vulture, Downy Woodpecker, American Crow, Black-capped Chickadee, House Wren, Warbling Vireo, Song Sparrow and Baltimore Oriole). Most of these species nested on the site, but some may only feed and roost on the site (e.g., Turkey Vulture and Common Grackle).
4. Illinois Threatened and Endangered Species included the Red-shouldered Hawk (three nests), Yellow-crowned Night Heron, and one of the State's largest populations of Brown Creepers.
5. Relatively low populations were detected of species that depend upon mature, closed forest on natural levees and other slightly elevated areas (e.g., Cerulean Warbler, Scarlet Tanager, Acadian Flycatcher, Northern Parula, and Yellow-throated Warbler).
6. There is a large, long-term rookery of Great Blue Herons to complement the healthy winter roost of Bald Eagles.

7. Although occasional nest predators such as House Wrens, grackles, Blue Jays, and crows were abundant in the forest, relatively few cowbirds were detected. Nest predation rates could not be measured, but parasitism by cowbirds of the few species that accept cowbird eggs was infrequent (ca. 18%).
8. Most of the dominant species nesting in Milan Bottoms are relatively well protected from nest predators by nesting in cavities, defending their nests aggressively, and renesting many times following nest predation.
9. I recommend a management program aimed at maintaining and enhancing mature portions of the forest to attract and maintain species that depend upon larger trees (e.g., Cerulean Warblers, nesting raptors and herons, and roosting raptors).

INTRODUCTION

The Milan Bottoms represents one of the largest remaining tracts of floodplain forest along the Mississippi River of Illinois. Because of widespread habitat destruction and damage by the extreme floods of 1993 and 1995, remaining floodplain forest has great potential value as breeding habitat for a variety of regionally rare species. Several species on the List of Endangered and Threatened Species for Illinois depend mostly on floodplain forest, including the Yellow-crowned Night Heron, Red-shouldered Hawk, and Brown Creeper, all of which nest in northern Illinois. In addition, regionally rare Cerulean Warblers reach their greatest abundance in floodplain forest (G. Vanderah, unpubl. data). Large floodplain forests also have the potential to provide a buffer against high abundances of nest predators such as Blue Jays and brood-parasitic Brown-headed Cowbirds.

For these reasons, we undertook a census of the bird community of the Milan Bottoms. Our overall goal was to help guide management of the forest. Our specific objectives were: (1) to search for populations of threatened, endangered, and rare species; (2) estimate abundances of all breeding species; (3) estimate abundances of nest predators and brood parasites; (4) look for evidence of edge effects on avian abundance, both aquatic and agricultural edges; and (5) document nesting activities by resident birds.

METHODS

Censuses were conducted from 5 June to 15 July, 1999, and 7 June to 15 July, 2000, during the morning hours 0530-1130. Censuses were not begun earlier in the season because of high water levels. All censuses used in this report were conducted by Kelly McKay. Census points were established on an approximate grid at 300-m intervals

(Fig. 1). Census points that were in standing water were either eliminated entirely or moved to the nearest dry land if that land was located less than 50m away. River edge points were located within 20m of the river, whereas points located near the agricultural edge were located at least 50m from the nearest edge. Many census points in the forest interior were actually located along river channels and other backwater openings (Fig. 1).

Each census point was visited twice, the first time in June and the second visit in July. As soon as the observer arrived at the point, he began describing all birds heard or observed into a portable tape recorder. The identity, compass direction, and distance to the point were estimated for every bird. For territorial species, only singing males or family groups were counted. For non-territorial species (Common Grackles, herons, waterfowl, European Starlings, and swallows), individuals were counted. Birds heard during three time periods (0-5 min, 5-6 min, 6-8 min, 8-10 min) were recorded separately to facilitate comparisons with other studies. Because of the extraordinary abundance of birds in many floodplain forests, we elected to use all birds recorded within 50m of the census point during the entire 10-minute count as our basic descriptor of abundance. There were often too many birds to record during a "standard" 5-minute count and the high density near the point may reduce detection efficiency beyond 50m, as evidenced by a very rapid detection rate/unit area beyond 50m (unpubl. analysis).

Census points were divided into river edge points (those located within 50m of the Mississippi River) (N=14), forest interior points (those located at least 30m from agriculture or the river) (N=25), and agricultural edge points (those within 100m of the row crops) (N=12).

RESULTS

Species richness. Of the 91 species recorded, 69 were recorded on the formal censuses, two were migrants (both sandpipers), and two were only recorded overhead (Chimney Swift and Double-crested Cormorant). One other species was only recorded along the agricultural edge (Brown Thrasher).

Threatened and Endangered Species. Yellow-crowned Night Herons were rarely recorded on the census. Diurnal censuses, however, do not census this nocturnal/crepuscular species very efficiently. Red-shouldered Hawks were detected at a number of points and three nests were located in 1993 (see Appendix 7). Brown Creepers were by far the most abundant Threatened species in the forest with several sub-populations in areas with standing live and dead trees in shallow water. The overall abundance of 0.2-0.3 birds/50m radius point is one of the highest abundances ever recorded in the State for this inconspicuous and non-vocal species. There may be over 50 pairs in the Milan Bottoms, which would make it one of the most important populations in the State.

Numerically dominant territorial species. More than most forest bird communities, Milan Bottoms was dominated by a few very abundant species. The House Wren abundance was, by far, the highest ever recorded in the State in both years of the census. The overall population of this species in Milan Bottoms likely exceeds 1,000 pairs. Given the nest-predatory habits of this species, this huge population may pose a significant threat to some other species. Downy Woodpeckers were more abundant in this forest than in any other area I have censused to date, as were Black-capped Chickadees. Song Sparrows reached extraordinarily high population densities in more

disturbed sections of the forest. The population density of Song Sparrows in Milan Bottoms was by far the highest yet recorded in a mostly forest habitat in Illinois. This species, however, also reaches comparable population densities in many non-forested habitats. The Baltimore Oriole and Warbling Vireo, two species of relatively open habitats with scattered trees were also common in Milan Bottoms, mainly in heavily disturbed sections, especially along the river. American Redstarts were abundant, especially in Silver Maples near water; this species was generally abundant in the floodplain forests of the Upper Mississippi River. Red-winged Blackbirds were patchily abundant in shrub-dominated buttonbush swamps. All of the most abundant species in Milan Bottoms were typical of highly disturbed forests and more open habitats in general.

Numerically dominant, non-territorial species. One of the most striking aspects of the Milan Bottoms community was the very high abundance of non-territorial species. There is a large rookery of Great Blue Herons (Table 2) and, apparently, a nearby colony of Bank Swallows, which forage abundantly over the river. Wood Duck populations were also very high in the backwaters of the Milan Bottoms where they were recorded at a higher rate than in any other forest I have censused; 29 fledged families were found in 1999 (Table 2). Tree Swallows nested in and foraged abundantly over the backwaters of the forest. The counts for Milan Bottoms are the highest I have ever recorded in a floodplain forest, no doubt because of the many open backwater areas. Northern Rough-winged Swallows mainly appeared as post-breeding wanderers, but were sometimes observed in flocks of up to 60. Turkey Vultures roosted along the river and were routinely observed flying overhead. Chimney Swifts were also regularly observed overhead and may nest in some of the larger snags. European Starlings nested

abundantly throughout Milan Bottoms in snags; their abundance was the highest ever recorded in a forest habitat in Illinois. Common Grackles, a facultative nest predator, were very abundant, especially in June.

Other typical floodplain forest species. In addition to the species already described, several other floodplain species were typically abundant. Prothonotary Warblers were recorded near all backwater areas in numbers typical of Mississippi River forests. Red-headed Woodpeckers were also patchily abundant within the forest.

Southern species. Several rare species are at or near the northern limit of their breeding ranges. Yellow-throated Warblers were present, but probably only a few pairs nested in the entire forest. One pair of Carolina Wrens was detected. Northern Parulas were detected once; Milan Bottoms is in the middle of an area that has historically lacked this species. A few pairs of Blue-gray Gnatcatchers were scattered throughout Milan Bottoms and nested uncharacteristically late (see Appendix 7 and 8).

"Forest-interior" species. In general, species characteristic of closed-canopy forests were rare or uncommon in Milan Bottoms. Only one male Cerulean Warbler was detected (1999 only) and Red-eyed Vireos were less abundant than usual. No tanagers were detected, but they are rare in most floodplain forests in Illinois. Yellow-throated vireos, Eastern Wood-Pewees, and Great Crested Flycatchers, which occur in both closed and moderately disturbed canopies, were detected at typical abundances in Milan Bottoms compared with other floodplain forests. Pileated Woodpeckers, which also tolerate moderate disturbances, were recorded at low population densities throughout Milan Bottoms.

Shrubland species. Perhaps because of late floods, species that nest in shrubs and in annual plants were comparatively uncommon in Milan Bottoms. Gray Catbirds, Yellow Warblers, Common Yellowthroats, and Indigo Buntings were all recorded in relatively low population densities only.

Nest predators and parasites. Brown-headed Cowbirds were unusually scarce in Milan Bottoms, perhaps because of the scarcity of suitable hosts other than Song Sparrows. Common Grackles were abundant, but foraged mainly on the ground. House Wrens were also abundant, usually close to the ground as well. American Crows were heard regularly and were unusually common in Milan Bottoms, but were rarely observed foraging within the forest. Blue Jays, which are usually rare in floodplain forests, were relatively common, especially along the river. Cowbirds were most abundant along agricultural edges in both years of the study.

Other species. Several species occurred at "typical" population densities for forests at this latitude, including the Yellow-billed Cuckoo, Red-bellied Woodpecker, Hairy Woodpecker, White-breasted Nuthatch, and Northern Cardinal. Ruby-throated Hummingbirds were unaccountably rare. Eastern Bluebirds nested in a few snags in swamps. Hooded Mergansers were only recorded once.

Absent species. Ground-foraging forest species such as Kentucky Warblers, Wood Thrushes, and Ovenbirds were not record, perhaps because of the seasonal flooding regime. Scarlet Tanagers and Hooded Warblers are rare in floodplain forests statewide, so it is not surprising that they were not found in Milan Bottoms. The lack of Acadian Flycatchers, however, is puzzling given their abundance in floodplain forests elsewhere in the State.

Annual variation. In general, the community profiles as indexed by censusing were strikingly similar in the two years of the study. The numerically dominant species in 1999 remained dominant in 2000 as well. Wood Ducks, Bank Swallows, and Tufted Titmouses were detected less often in 2000 than in 1999 whereas Chimney Swifts, Pileated Woodpeckers, American Crows, American Robins, and Gray Catbirds were detected more often in 2000 than in 1999.

Parasitization. There was little evidence of frequent parasitization by cowbirds (Table 2). Two of the four Song Sparrow nests were parasitized, but none of the four fledged families located contained cowbirds (Table 2). Otherwise, the only evidence of parasitization came from an Indigo Bunting seen feeding a cowbird and one out of nine fledged families of Prothonotary Warblers. Overall, only four of the 22 nests (18%) of frequently parasitized species (Eastern Wood-Pewee, American Redstart, Prothonotary Warbler, Northern Cardinal, Indigo Bunting, and Song Sparrow) were parasitized. This level is one of the lowest ever record in the State (S. Robinson, unpubl. data).

PRELIMINARY MANAGEMENT RECOMMENDATIONS

The "forest-interior" bird community appears to need the most management consideration. The extensive system of backwaters and flood-damaged stands creates abundant habitat for open-forest species and swamp specialists. The species that nest in large trees on natural levees, however, were rare or absent. Maintaining and enhancing existing mature timber therefore appears to be a very high priority for the site. Large trees also provide good nest and roost sites for many species, including raptors and colonial herons.

The breeding community of Milan Bottoms is currently dominated by species that are resistant to nest predation (e.g., cavity nesters) and to cowbird parasitism (e.g., rejecters). As a result, this bird community may be less affected by fragmentation than many upland forest bird communities. Milan Bottoms therefore has high potential to be a source population for many nesting species.

The swamp-dependent and open-forest species that nest in Milan Bottoms appear to have large, healthy populations and do not require special management. Likewise, the shrubland bird community should recover rapidly as saplings regrow under dead trees and after a period of relatively low floods when these forests may regenerate

Table 1. Estimated abundances of birds in the Milan Bottoms, 1999 and 2000 (June and July)

No. recorded/10 census points (50-m radius; 10-min. count)

	<u>River Edge (14)</u>		<u>Interior (25)</u>		<u>Agricultural Edge (12)</u>	
	<u>1999</u>	<u>2000</u>	<u>1999</u>	<u>2000</u>	<u>1999</u>	<u>2000</u>
Double-crested Cormorant	+	0	+	0.4 i	0	0.8
Great Blue Heron	1.8 i	0.4 i	11.0 i	6.8 i	2.1 i	4.6 i
Great Egret	0	0	+	0	0	0
Green Heron	0	0	+	0.6 i	0.8 i	0.4 i
Yellow-crowned Night Heron	0	0	0.2 i	0	0	0
Canada Goose	0	0	0	+	0	0
Wood Duck	0.4 i	1.1 i	8.0 i	1.8 i	18.8 i	2.9 i
Mallard	1.4 i	1.8 i	0	0	0.4 i	0
Hooded Merganser	0	0.7 i	0	1.8 i	0	0
Turkey vulture	20.4 i	34.3 i	0.4 i	5.0 i	0	0.4 i
Bald Eagle	0	+	0	0	0	0
Cooper's Hawk	0	0	0	0	0	+
Red-shouldered Hawk	0	0	0.2	0.2	+	+
Red-tailed Hawk	0	0	0.2	0.2	0.8	0
American Kestrel	0	0	0	0.4	0	0
American Coot	0	0	0	+	0	0
Killdeer	1.1	0	0.2	0.6	2.1	2.1
Solitary Sandpiper	0	0	0.2	0.2	0	0
Spotted Sandpiper	0	0.4 i	0.4	0	0	0
Ring-billed Gull	0	+	0	0	0	0
Forster's Tern	0	+	0	0	0	0
Rock Dove	0	2.9 i	0	0	0	0
Mourning Dove	0	0	+	0	+	0
Black-billed Cuckoo	0	0	0	+	0	0
Yellow-billed Cuckoo	1.8	0	0.8	0.4	1.3	2.5
Great Horned Owl	0	0	0	0	0.8	+
Barred Owl	0	0	0.4	0.2	0	0
Chimney Swift	+	3.2 i	3.8 i	9.6 i	+	1.3
Ruby-throated Hummingbird	0	0.7 i	0.2 i	0.2 i	0	0
Belted Kingfisher	1.1	0.4 i	0.4 i	0.2 i	+	0.4
Red-headed Woodpecker	3.6	6.4	6.4	4.0	2.9	3.3
Red-bellied Woodpecker	2.5	5.0	4.2	3.8	4.6	3.8
Downy Woodpecker	7.9	4.6	4.6	8.0	9.2	9.2
Hairy Woodpecker	2.1	2.5	1.4	2.6	3.8	1.7
Northern Flicker	+	1.4	1.2	1.0	+	0.4
Pileated Woodpecker	+	1.4	0.4	0.6	0.4	1.3
Eastern Wood-Pewee	5.0	3.6	3.0	4.0	3.3	1.7
Eastern Phoebe	0	0	0.6	0.2	1.3	0
Great Crested Flycatcher	3.9	6.4	5.0	3.4	7.1	7.9
Eastern Kingbird	0	0	0	0.2	0	0
Horned Lark	0	0	0	0	0	+

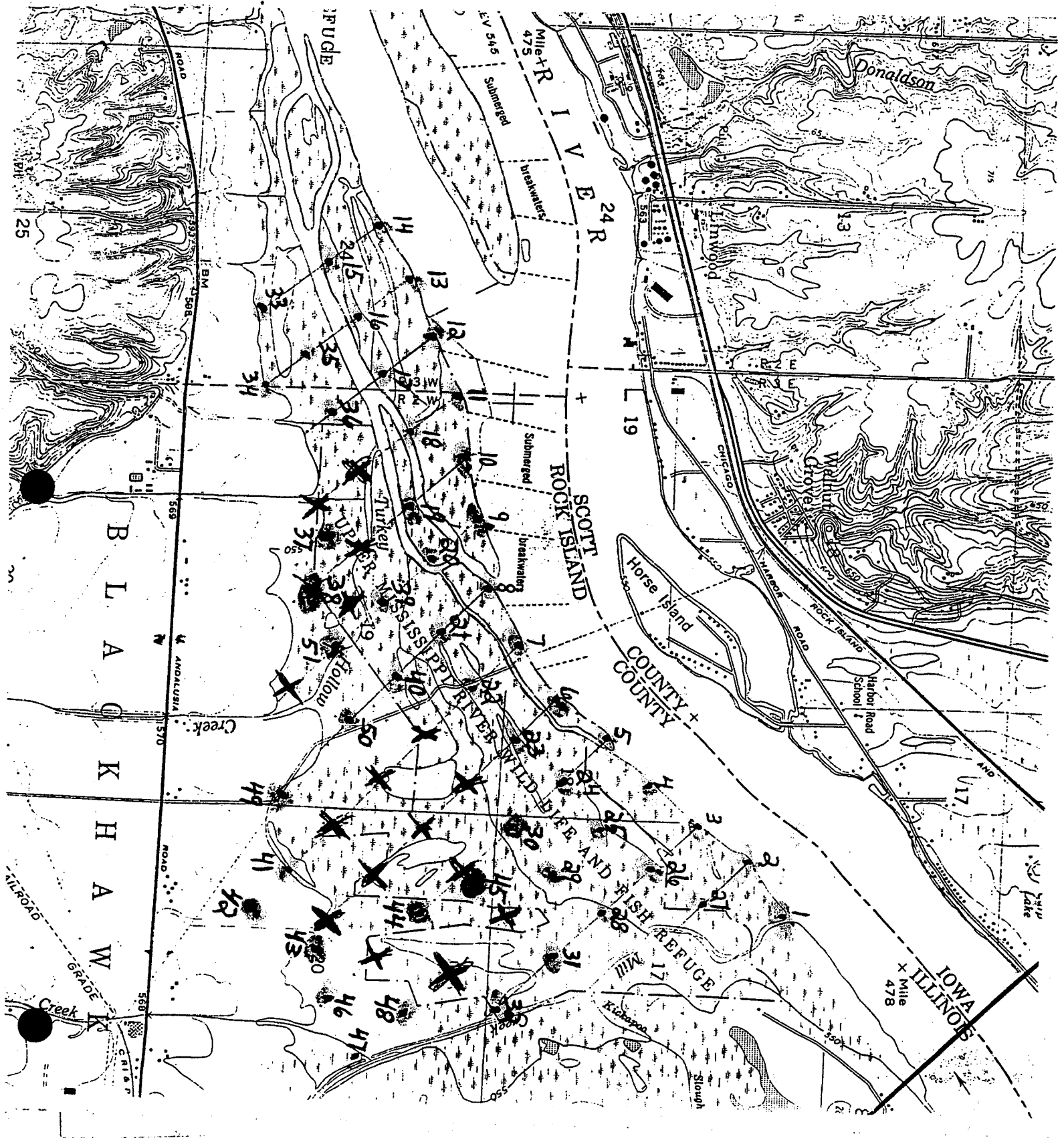
Table 1. (cont.)

	<u>River Edge (14)</u>		<u>Interior (25)</u>		<u>Agricultural Edge (12)</u>	
	<u>1999</u>	<u>2000</u>	<u>1999</u>	<u>2000</u>	<u>1999</u>	<u>2000</u>
Purple Martin	0.7 i	0.4 i	0	0.6 i	0	0
Tree Swallow	46.4 i	10.0 i	22.8 i	18.4 i	13.3 i	15.0 i
Northern Rough-winged Swallow	0.4 i	0.7 i	15.8 i	5.4 i	0	0
Bank Swallow	23.4 i	0.4 i	1.8 i	0.2 i	0	0
Cliff Swallow	0	+	0	0	0	0
Barn Swallow	0	0	0.2 i	0.2 i	0.4 i	0
Blue Jay	5.0	6.1	2.8	2.2	1.3	3.3
American Crow	1.8	3.2	1.2	2.6	2.9	2.5
Black-capped Chickadee	7.5	10.7	9.4	16.2	13.8	7.9
Eastern Tufted Titmouse	3.2	0.4	0.2	0.8	0.4	0.8
White-breasted Nuthatch	4.6	8.2	5.8	7.2	7.9	5.0
Brown Creeper	0	1.1	3.4	3.0	2.5	1.7
Carolina Wren	0	1.1	0.2	0.2	0	0
House Wren	23.6	22.5	25.4	27.0	30.0	27.9
Sedge Wren	0	0	0	0	0	+
Blue-gray Gnatcatcher	0.7	0.4	2.0	3.2	0	2.9
Eastern Bluebird	0	0.7	0.4	1.6	+	0.4
American Robin	0.7	2.5	+	2.4	+	1.7
Gray Catbird	1.4	4.3	1.4	5.2	0.8	0.8
Brown Thrasher	1.4	0	1.4	0	0.8	0
Cedar Waxwing	3.2	2.5	2.6	1.6	1.3	0.8
European Starling	13.2 i	9.3 i	17.8 i	12.2 i	5.8 i	7.5 i
Yellow-throated Vireo	1.8	0.4	2.6	2.6	0.4	1.3
Warbling Vireo	4.6	4.6	3.8	3.2	5.0	2.5
Red-eyed Vireo	3.9	3.6	3.0	2.4	0.8	1.7
Northern Parula	0	0	0.4	0.4	0	0
Yellow Warbler	0	0	0.2	0	+	0.4
Yellow-throated Warbler	0	0	+	0.2	0.4	0.4
Cerulean Warbler	0	0	0.2	0	0	0
American Redstart	11.4	10.4	17.4	17.0	4.2	2.9
Prothonotary Warbler	5.7	6.8	6.8	5.0	4.6	2.5
Common Yellowthroat	1.4	0.4	0.8	1.4	2.1	1.7
Northern Cardinal	4.6	6.4	7.0	5.3	6.3	5.8
Rose-breasted Grosbeak	+	+	0	0	0	0
Indigo Bunting	2.5	4.3	3.4	4.8	8.3	7.5
Song Sparrow	18.6	14.6	10.8	11.8	8.8	8.3
Red-winged Blackbird	9.3	9.3	12.8	7.6	12.5	22.5
Common Grackle	23.6 i	16.1 i	29.8 i	16.8 i	7.9 i	10.4 i
Brown-headed Cowbird	0.4	1.4	1.6	1.2	2.1	5.0
Baltimore Oriole	9.3	15.4	4.2	4.8	2.5	2.5
American Goldfinch	1.1	1.4	1.0	1.6	4.6	4.2
House Sparrow	0	0	0	0	0	+
Eurasian Tree Sparrow	0	0	0	0	0	+

Table 2. Nesting data from Milan Bottoms, 1999 and 2000

	<u>Nests Located (parasitized)</u>		<u>Fledged Families (parasitized)</u>	
	<u>1999</u>	<u>2000</u>	<u>1999</u>	<u>2000</u>
Great Blue Heron	20+	34	--	--
Canada Goose	0	0	2	0
Wood Duck	0	0	27	7
Mallard	0	0	0	2
Hooded Merganser	0	0	0	1
Cooper's Hawk	0	0	0	1
Red-shouldered Hawk	3	0	0	0
Red-tailed Hawk	1	0	0	0
Ruby-throated Hummingbird	0	1	0	0
Red-headed Woodpecker	5	2	2	2
Red-bellied Woodpecker	0	0	3	1
Downy Woodpecker	0	3	0	1
Pileated Woodpecker	2	1	0	0
Eastern Wood-Pewee	0	1	0	1 (0)
Great Crested Flycatcher	3	1	1 (0)	0
Tree Swallow	5	9	4	0
Black-capped Chickadee	1	0	1	1
White-breasted Nuthatch	0	0	0	2
Carolina Wren	0	0	0	1 (0)
House Wren	9	6	3	1
Blue-gray Gnatcatcher	5	1	0	0
Eastern Bluebird	0	0	2 (0)	0
Gray Catbird	0	1 (0)	1 (0)	0
European Starling	3	1	0	0
American Redstart	1	0	1 (0)	0
Prothonotary Warbler	0	3	1 (0)	8 (1)
Northern Cardinal	1 (0)	0	2 (0)	0
Indigo Bunting	0	0	1 (1)	0
Song Sparrow	2 (1)	2 (1)	3 (0)	1 (0)
Red-winged Blackbird	1 (0)	5 (0)	0	1 (0)
Baltimore Oriole	3	0	1 (0)	0
Eurasian Tree Sparrow	1	0	0	0

Fig. 1. Location of census points



UTM / UPS Positions of Milan Bottoms Point Locations as Determined by GPS

Point 1	15 T 0697217 UTM 4593724	Point 14	15 T 0694237 UTM 4591705
Point 2	15 T 0697050 UTM 4593553	Point 15	15 T 0694386 UTM 4591389
Point 3	15 T 0696872 UTM 4593335	Point 16	15 T 0694687 UTM 4591568
Point 4	15 T 0696690 UTM 4593060	Point 17	15 T 0694897 UTM 4591734
Point 5	15 T 0696557 UTM 4592797	Point 18	15 T 0695244 UTM 4591855
Point 6	15 T 0696298 UTM 4592642	Point 19	15 T 0695421 UTM 4591737
Point 7	15 T 0696067 UTM 4592411	Point 20	15 T 0695684 UTM 4591906
Point 8	15 T 0695889 UTM 4592251	Point 21	15 T 0696074 UTM 4592076
Point 9	15 T 0695564 UTM 4592199	Point 22	15 T 0696348 UTM 4592275
Point 10	15 T 0695271 UTM 4592149	Point 23	15 T 0696674 UTM 4592442
Point 11	15 T 0694987 UTM 4592133	Point 24	15 T 0696920 UTM 4592645
Point 12	15 T 0694722 UTM 4592073	Point 25	15 T 0696922 UTM 4592972
Point 13	15 T 0694500 UTM 4591843	Point 26	15 T 0697144 UTM 4593182

Point 27	15 T 0697302 UTM 4593439	Point 42	15 T 0697311 UTM 4591140
Point 28	15 T 0697354 UTM 4592997	Point 43	15 T 0697488 UTM 4591554
Point 29	15 T 0697161 UTM 4592797	Point 44	15 T 0697352 UTM 4591929
Point 30	15 T 0697086 UTM 4592468	Point 45	15 T 0697297 UTM 4592299
Point 31	15 T 0697486 UTM 4592745	Point 46	15 T 0697722 UTM 4591505
Point 32	15 T 0697710 UTM 4592527	Point 47	15 T 0698024 UTM 4591886
Point 33	15 T 0694637 UTM 4591078	Point 48	15 T 0697792 UTM 4592156
Point 34	15 T 0695018 UTM 4591230	Point 49	15 T 0696790 UTM 4591235
Point 35	15 T 0694872 UTM 4591445	Point 50	15 T 0696432 UTM 4591709
Point 36	15 T 0695179 UTM 4591485	Point 51	15 T 0696044 UTM 4591464
Point 37	15 T 0695567 UTM 4591361		
Point 38	15 T 0695865 UTM 4591767		
Point 39	15 T 0695926 UTM 4591747		
Point 40	15 T 0696274 UTM 4591878		
Point 41	15 T 0697221 UTM 4591492		

Key to the Data Sheets for the 1999 Milan Bottoms Avian Point Count Surveys

Number in parentheses following species code - If more than two entries were made for a species during a particular time period, multiple listings were recorded.

1st Number - # of individuals.

1st Parentheses - Estimated approximate distance in meters.

- FO = Fly Over
- PT = Bird at Point

2nd Parentheses - Approximate direction of the bird.

- N = North
- NE = Northeast
- E = East
- SE = Southeast
- S = South
- SW = Southwest
- W = West
- NW = Northwest

* No direction assigned for FO or PT.

3rd Parentheses - Identification method.

- Unless noted, identification was made by song.
- V = Visual identification
- C = Call note identification
- D = Drumming identification

Key to the Species Codes for the 1999 Milan Bottoms Avian Project

DCCO	=	Double-crested Cormorant
GBHE	=	Great Blue Heron
GREG	=	Great Egret
GRHE	=	Green Heron
YCNH	=	Yellow-crowned Night-Heron
WODU	=	Wood Duck
MALL	=	Mallard
TUVU	=	Turkey Vulture
RSHA	=	Red-shouldered Hawk
RTHA	=	Red-tailed Hawk
KILL	=	Killdeer
SOSA	=	Solitary Sandpiper
SPSA	=	Spotted Sandpiper
MODO	=	Mourning Dove
YBCU	=	Yellow-billed Cuckoo
GHOW	=	Great Horned Owl
BAOW	=	Barred Owl
CHSW	=	Chimney Swift
RTHU	=	Ruby-throated Hummingbird
BEKI	=	Belted Kingfisher
RHWO	=	Red-headed Woodpecker
RBWO	=	Red-bellied Woodpecker
DOWO	=	Downy Woodpecker
HAWO	=	Hairy Woodpecker
NOFL	=	Northern Flicker
PIWO	=	Pileated Woodpecker
EWPE	=	Eastern Wood-Pewee
EAPH	=	Eastern Phoebe
GCFL	=	Great Crested Flycatcher
PUMA	=	Purple Martin
TRSW	=	Tree Swallow
NRSW	=	Northern Rough-winged Swallow
BKSW	=	Bank Swallow
BASW	=	Barn Swallow
BLJA	=	Blue Jay
AMCR	=	American Crow
BCCH	=	Black-capped Chickadee
TUTI	=	Tufted Titmouse
WBNU	=	White-breasted Nuthatch
BRCR	=	Brown Creeper
CAWR	=	Carolina Wren

HOWR	=	House Wren
BGGN	=	Blue-gray Gnatcatcher
EABL	=	Eastern Bluebird
AMRO	=	American Robin
GRCA	=	Gray Catbird
BRTH	=	Brown Thrasher
CEWX	=	Cedar Waxwing
EUST	=	European Starling
YTVI	=	Yellow-throated Vireo
WAVI	=	Warbling Vireo
REVI	=	Red-eyed Vireo
NOPA	=	Northern Parula
YEWA	=	Yellow Warbler
YTWA	=	Yellow-throated Warbler
CEWA	=	Cerulean Warbler
AMRE	=	American Redstart
PRWA	=	Prothonotary Warbler
COYE	=	Common Yellowthroat
NOCA	=	Northern Cardinal
RBGR	=	Rose-breasted Grosbeak
INBU	=	Indigo Bunting
SOSP	=	Song Sparrow
RWBL	=	Red-winged Blackbird
COGR	=	Common Grackle
BHCO	=	Brown-headed Cowbird
BAOR	=	Baltimore Oriole
AMGO	=	American Goldfinch

Key to the Data Sheets for the 2000 Milan Bottoms Avian Point Count Surveys

Number in parentheses following species code - If more than two entries were made for a species during a particular time period, multiple listings were recorded.

1st Number - # of individuals.

1st Parentheses - Estimated approximate distance in meters.

- FO = Fly Over
- PT = Bird at Point

2nd Parentheses - Approximate direction of the bird.

- N = North
- NE = Northeast
- E = East
- SE = Southeast
- S = South
- SW = Southwest
- W = West
- NW = Northwest
- * No direction assigned for FO or PT.

3rd Parentheses - Identification method.

- Unless noted, identification was made by song.
- V = Visual identification
- C = Call Note identification
- D = Drumming identification

Key to the Species Codes for the 2000 Milan Bottoms Avian Project

DCCO	=	Double-crested Cormorant
GBHE	=	Great Blue Heron
GRHE	=	Green Heron
CAGO	=	Canada Goose
WODU	=	Wood Duck
MALL	=	Mallard
HOME	=	Hooded Merganser
TUVU	=	Turkey Vulture
RSHA	=	Red-shouldered Hawk
RTHA	=	Red-tailed Hawk
AMKE	=	American Kestrel
KILL	=	Killdeer
SOSA	=	Solitary Sandpiper
SPSA	=	Spotted Sandpiper
FOTE	=	Forster's Tern
RODO	=	Rock Dove
MODO	=	Mourning Dove
BBCU	=	Black-billed Cuckoo
YBCU	=	Yellow-billed Cuckoo
BAOW	=	Barred Owl
CHSW	=	Chimney Swift
RTHU	=	Ruby-throated Hummingbird
BEKI	=	Belted Kingfisher
RHWO	=	Red-headed Woodpecker
RBWO	=	Red-bellied Woodpecker
DOWO	=	Downy Woodpecker
HAWO	=	Hairy Woodpecker
NOFL	=	Northern Flicker
PIWO	=	Pileated Woodpecker
EWPE	=	Eastern Wood-Pewee
EAPH	=	Eastern Phoebe
GCFL	=	Great Crested Flycatcher
EAKI	=	Eastern Kingbird
PUMA	=	Purple Martin
TRSW	=	Tree Swallow
NRSW	=	Northern Rough-winged Swallow
BKSW	=	Bank Swallow
BASW	=	Barn Swallow
BLJA	=	Blue Jay

AMCR	=	American Crow
BCCH	=	Black-capped Chickadee
TUTI	=	Tufted Titmouse
WBNU	=	White-breasted Nuthatch
BRCR	=	Brown Creeper
CAWR	=	Carolina Wren
HOWR	=	House Wren
BGGN	=	Blue-gray Gnatcatcher
EABL	=	Eastern Bluebird
AMRO	=	American Robin
GRCA	=	Gray Catbird
CEWA	=	Cedar Waxwing
EUST	=	European Starling
YTVI	=	Yellow-throated Vireo
WAVI	=	Warbling Vireo
REVI	=	Red-eyed Vireo
NOPA	=	Northern Parula
YEWA	=	Yellow Warbler
YTWA	=	Yellow-throated Warbler
AMRE	=	American Redstart
PRWA	=	Prothonotary Warbler
COYE	=	Common Yellowthroat
SCTA	=	Scarlet Tanager
NOCA	=	Northern Cardinal
RBGR	=	Rose-breasted Grosbeak
INBU	=	Indigo Bunting
SOSP	=	Song Sparrow
RWBL	=	Red-winged Blackbird
COGR	=	Common Grackle
BHCO	=	Brown-headed Cowbird
BAOR	=	Baltimore Oriole
AMGO	=	American Goldfinch

Appendix 1. River edge census sheets, 1999 (early and late season)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 10

Date 6-12-99

Time Period 1

Survey Time 0741-0751

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
RWB	1 (PT) (V) ; 1 (80m) (N)	1 (20m) (E) (V)		
BLT	1 (10m) (NE) (V)			
TUV	1 (10m) (NE) (V) ; 5 (60m) (SW) (V)			
EUST	6 (10m) (NE) (V) ; 4 (10m) (NE) (V)			
SOSP (1)	1 (10m) (E) (V) ; 1 (10m) (N) (C)			
PRWA	1 (40m) (SE)			
HWR	1 (50m) (S) ; 1 (50m) (SW)		1 (30m) (E) ; 1 (60m) (S)	
YTVI	1 (30m) (S)			
WBNU	2 (60m) (E) ; 1 (60m) (E)			
AMRE (1)	1 (40m) (SE) ; 1 (50m) (E)			
SOSP (2)	1 (10m) (S) ; 1 (40m) (E)			
RBWD	1 (90m) (E)			1 (100m) (E) ; 1 (60m) (E)
BAOR	1 (20m) (E)			
AMCR	1 (200m) (E)		1 (160m) (N)	
AMRE (2)	1 (70m) (SW)			
WAVI		1 (60m) (E)		
DOWND		1 (40m) (NE)		
RHYD		1 (100m) (NE)		
EWPE			1 (60m) (E)	
TRSW			2 (20m) (NW)	
GBHE				1 (80m) (N)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 14

Date 6-12-99

Time Period 1

Survey Time 0848 - 0858

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
AMCR	3(100m)(E)			
PRWH	1(90m)(SE); 1(90m)(S)			
RWBL	6(10m)(NW-W)(V); 3(50m)(SE)		1(60m)(SW)	
COGR (1)	20(50m)(SE); 1(20m)(E)(V)			6(10m)(E-SE)
WAVI	1(40m)(SE); 1(80m)(SW)			
DOWD (1)	1(20m)(SE); 1(20m)(S)			
HQWR	1(10m)(W)		1(20m)(SW)	
BCCH	1(30m)(SW)		1(30m)(E); 1(40m)(SE)	1(100m)(NE)
EMPE	1(60m)(SW); 1(50m)(SE)			
EUST	2(10m)(NE)(V)		1(10m)(SE)	2(10m)(E)(V)
BKSW	6(F0)			
GBHE	1(F0)(V)			
GCFE	1(80m)(SW)			
COGR (2)	10(70m)(E)			
DOWD (2)	1(60m)(S)			
RHW0		1(30m)(SW)		
BLJA				
NOC9			1(100m)(E); 1(40m)(E)	
BADR				1(70m)(NE) 1(50m)(S)



2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 41

Date 7-13-00

Time Period 2

Survey Time 0946 - 0956

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HWR (D)	(30m)X(N); (30m)X(N)			
AMCR	(40m)X(W); (80m)X(W)			
HOWR (a)	(40m)X(NE); (150m)X(W)			
WAVI	(30m)X(E)			
COGR	3 (30m)X(NE)X(D); 2 (30m)X(N)		(50m)X(E)	
SOSP (D)	(50m)X(N); (100m)X(N)	(70m)X(E)	2 (40m)X(N)	
RHW0	(80m)X(NW); (90m)X(N)		(110m)X(NW)	
GBHE	(70m)X(N)			
NOCA	(50m)X(S)			
SOSP (a)	(70m)X(NW)		(90m)X(NE)	
HAW0	(50m)X(NE)			
BCCH		(40m)X(N)		
BLTA			(30m)X(NW)	
EAKI			(100m)X(W)X(V)	
BHCO			(100m)X(W)X(V)	
DOW0			(50m)X(SE)	
PRWA				(60m)X(N); (100m)X(N)
EABI				(80m)X(W)
INBU				(110m)X(W)
AMGO				(90m)X(W)
WODU				(60m)X(S)
				7 (50m)X(W)

2000
4999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 42

Date 7-13-00

Time Period 2

Survey Time 0931-0941

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
TNRI	(40m)X(SE); (100m)X(S)	(300m)X(W)	(130m)X(E)	(40m)X(NW)
HOWR	(70m)X(NE); (100m)X(SE)			
RWBL	(130m)X(NW)			
BLJAD	(80m)X(SE); (140m)X(NEXV)			
YIVI	(350m)X(W); (150m)X(N)	(300m)X(NW)		
BCCH	(90m)X(N); (100m)X(N)			
BLJAC2	(30m)X(XV)			
RHOW	(60m)X(N); (150m)X(N)		(40m)X(E)X(V)	
YBCU	(70m)X(NE)			
AMCR	(350m)X(W)		(100m)X(E); (150m)X(NW)	
PIWA		(130m)X(S)		
PIWO			(110m)X(NE); (160m)X(E)	
BAOR			(140m)X(SE)	
COGR			(150m)X(SE)	

2000-0

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 49

Date 7-13-00

Time Period 2

Survey Time 1005 - 1015

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
SOSP(1)	(PTYV); (10m)(SE)(V)			
HOWR	(10m)(X)(V)			
BCCH	(20m)(W)(V); (100m)(SW)			
SOSP(2)	(10m)(SE)(V); (70m)(X)(V)			
TUTI	(10m)(X)(V)			
TNBU	(50m)(E); (40m)(SE)	2(30m)(E)(V)		
GRCA	(30m)(E)		(30m)(W)	
SOSP(3)	(30m)(E); (100m)(SE)			
BLJA(1)	(20m)(S); (20m)(SE)(V)			
PIW0	(40m)(S)			
BLJA(2)	(40m)(SW); (20m)(SE)			
COYE	(100m)(W)			
GCHL	(50m)(W)(V)	(100m)(S)	(20m)(W)	
YBCI	(30m)(S)			
HAW0	(30m)(E)			
YIVL	(30m)(NE)			
DW00		(30m)(S)	(100m)(NW)	
WAVT		(150m)(S)		
BHCO				
NOFL			(30m)(E)	
BGGV			(80m)(S)	
AMCR			(30m)(NE)	
CEWA				(300m)(NW); (280m)(W)
RWBL				2(40m)(NW)
NOCA				(40m)(S)
				(20m)(S)

0-5

Appendix 7. Data on nests located in 1999

1999 Milan Bottoms Nest Search Data
(Actual Located Nests)

1) **American Redstart**

6-11-99

- Observed female AMRE flying into the nest site.
- Contents of the nest unknown.
- Nest location near survey point # 45.
- Flagged nest tree.
- Nest GPS (AMRE 01) 15 T 0697308
 UTM 4592158

7-8-99

- Outcome of nesting attempt unknown.
- No adults near the nest.
- Nest deteriorated.
- Nest tree: silver maple.
- Nest height: ~ 40 ft.
- Nest distances: Mallard Pond- ~ 20m.

2) **Song Sparrow**

6-15-99

- Flushed adult from the nest.
- 4 Song Sparrow eggs ; 1 Brown-headed Cowbird egg.
- Nest located ~ 100-125m west of survey point # 30.
- Nest vegetation: grape and smilax clump.
- Nest height: ~ 2 ft.
- Nest distances: buttonbush wetland- ~ 1m.
- Flagged hickory sapling ~ 2m east of nest.
- Nest GPS (SOSP 01) 15 T 0696946
 UTM 4592620

7-8-99

- Outcome of nesting attempt unknown.
- Nest empty, but appeared undisturbed.

3) **House Wren**

6-18-99

- Observed adult carrying food into the nest.
- Could not see inside real well.
- At least 2 nestlings - downy, eyes closed.
- Nest located ~ 60m NE of survey point # 33.

- Flagged snag ~ 1 ft. north of nest.
- Nest tree: unidentified snag.
- Nest height: ~ 5 ft.
- Nest distances: agricultural edge- ~ 20m.
buttonbush wetland- ~ 40m.
- Nest GPS (HOWR 01) 15 T 0694703
UTM 4591020

6-29-99

- Checked nest which was empty.
- I believe this nest was probably successful because it was full of droppings, as well as some small feathers and down.

4) **House Wren**

6-18-99

- Observed adult scolding near the nest, after leaving the nest.
- Nest contents unknown.
- Nest located south of survey point # 38.
- Nest tree: elm snag
- Nest height: ~ 7 ft.
- Nest distances: forest edge- ~ 50m.
buttonbush wetland- ~ 30m.
agricultural edge- ~ 150m.
- Nest GPS (HOWR 02) 15 T 0695899
UTM 4591581

7-7-99

- Nest was empty.
- Outcome of nesting attempt unknown.
- Flagged nest tree.

5) **Song Sparrow**

6-18-99

- Flushed incubating adult.
- Nest located on pumphouse levee.
- 4 warm eggs.
- Nest vegetation: nest was on the ground.
- Nest height: nest was on the ground.
- Nest distances: forest- ~ 2m.
wetland- ~ 5m.
agricultural field- ~ 100m.
- Nest GPS (SOSP 02) 15 T 0696115
UTM 4591655

7-6-99

- Could not relocate the nest.
- Outcome of nesting attempt unknown.
- Levee was mowed shortly after the nest was discovered.
- Nest probably failed, as it was probably destroyed by the mowing.
- Nest was not flagged.

7-7-99

- Nest was relocated, and was not destroyed by the mowing.
- Lining of the nest was pulled out.
- Egg shell fragments were still in the nest.
- Outcome of the nesting attempt was still unknown.
- Flagged small silver maple west of the nest.

6) **Red-winged Blackbird**

6-18-99

- Flushed brooding adult.
- 2 nearly naked nestlings and 1 warm egg.
- Nest located within powerline right of way, SW of survey point # 50.
- Nest vegetation: buttonbush.
- Nest height: ~ 6 ft.
- Nest distances: agricultural field- ~ 30m.
forest- ~ 10m.
- Nest GPS (RWBL 01) 15 T 0696463
UTM 4591646

7-6-99

- Nest was empty.
- Outcome of nesting attempt unknown.
- Scolding adults nearby.
- Flagged nest plant.

7) **Baltimore Oriole**

6-22-99

- Observed female emerge from the nest.
- Male carried food to the nest.
- Nest contents unknown.
- Nest located slightly west of survey point # 45.
- Nest tree: silver maple
- Nest height: ~ 25 ft.
- Nest GPS (BAOR 01) 15 T 0697381
UTM 4591772

7-8-99

- Nest could not be relocated.
- Outcome of nesting attempt unknown.
- I believe the entire nest is gone.
- No adults present.
- Nest not flagged.

8) **House Wren**

6-22-99

- Observed 2 adults entering and leaving the nest repeatedly.
- Nest contents unknown.
- Nest located east of survey point # 31.
- Nest tree: silver maple
- Nest height: ~ 7 ft.
- Nest distances: buttonbush wetland- ~ 100m.
- Nest GPS (HOWR 03) 15 T 0697538
UTM 4592629

7-13-99

- Nest could not be relocated.
- Outcome of nesting attempt unknown.
- Nest not flagged.

9) **Black-capped Chickadee**

6-22-99

- Adult entered the nest and remained for ~ 15 minutes.
- Other adult scolded vehemently as I approached.
- Nest contents unknown.
- Nest located near HOWR 03, along NE edge of Mallard Pond.
- Nest GPS (BCCH 01) 15 T 0697509
UTM 4592864

7-13-99

- Nest located within forest opening.
- Outcome of nesting attempt unknown.
- Nest tree: elm snag
- Nest height: ~ 8 ft.
- Nest distances: forest edge- ~ 40m.
Mallard Pond- ~ 90m.
- Flagged nest tree.

10) **Blue-gray Gnatcatcher**

6-22-99

- Observed both adults at the nest.
- Nest contents unknown
- Nest located along NE edge of Mallard Pond very close to BCCH 01.
- Nest GPS (BGGN 01) 15 T 0697590
UTM 4592437

7-13-99

- Both adults were observed carrying food to the nest.
- Nest contents still unknown.
- Nest tree: silver maple snag
- Nest height: ~ 60 ft.
- Nest distances: forest edge- ~ 40m.
Mallard Pond- ~ 10m.
- Flagged nest tree.

11) **Tree Swallow**

6-22-99

- Observed male entering and leaving nest repeatedly, possibly with food.
- Nest contents unknown.
- Nest located within the buttonbush wetland along the NE end of Mallard Pond.
- Nest GPS (TRSW 01) 15 T 0697554
UTM 4592650

7-13-99

- Outcome of nesting attempt unknown.
- Nest tree: silver maple snag.
- Nest height: ~ 30 ft.
- Nest distances: forest edge- ~ 70m.
- Flagged nest tree.

12) **Prothonotary Warbler**

6-22-99

- Observed male carrying food into the nest.
- At least 2 nestlings in the nest, but could not determine the level of development.
- Nest located within the NE corner of Mallard Pond in a buttonbush wetland.
- Nest GPS (PRWA 01) 15 T 0697535
UTM 4592721

7-13-99

- Outcome of nesting attempt unknown.
- Nest tree: silver maple snag.
- Nest height: ~ 6 ft.
- Nest distances: forest edge- ~ 50m.
- Flagged nest tree.

13) **Prothonotary Warbler**

6-22-99

- Observed adult male enter the nest.
- Flushed male from the nest 20 minutes later.
- Nest contents unknown.
- Nest located within the buttonbush wetland in NE corner of Mallard Pond.
- Nest GPS (PRWA 02) 15 T 0697563
UTM 4592596

7-13-99

- Outcome of nesting attempt unknown.
- Nest tree: silver maple snag.
- Nest height: ~ 6 ft.
- Nest distances: forest edge- ~ 50m.
- Flagged nest tree.

14) **Blue-gray Gnatcatcher**

6-22-99

- Observed both adults carrying nest material to the nest, appeared to be finishing construction.
- Nest contents unknown, however both birds taking turns sitting on the nest.
- Nest located west of PRWA 02 at north end of Mallard Pond.
- Nest tree: silver maple.
- Nest height: ~ 60 ft.
- Nest distances: Mallard Pond- ~ 10m.
- Nest GPS (BGGN 02) 15 T 0697512
UTM 4592579

7-13-99

- Nest could not be relocated.
- Outcome of nesting attempt unknown.
- Nest was not flagged.

15) **Tree Swallow**

6-22-99

- Observed adult male enter the nest.
- Male remained in the nest for ~ 15 minutes.
- Nest contents unknown.
- Nest located within buttonbush wetland on east fork of north end of Mallard Pond.
- Nest GPS (TRSW 02) 15 T 0697535
 UTM 4592556

7-13-99

- Outcome of nesting attempt unknown.
- Nest tree: silver maple snag.
- Nest height: ~ 20 ft.
- Nest distances: forest edge- ~ 70m.
- Flagged nest tree.

16) **Prothonotary Warbler**

6-22-99

- Observed adult male carry food into the nest.
- Nest contents unknown.
- Nest very close to TRSW 02 on east fork of north end of Mallard Pond.
- Nest GPS (PRWA 03) 15 T 0697541
 UTM 4592515

7-13-99

- Flushed adult from the nest.
- At least 2 nestlings, unable to determine the level of development.
- remainder of the nest contents was unknown.
- Nest tree: unidentified snag.
- Nest height: ~ 5 ft.
- Nest distances: forest edge- ~ 80m.
- Flagged snag ~ 1m east of nest.

17) **Baltimore Oriole**

6-22-99

- Both adults were observed carrying food to the nest.
- Nest contents unknown.
- Nest located near the edge of the west fork of the north end of Mallard Pond.
- Nest tree: silver maple.
- Nest height: ~ 30 ft.
- Nest distances: Mallard Pond- ~ 10m.

- Nest GPS (BAOR 02) 15 T 0697479
UTM 4592539

7-13-99

- Could not relocate the nest.
- I believe the nest was gone.
- Outcome of nesting attempt unknown.
- Nest not flagged.

18) **Baltimore Oriole**

6-22-99

- Female sitting in the nest.
- Male returned to the nest briefly.
- Nest contents unknown.
- Nest located ~ 30m west of BAOR 02.
- Nest tree: silver maple.
- Nest height: ~ 20 ft.
- Nest distances: Mallard Pond- ~ 10m.
- Nest GPS (BAOR 03) 15 T 0697472
UTM 4592500

7-13-99

- Could not relocate the nest.
- I believe the nest was gone.
- Outcome of nesting attempt unknown.
- Nest was not flagged.

19) **Blue-gray Gnatcatcher**

6-22-99

- Both adults coming and going from the nest, spending some time sitting on the nest.
- Nest contents unknown.
- Nest immediately adjacent to BAOR 03.
- Nest GPS (BGGN 03) 15 T 0697368
UTM 4592863

7-19-99

- Observed adults carrying food into the nest.
- Nest contents still unknown.
- Nest tree: silver maple.
- Nest height: ~ 40 ft.
- Nest distances: Mallard Pond- ~ 10m.
- Flagged nest tree.

20) **House Wren**

6-23-99

- Observed adults entering the nest with food.
- Nest contents unknown.
- Nest located along the east slough of Mallard Pond.
- Nest tree: silver maple snag.
- Nest height: ~ 7 ft.
- Nest distances: forest edge- ~ 80m.
- Nest GPS (HOWR 04) 15 T 0697611
UTM 4592632

7-13-99

- Nest could not be relocated.
- Outcome of nesting attempt unknown.
- Nest not flagged.

21) **Tree Swallow**

6-23-99

- Observed fledglings emerging from the nest.
- 2 adults and 2 fledglings perched outside the nest.
- adults constantly going to and entering the nest.
- Young birds possibly still in the nest.
- Nest ~ 10-15m south of TRSW 01.
- Nest GPS (TRSW 03) 15 T 0697563
UTM 4592568

7-13-99

- Final outcome of nest unknown (2+? fledged).
- Nest tree: silver maple snag.
- Nest height: ~ 30 ft.
- Nest distances: forest edge- ~ 90m.
- Flagged nest tree.

22) **Tree Swallow**

6-23-99

- Observed female entering the nest, possibly with food.
- Female remained in the nest for ~ 5 minutes.
- Nest contents unknown.
- Nest located immediately west (4 ft.) of PRWA 02.
- Nest GPS (TRSW 04) 15 T 0697509
UTM 4592591

7-13-99

- Outcome of nesting attempt unknown.
- Nest tree: silver maple snag.
- Nest height: ~ 20 ft.
- Nest distances: forest edge- ~ 50m.
- Flagged nest tree.

23) **Great Crested Flycatcher**

6-29-99

- Observed both adults repeatedly carrying food items into the nest.
- Nest contents unknown.
- Nest located ~ 100m NE of survey point # 33.
- Nest tree: silver maple snag.
- Nest height: ~ 25 ft.
- Nest distances: agricultural edge- ~ 40m.
buttonbush wetland- ~ 30m.
- Outcome of nesting attempt unknown.
- Flagged nest tree.
- Nest GPS (GCFL 01) 15 T 0694683
UTM 4591103

24) **Red-headed Woodpecker**

6-29-99

- Observed both adults repeatedly carrying food into the nest.
- Several nestlings heard begging within the nest.
- Nest located near survey point # 33.
- Nest tree: silver maple.
- Nest height: ~ 60 ft.
- Nest distances: agricultural edge- ~ 30m.
buttonbush wetland- ~ 20m.
- Outcome of nesting attempt unknown.
- Flagged nest tree.
- Nest GPS (RHWO 01) 15 T 0694711
UTM 4591130

25) **Blue-gray Gnatcatcher**

6-29-99

- Observed both adults finishing nest construction.
- I do not believe the eggs have been laid yet.
- Nest located ~ 80m south of survey point # 33.
- Nest tree: silver maple.
- Nest height: ~ 35 ft.

- Nest distances: agricultural edge- ~ 60m.
buttonbush wetland- ~ 10m.
- Outcome of nesting attempt unknown.
- Flagged nest tree.
- Nest GPS (BGGN 04) 15 T 0694578
UTM 4591040

26) **European Starling**
6-29-99

- Observed adult carrying food into the nest.
- Several nestlings heard begging in the nest.
- Nest located on the edge of a buttonbush wetland SW of survey point # 33.
- Nest tree: willow sp.
- Nest height: ~ 45 ft.
- Nest distances: agricultural edge- ~ 90m.
buttonbush wetland- ~ 1m.
- Outcome of nesting attempt unknown.
- Flagged nest tree.
- Nest GPS (EUST 01) 15 T 0694472
UTM 4591087

27) **European Starling**
6-29-99

- Observed adult deliver food to the nest.
- Several nestlings heard begging in the nest.
- Nest located on the edge of a buttonbush wetland SW of survey point # 33.
- Nest tree: silver maple.
- Nest height: ~ 70 ft.
- Nest distances: agricultural edge- ~ 70m.
buttonbush wetland- ~ 1m.
- Outcome of nesting attempt unknown.
- Flagged small elm ~ 8 ft. SE of the nest.
- Nest GPS (EUST 02) 15 T 0694473
UTM 4591096

28) **Great Crested Flycatcher**
6-29-99

- Observed both adults delivering food to the nest.
- Nestlings (1-2?) heard begging in the nest.
- Nest located ~ 140m south of survey point # 33.
- Nest tree: silver maple snag.
- Nest height: ~ 35 ft.

- Nest distances: agricultural edge- ~ 35m.
buttonbush wetland- ~ 30m.
- Outcome of nesting attempt unknown.
- Flagged nest tree.
- Nest GPS (GCFL 02) 15 T 0694483
 UTM 4591005

29) **House Wren**
6-29-99

- Observed one adult enter the nest and one adult leave the nest.
- Nest contents unknown, however I believe the nest has young because droppings were visible within the nest.
- Nest located ~ 150m south of survey point # 33.
- Nest tree: unidentified snag.
- Nest height: ~ 6 ft.
- Nest distances: agricultural edge- ~ 60m.
 buttonbush wetland- ~ 5m.
- Outcome of nesting attempt unknown.
- Flagged a small elm a few feet SE of the nest.
- Nest GPS (HOWR 05) 15 T 0694509
 UTM 4590997

30) **Northern Cardinal**
6-29-99

- Adult male scolding near the nest.
- 3 recently hatched nestlings - downy, eyes closed.
- Nest located in the extreme south end of the study area, within a hedgerow along the south field access.
- Nest vegetation: locust tree and grape vines.
- Nest height: ~ 5 ft.
- Nest distances: agricultural edge- ~ 1m.
 floodplain forest- ~ 250m.
 highway- ~ 100m.
- Outcome of nesting attempt unknown.
- Flagged locust tree ~ 5m south of the nest.
- Nest GPS (NOCA 01) 15 T 0695051
 UTM 4590809

31) **Red-headed Woodpecker**
6-30-99

- Adult delivered food to the nest.
- Several nestlings heard begging in the nest.

- Nest located ~ 10m SW of survey point # 5.
- Nest tree: silver maple.
- Nest height: ~ 40 ft.
- Nest distances: main river side channel- ~ 10m.
- Outcome of nesting attempt unknown.
- Flagged nest tree.
- Nest GPS (RHWO 02) 15 T 0696503
 UTM 4592797

32) **European Starling**
6-30-99

- Observed both adults carrying food into the nest.
- Several nestlings heard begging in the nest.
- Nest located ~ 10m SE of survey point # 7.
- Nest tree: silver maple.
- Nest height: ~ 40 ft.
- Nest distances: main river side channel- ~ 20m.
 powerline- ~ 20m.
 timber harvest- ~ 150m.
- Outcome of nesting attempt unknown.
- Flagged nest tree.
- Nest GPS (EUST 03) 15 T 0696105
 UTM 4592369

33) **Red-headed Woodpecker**
6-30-99

- Adult carried food into the nest.
- Adult remained in the nest a couple of minutes.
- Nestlings were heard begging in the nest.
- Nest located ~ 125m NE of survey point # 36.
- Nest tree: silver maple snag.
- Nest height: ~ 35 ft.
- Nest distances: buttonbush wetland- ~ 40m.
 backwater slough- ~ 15m.
- Outcome of nesting attempt unknown.
- Flagged nest tree.
- Nest GPS (RHWO 03) 15 T 0695040
 UTM 4591701

34) **Red-shouldered Hawk**
6-30-99

- Data from J.W. Stravers and K.J. McKay red-shouldered hawk project.

- Nest fledged 4 young.
- Nest located ~ 50m SE of survey point # 36.
- Nest tree: green ash.
- Nest height: ~ 70 ft.
- Nest documented on 4-6-99.
- Nest was not flagged.
- Nest GPS (RSHA 01) 15 T 0695217
 UTM 4591475

35) **Red-shouldered Hawk**
6-30-99

- Data from J.W. Stravers and K.J. McKay red-shouldered hawk project.
- Nest failed to fledge any young.
- Nest located ~ 50m SW of survey point # 38.
- Nest tree: green ash.
- Nest height: ~ 65 ft.
- Nest documented on 4-6-99.
- Nest was not flagged.
- Nest GPS (RSHA 02) 15 T 0695829
 UTM 4591453

36) **Red-shouldered Hawk**
6-30-99

- Data from J.W. Stravers and K.J. McKay red-shouldered hawk project.
- Nest fledged 2 young.
- Nest located between survey points # 46,47, and 48.
- Nest tree: silver maple.
- Nest height: ~ 70 ft.
- Nest documented on 4-11-99.
- Nest was not flagged.
- Nest GPS (RSHA 03) 15 T 0697964
 UTM 4591828

37) **Great Horned Owl**
6-30-99

- Data from J.W. Stravers and K.J. McKay red-shouldered hawk project.
- Nest fledged 2 young.
- Nest located ~ 100m west of survey point # 36.
- Nest tree: silver maple.
- Nest height: ~ 35 ft.
- Nest documented on 4-6-99.
- Nest was not flagged.

- Nest GPS (GHOW 01) 15 T 0694988
UTM 4591485

38) **Red-tailed Hawk**
6-30-99

- Data from J.W. Stravers and K.J. McKay red-shouldered hawk project.
- Nest failed to fledge any young.
- Nest located ~ 200m south of survey point # 50.
- Nest tree: cottonwood.
- Nest height: ~ 50 ft.
- Nest documented on 4-7-99.
- Nest was not flagged.
- Nest GPS (RTHA 01) 15 T 0696467
UTM 4591369

39) **Pileated Woodpecker**
6-30-99

- Data from J.W. Stravers and K.J. McKay red-shouldered hawk project.
- Adult observed entering and leaving the nest repeatedly.
- Nest contents unknown.
- Nest located between survey points # 6 and 23.
- Nest tree: silver maple.
- Nest height: ~ 20 ft.
- Outcome of nesting attempt unknown.
- Nest documented on 4-7-99.
- Nest was not flagged.
- Nest GPS (PIWO 01) 15 T 0696466
UTM 4592625

40) **Pileated Woodpecker**
6-30-99

- Data from J.W. Stravers and K.J. McKay red-shouldered hawk project.
- Adult very active at the nest.
- Nest contents unknown.
- Nest located near survey point # 44, between points # 44 and 45.
- Nest tree: unidentified tree species.
- Nest height: ~ 20 ft.
- Outcome of nesting attempt unknown.
- Nest documented on 4-12-99.
- Nest was not flagged.
- Nest GPS (PIWO 02) 15 T 0697898
UTM 4591699

41) **Blue-gray Gnatcatcher**

7-8-99

- Both adults scolding and fighting with two other adults.
- Nest contents unknown.
- Nest located ~ 50m north of survey point # 44.
- Nest tree: silver maple.
- Nest height: ~ 70 ft.
- Nest distances: Mallard Pond- ~ 20m.
- Outcome of nesting attempt unknown.
- Flagged nest tree.
- Nest GPS (BGGN 05) 15 T 0697342
UTM 4591994

42) **Red-headed Woodpecker**

7-8-99

- Observed both adults carrying food into the nest.
- Nest contents unknown.
- Nest located ~ 50m SE of survey point # 45.
- Nest tree: cottonwood snag.
- Nest height: ~ 70 ft.
- Nest distances: Mallard Pond- ~ 20m.
- Outcome of nesting attempt unknown.
- Flagged silver maple ~ 2m east of the nest.
- Nest GPS (RHWO 04) 15 T 0697312
UTM 4592191

43) **Red-headed Woodpecker**

7-11-99

- Observed adult deliver food to the nest.
- Nest contents unknown.
- Unknown number of nestlings heard in the nest.
- Nest located ~ 10m NW of survey point # 18.
- Nest tree: silver maple snag.
- Nest height: ~ 60 ft.
- Nest distances: timber harvest- ~ 10m.
backwater slough- ~ 20m.
- Outcome of nesting attempt unknown.
- Flagged mulberry ~ 4m east of the nest.
- Nest GPS (RHWO 05) 15 T 0695244
UTM 4591886

47) **House Wren**

7-23-99

- Observed adult repeatedly carrying food into the nest.
- Nest contents unknown.
- Nest located ~ 1/3 distance from survey point # 47 to survey point # 48.
- Nest tree: silver maple snag.
- Nest height: ~ 40 ft.
- Nest distances: Mill Creek- ~ 25m.
buttonbush wetland- ~ 100m.
- Outcome of nesting attempt unknown.
- Flagged young elm immediately to the east of the nest.
- Nest GPS (HOWR 07) 15 T 0697876
UTM 4592045

48) **House Wren**

7-28-99

- Observed one adult outside of the nest singing frequently.
- Observed the other adult exit the nest and then return after 5-10 minutes, entering the nest and remaining there.
- Nest contents unknown.
- I believe eggs were being incubated.
- Nest located along the powerline access, ~ 0.75 of the way to the river.
- Nest tree: river birch snag.
- Nest height: ~ 20 ft.
- Nest distances: powerline- ~ 10m.
backwater slough- ~ 1m.
main river side channel- ~ 90m.
- Flagged the silver maple just NW of the nest.
- Nest GPS (HOWR 08) 15 T 0696207
UTM 4592160

8-6-99

- Nest still active.
- Nest contents still unknown.
- Observed adult in the nest (incubating?), looking out of the nest.
- Outcome of nesting attempt unknown.

49) **House Wren**

8-6-99

- 2 adults remaining near the nest.
- One adult made several short trips back and forth to the nest.
- Same adult finally entered the nest and remained for at least 10 minutes.
- I could see the head of the adult in the nest.

- Adult possibly incubating.
- Nest contents unknown.
- Nest located just north of the powerline access within a backwater wetland, ~ 40m east of the river.
- Nest tree: silver maple snag.
- Nest height: ~ 60 ft.
- Nest distances: powerline- ~ 10m.
main river side channel- ~ 40m.
- Outcome of nesting attempt unknown.
- Flagged silver maple ~ 5m SE of the nest.
- Nest GPS (HOWR 09) 15 T 0696139
UTM 4592306

50) **Eurasian Tree Sparrow**
8-11-99

- Observed 2 territorial adults.
- Birds repeatedly entered and left the nest.
- Nesting material (feather) was carried into the nest on one occasion.
- One adult entered the nest a couple of times and remained for extended periods.
- Nest contents unknown.
- Nest located between 3rd and 4th N/S sloughs, ~ 70m north of the powerline and ~ 100m from the river.
- Nest tree: silver maple snag.
- Nest height: ~ 50 ft.
- Nest distances: backwater slough- ~ 5m.
main river side channel- ~ 100m.
- Outcome of nesting attempt unknown.
- Flagged silver maple ~ 10m to the west of the nest.
- Nest GPS (ETSP 01) 15 T 0696352
UTM 4592178

Appendix 8. Fledged families located in 1999

1999 Milan Bottoms Nest Search Data
(Nonlocated Successful Nests)

- 1) **House Wren**
6-22-99
 - Observed 2 adults feeding 2 fledglings.
 - Fledglings had short tails.
 - Fledglings had whitish/yellowish gapes.
 - Fledglings capable of good flight.
 - Located at the agricultural edge between survey points # 49 and 41.

- 2) **House Wren**
6-22-99
 - Observed 2 adults feeding 2 fledglings.
 - Fledglings had short tails.
 - Fledglings had whitish/yellowish gapes.
 - Fledglings flight not as good as those of HOWR # 1.
 - These birds were considerably younger than HOWR # 1.
 - Located at the agricultural edge between survey points # 49 and 41.

- 3) **Black-capped Chickadee**
6-22-99
 - 3 well-developed fledglings begging food from adults.
 - Fledglings had normal tails.
 - Fledglings had good flight.
 - Located near survey point # 44 on west side of Mallard Pond.

- 4) **Tree Swallow**
6-22-99
 - Observed adult male feeding 1 fledgling.
 - Fledgling had a very short tail.
 - Unable to determine if the bird was capable of sustained flight.
 - Fledgling was outside of the nest.
 - Located on the east fork of the north end of Mallard Pond.

- 5) **Prothonotary Warbler**
6-22-99
 - Observed adult male and female feeding 2 fledglings.
 - Fledglings were begging for food.
 - Fledglings had short tails.

- Fledglings were pale colored.
- Fledglings had fairly good flight.
- Located between survey points # 44 and 45 on the west side of Mallard Pond.

6) **Prothonotary Warbler**

6-23-99

- Observed adults feeding 2 begging fledglings.
- Fledglings had short tails.
- Fledglings were pale colored.
- Fledglings had decent flight.
- Located along extreme east slough of Mallard Pond.

7) **Prothonotary Warbler**

6-23-99

- Observed both adults feeding 1 begging fledgling.
- Fledgling had a short tail.
- Fledgling was pale colored.
- Fledgling had fairly good flight.
- Located along buttonbush wetland in the NE corner of Mallard Pond.

8) **House Wren**

6-23-99

- Observed adults with 2 fledglings.
- Fledglings had short tails.
- Fledglings had whitish/yellowish gapes
- Fledglings had good flight.
- Located along the extreme east slough of Mallard Pond.

9) **Tree Swallow**

6-29-99

- Observed both adults feeding at least 3 fledglings.
- Fledglings had bits of down on the wings.
- Fledglings had yellowish gapes.
- Fledglings had fairly good flight.
- Located in buttonbush wetland near survey point # 33.

10) **Tree Swallow**

6-29-99

- Observed both adults feeding at least 2 fledglings.

- Fledglings had bits of down on the wings.
- Fledglings had decent flight.
- Located in buttonbush wetland near survey point # 33.

11) **Tree Swallow**

6-29-99

- Observed both adults feeding 5 fledglings.
- Fledglings had bits of down on the wings.
- Fledglings had yellowish gapes.
- I did not observe the fledglings in flight.
- Located in buttonbush wetland ~ 70m NW of survey point # 33.

12) **Baltimore Oriole**

6-29-99

- Observed adult male feeding 2 fledglings.
- Fledglings had well-developed tails.
- Fledglings had good flight.
- Fledglings were pale colored.
- Located ~ 150m SE of the floodplain forest in the south field access hedgerow at the extreme south end of the study area.

13) **Prothonotary Warbler**

6-30-99

- Observed both adults feeding 2 fledglings.
- Fledglings had short tails.
- Fledglings were pale colored.
- Fledglings had bits of down on the head and back.
- Fledglings had good flight.
- Located near survey point # 4.

14) **Prothonotary Warbler**

6-30-99

- Observed both adults feeding 1 fledgling.
- Fledgling had a shorter tail.
- Fledgling was pale colored.
- Fledgling had bits of down on the head and back.
- Fledgling had good flight.
- Located near survey point # 8.

15) **Prothonotary Warbler**

6-30-99

- Observed both adults feeding 1 fledgling.
- Fledgling had a shorter tail.
- Fledgling was pale colored.
- Fledgling had bits of down on the head and back.
- Fledgling had good flight.
- Located near survey point # 12.

16,17,18,19,20,21,22,23,24,25,26)

Wood Duck

6-22-99

- Observed 11 different broods of WODU on Mallard Pond.
- The number of young in broods ranged from 1 to 13.
- The developmental stage of broods ranged from very young (downy) to fairly large (near fledglings).
- None of the young were able to fly.

27,28) **Canada Goose**

6-22-30

- Observed 2 different broods on Mallard Pond.
- 3 young in each brood.
- Young were well-developed (possibly fledged).
- Unknown if the young were able to fly.

29,30) **Wood Duck**

6-23-99

- Observed 2 WODU broods on Mill Creek.
- 6 young in one brood, 8 young in the other brood.
- Fairly large young.
- Both broods unable to fly.

31,32,33,34) **Wood Duck**

6-29-99

- Observed 4 broods on buttonbush wetland NW of survey point # 33.
- Number of young in broods ranged between 6 and 10.
- Fairly large young.
- All young were unable to fly.

35) **Wood Duck**

6-30-99

- J.W. Stravers observed 1 brood on the Mississippi River near survey point # 3.
- Number of young in the brood was not determined (several).
- Developmental stage of the young was not determined.
- Young were unable to fly.

36,37,38)

Wood Duck

7-6-99

- Observed 3 broods on Long Pond.
- Number of young in broods were 5,8, and 9.
- Fairly large young.
- All young were unable to fly.

39,40,41)

Wood Duck

7-6-99

- Observed 3 broods on the buttonbush wetland near survey point # 23.
- Number of young in broods were 2,5,and 9.
- Broods with 2 and 5 young were fairly well developed.
- Brood with 9 young was much younger birds.
- All young were unable to fly.

42,43)

Wood Duck

7-6-99

- Observed 2 broods on buttonbush wetland near survey point # 21.
- Number of young in broods were 2 and 10.
- Fairly large young.
- All young were unable to fly.

44) **Northern Cardinal**

7-8-99

- Observed adult male and 1 juvenile.
- Juvenile had a normal tail.
- Juvenile was pale colored.
- Juvenile had a dark bill.
- Juvenile had good flight.
- Located at survey point # 29.

45) **Prothonotary Warbler**

7-8-99

- Observed both adults repeatedly feeding 1 begging BHCO juvenile.
- Observed no PRWA juveniles.
- BHCO heavily streaked underneath.
- BHCO had a normal tail.
- BHCO had good flight.
- Located ~ 125m SW of survey point # 28 on the western end of Mallard Pond.

46) **Prothonotary Warbler**

7-8-99

- Observed adult and 3 well-developed fledglings.
- Fledglings had normal tails.
- Fledglings were pale colored.
- Fledglings had bits of down on the head and back.
- Fledglings had good flight.
- Located ~ 60m east of survey point # 44.
- I believe this was a different successful nest than PRWA # 5.
- Also, I observed 2 fledglings and adults near the location of PRWA # 5. I believe these birds may have possibly been PRWA # 5.

47) **Wood Duck**

7-11-99

- Observed brood of 5 well-developed young at survey point # 17.
- Adult female was present with the young.
- Young were large, but unable to fly.

48) **Red-bellied Woodpecker**

7-12-99

- Observed adult feeding 2 begging well-developed fledglings.
- Fledglings had pale color, no red on the heads.
- Fledglings had bits of down on the heads.
- Fledglings had light color at the base of the bills.
- Fledglings had good flight, but poor landings.
- Fledglings had normal tails.
- Located near survey point # 48.

49) **Northern Cardinal**

7-20-99

- Observed 3 juveniles begging for food from both adults.

- Juveniles had normal tails.
- Juveniles were pale colored.
- Juveniles had dark bills.
- Juveniles had good flight.
- Located between survey points # 47 and 48, immediately adjacent to Mill Creek.

50) **Cooper's Hawk**
7-20-99

- No adults were present.
- Observed 1 immature calling repeatedly.
- Immature heavily streaked underneath.
- Immature brown above.
- Immature had a normal tail.
- Immature had good flight.
- Located ~ 80m SW of survey point # 47.

51) **Eastern Bluebird**
7-28-99

- No adults were present.
- Observed 2 juveniles.
- Juveniles were pale orange and spotted underneath.
- Juveniles had a little down around the heads.
- Juveniles had normal tails.
- Juveniles had good flight.
- Located at the powerline access, near the agricultural edge and floodplain forest.

52) **Eastern Bluebird**
7-28-99

- No adults present.
- Observed 1 fledgling.
- Fledgling was very pale and heavily spotted underneath.
- Fledgling had considerable down on the head and back.
- Fledgling had a normal tail.
- Fledgling had weaker flight.
- Located along the powerline access, ~ 0.5 way to the river.
- I believe this bird was from a different successful nest, because it was much younger than EABL # 51.

53) **Red-headed Woodpecker**

7-28-99

- No adults present.
- Observed 1 juvenile.
- Juvenile developing back and wing pattern.
- Juvenile had grayish head.
- Juvenile had some down around the head.
- Juvenile had good flight.
- Located along the powerline access, ~ 0.75 of the way to the river.

54) **American Redstart**

7-28-99

- Observed both adults.
- Observed 1 juvenile.
- Juvenile developing plumage pattern.
- Juvenile had some down on the head and upper back.
- Juvenile had a normal tail.
- Juvenile had fairly good flight.
- Located ~ 25m north of the powerline, and ~ 75m east of the river.

55) **Indigo Bunting**

7-28-99

- Observed both adults.
- Observed 1 juvenile INBU and 1 juvenile BHCO following the adults.
- Both juveniles were well-developed.
- Both juveniles were heavily streaked underneath.
- Both juveniles had normal tails.
- Both juveniles had good flight.
- Located along the powerline, ~ 60m east of the river.

56) **Great Crested Flycatcher**

7-28-99

- Observed 1 juvenile being fed a couple of times by an adult.
- Juvenile was pale colored.
- Juvenile had a normal tail, partially dark.
- Juvenile had no crest.
- Juvenile had good flight.
- Located ~ 25m north of the powerline access, and ~ 50m east of the river.

57) **Gray Catbird**

8-6-99

- No adults present.
- Observed 3 juveniles.
- Juveniles had light streaks on the breast.
- Juveniles had normal tails.
- Juveniles had pale yellowish gapes.
- Juveniles lacked the red patch on the undertail coverts.
- Juveniles had good flight.
- Located ~ 80m east of the river, and ~ 10m north of the powerline access.

58) **Red-bellied Woodpecker**

8-6-99

- Observed 1 juvenile.
- Juvenile had a completely gray head.
- Juvenile had a normal tail.
- Juvenile had good flight.
- Located ~ 100m north of the powerline access, and ~ 60m east of the river.

59) **Red-bellied Woodpecker**

8-6-99

- Observed 1 juvenile.
- Juvenile had a completely gray head.
- Juvenile had a normal tail.
- Juvenile had good flight.
- I believe this represents a different successful nest than RBWO # 58.
- Located at the powerline access, ~ 150m east of the river.

60) **Song Sparrow**

8-11-99

- Observed 2 adults and 4 juveniles.
- Juveniles had normal tails.
- Juveniles were heavily streaked underneath.
- Juveniles lacked central breast spots.
- Juveniles had pale whitish/yellowish gapes.
- Juveniles had good flight.
- Located at the edge of the floodplain forest ~ 20m north of the powerline access and ~ 200m east of the river, in 1st N/S slough within a stand of buttonbush.

61) **Song Sparrow**

8-11-99

- Observed 1 adult and 3 juveniles.
- Juveniles had normal tails.
- Juveniles were heavily streaked underneath.
- Juveniles lacked central breast spots.
- Juveniles had pale whitish/yellowish gapes.
- Juveniles had good flight.
- Located in 2nd N/S slough within a buttonbush stand ~ 140m east of the river, and ~ 40m north of the powerline access.
- This represents a different successful nest than SOSP # 60.

62) **Song Sparrow**

8-11-99

- Heard 1 scolding adult.
- Observed 1 juvenile.
- Juvenile had a normal tail.
- Juvenile was heavily streaked underneath.
- Juvenile lacked a central breast spot.
- Juvenile had a small amount of down around the head.
- Juvenile had a pale whitish/yellowish gape.
- Juvenile had good flight.
- Located in the 3rd N/S slough within a buttonbush stand ~ 110m east of the river, and ~ 70m north of the powerline access.
- This represents a different successful nest than SOSP # 60 or # 61.

63) **Red-headed Woodpecker**

8-11-99

- Observed several adults and at least 3 juveniles.
- Juveniles had normal tails.
- Juveniles had gray heads.
- Juveniles just developing back and wing patterns.
- Juveniles appeared to have some down around the head.
- Juveniles had good flight.
- Located in 3rd N/S slough in a dead forest stand which is reverting to buttonbush wetland ~ 110m east of the river, and ~ 80m north of the powerline access.
- I believe this represents a different successful nest than RHWO # 53.

Appendix 9. Nests located in Milan Bottoms, 2000

2000 Milan Bottoms Nest Search Data
(Actual Located Nests)

- 1) **Downy Woodpecker**
5-30-00
 - Located near Survey Point 38.
 - Observed adult carrying food into the nest cavity.
 - Heard begging calls of several young in the nest.
 - Number of young in the nest was unknown.
 - Outcome of nesting attempt was unknown.

- 2) **Red-winged Blackbird**
5-30-00
 - Nest was located on the Powerline Road.
 - Scolding adults were present in the vicinity of the nest.
 - Nest contained 1 nestling and 3 warm eggs.
 - Nestling : eyes closed
nearly naked
 - Outcome of nesting attempt was unknown.

- 3) **Tree Swallow**
5-30-00
 - Nest located near Survey Point 21.
 - Observed adults entering and leaving the nest periodically.
 - Sometimes the adults spent time (~ 5 min.) inside the nest cavity.
 - Contents of the nest was unknown.
 - Outcome of the nesting attempt was unknown.

- 4) **Tree Swallow**
5-30-00
 - Nest was located near Survey Point 21.
 - Observed adults entering and leaving the nest periodically.
 - Adults were spending considerable time in the nest.
 - Contents of the nest was unknown.
 - Outcome of the nesting attempt was unknown.

- 5) **Tree Swallow**
5-30-00
 - Nest was located near Survey Point 21.
 - Observed adults entering and leaving the nest periodically.
 - Adults were spending considerable time in the nest.
 - Contents of the nest was unknown.
 - Outcome of the nesting attempt was unknown.

6) **Tree Swallow**
6-1-00

- Nest was located near Survey Point 22.
- Observed adults entering and leaving the nest repeatedly.
- Adults were carrying nesting material into the cavity.
- I believe the nest was still being built.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

7) **Tree Swallow**
6-1-00

- Nest was located near Survey Point 22.
- Observed adults entering and leaving the nest repeatedly.
- Adults were carrying nesting material into the cavity.
- I believe the nest was still being built.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

8) **Tree Swallow**
6-1-00

- Nest was located near Survey Point 22.
- Observed adults entering and leaving the nest repeatedly.
- Adults were carrying nesting material into the cavity.
- I believe the nest was still being built.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

9) **Tree Swallow**
6-1-00

- Nest was located near Survey Point 22.
- Observed adults entering and leaving the nest repeatedly.
- Adults were carrying nesting material into the cavity.
- I believe the nest was still being built.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

10) **Tree Swallow**
6-1-00

- Nest was located near Survey Point 22.
- Observed adults entering and leaving the nest repeatedly.
- Adults were carrying nesting material into the cavity.
- I believe the nest was still being built.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

11) **Tree Swallow**
6-1-00

- Nest was located near Survey Point 22.
- Observed adults entering and leaving the nest repeatedly.
- Adults were carrying nesting material into the cavity.
- I believe the nest was still being built.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

12) **House Wren**
6-1-00

- Nest was located near Survey Point 22.
- Observed adults entering and leaving the nest repeatedly.
- Adults were carrying nesting material into the cavity.
- Adults spent considerable amounts of time in the nest.
- I believe the nest was still being built.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

13) **House Wren**
6-1-00

- Nest was located near Survey Point 22.
- Observed adults entering and leaving the nest repeatedly.
- Adults were carrying nesting material into the cavity.
- Adults spent considerable amounts of time in the nest.
- I believe the nest was still being built.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

14) **Red-winged Blackbird**
6-1-00

- Nest was located on the Powerline Road.
- Scolding adults were present near the nest.
- Nest contained 4 warm eggs.
- Outcome of the nesting attempt was unknown.

15) **Gray Catbird**
6-1-00

- Nest was located between Survey Points 40 and 50 on the Powerline Levee.
- Flushed the incubating adult.
- Nest contained 3 warm eggs.
- outcome of the nesting attempt was unknown.

16) **Great Crested Flycatcher**

6-1-00

- Nest was located near Survey Point 23.
- Both adults were constantly entering the nest cavity with nesting material.
- The birds were definitely still nest building.
- Outcome of the nesting attempt was unknown.

17) **European Starling**

6-1-00

- Nest was located near Survey Point 22.
- One adult was in the nest for extended periods of time.
- The other adult constantly returned to the nest.
- I believe the female was brooding and/or incubating.
- I observed the male carrying at least 3 fecal sacs away from the nest.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

18-51) **Great Blue Heron**

6-1-00

- Nests were located near Survey Points 22 and 23.
- Nests had between 0-3 nestlings which appeared to be nearly ready to fledge.
- Nests with 0 young may have already fledged or may have failed.
- Nests with 0 young had been active because of the down and whitewash on and near the nest structures.
- Outcome of the nesting attempts were unknown.

52) **House Wren**

6-3-00

- Nest was located along the Mill Creek berm.
- Observed adults entering the nest cavity for extended periods of time.
- I believe the birds were incubating.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

53) **House Wren**

6-3-00

- Nest was located along the Mill Creek berm.
- Observed adults repeatedly carrying food into the nest.
- Heard an unknown number of nestlings begging for food.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

54) **House Wren**
6-3-00

- Nest was located along the Mill Creek berm.
- Observed adults entering the nest cavity for extended periods of time.
- I believe the birds were incubating.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

55) **Downy Woodpecker**
6-3-00

- Nest was located along the Mill Creek berm.
- Observed adults repeatedly carrying food into the nest.
- Heard multiple nestlings begging for food.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

56) **Downy Woodpecker**
6-3-00

- Nest was located along the Mill Creek berm.
- Observed adults repeatedly carrying food into the nest.
- Heard multiple nestlings begging for food.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

57) **Prothonotary Warbler**
6-3-00

- Nest was located along the Mill Creek berm.
- Observed the male repeatedly feeding 3 nestlings.
- Nestlings : eyes open
feathers unsheathed
- Outcome of nesting attempt was unknown.

58) **Eastern Wood-Pewee**
6-3-00

- Nest was located along the Mill Creek berm.
- Observed adult sitting on the nest for an extended period of time.
- I believe the adult was incubating.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

59) **Blue-gray Gnatcatcher**

6-3-00

- Nest was located along the Mill Creek berm.
- Observed one adult coming and going from the nest repeatedly.
- The other adult was sitting on the nest for an extended period of time.
- I believe the adult was incubating.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

60) **Ruby-throated Hummingbird**

6-3-00

- Nest was located along the Mill Creek berm.
- Observed a very aggressive territorial adult female.
- Female spent time sitting on the nest.
- I believe the bird was incubating.
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

61) **Pileated Woodpecker**

6-3-00

- Nest was located along the north end of Gun Pond.
- Observed adult carrying food to the nest.
- Heard and observed at least 1 nestling looking out of the nest.
- Nestling : eyes open
feathers unsheathed
nearly ready to fledge
- Outcome of the nesting attempt was unknown.

62) **Red-winged Blackbird**

6-21-00

- Nest was located on the Powerline Road next to the inland tower.
- Nest had been recently flooded.
- Nest was full of mud.
- Nest was abandoned.
- Nest contained 3 cold eggs.
- Nesting attempt failed.

63) **Red-winged Blackbird**

6-21-00

- Nest was located on the Powerline Road adjacent to Nest 62.
- Scolding adults were present nearby.
- Nest contained 3 warm eggs.
- Outcome of the nesting attempt was unknown.

- 64) **Red-winged Blackbird**
6-21-00
- Nest was located on the Powerline Road east of Nest 62.
 - Scolding adults were present nearby.
 - Nest contained 3 warm eggs.
 - Outcome of the nesting attempt was unknown.
- 65) **Song Sparrow**
6-21-00
- Nest was located ~ 10 meters northwest of Survey Point 40.
 - Scolding adults were present nearby.
 - Nest contained 3 warm SOSP eggs and 1 warm BHCO egg.
 - Outcome of the nesting attempt was unknown.
- 66) **Song Sparrow**
6-23-00
- Nest was located ~ 500 meters northwest of Survey Point 45.
 - Nest had been recently flooded.
 - No adults were present.
 - Nest was abandoned.
 - Nest contained 3 cold, mud covered eggs.
 - Nesting attempt failed.
- 67) **House Wren**
6-27-00
- Nest was located ~ 10 meters northeast of Survey Point 43.
 - One adult entered the nest just as another departed.
 - Adult remained in the nest cavity for at least 5 minutes.
 - I believe the birds were probably incubating.
 - Contents of the nest was unknown.
 - Outcome of the nesting attempt was unknown.
- 68) **Red-headed Woodpecker**
7-24-00
- Nest was located ~ 60 meters northeast of the Powerline Road tower.
 - Observed 2 adults carrying food to the nest.
 - at least 1 adult stayed near the nest at all times.
 - Observed at least 1 nestling looking out of the nest
 - Nestling : eyes open
feathers unsheathed
nearly ready to fledge
 - Contents of the nest was unknown.
 - Outcome of the nesting attempt was unknown.

69) **Red-headed Woodpecker**

7-24-00

- Nest was located ~ 50 meters northeast of Nest 68.
- Observed 2 adults carrying food to the nest.
- At least 1 nestling looking out of the nest and begging for food.
- Nestling : eyes open
 feathers unsheathed
 nearly ready to fledge
- Contents of the nest was unknown.
- Outcome of the nesting attempt was unknown.

2000 Milan Bottoms Nest Search Data
(Nonlocated Successful Nests)

1) **White-breasted Nuthatch**

5-30-00

- Near Survey Point 38.
- Observed 2 adults with 3 well-developed fledglings.
- Fledglings : shorter tails
paler heads
begging for food
good flight
- Successful nest.

2) **White-breasted Nuthatch**

5-30-00

- Near Survey Point 39.
- Observed 2 adults with 4 well-developed fledglings.
- Fledglings : shorter tails
paler heads
begging for food
good flight
- Successful nest.

3) **Wood Duck**

6-1-00

- Near Survey Point 23.
- No adults were present.
- Brood of 8 young were observed.
- Young : downy
- Successful nest.

4) **Black-capped Chickadee**

6-3-00

- Located along the Mill Creek berm.
- Observed 2 adults feeding 2 well-developed fledglings.
- Fledglings : small amount of down around the head
normal length tails
very good flight
- Successful nest.

- 5) **Mallard**
6-27-00
- Located ~ 50 meters south of Survey Point 38.
 - Observed adult female with 5 well-developed young.
 - Young : nearly adult sized
feathers unsheathed
 - Successful nest.
- 6) **Wood Duck**
6-27-00
- Located ~ 230 meters northeast of Survey Point 33.
 - Observed adult female with 11 young.
 - Young : very small
completely downy
probably just hatched recently
 - Successful nest.
- 7) **Hooded Merganser**
7-13-00
- Located ~ 40 meters south of Survey Point 45.
 - Observed adult female with 8 young.
 - Young : nearly as large as the adult
feathers unsheathed
nearly ready to fledge
 - Successful nest.
- 8) **Wood Duck**
7-13-00
- Located ~ 50 meters west of Survey Point 41.
 - Observed adult female with 6 young.
 - Young : fairly large
still mostly downy
 - Successful nest.
- 9) **Wood Duck**
7-14-00
- Located between Survey Points 22 and 23.
 - Observed adult female with 2 well-developed young.
 - Young : feathers mostly unsheathed
downy heads
 - Successful nest.

10) **Wood Duck**
7-14-00

- Located between Survey Points 22 and 23.
- Observed adult female with 6 well-developed young.
- Young : feathers mostly unsheathed
downy heads
- Successful nest.

11) **Wood Duck**
7-14-00

- Located ~ 300 meters northwest of Survey Point 30.
- Observed 2 well-developed young.
- No adults were present.
- Young : feathers mostly unsheathed
downy heads
- Successful nest.

12) **Wood Duck**
7-15-00

- Located ~ 20 meters northwest of Survey Point 21.
- Observed adult female with 2 well-developed young.
- Young : feathers unsheathed
downy heads
- Successful nest.

13) **Prothonotary Warbler**
7-24-00

- Located on Powerline Road near the agricultural edge.
- Observed 1 well-developed fledgling.
- No adults were present.
- Fledgling : good flight
good color
normal length tail
downy around the head and rump
- Successful nest.

14) **Song Sparrow**
7-24-00

- Located on the Powerline Road, ~ 80 meters east of tower.
- Observed 1 recent fledgling.
- Several scolding adults were nearby.
- Fledgling : very short tail
yellow gape
not capable of sustained flight
probably just left the nest
- Successful nest.

15) **Mallard**

7-24-00

- Located ~ 30 meters northeast of the tower on the Powerline Road.
- Observed adult female with 4 young.
- Young : about half the size of the adult
feathers unsheathed
still considerable amounts of down around the head, wings,
and rump
- Successful nest.

16) **Red-headed Woodpecker**

7-24-00

- Located ~ 30 meters northwest of Nest 68.
- Observed 1 well-developed fledgling.
- No adults were present.
- Fledgling : good flight
normal length tail
small amount of down around the head
- Successful nest.

17) **Red-winged Blackbird**

7-25-00

- Located in the first Buttonbush Slough, ~ 40 meters upstream of the Powerline Road.
- Observed 1 adult female feeding 1 well-developed fledgling.
- Several scolding adults were nearby.
- Probably several fledglings were present or nearby.
- Fledgling : normal length tail
fairly good flight
yellowish gape
- Successful nest.

18) **Red-bellied Woodpecker**

7-31-00

- Located ~ 30 meters southwest of Survey Point 47.
- Observed 2 well-developed fledglings.
- 1 adult nearby.
- Fledglings : normal length tails
good flight
gray heads
small amount of down around the heads
making begging calls
- Successful nest

19) **Red-headed Woodpecker**

7-31-00

- Located ~ 30 meters east of Survey Point 47.
- Observed 1 recent fledgling.
- adults heard calling nearby.
- Fledgling : poor flight
brown back
brownish head
considerable amount of down around the head
- Successful nest.

20) **Eastern Wood-Pewee**

7-31-00

- Located ~ 90 meters west of Survey Point 47.
- Observed 2 adults and 3 fledglings.
- Fledglings : somewhat shorter tails
appeared to have fairly good flight
begging for food
- Successful nest.

21) **House Wren**

7-31-00

- Located along Mill Creek between Survey Points 47 and 48.
- Observed 2 adults feeding 4 fledglings.
- Fledglings : shorter tails
begging for food
fairly good flight
pale yellowish gapes
- Successful nest.

22) **Carolina Wren**

7-31-00

- Located ~ 20 meters south of Survey Point 47.
- Observed 1 adult and 1 well-developed fledgling.
- Fledgling : normal length tail
good flight
begging for food
pale yellowish white gape
- Successful nest.

23) **Downy Woodpecker**

7-31-00

- Located ~ 90 meters southeast of Survey Point 47.
- Observed 2 adults and 3 fledglings.
- Fledglings : slightly shorter length tail
good flight
small amount of down on the heads and backs
- Successful nest.

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50 only

Point # 23

Date 7-14-00

Time Period 2

Survey Time 0843 - 0853

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
GBHE (D)	1(10m)X(NXV); 7(100m)X(NEXV)			
NOFL	1(80m)X(N); 1(120m)X(NE)			1(40m)X(NE)
EUST	12(40m)X(NE)X(V)			2(70m)X(W)X(V)
EAPH	1(50m)X(N)			
HOWR (D)	1(10m)X(NE); 1(20m)X(SE)			1(40m)X(E)
SOSP (D)	1(50m)X(W); 1(20m)X(SE)			
PIWO	1(20m)X(SW)			
GRHE	1(40m)X(W)			
NOCA	1(20m)X(E); 1(100m)X(SW)		1(50m)X(W)X(V)	
TRSW	1(50m)X(W)X(V); 1(150m)X(SV)			2(70m)X(W)X(V)
WAYT	1(80m)X(W)			
HOWR (2)	1(30m)X(SW)X(V); 1(10m)X(SW)			
WBNL	1(70m)X(N)			
BLJA	1(30m)X(SW)X(V)			
BCCJ	1(70m)X(W)			
PUMA	2(40m)X(NE)X(V)			1(50m)X(N)
RWBL	1(40m)X(SW)X(V)			
AMRE	1(70m)X(W)	2(40m)X(SE); 1(30m)X(SE)		1(90m)X(SW)X(V); 1(70m)X(W)X(V)
GBHE (2)	1(80m)X(W)X(V)	1(20m)X(E)	1(50m)X(W)	
KILL	1(40m)X(W)			
SOSP (2)	1(20m)X(SW)X(V)			
GRCJ	1(20m)X(S)		1(30m)X(E)	
VBCU	1(20m)X(NE)		1(30m)X(E)X(C)	
AMCR	2(200m)X(SW)			
TANL	1(300m)X(SV); 2(300m)X(SV)			
CHSW		1(70m)X(NE)	1(300m)X(N)X(V)	
C0GR			2(70m)X(W)X(V)	
EWPE			1(30m)X(SW)X(V)	
AMGO				2(10m)X(SW)X(V)
SPSA				1(50m)X(N)
				1(70m)X(W)X(V)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-56

Point # 24

Date 7-14-00

Time Period 2

Survey Time 0811 - 0821

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
SOSA	(80m)X(SE)			
CHSW	2(30m)X(N); 1(20m)X(NE)		2(30m)X(SE)X(V)	
AMCR	(200m)X(E); 1(200m)X(SE)			
HOWR	(20m)X(E)	1(20m)X(NW)		1(100m)X(SE)
G-CFL	(130m)X(SE); 1(60m)X(S)			
AMRE	(10m)X(N); 1(30m)X(NW)		1(40m)X(N)	
RTHA	(100m)X(SE)			
RBWO	(20m)X(NW)			
RHW0	(130m)X(S)			
SOSP (1)	(50m)X(E); 1(40m)X(W)			2(60m)X(E)
NOCA (1)	(110m)X(W); 1(60m)X(W)			
NOCA (2)	(100m)X(E)			
BRCR	(30m)X(W)		1(20m)X(NE)	1(60m)X(NE)
NOFL	(100m)X(SE)			
GBHE	(80m)X(SV)			
HAW0			1(30m)X(SE)X(V)	
BCGH		1(60m)X(S)	1(10m)X(W)X(V); 1(20m)X(E)	
DCCO		1(100m)X(N)		
C0GR			1(80m)X(SV)	
BG-GN				1(40m)X(W); 2(60m)X(N)
BAOR				1(10m)X(N)
TVI				1(100m)X(S)
SOSP (2)	(80m)X(SE)			1(40m)X(NW)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50

Point # 25

Date 7-14-00

Time Period 2

Survey Time 0747-0757

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR(1)	(20m)(SE); (20m)(SE)			
TUTI	(20m)(NE)			
DCCO	(40m)(N)			
BCCH	(20m)(SE); (50m)(E)		(40m)(NE)	
HOWR(2)	(70m)(NW); (20m)(NE)			
BEKI	(80m)(N)			
SOSP(1)	(30m)(N); (70m)(N)			
HOWR(3)	(80m)(NW); (80m)(NW)(N)			
HAWO	(90m)(W)			
INBL(1)	(100m)(E); (80m)(NW)			
REWO	(80m)(NW); (80m)(NW)(V)			
TRSW	(50m)(NW)(V)		3 (60m)(NW)(V)	
WBNI	(40m)(S)		1 (100m)(NW)	
DOWO	(90m)(NW)			
INBL(2)	(100m)(SW); (90m)(N)			
BAOR	(90m)(E)			
SOSP(a)	(20m)(W)			
CAWR				
E/WPE		(100m)(NW)		
BKSW		(80m)(SW)		
EAPH			(E)(V)	
AMCR			(10m)(W)	
NOCA			(300m)(SW)	
GBHE			(100m)(W)	
RHOW			(180m)(W); (150m)(W)(V)	
REVI			(10m)(SE)(V)	
AMRE			(100m)(NW)	
BLJA				(120m)(N)
NOFL				(70m)(S)
				(140m)(NW); (140m)(N)
				(80m)(NW)(V)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50

Point # 26

Date 7-14-00

Time Period 2

Survey Time 0721-0731

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR (D)	(80m)(W); (40m)(NW)		(190m)(N)	(80m)(NW)
WBNI	(50m)(S)		(10m)(S)	
SOSP (D)	(70m)(SE); (60m)(NE)			(90m)(N)
RBWO	(20m)(S)			
AMCR (D)	(50m)(W); (200m)(W)		(90m)(W)	
HAWO	(50m)(SE)			
SOSP (2)	(100m)(W)			
CHSW (D)	(40m)(NE); (20m)(E)			
HOWR (2)	(40m)(SW)			
EMPE	(120m)(E); (30m)(S)			
COGR	(50m)(S)			
GCEL	(60m)(SE)		(40m)(SE)	
TNBU	(20m)(SE); (C)		(60m)(E)	
AMCR (2)	(30m)(NE); (V)		(40m)(S)	
CHSW (2)	(10m)(NW); (V)			
BAOR		(90m)(NE)		
CEWA				
NOCA			(40m)(S)	
BLJA			(30m)(SE)	
RWBL				(200m)(W) (90m)(SW)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50

Point # 31

Date 7-13-00

Time Period 2

Survey Time 0754 - 0804

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
AMRE (1)	(30m)X(E); (30m)X(SW)			
SOSP	(40m)X(E); (40m)X(SE)		(60m)X(W)	
HOWR(1)	(60m)X(E); (40m)X(NE)			
HOWR(2)	(40m)X(W); (40m)X(SE)			(30m)X(W)X(V)
RBWD	(80m)X(N)			
PIWD	(70m)X(S)X(V)			
BCCH(1)	(10m)X(NE); (30m)X(NE)			
AMCR	(100m)X(E); (130m)X(E)			
NOCA	(70m)X(W)			
GCFE	(10m)X(SW); (2(40m)X(E)			(140m)X(W)
DOWD	(80m)X(NE)			(30m)X(E)
REVT	(60m)X(NE)		(40m)X(W)	
AMRE(2)	(10m)X(E)		(80m)X(E); (90m)X(SW)	
BHCO	(30m)X(E)			
WAVI	(90m)X(SW)			
BCGH(2)	(10m)X(S); (10m)X(NE)	(80m)X(SW)		
RWBL	(100m)X(N); (2(100m)X(S)			
MODD	(150m)X(E)		(2(80m)X(SW)	
WBNU	(60m)X(E)			
TUTI	(150m)X(SE)		(90m)X(NE)	
COGR		(2(50m)X(NW)		
RTHU			(10m)X(E)X(V)	
HAWO			(80m)X(N)	
GBHE				
NOFL(1)				(40m)X(SW)X(V); (200m)X(SW)
INBA				(40m)X(S); (1(40m)X(NW)
NOFL(2)				(80m)X(E)
AMRO				(80m)X(W)
				(50m)X(SW)X(C)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-5

Point # 32

Date 7-13-00

Time Period 2

Survey Time 0733 - 0743

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
BAOW	1 (60m)S(XV)			
RWBL (D)	10 (60m)S) ; 2 (40m)S(W)			
COGR (D)	8 (60m)S) ; 1 (30m)S(XV)		8 (100m)S(XV)	3 (40m)X(W)
HOWR (D)	1 (40m)SE) ; 1 (60m)X(W)		2 (30m)S(XV)	
AMCR	3 (90m)NE)			
AMRE (D)	1 (10m)X(DV) ; 1 (40m)SE)			1 (PT)XV)
SOSP	1 (60m)S) ; 1 (40m)E)			1 (50m)E)
EUST	3 (80m)X(XV)			
TRSW	1 (80m)X(XV)			
RHWD	1 (80m)E) ; 1 (50m)NE)		4 (100m)S(XV)	3 (40m)X(W)XV)
PRWA	1 (30m)X(W)XV)			1 (60m)XNE)
NOFL	1 (100m)S) ; 1 (200m)S)			
COGR (2)	(FO)			
RNBL (2)	1 (60m)X(W)			
WAVI	1 (40m)NE)			
HOWR (2)	1 (30m)X(W)XV)			1 (80m)XE)
GBHE (1)	1 (30m)X(W) ; 1 (60m)S)			
GBHE (2)	1 (40m)S(W)XV)			
CEWA	1 (40m)X(W)			
AMRE (2)	1 (10m)NE)XV)			
CHSW	1 (40m)X(W)			
NCCA		1 (90m)S(W)		
EMPE				
YTWA			1 (50m)SE)	
DOWO				1 (80m)X(N)
BLJA				1 (80m)X(W)
BCCH				1 (40m)XE)
				1 (30m)X(W)XV)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50

Point # 35

Date 7-11-00

Time Period 2

Survey Time 0810 - 0820

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR(1)	(10m)(NE); (40m)(S)			
RHW0(1)	(60m)(E); (80m)(NE)			(10m)(SXV)
HOWR(2)	(100m)(S); (130m)(W)			
RHW0(2)	(40m)(NW); (50m)(E)			
RHW0(3)	(80m)(SE); (50m)(N)			
BCCH(1)	(40m)(W)			(20m)(N); (30m)(NW)
COGR	(60m)(S); (90m)(E)			
AMG0	(40m)(W)			
BLJA	(80m)(W); (70m)(S)	(10m)(ND)(V)		
NOFL	(20m)(S)			
GCF1	(70m)(SE)			
HOWR(3)	(10m)(E)(V); (80m)(NE)			
GBHE	(PT)(V); (150m)(S)			
NOCA	(30m)(NW); (30m)(N)			
SOSP	(100m)(N)			
AMRE		(10m)(W)(V)	(10m)(W)	
AMCR		(50m)(SE)		
DOW0		(100m)(SE)		
TRSW			(30m)(W)	
PIW0			(30m)(N)	
BCCH(2)			(90m)(N)	(F0)
BCCH(3)				(20m)(W)(V); (30m)(S)
PRWA				(30m)(E); (20m)(S)
RBW0				(80m)(S)
				(90m)(SE)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 40

Date 7-15-00

Time Period 2

Survey Time 0647-0657

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
SOSP	1(60m)SE; 1(60m)E			
AMCR(1)	1(40m)SE; 1(10m)SE			
COYE	1(40m)E; 1(40m)SE			
RWBL(1)	1(40m)E; 2(70m)NE			
HWR	1(40m)W; 1(80m)S	1(80m)XSW		
INBA	1(50m)NW			
DOW	1(80m)E			
AMFO	1(10m)W; 1(80m)SW			1(40m)SE
RWBL(2)	2(40m)E; 4(40m)NW	1(40m)SW		
COGR(1)	1(40m)SW; 1(40m)NW			
AMRE	1(30m)SW; 1(80m)E	1(70m)XSW		
BCCH(1)	1(80m)SE; 1(10m)SE			
RBWD	1(80m)NW		1(100m)W	
COGR(2)	1(50m)NW; 2(40m)W			
BCCH(2)	1(80m)NE			
RWBL(3)	4(50m)E; 2(60m)S			
BAOR	1(30m)SE			
AMCR(2)	1(100m)S; 1(80m)SW			
GRCA	1(80m)E			
NOFL	1(90m)S			
RHWD		1(90m)SE	1(100m)W	
KILL				
WAVI			3(80m)W	
NOCA			1(80m)XC	1(10m)SE

✓ 0-3

Appendix 6. Agricultural Edge census sheets, 2000 (early and late season)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 34

Date 6-27-00

✓ 0.52

Time Period 1

Survey Time 0942-0952

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
AMCR	1(20m)W); 1(20m)S)			
HWR(1)	1(60m)W); 1(80m)SW)		1(80m)S)	1(270m)W); 1(250m)SW)
DOW(1)	1(30m)NW); 1(50m)W)			
SOSP	1(40m)NE)			
CHSW	2(50m)NW)			
KILL	1(80m)E); 1(70m)E)			
PLWO	1(40m)S)			
HWR(a)	1(20m)NE); 1(100m)SW)			
CGR	2(90m)N); 1(20m)W)XV)			
YBC1	1(250m)N)			
DOW(a)	1(20m)N)			
BAOR	1(90m)W)			
RBWO	1(60m)SE)		1(50m)N); 1(40m)W)	1(80m)SE)
GCF1	1(40m)SE)			
NOCA	2(30m)SE); 1(40m)E)			
BHCO			1(70m)S)	
PRWA		1(40m)E)	1(60m)E)	1(80m)SE)
RHWO		1(40m)W)	1(110m)W)	
RHWO		1(80m)SE)		
EWPE			1(70m)S); 1(40m)SW)	
TATT			1(50m)NW)	
BLJA			2(20m)W)XV)	
GRC1			1(60m)SE)	
NOFL				1(60m)N)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0.529

Point # 38

Date 6-27-00

Time Period 1

Survey Time 0701-0711

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
REVT	(80m)(E)			
BHCO	(80m)(E)			
EAST	(10m)(SE)(V)			
GCFE (D)	(30m)(SE); (10m)(W)	(100m)(N)		
HOWR (D)	(60m)(E); (60m)(S)			
BCCH (D)	(40m)(NW); (30m)(NW)		(100m)(E)(V)	(110m)(SW)
RHW0 (D)	(90m)(S); 2(20m)(W)	(90m)(NW)		
SOSP	(50m)(SE); (70m)(SE)		(110m)(N)	
GBHE	(50m)(SE)			
MAL	(80m)(S)			
HOWR (2)	(30m)(E); (60m)(N)			
RBW0	(50m)(E); (50m)(NE)			
PRWA	(70m)(N); (130m)(NE)		(80m)(NW)	
AMCR (D)	(30m)(NW); (870m)(W)		(F0)(V); (F0)(V)	
RWBL	(70m)(N); (90m)(W)	(F0)		
DOMO	(90m)(E)			(90m)(W)
HAW0	(30m)(W)			(70m)(SE); (20m)(NW)
GCFE (2)	(20m)(N); (90m)(SW)			
RHW0 (2)	(100m)(NW)			
EMPE	(70m)(SW)			
AMCR (2)	(130m)(NE)		(90m)(NW)	
WBNU	(50m)(NE)			
BCCH (2)	2(20m)(SW)			(130m)(NW)
WAYT	(100m)(N)		(50m)(S)	
CHSW		(130m)(NW)		
NDCA				(100m)(NW)
RSHA				(230m)(SW)

2000
~~1999~~ MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50

Point # 41

Date 6-27-00

Time Period 1

Survey Time 0819 - 0829

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
COGR	5 (60m)X(NW); 1 (50m)X(E)X(V)			
RWBL	8 (60m)X(NW); 2 (100m)X(W)			
KILL	3 (50m)X(SW)X(V)			1 (90m)X(N)
TRSW	20 (30m)X(SW)X(V)			1 (40m)X(W); 1 (60m)X(W)
PRWA	1 (90m)X(SE); 1 (10m)X(W)			1 (90m)X(N)
AMRE (1)	1 (40m)X(NE); 1 (70m)X(E)			
YVT	1 (80m)X(NE); 1 (100m)X(W)			
RTHA	1 (30m)X(S)			
HOWR	1 (40m)X(SE)	1 (10m)X(NE)		
GCFE (1)	1 (80m)X(NW); 1 (80m)X(N)		1 (70m)X(N); 1 (100m)X(NW)	
INBL	1 (30m)X(SE)			1 (40m)X(E)
SOSP	1 (150m)X(E)			
GCFE (2)	1 (100m)X(W)			
EUST	1 (40m)X(W)X(V)			
DOWO	1 (300m)X(N)	1 (70m)X(N)		
GBHE	2 (130m)X(E)		1 (130m)X(W); 1 (10m)X(SW)X(V)	
AMRE (2)	1 (120m)X(N)			
BCCH			3 (80m)X(E)X(C)	
BGGN			1 (30m)X(SE)	

2000
 4999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 43

Date 6-27-00

W. J. ...

Time Period 1

Survey Time 0856 - 0906

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
RWB1 (1)	3(10m)X(NXV); 2(100m)X(N)	2(40m)X(WXV)		
WBNU	1(80m)X(WXV); 1(70m)X(W)			
H0WR	1(40m)X(E); 1(50m)X(SE)		1(40m)X(W)	2(10m)X(NEXV)
SOSP (1)	1(30m)X(E); 1(60m)X(E)			
GCFE	2(50m)X(NE)			
RHW0	1(30m)X(E); 1(90m)X(WXV)			
SOSP (2)	1(80m)X(NE); 1(70m)X(SW)			1(80m)X(E)
RWB1 (2)	5(10m)X(NE)X(V)			
PRWA	1(100m)X(NE); 1(60m)X(E)		1(60m)X(NW)	
NOCA	1(100m)X(W)			
AMRE	1(60m)X(W)			
FUST	2(50m)X(WXV)			
EABL	1(80m)X(WXV)			
PIW0(1)	1(30m)X(W); 1(200m)X(S)			
YBCU(1)	1(50m)X(S); 1(40m)X(WXV)			
WAYT	1(100m)X(W)			
SOSP (3)	1(60m)X(SW)		1(70m)X(SW)	
WODL	2(120m)X(WXV)			
YBCU (2)	1(30m)X(WXV)			
COGR	1(50m)X(W)X(V)			
DOWD	1(10m)X(WXV)			
KILL	1(40m)X(S); 2(60m)X(W)			
PIW0(2)	1(50m)X(SW)			
AMCR		2(200m)X(N)		
BGGN		1(20m)X(W)		
YTVT			1(70m)X(W); 1(90m)X(W)	
HAWO				1(10m)X(NEXV)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0.5

Point # 47

Date 6-26-00

Time Period 1

Survey Time 0710 - 0730

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
GBHE (1)	(30m)(E)(X); (FO)(X)			(130m)(W)
HOWR (1)	(10m)(NW); (30m)(W)(X)			
AMGO	(30m)(NE)			
NCCA	(40m)(NE)			
INBU (1)	(30m)(E); (100m)(SE)		(70m)(N)	
AMCR (1)	(50m)(NE); (100m)(N)	(100m)(SE)		(10m)(E)(X)
DOWO (1)	(10m)(SE); (30m)(S)	(30m)(SE)	(10m)(SE)(X)	(40m)(NW)
PIWO	2(40m)(N)			
BHCO	(40m)(SE)			
RHW0	(10m)(SE)(X)			
SOSP	(90m)(NW)			
GBHE (2)	(70m)(N)			
RBW0	(10m)(SW)(X)			
AMRE (1)	(40m)(SE); (70m)(N)		(10m)(SE)(X)	
BCCH	(70m)(E); (70m)(E)	(70m)(E)		
AMCR (2)	(90m)(S)			
REVI	(70m)(S); (40m)(W)			
AMRO	(60m)(NW); (50m)(E)			
DOWO (2)	(100m)(SE)			
HOWR (2)	(PT)(V); (10m)(W)(X)			
INBU (2)	(40m)(SW)			
BEKI	(80m)(W)			
AMRE (2)	(70m)(NW)			
BIJA		(70m)(E)		
COGR		(10m)(SW)(X)		
BAOR		(10m)(E)		
TUTI				
GCFI			(90m)(E)	
WODU			(70m)(SW)	
RSHA				(50m)(S)
				(80m)(SE)
				(200m)(N)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50

Point # 419

Date 6-27-00

Time Period 1

Survey Time 0800 - 0810

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
RWBL(1)	2(40m)(E); 1(50m)(N)			
SOSP(1)	1(30m)(NW); 1(10m)(NW)(V)		2(F0); 2(30m)(NE)(V)	
AMGO	1(40m)(NW); 1(30m)(NW)(V)			
RWBL(2)	2(20m)(NW)(V); 2(80m)(SW)			
NOCA	1(30m)(NE)	1(30m)(NW); 1(60m)(NE)	1(50m)(NE)(V)	1(50m)(XX)(V)
YTVI	1(80m)(NE); 1(50m)(NW)			
BCCH(1)	2(30m)(NE)(V); 2(20m)(W)	1(30m)(NE)(C)		
E1ST	2(30m)(E)			
BGGN	1(40m)(E)		2(20m)(NE)(V)	2(30m)(XX)(V)
AMRO	1(40m)(N)			
DOWO(1)	1(60m)(NE); 1(40m)(NE)			
MBNU	1(80m)(N)			1(30m)(NE)(V)
HOWR	1(30m)(S)			
RWBL(3)	1(40m)(SW)(V); 2(30m)(SW)		1(80m)(W); 1(40m)(NE)	
INBY	1(30m)(NW)(V); 1(100m)(NW)		1(40m)(XX)(V); 1(60m)(NW)	
RHW0	1(100m)(NE)			
CHSW	1(60m)(XX)(V)			
DCCO	1(F0)(V)			
GCFI	1(150m)(N)			
DOWO(2)	1(30m)(NE)			
GBHE	1(150m)(E)			
RWBL(4)	2(20m)(S)(V); 8(20m)(S)(V)			
IANVA	1(20m)(NW)			
SOSP(a)	1(80m)(SE)			
BCCH(2)	2(30m)(XX)(C)			
KILL		1(100m)(SE)		
COYE			1(80m)(NW)	
AMCR				1(F0)
AMRE				1(20m)(NW)

2000
 #1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50

Point # 50

Date 6-27-00

Time Period 1

Survey Time 0741 - 0751

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
RBWD (1)	1(30m)E); 1(40m)NW)			
EUST	2(30m)E)			
HOWR (1)	1(30m)E); 1(40m)NW)			
GRCA	1(30m)W)			1(10m)XNW)
RMBL (1)	2(40m)W); 1(60m)XSW)		2(80m)X(S); 4(30m)X(S)W)	
BAOR (1)	1(70m)W); 1(70m)XNW)			
HOWR (2)	1(70m)S); 1(10m)XSW)W)			
BCC	1(30m)SE); 1(60m)XSE)			
RBWD (2)	1(30m)E)XW)			
SOSP	1(60m)NE); 1(40m)X(S)			
TNBL	1(60m)XSW); 1(80m)XW)	1(100m)X(S)		
EWPE	1(30m)SE)			
WRBL	1(40m)W); 1(30m)XW)			
HOWR (3)	1(70m)W)			
WAVI	1(50m)NE)		1(40m)XSE)	
GBHE	1(FOX)W)			
HAWO	1(60m)XNE)			
RHW0 (1)	1(60m)XNW); 1(70m)XW)			
AMCR	1(300m)XNW)			
RMBL (2)	1(40m)W); 4(80m)XW)			
BAOR (2)	1(60m)XNW)			
RHW0 (2)	1(300m)XW)			
DOMO	1(70m)E)			
NOCA		1(80m)XNW)		
COGR		2(30m)XW)		
BHCO			2(30m)XNW)	
YEWA			1(40m)XSE)	
AMRE			1(70m)X(S)	
PRWA				1(60m)XNE) 1(80m)XNE)

2000
 #1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50 only

Point # 21

Date 7-15-00

Time Period 2

Survey Time 0710 - 0720

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
WODU	2(30m)XNW			
GBHE	1(30m)XSV			
NOFL	1(40m)S); 1(50m)SW			
RHWD (1)	1(40m)SE); 1(60m)WV		1(80m)S)	1(90m)N); 1(90m)SW)
SOSP	1(30m)SW); 1(30m)W)		1(30m)SE)	
HOWR (1)	1(40m)SW); 1(40m)W)		1(40m)NW)	
BCCH	1(50m)SW)		1(40m)SE)	
TRSW	2(30m)SWV); 2(30m)SV			1(50m)N)
WBNL	1(50m)W)			
COGR	1(40m)SWV); 1(40m)W)			
GRCA	1(30m)WV); 1(30m)SE)			
TYVI	1(50m)W); 1(30m)N)			
NOCA	1(40m)SE)			
EUST (1)	1(40m)SWV)			1(60m)N)
HOWR (2)	1(30m)W); 1(30m)NW)		2(50m)SE); 1(30m)NWV)	
DOWD	1(50m)S)			
HOWR (3)	1(60m)SE)			1(70m)NW)
WAVI	1(50m)SE)			
BEKI		1(40m)XEV)	1(60m)XE)	
NRSW			1(30m)XNV)	
HAWO			1(40m)XE)	
PIWO			1(50m)N)	
EAST (2)			3(40m)NWV)	
AMRE			1(40m)SE)	
BLJA				1(30m)XE)
RHWD (2)				1(30m)XE)
GCFE				1(60m)NE)
				2(30m)SE)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

✓ 0-50 only

Point # 22

Date 7-14-00

Time Period 2

Survey Time 0908 - 0918

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
RTHA	1(40m)X(S)X(V)			
PTWO	2(40m)S	1(90m)X(W)		
GRC(A) (1)	1(10m)X(E); 1(30m)X(N)		1(30m)X(N)(E)	
AMRE	1(30m)X(N); 1(40m)X(W)X(V)	1(40m)X(W)		
BCCH	1(10m)X(W)X(V); 1(30m)X(W)X(V)			
1UVU	3(70m)X(N)X(W)X(V)			
EABL	1(30m)X(N)X(E)X(V); 1(40m)X(W)X(V)			1(10m)X(N)X(E)X(V)
1RSW	4(60m)X(N)X(E)X(V); 5(30m)X(W)X(V)		2(40m)X(S)X(V)	
WODU	4(30m)X(N)X(E)X(V)			
EMPE	2(30m)X(N)X(V)			
GCEL	1(30m)X(N)X(E)X(V)			
RWBL	1(30m)X(W)X(V)			
WBNU	1(90m)X(N)			1(80m)X(N)
CHSW	2(50m)X(W)X(V); 1(10m)X(N)X(E)X(V)			
HQWR	1(30m)X(S)X(W)	1(90m)X(N)(E)		
SOSP	1(10m)X(E); 1(30m)X(SE)			1(100m)X(S) 1(120m)X(E)
DOVO	1(30m)X(N)			
EUST	2(50m)X(S)			
BHCO	1(40m)X(S)X(W)			
WAVI	1(100m)X(S)X(W)		1(50m)X(W)	
RHW0	2(100m)X(SE)			
GRC(A) (2)	1(30m)X(N)(E)			
AMCR	1(300m)X(S)X(W)			1(200m)X(S)
1NBI	1(100m)X(S)X(W)	1(60m)X(W)		
AMGO		1(80m)X(N); 1(30m)X(N)X(W)		
COGR			1(30m)X(N)(E); 1(50m)X(W)	
REVI			1(90m)X(W)	
RBWO			1(60m)X(N)X(W)	1(30m)X(SE)

2000
1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 3

Date 6-7-00

Time Period 1

Survey Time 0711-0721

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
REVT	(30m)(SE); (60m)(SE)			(100m)(E)
DOWN (D)	(80m)(E); (30m)(SE)			
PBWD	(30m)(SE); (80m)(E)		(10m)(SEXV)	
AMRE	(50m)(S)			
NOCA	(80m)(NE)(C); (20m)(SE)		(10m)(SE); (40m)(SW)	
HOWR (D)	(20m)(SE); (40m)(SE)	(100m)(SW); (90m)(SW)		(10m)(NE)
HOWR (a)	(20m)(E)			
RHOW	(40m)(E); (30m)(SE)	(40m)(S)		(40m)(SXV)
EWPE	(50m)(NE)			
WAVI	(70m)(E)			
BAOR	(40m)(S); (20m)(SEXV)		(30m)(SX)(C)	(20m)(NE)(C); (30m)(SXV)
IABU	(40m)(S)			(80m)(S)
PRWA	(20m)(SE)(C)			
DOWN (a)	(100m)(E)			
AMCR	(150m)(SE)			(200m)(S)
WBNU		(10m)(SW)		
COGR			(1PT)(V)	
BLTA			(120m)(S)	
TRSW			(270m)(S)	
RHCO				(30m)(SW)

8000
1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 6

Date 6-7-00

Time Period 1

Survey Time 0756 - 0806

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR (1)	(10m)(SW); (PT)	(80m)(SE)	(100m)(NE)	(80m)(S)
WBWL	(30m)(NE)			
HAWO	2(40m)(E); (30m)(SE)	(40m)(SE)		
SOSP	(40m)(SE); (60m)(SE)			
WODU	(30m)(XV)			
REVT	(60m)(S)		(70m)(S)	
GCFI	(40m)(S); (50m)(S)			
AMCR	(50m)(SE); (250m)(NW)		(100m)(SE); (80m)(S)	
PIWO	(20m)(S)			
HOWR (2)	(PT); (80m)(SW)			
GBHE	(60m)(SE)(C)			
AMRE	(60m)(S)			
COGR	(50m)(E)	(10m)(S)(V)		
RHW0	(20m)(SW)		(10m)(S)(V); (30m)(S)(V)	
DOW0	(30m)(E)			
PRWA	(40m)(SW)		(10m)(S)(V)	
INBU	(10m)(NW)			
NOCA	(80m)(E)	(40m)(SE)		2(30m)(SW)(V)
RBWO		(40m)(SE)		(20m)(NE)(C)
TRSW		(20m)(W)		

✓

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 9

Date 6-7-00

Time Period 1

Survey Time 0844 - 0854

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
TUVU	(10m)(NW)(V)			
SOSP(0)	(10m)(E); (80m)(SW)		(180m)(W)	(80m)(NE)
HOWR(1)	(40m)(E); (80m)(NE)			(80m)(E)
REVI	(40m)(S); (70m)(SE)			
BAOR	(10m)(W); (10m)(S)			
SOSP(2)	(40m)(SE); (100m)(S)			
AMCR(D)	(80m)(E); (150m)(W)		(200m)(NW)	
RHWO	(40m)(SE)			
DOMO	(50m)(S)			(50m)(E)(V); (100m)(S)
HOWR(2)	(100m)(SE); (140m)(S)			
AMCR(2)	(40m)(W)			
COGR	(20m)(W)(V); (80m)(S)		(100m)(NW)(V)	
BLJA	(80m)(SW)(C)			
RBWO	(100m)(SE)			(30m)(S)(C) (30m)(SW)
AMRO				
RWBI			(100m)(W)	
EWPE				(50m)(S); (50m)(SE)
INBI				(80m)(S)



2000
 -1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 10

Date 6-7-00

Time Period 1

Survey Time 0859 - 0909

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
EI ST	1(20m)(E); 2(30m)(SW)			
AMRE	1(10m)(SE)			1(100m)(SW)
SOSP (1)	1(10m)(W); 1(80m)(SW)			1(100m)(SW)
BAOR	1(20m)(SE)(C)			
RWBL (1)	4(50m)(N); 2(50m)(N)		1(10m)(E)(V) 1(20m)(E)(V)	
AMRD	1(20m)(E)			
SOSP (2)	1(70m)(E)			
RWBL (2)	1(90m)(SE)			
RWBL (3)	1(20m)(N); 1(70m)(SE)			
TAVU	1(30m)(W)(V)			
HQWR	1(30m)(W)	1(110m)(S); 1(100m)(SE)		1(80m)(SW)
REVT	1(120m)(SW)			
RWBL (3)	2(20m)(E)(V)			
WODL	1(80m)(S)			
WAVT	1(80m)(E); 1(100m)(S)	1(70m)(SE)		
COGR	3(20m)(E)(V)	2(F0)		
CHSW	1(70m)(SE)		1(10m)(SE)(V)	
AMG0				1(30m)(SE)
RBGR				1(70m)(E)
NOEL				1(20m)(SW)



2000
 1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 13

Date 6-19-00

Time Period 1

Survey Time 0711-0721

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
BAOR	(40m)(N) ; (30m)(SE)		(30m)(N)(XC) ; (PT)(C)	(10m)(SW)
AMRE (1)	(30m)(SE) ; (100m)(SW)			(80m)(NE)
HOWR (1)	(40m)(SE) ; (50m)(E)		(50m)(NE)	
PRWA	(90m)(SE) ; (40m)(SE)		(40m)(E) ; (30m)(NE)(XC)	(190m)(S)
EWPE	(50m)(S)			
HAWD	(50m)(E)			
GCFE	(60m)(S) ; (100m)(E)	(30m)(S)		
BCCH	(30m)(S)(C)			
TVI	(300m)(NW)			
GRCR	(30m)(S)			
HOWR (2)	(80m)(S) ; (120m)(S)			
AMRE (2)	(70m)(E)			
BLJA	(50m)(E)	(100m)(E)(V)		
TRSW (1)	(10m)(NW) ; (70m)(NW)			
DOMO	(50m)(SE) ; (180m)(E)			
TRSW (2)	2 (FO)		(FO)	
WAYT	(40m)(S)	(40m)(E)		(30m)(S)
WBNH		(70m)(SE)		
EUST				(40m)(SE)
RHOW				(150m)(S)
REVI				(70m)(S)



2000
~~1999~~ MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 1

Date 6-30-00

Time Period 2

Survey Time 0940 - 0950

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR(D)	(50m)(SE); 1(60m)(W)		1(60m)(SE)	
SOSP(D)	(30m)(W); 1(50m)(NE)		1(100m)(S); 2(100m)(SW)	
BLJA(D)	(90m)(W); 1(60m)(SE)			
NRSW	1(60m)(NW)			
HOWR(a)	1(100m)(E); 1(20m)(SE)			
TRSW(D)	3(80m)(NW); 2(50m)(NW)			
BCH	1(10m)(W)			
TRSW(a)	1(100m)(NW); 5(100m)(NW)			1(250m)(NW)
AMCR	4(220m)(ND); 1(140m)(W)			
BLJA(a)	1(70m)(S)			
RBW0	1(30m)(SV)			
SOSP(a)	1(10m)(W)(V)			
RHW0		1(20m)(E)	1(40m)(SW); 1(30m)(SW)	
BRCR		1(70m)(E)		
WAYT		1(80m)(SW)		
RWB1				1(60m)(NE)
RSHA				1(270m)(NW)
BKSW				1(30m)(NW)
DOMO				1(110m)(S)

✓

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 6

Date 6-30-00

✓

Time Period 2

Survey Time 0820 - 0830

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR (1)	(10m)(E); (40m)(W)		(140m)(S)	
EWPE (1)	(30m)(SE); (10m)(E)			
HOWR (2)	(60m)(S); (80m)(SE)			
WRNL	(30m)(E)		(30m)(E)	(30m)(S)
EUST (1)	(10m)(SE); (10m)(S)			
BCCH (1)	(30m)(S); (20m)(E)			
REVI	(30m)(E); (40m)(SE)			
PRWA	(150m)(S); (150m)(SE)		(180m)(SW)	
BCCH (2)	(10m)(SE); (20m)(NE)			
WODL	(90m)(SE)(V)			
GCFE	(90m)(SE)			
SOSP	(60m)(E)(V); (100m)(SE)			
BAOR	(10m)(E)			
HAWO	(20m)(E)			
BLJA	(50m)(S)			(40m)(SE)
PUMA	(80m)(NW); (100)			(20m)(SW)
TRSW	(40m)(NW)(V)		(100)	
HOWR (3)	(50m)(NE)			
GBHE	(100m)(S)			
DOWO	(80m)(NE)			(150m)(SW)
EWPE (2)	(20m)(SW)			(30m)(SE); (40m)(S)
EUST (2)	(20m)(SE)			
RHWO		2(120m)(SW)		
YBCU		(200m)(E)		
AMRO		(30m)(E)		
CEWA		(60m)(SE)		
RBWO			(180m)(S)	
RWBZ			(100m)(V)	
COGR			(20m)(S)	
AMCR				(150m)(SW)
TYVU				2(50m)(V)

2000
1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 10

Date 6-30-00

Time Period 2

Survey Time 0723 - 0733

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HWR(1)	(PT); (10m)(S)(V)		1(70m)(S)	
WVLE	(40m)(SW); (30m)(W)			
HWR(2)	(PT)(V); (10m)(S)			
WBNU(1)	2(70m)(E); (40m)(S)		1(10m)(SEX)(V)	1(40m)(SE)
AMRE(1)	(50m)(S); (40m)(W)			
DWMO(1)	(50m)(S); (40m)(S)		1(10m)(S)	
SOSP	(60m)(S); (10m)(ND)(V)			
HWR(3)	(10m)(SEX)(V); (60m)(SE)			
NOCA	(50m)(E)			
RWBL	(70m)(ND); (30m)(NW)	1(50m)(N)		
GBHE	(FO)(V)			
HWR(4)	(20m)(ND); (100m)(E)			
DWMO(2)	(30m)(E)			
AMRE(2)	(80m)(SE)			
WBNU(2)	(60m)(S); (80m)(E)			
RBMO	(50m)(SW); (160m)(SE)			
BHCO	(40m)(E)			
BCCH(1)	(90m)(E); (160m)(SW)	2(30m)(SEX)(V)		
BCCH(2)	(40m)(S)	1(60m)(S)		
BAOR		1(60m)(S)		
COGR		1(FO)(V)		
EJST				
EABL		2(30m)(E)		
CEWA		1(60m)(S)		
REVI			2(50m)(E)	1(60m)(SW)



2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 13

Date 6-30-00

Time Period 2

Survey Time 0635 - 0645

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
PTWO	(40m)(SE)			
BCCH	(10m)(S)			
HOWR(1)	(30m)(SW); (30m)(S)			
HOWR(2)	(30m)(SE); (30m)(NE)			
AMCR(1)	(70m)(S); (50m)(S)			
COGR	(80m)(SE)			
HOWR(3)	(80m)(E); (70m)(E)			
DOWD	(40m)(S)			
GRCA	(30m)(S); (30m)(SE)(V)			
AMRE(1)	(40m)(SW); (70m)(SE)			
YUTI	(100m)(S)			
YTVI	(90m)(E)			
AMRE(2)	(30m)(S); (40m)(NE)			
WBNI	(20m)(N)	(30m)(NE)		
WAVI(1)	(60m)(NE); (80m)(NE)			
SOSP(1)	(330m)(NW); (100m)(NE)			
NOCA	(60m)(SE); (50m)(S)			
AMCR(2)	2(40m)(S)(V)			
BLJA	(70m)(E)			
SOSP(2)	(80m)(SW)			
RWBL(1)	(60m)(SW)		(80m)(SE); (90m)(E)	
WAVI(2)	(80m)(N)			
PRWA	(130m)(SE)			
BRCR		(50m)(SE)		
EABL				(90m)(E)
CEWA			(40m)(NE)	
EJST			2(30m)(NE)	
BAOR			(50m)(SW)	
RWBL(2)			3(FOX)(V)	
GBHE			(80m)(N)	
TRSW			(200m)(NW)(V)	
MALL				(190m)(NW)(V)
RBWO				2(60m)(N)(V)
				(FOX)(V)
				(240m)(NW)

2000
 1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 14

Date 6-30-00



Time Period 2

Survey Time 0620-0630

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR (1)	(80m)(E) ; (70m)(SW)			
GCHF (1)	(50m)(NE) ; (10m)(E)		(140m)(SE)	
SOSP	(30m)(NE) ; (250m)(NW)			
WAVI	(40m)(NE)			
PRWA	(40m)(SE) ; (100m)(NW)			(140m)(E)
NCCA	(70m)(E)			
HOWR (2)	(20m)(ND) ; (90m)(SE)		(270m)(W) ; (60m)(SE)	(30m)(ND)
GCHF (2)	(90m)(NE) ; (30m)(NE)			
AMCR	(280m)(E) ; (280m)(NW)	(200m)(SW)		
RBND	(50m)(ND) ; (140m)(E)			
SPSA	(10m)(NW)(V)			
GCHF (3)	(40m)(NE)			
HOWR (3)	(100m)(NE) ; (100m)(W)			
BCCH	(60m)(E)			
TLTI	(80m)(SE)			
PTWO		(100m)(SN)		
EAST (1)		(20m)(SW)		
COGR		(10m)(NW)		
WBNU			(140m)(E)	
NOFL				
TRSW				
PLJA				
EUST (2)				(100m)(E) ; (100m)(SE)
AMRE				(20m)(NE)(V) (80m)(SW)

Appendix 5. Forest Interior census sheets, 2000 (early and late season)

2000
 1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 17

Date 6-19-00

Time Period 1

Survey Time 0818 - 0828

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
NOCA (1)	(30m)(W); (70m)(SE)	(100m)(SW)		
HWR (1)	(30m)(W); (50m)(N)		(30m)(E)(V)	
PRWA (1)	(100m)(SE); (80m)(E)			
HWR (2)	(70m)(NE); (100m)(N)			
DOWO	(80m)(NW)(V); (50m)(NW)(V)	(60m)(W)		
WBNA	(30m)(NE)		(80m)(NW)	
EWPE	(10m)(XXV); (40m)(XW)			
PRWA (2)	(90m)(NW); (90m)(W)			
TJTT	(100m)(W)			
RBWO (1)	(90m)(XW); (80m)(N)			
NRSWO	(30m)(SE)(V); (50m)(EX)(V)			2(40m)(E); (80m)(EX)(V)
RHOW	(100m)(S); (120m)(S)	(100m)(NW)	(130m)(XN)	1(10m)(E)
WAVT	(80m)(N)			
AMRE	(60m)(XW)	(60m)(N)		
RBWO (2)	(130m)(SW); (60m)(W)			1(50m)(W); (70m)(E)
HOWR (3)	(40m)(NW)			
WODL	(60m)(SE); (80m)(SE)(V)			
NOCA (2)	(80m)(E)			
SOSP		(140m)(S)		
COGR				
RWBL			1(60m)(EX)(V)	
BCCH			1(30m)(SX)(V)	
G-CFL			3(30m)(E)(C)	
NRSW (2)				1(60m)(X)(V)
BRCR				1(40m)(EX)(V); 2(80m)(EX)(V)
				1(90m)(W)



2000
 1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 18

Date 6-19-00

Time Period 1

Survey Time 0833 - 0843

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
PAOR	(30m)XN)			
HOWR (D)	(70m)XNW); (40m)XW)		(60m)XS)	(40m)(SE)
AMRO (D)	(30m)XNW); (10m)XW)			
WAVI	(80m)XNW); (80m)XW)			
RHWQ (D)	(90m)XNW); (130m)XW)			
EAST	(10m)XNW); 2(30m)XNW)	(PT)	(30m)XW)	
HOWR (a)	(30m)(E); (50m)(SW)			
NOCA	(60m)XW)	(30m)XW)		
SOSP (D)	(40m)XS); (60m)XNW)			(60m)(E); (70m)XNE)
GBHE	(70m)XW); (FO)XV)	2(FO)XV)		(50m)XW)
TRSW (D)	2(30m)XSV); 2(30m)XSEV)	2(FO)	2(30m)XSEV)	
RHWQ (a)	(80m)XS)			
AMRO (a)	(10m)XEV)			
AMRE (D)	(40m)XW); (60m)XN)		(30m)XW)	
EABL	3(10m)XW)		(30m)XW)	
CHSW	(40m)(E)			
SOSP (a)	(80m)XNW)			
TRSW (a)	(30m)XSEV)			
REVT	(30m)(SW)			
AMRE (a)	(90m)XNW)			
BCCH		(80m)(SW)		
COGR (D)				
EWPE		3(FO)XV); (70m)XW)		2(60m)XN)
COGR (a)		(50m)(SW); (70m)(W)		
GRCA		(60m)XNW)		
GCFZ				(50m)XNW)
PRWA				(80m)(E)
COYE				(10m)XS)
				(60m)XN)



2000
 1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 19

Date 6-19-00

Time Period 1

Survey Time 0854 - 0904

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR (1)	(30m)X(W); (70m)X(W)			
SOSP	(30m)X(W); (70m)X(E)			(130m)X(SW)
WRNUL	(70m)X(W)	(60m)X(SW)		
HOWR (2)	(90m)X(E); (70m)X(SE)			
PRWA	(70m)X(SE); (50m)X(SE)			
TUTI	(40m)X(SE)			(90m)X(S)
BAOR	(40m)X(EV); (40m)X(E)		(100m)X(SE)	(90m)X(E); (40m)X(SEV)
GBHE	(80m)X(SE)			
COGR (1)	(50m)X(W); (50m)X(SEXV)			
GCFE	(70m)X(W)	(80m)X(SE)		
HOWR (3)	(100m)X(SE); (130m)X(W)			
COGR (2)	(40m)X(SEV)			
CHSW			2(50m)X(W)	2(30m)X(E)
BLJA			(100m)X(W)	
RHWQ			(160m)X(S)	(30m)X(NW)XV)
REVI			(50m)X(S)	
NDCA			(60m)X(N)	
WODU				(30m)X(V)
RWWD				(110m)X(E); (60m)X(SE)
RWBL				(100m)X(SE)



2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point #

21

Date

6-19-00

Time Period

1

Survey Time

1041-1051

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR (1)	(30m)(N); (90m)(NW)			
BAOR	(30m)(NW)			
SOSP (1)	(30m)(W); (80m)(S)			
RWBL (1)	(40m)(W); (80m)(E)			
COGR	(30m)(W)(V); (30m)(SW)			
TRSW (1)	8(30m)(W)(V); 2(F0)	2(50m)(NW)(V)	2(30m)(W)(V) 4(40m)(SW)(V)	1(10m)(S)(V) 6(00m)(S)(V)
NOCA (1)	(50m)(SW); (90m)(W)			
AMCB	(50m)(SE)(V)			
SOSP (2)	(30m)(S)			
WAVI	(40m)(SE)			
HOWR (2)	(20m)(NW); (110m)(SW)			
RSHA	(150m)(E)		1(100m)(S)	
AMRE	(80m)(SW); (40m)(SE)			1(20m)(S)
PRWA	(60m)(E)			
AMG0	(40m)(E); 3(F0)			
TRSW (2)	3(F0)			
RWBL (2)	(F0)			
NOCA (2)	(40m)(SE)			
RHWD	(50m)(W)(V)			
BLTA	(90m)(N)			
CHSW		1(F0)		
GBHE		4(80m)(N)(C)		
GRCA				
BGGN			1(30m)(NW) 1(40m)(S)	
AMKE				1(10m)(S)(V)

3000
1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 22

Date 6-21-00

Time Period 1

Survey Time 0711-0721

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
GBHE (1)	1(30m)(XXV); 1(80m)(XXV)			
AMCR (1)	1(100m)(S); 1(150m)(NW)		1(300m)(NE)	
AMRE (1)	1(10m)(SW); 1(100m)(E)			
AMRE (2)	1(PT)(V); 1(50m)(W)			1(80m)(XXV)
HOWR	1(30m)(W); 1(40m)(N)		1(40m)(NW)	
RHOWD (1)	1(30m)(NW); 1(100m)(W)		1(70m)(N)	1(30m)(N)
SOSP	1(20m)(S); 1(40m)(W)			1(30m)(N)
BAOR	1(20m)(XXV)			
AMRE (3)	1(70m)(E); 2(10m)(EXV)			
RWB1	1(90m)(S)			
AMCR (2)	1(200m)(W)			
MODO	1(100m)(SE)			
RHOWD (2)	1(20m)(N); 1(10m)(SE)(V)			
TIUVU	1(850m)(NW)(V)			
TRSW	3(60m)(SE)(V); 2(50m)(SE)(V)	4(20m)(WX)(V); 1(20m)(XXV)	1(60m)(XXV)	
COGR	1(60m)(SE)(V)		5(90m)(ND)(V)	
GBHE (2)	2(70m)(NW)(V)			
CHSW		1(FO)(V)		
NOCA		1(50m)(N)		2(30m)(NW)(V)
NOFL				
BGGN			1(80m)(NW)	
WBNU			1(20m)(NW)	
GRCA			1(90m)(NW)	
EAST			1(20m)(S); 1(30m)(E)	
GCEL (1)			2(30m)(XXV)	
GCEL (2)				1(20m)(SE); 1(80)(SW)
PUMA				1(100m)(N)
DOWD				1(FO)(V)
BLJA				1(40m)(N); 1(80m)(E)
				1(50m)(N)

✓

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 23

Date 6-21-00

Time Period 1

Survey Time 0728 - 0738

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
SOSP	1(10m)XNE); 1(80m)XW)			1(80m)XN)
GBHE	0(100m)XND)V)			
HOWR	1(50m)XNW); 2(30m)XSW)			
WBNU(1)	1(60m)XSE)	1(40m)XS)		
TRSW(1)	2(30m)XN)XV); 10(50m)XSEM)		1(80m)XND); 1(60m)XNW)	
EAST	2(50m)XNE)V)			
EAXI	1(30m)XW)XV)			
PIWO	1(30m)XNE)			
TAVU	10(F0XV); 15(F0XV)			
EABL(1)	1(50m)XE); 1(40m)XSE)			
RHW0	1(60m)XN)XV)	1(90m)XND)		1(130m)XW)
CHSW	3(40m)XW)XV)			2(40m)XW)XV)
AMCR	1(80m)XN)	1(110m)XN)		1(250m)XSE); 1(300m)XE)
RBWO	1(60m)XSE)			1(130m)XE)
PRWA	1(50m)XW)			
AMRE(1)	1(50m)XNW); 1(70m)XSW)		1(90m)XW)	1(60m)XN)
WODU	1(60m)XSE); 1(50m)XSE)	1(80m)XN)		
TRSW(2)	5(10m)XN)XV)			
NOCA	1(80m)XSW)		1(50m)XW)XV)	
AMRE(2)	1(10m)XSE)			
COGR	1(50m)XSE)XV)			1(40m)XNE)XV)
EABL(2)	1(30m)XSE)XV)			
GRCA(1)		1(30m)XE); 1(40m)XNE)		
GRCA(2)		1(10m)XE)XV)		
DOWO			1(20m)XN)XV); 1(50m)XSE)	
WBNU(2)			1(10m)XE)	
GCEL				1(70m)XNW)
BG-GN				1(60m)XN)
BHCO				1(60m)XNW)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 24

Date 6-21-00

Time Period 1

Survey Time 0750 - 0800

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HWR(1)	(10m)(SE); 2(30m)(NW)(V)			1(40m)(SE)(V)
AMRE	(30m)(S); 1(80m)(W)		1(30m)(E)	
WBYU	(60m)(SW); 1(40m)(W)			
GBHE	(50m)(S); 1(80m)(E)(V)			
NOGA	(50m)(SE); 1(30m)(E)(V)			
AMCR(1)	(100m)(SE); 2(90m)(N)		1(30m)(E); 1(70m)(NE)	
CAWR	(50m)(S)			
SOSP	(30m)(S)			
HWR(2)	(30m)(E); 1(70m)(S)			
PRWA	(70m)(S)	1(30m)(SE)		
HAWO	(70m)(NE); 1(70m)(N)			1(90m)(W)
RBWO	(50m)(N)			
AMCR(2)	(140m)(W)			
DOM(1)	(80m)(NE); 1(100m)(S)	1(70m)(E)	1(10m)(SW)(V)	
PIWO	(80m)(SE)			
DOM(2)	(50m)(SE)			
BCCH	(10m)(E)	1(70m)(E)(V)		1(40m)(NE)
INBU	(60m)(S)	1(40m)(E)		
BAOR	(70m)(NW); 1(30m)(W)		1(50m)(SW)	
BLJA	(60m)(N); 1(30m)(NW)		1(30m)(N)	
COGR		2(60m)(NW)		
YTYI				1(50m)(SE); 1(80m)(S)
TUTI				1(10m)(E)(V)
TRSW				2(40m)(E)

✓

3000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 25

Date 6-23-00

Time Period 1

Survey Time 0843 - 0853

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
GRHE	(10m)(NW)(V)			
HOWR	(10m)(SE); (90m)(NW)			
INBL	(60m)(N)			
BLJA(1)	(70m)(NW); (100m)(NW)(V)			
TRSW(1)	(60m)(NW)(V); (70m)(NW)(V)	2(30m)(NW)(V)		
COGR	(10m)(NW)(V)			
EMPE	(40m)(S)			
PRWA	(70m)(SW); (80m)(SE)(V)	(30m)(SE)		
TRSW(2)	2(30m)(NW)(V); (40m)(NW)(V)			
RWBL	(100m)(NW)(V)			
BLJA(2)	(40m)(SW); (110m)(NW)(V)			(20m)(SE)(C)
DOWD	(30m)(E)			
BAOR	(40m)(E); (80m)(E)			(110m)(E)
SOSP	(60m)(NE)	(60m)(NW)		(90m)(NE)
AMRE	(50m)(E)			
CEWA	2(20m)(NW); 2(10m)(NW)			
REVI	(PT); (110m)(W)(C)			
BLJA(3)	(10m)(W)(V)		(70m)(NE)	
AMCR	(80m)(NW)			
RBWO	(190m)(SE)		(70m)(NW); (80m)(NW)(V)	
RHWD	(80m)(SE)(V); (20m)(S)		(80m)(E)	
EAPH		(60m)(NW)(V); (80m)(NW)	(100m)(N)	
YTVI		(80m)(W)		
PASW			(70m)(NW)	(120m)(S)
MRSW			(20m)(NW)(V)	(50m)(W)



2000
~~1999~~ MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 27

Date 6-23-00

Time Period 1

Survey Time 0757 - 0807

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
AMCR (1)	(80m)(E); 1(170m)(E)			
NOCA (1)	(30m)(N); 1(30m)(E)			
NOCA (2)	(40m)(S); 1(80m)(NE)			
AMRE (1)	(90m)(W); 1(80m)(S)			
HOWR (1)	(90m)(W); 1(30m)(NW)			
BCCH (1)	(70m)(NE); 1(90m)(S)			
HOWR (2)	(60m)(NW); 1(40m)(SE)			
BAOR	(50m)(SE)	1(40m)(N)		
RBWD	(70m)(S)			
PIWO	1(30m)(NE)			
AMCR (2)	(80m)(E)			
BCCH (2)	(80m)(NE); 1(80m)(E)			
COGR	(70m)(S); 3(100m)(W)			
WBNU	2(40m)(W)	1(90m)(S)		
EWPE	(80m)(E)			
HAWO	(90m)(NE)			1(100m)(S)
BLJA	1(30m)(NW)	1(120m)(S)		
AMRE (2)	(110m)(SE); 1(60m)(SE)			
NOCA (3)	(100m)(E)			
BCCH (3)	(50m)(NE)			
TUTI				
INBU			1(120m)(W)	
DOWO			1(80m)(W)	
EUST			1(90m)(N); 1(60m)(SW)	
BHCO			1(20m)(E)	
CHSW			1(100m)(S)	
GCFE				2(40m)(SW)
EABL				1(80m)(S)
TRSW				2(F0)(V)



2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 28

Date 6-23-00

Time Period

Survey Time 0912 - 0922

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
REVT (1)	(30m)XNE); (70m)XE)			
AMCR (1)	(120m)XW); (120m)S)			
SOSP (1)	(90m)XS); (90m)XE)		(70m)XS)	(80m)XNW) (150m)XNW)
HAWO	(30m)XS); (70m)XW)			
HOWR (1)	(100m)SE); (60m)SW)			
EWPE	(100m)S)			
RBWO (1)	(120m)XSW); (130m)XNW)			(80m)S) (110m)XNW)
WBNLL	(40m)XN); (60m)XNW)			
HOWR (2)	(50m)XNW); (30m)XNW)			
DOWO	(90m)E)			
INBL	2(20m)XNV)			
GBHE	2(120m)XNW)C)		(80m)XS); (90m)XW)	
GCHL	(80m)XE)		2(120m)XNW)C)	6(120m)XNW)XC)
COGR	(40m)XNW)			
PRWA	(50m)XW)			
HOWR (3)	(60m)XW); (100m)XN)			
SOSP (2)	(70m)E)			
HOWR (4)	(130m)XW)			
AMCR (2)	2(200m)XSE)			
REVT (2)	(50m)XW)			
RBWO (2)	(30m)XS)			
YBCU	(90m)E)			
NOFL	(100m)XW)			
BCCH				
RHWO		2(30m)XSW) 1(100m)XSW)		
NOCA		1(80m)XS)		
CHSW				1(20m)XNV) 1(90m)XNE) 1(40m)XN)

✓

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 29

Date 6-21-00

Time Period 1

Survey Time 0910-0920



Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
GCFE	(70m)W); (50m)W)		(130m)E)	
GBHE(D)	(10m)E)X)V); (100m)W)			
SOSP(D)	(70m)W); (110m)SW)			
HOWR(D)	(50m)W); (40m)NW)			
RBWD	(30m)S); (90m)NE)			
DOWO(D)	(40m)S); (20m)SW)		(50m)W)X)V)	
YTYT	(50m)SE); (90m)W)			
TNBL(D)	(60m)NE); (40m)E)			
AMRE(D)	(10m)E); (30m)W)			
REVI	(50m)N); (90m)SW)			
EWPE	(40m)E)			
DOWO (2)	(40m)S)			
AMCR	2(270m)W)			
NOCA	(30m)E)			
AMRE (2)	(60m)W)W); (50m)N)			(90m)SE)
C OGR	(40m)SE); (90m)N)			
GBHE (2)	(80m)N)			
AMRE (3)	(20m)W)X)V)			
HAWO	(90m)E)			
SOSP (2)	(70m)E)			
CHSW(D)	(20m)NE); (40m)NW)			
BAOR	(20m)NE)X)V)			
HOWR (2)	(140m)NE)			
NOFL	(80m)NW)			
CHSW (2)	2(30m)W)X)V)			
TNBL (2)	(130m)NE)			
PRWA				
BLTA			(40m)N)	
RHWO			(110m)W)	
BRCR			(130m)SE)	
				(90m)N)

2000
1999-MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 32

Date 10-26-00

Time Period 1

Survey Time 0749 - 0759

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
AMCR	3(100m)(NW)			
BGGN	1(30m)(NW); 1(10m)(NW)			
RWBL(1)	2(30m)(W); 3(40m)(S)		2(30m)(SW)	
HQWR	1(80m)(NW); 1(30m)(SE)	1(60m)(E)		1(100m)(W)
RHW0	1(70m)(E)			
YTVI	1(40m)(V)	1(110m)(NW)		1(30m)(N)
RWBL(2)	1(90m)(W); 1(110m)(S)			
TRSW	1(90m)(W)(V)	1(70m)(W)(V)		
RWBL(3)	2(80m)(E); 2(90m)(W)			
GBHE	1(40m)(W)(V)		1(100m)(NW)	
CGR(1)	1(30m)(W)			
DQWD	1(100m)(N)		1(30m)(SE)	1(30m)(W)(V); 1(20m)(NW)(V)
GCEL	1(30m)(W)			1(80m)(SW)
AMRE	1(50m)(N); 1(30m)(E)			
BAOR	1(60m)(NW)			1(30m)(SE)
YTWA		1(50m)(SE)		
PRWA			1(70m)(N)	
SOSP			1(90m)(W)	
MOD0			1(50m)(E)	
CGR(2)				1(20m)(NW)
TYVA				2(30m)(NW)(V)
EUST				2(30m)(NW)(V)
				2(60m)(NW); 1(30m)(W)(V)



2000
 1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 39

Date 6-23-00



Time Period 1

Survey Time 0715 - 0725

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
BCCH (D)	(20m)(SE)(V); (40m)(SE)			
HOWR (D)	(60m)(E); (50m)(NE)			
PRWA (D)	(10m)(EXV); (50m)(E)			
AMRE	(20m)(W); (70m)(S)			(100m)(NE); (100m)(N)
DOWD	(40m)(SE); (30m)(S)			(90m)(S)
BLJA (D)	(100m)(SE); (100m)(SW)			
PIWO (D)	(80m)(NE); (80m)(E)			
WAVI	(40m)(S)		(120m)(S); (40m)(SEXV)	(90m)(NW)
AMCR(D)	(150m)(SW); (200m)(W)			
AMCR (2)	(20m)(SE)			
NCCA	(40m)(SE)	(100m)(SE)		
PRWA (2)	(20m)(SE); (90m)(SE)			
BLJA (2)	(60m)(N); (20m)(SXV)			
GBHE	(70m)(E)			
SOSP	(50m)(S); (80m)(N)	(50m)(NE)		
HOWR (2)	(20m)(NW); (130m)(W)			
BCCH (2)	(20m)(S)			
PIWO (2)	(150m)(NW)			
RWBL	(70m)(S)	(70m)(N)		
RBWD	(40m)(NE); (50m)(SW)			
COYE	(100m)(N)			
TRSW	(80m)(SXV)			(80m)(N)
HAWO	(130m)(E)			
RSHA		(100m)(SE)		
RHWO			(100m)(S)	(90m)(NE); (80m)(NW)
TYVI				(120m)(N)

2000
 1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 40

Date 6-21-00

Time Period 1

Survey Time 1022 - 1032

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
SOSP (1)	(10m)(NW)(V); (20m)(SW)			
COYE (1)	(30m)(S); (50m)(W)			
AMRE (1)	(30m)(SE); (10m)(E)			
BHCO	(40m)(NW); (30m)(N)			(50m)(SE)
COGR	2(40m)(W)			
HOWR (1)	(10m)(N); (50m)(SW)		(70m)(S) (60m)(E)	5(40m)(SE)
AMRE (2)	(20m)(SE); (20m)(W)(V)			
SOSP (2)	(10m)(NW)(V); (70m)(W)			
HOWR (2)	(40m)(S); 2(PT)(V)			
RWBL	5(30m)(E); 2(100m)(NE)			
KILL	1(50m)(NE)			
NOCA	1(50m)(S); (40m)(W)			(20m)(E)
WBNI	(60m)(S)			
TNBU	(30m)(SE)			
AMRE (3)	(70m)(W)			(60m)(S)
COYE (2)	(40m)(E); (40m)(N)			
HOWR (3)	(30m)(SE)			
SOSP (3)	(90m)(E)			
RHWQ	1(40m)(SE)			
AMCR (1)			1(250m)(W); (200m)(S)	
TRSW			2(70m)(S)	
AMCR (2)			1(180m)(SW); (180m)(SW)	
AMCR (3)			2(FO)(V)	
CEWA			1(30m)(N)	



3000
 4999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 45

Date 6-23-00

✓ 0-50

Time Period 1

Survey Time 0951-1001

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
EWDE	(20m)X(XV)			
YTVI	(80m)X(WD); (60m)X(W)			
HQWR	(80m)X(W); (90m)X(N)			
PRWA (1)	(90m)X(W); (80m)X(N)			
DOWO (1)	(40m)X(WD); (80m)X(NE)	(40m)X(E)		(30m)X(E)
GBHE	(20m)X(XV); (40m)X(SE)			
TABU	(60m)X(SE)			
HAWO	(10m)X(N)			
RHWO (1)	2(150m)X(SE); (100m)X(E)			
DOWO (2)	(20m)X(N); (150m)X(NW)			
RHWO (2)	(20m)X(NE); (300m)X(N)			
PRWA (2)	(60m)X(N); (100m)X(SE)			
BCCH	(10m)X(NE); 2(30m)X(XV)			
SOSP (1)	(50m)X(S); (90m)X(W)	(90m)X(N)		
WAYI	(100m)X(S)		(60m)X(S)	
BRCK	(10m)X(NE)			
SOSP (2)	(30m)X(W)			
PRWA (3)	(PT)X(V); (30m)X(NW)X(V)			
GCEL	(80m)X(NW)	(40m)X(E); (40m)X(XV)		
RWBL	(80m)X(SE); (1050m)X(E)			
TAVU	(FO)X(V)	(FO)X(V)		
AMRE	(60m)X(SW); (40m)X(NW)		(10m)X(E)	
AMCR	(270m)X(NE)			
WBNU	(20m)X(SE)			
RHWO (3)	(50m)X(SE)			
BGGN	(20m)X(E)			
PRWA (4)	(80m)X(W)			(30m)X(E)
TRSW	6(70m)X(XV)			
GRCA				(40m)X(S)
CEWA				2(20m)X(SE)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 3

Date 6-30-99

Time Period 2

Survey Time 0722 - 0732

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
PRWA (1)	(10m)(E)(V); (80m)(SE)(V)			
BEKI	(80m)(NE)(V)		(20m)(S)	
YTVI	(80m)(SE)			
HOWR (1)	(30m)(SE); (30m)(NE)			(60m)(S)
WAVI	(30m)(E); (140m)(S)			
PRWA (2)	(PT)(V); (10m)(NW)			
REVI (1)	(70m)(S); (10m)(E)			
AMCR	(80m)(E); (90m)(E)	(100m)(E)		
AMRE	(30m)(S)			
GBHE	(80m)(E); (100m)(E)		(F)(O)(V)	(70m)(SW)
HOWR (2)	(90m)(NE); (30m)(S)(V)			
REVI (2)	(70m)(E); (80m)(SE)			
DOWQ	(80m)(SE)	(10m)(SE); (50m)(SE)		
BCCH	(40m)(S)			
TRSW	(4)(50m)(NW)(V)			
EUST				
SOSP		3(30m)(NE)		
EWPE		(30m)(SW)		
WBNU			(30m)(E)	
BKSW			(100m)(SW); (80m)(SW)	(100m)(SW)
BAOR			6(150m)(NW)(V)	(50m)(SW)(C)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 5

Date 6-30-99

Time Period 2

Survey Time 0757-0807

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
AMRE (1)	(30m)(NE); (70m)(S)	(90m)(E)		
HAWO (1)	(30m)(E)(V); (70m)(S)			
INBU	(70m)(E)			
SOSP (1)	(40m)(SE); (70m)(NE)			(90m)(E)
COYE	(50m)(SE); (70m)(SW)			
G-CFL (1)	(40m)(SE); (80m)(SW)			(80m)(S)
HOWR (1)	(40m)(SW); (80m)(SE)	(80m)(SE)	(90m)(E)	(80m)(S) (180m)(E)
RHWQ	(10m)(SW)(V)			
REVI	(40m)(SW)			
BGGN	(30m)(S)			
HAWO (2)	(70m)(S)			
AMCR	3 (140m)(SW)	2 (50m)(SW)		
SOSP (2)	(70m)(E); (40m)(E)			
AMRE (2)	(50m)(SE)			
HOWR (2)	(100m)(SW)			
YIVI	(90m)(S)			
IRSW	10 (100m)(NW)(V)			
G-CFL (2)	(80m)(E)			
BCGH	(20m)(S)	(40m)(SE); (40m)(NE)		2 (20m)(S)(C); (20m)(S)(C)
COGR	4 (60m)(E)			
EWPE			(40m)(SW)	
TUJI			2 (30m)(S)(V)	(60m)(E)
RBWO			(40m)(E)	
NCCA			(70m)(SE)	
BAOR			1 (60m)(SE)(C)	
BLJA				1 (20m)(NE)(V)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 6

Date 6-30-99

✓

Time Period 2

Survey Time 0825 - 0835

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
BCCH(1)	1(20m)(SE); 1(20m)(SE)(V)			
SOSP(1)	1(10m)(SV); 1(50m)(SW)			
HOWR(1)	1(60m)(E); 1(70m)(SE)	1(50m)(SV)		
HOWR(2)	1(100m)(S); 1(80m)(S)		1(20m)(SW)(V); 1(40m)(NE)(V)	
WBNU	1(40m)(NE); 1(80m)(E)			
NCCA	1(100m)(SE); 1(70m)(E)			
HOWR(3)	1(100m)(SW); 1(40m)(SW)			1(100m)(S)
TRSW	6(40m)(NW)(V); 6(100m)(NW)(V)			5(50m)(W)
PUMA	2(50m)(N)			
GBHE	8(150m)(SE)			1(E)(V)
EMPE(1)	1(90m)(SW); 1(80m)(S)		1(50m)(SE)	
BCCH(2)	1(70m)(SE)			
TUTI	1(40m)(SV)		1(50m)(SE)(V)	
SOSP(2)	1(10m)(W)(V)			
HAWO	1(70m)(E)			
EMPE(2)	1(70m)(NE)			
AMGO	1(60m)(NE)			
RBWO			1(90m)(NE); 1(50m)(S)	1(50m)(SW)
AMRO			1(60m)(NE)(C)	
RKSW				2(30m)(NW)(V)
RHWO				1(80m)(S); 2(160m)(S)
DOMO				1(40m)(E)
PRWA				1(40m)(SW)(V)

Appendix 2. Forest Interior census sheets, 1999 (early and late season)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 16

Date 6-12-99



Time Period 1

Survey Time 0925-0935

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
RWBL	1(10m)(N)(V) ; 1(50m)(SE)		1(60m)(SW)	
EURST	2(10m)(N)(V) ; 6(10m)(W-NW)			
GCFE	1(30m)(NW)		2(50m)(N)	2(60m)(E)
WBNU	2(60m)(SE)			
TRSW	1(40m)(SE)(V) ; 5(30m)(SE)			4(30m)(SE)
HWR (1)	1(20m)(NW) ; 1(20m)(NW)			1(70m)(S)
PIWO	1(130m)(S) ; 1(110m)(NW)			
HWR (2)	1(50m)(W)			
RBWO	1(100m)(W) ; 1(90m)(NW)		1(60m)(SW)	
BLJA	1(70m)(SE)			
EMPE	1(70m)(SE) ; 1(80m)(E)			
COGR	2(10m)(NW) ; 4(20m)(N)(V)			2(50m)(SE)(V)
PRWA	1(80m)(SE)			
GBHE	2(40m)(SE)(V)			
CHSW	2(30m)(SE)			
AMGD	1(E)			
NCCR	1(20m)(N)			
BROR				
HAWO		1(100m)(SE)		
RHWO		1(70m)(E)		
ANCR			2(50m)(N)	
NOFL			2(30m)(SE) ; 1(100m)(W)	
AMRE				1(30m)(NE)
YBCU				1(30m)(N)
				1(10m)(E)(V)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 18

Date 6-15-99

Time Period 1

Survey Time 0818 - 0828

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
BAOR (1)	1(10m)(NW); 1(30m)(E)			
TRSW (1)	2(30m)(N)(V); 6(10m)(SE)(V)	6(90m)(NW)	1(10m)(N)(X)(V)	
RHW0 (1)	2(40m)(E); 1(30m)(E)(X)(V)		2(150m)(S); 1(10m)(NW)(X)(V)	
SOSP (1)	1(30m)(S); 1(80m)(W)	1(90m)(W)		
HOWR (1)	1(50m)(SE); 1(100m)(NW)			
TRSW (2)	2(30m)(N)(X)(V)			
SOSP (2)	1(50m)(NE); 1(30m)(E)			
COGR (1)	1(20m)(SE); 1(30m)(W)		2(20m)(S)(V); 2(20m)(NW)(X)(V)	
AMCR (1)	1(90m)(SE); 1(120m)(N)			
HOWR (2)	1(50m)(W); 1(90m)(N)			
RHW0 (2)	2(90m)(N)			
EUST (1)	4(40m)(N); 2(20m)(NW)			
AMRE (1)	1(30m)(E); 1(30m)(S)			1(30m)(S)
AMRE (2)	1(80m)(S)			
BAOR (2)	1(80m)(NW)			
BLJR	1(60m)(S)			
HOWR (3)	1(120m)(N)			
EUST (2)	4(30m)(NW)			
DOM0	1(90m)(N)	1(100m)(NW)		
COGR (2)	2(10m)(S)(X)(V)			
RWBL	1(40m)(E)			
PMCR (2)	2(80m)(E)			
KBW0		1(40m)(SW)		
AMGO			1(F0)	
CHSW			2(F0)(X)(V)	
WAYI				
WODU				1(60m)(N)
CEWX				1(20m)(N)(V)
YEWB				1(20m)(W)(V)
				1(80m)(W)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 19

Date 6-15-99

Time Period 1

Survey Time 0756 - 0806

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
COGR (1)	3 (PT)(V); 4 (20m)(NW)(V)			
YCNH	1 (PT)(V)			
HOWR (1)	1 (20m)(SW); 1 (100m)(S)			
RBWO	1 (100m)(E)		1 (50m)(SW); 1 (90m)(NE)	
BAOR (1)	1 (20m)(E)(V); 1 (100m)(S)		1 (40m)(N)	
DOWO	1 (30m)(E); 1 (70m)(NE)		1 (60m)(NW)	
EJST	6 (30m)(NW)		2 (20m)(NW)	
RHW0	3 (80m)(S)	1 (80m)(NE)		
COGR (2)	4 (20m)(NW)(V); 2 (30m)(S)			
PRWA	1 (10m)(E)(V); 1 (60m)(SE)		1 (70m)(E)	
WBNI	1 (70m)(NW)			1 (30m)(N)
AMCR (1)	2 (20m)(S); 1 (70m)(E)			1 (50m)(NW)
SOSP	1 (80m)(S); 1 (100m)(NW)			
HOWR (2)	1 (60m)(S)			
WODU	1 (10m)(SE)(V)			
BLJA	1 (80m)(SE)			1 (30m)(E)(V)
AMCR (2)	2 (100m)(NW)			
BAOR (2)	1 (60m)(NW)			
GBHE	1 (70m)(N)			
RWB1	1 (50m)(E)			
COGR (3)	8 (20m)(SW-NW)			
BCCH			1 (30m)(SE)	
AMRE				1 (40m)(NW)
N0CH				1 (60m)(SE)

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1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 20

Date 6-15-99

Time Period 1

Survey Time 0728 - 0738

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
AMCR	1(80m)(SW); 1(200m)(S)	1(F0)(V)		2(200m)(SW)
HWR (1)	1(40m)(SE); 1(40m)(SE)			1(60m)(SE)
NOCA	1(40m)(E); 1(80m)(SE)			
HAW0	1(70m)(NE)			
SOSP (1)	1(50m)(NE); 1(70m)(N)			
RHMO	1(100m)(SE)			1(20m)(SE)
INBU	1(60m)(NE)			
EAST (1)	1(20m)(NW); 2(20m)(NW)			
BJR	1(100m)(N); 1(30m)(SW)		1(60m)(N)	
AMRE	1(30m)(E); 1(50m)(SE)		1(40m)(SE)	
HWR (2)	1(10m)(NW); 1(100m)(E)			
PRWA	1(70m)(S); 1(90m)(S)			
TRSW	5(70m)(E)			6(70m)(E)(V)
TUTI	1(70m)(S)			
SOSP (2)	1(70m)(E); 1(40m)(E)			
EMPE	1(50m)(SE)			
COGR	2(80m)(E)	1(20m)(S)(V)		
DOMO	1(10m)(SW)		1(40m)(SW)	1(100m)(S)
EAST (2)	2(20m)(SE)(V)		3(60m)(E)(V)	
WAYI	1(50m)(N)		1(40m)(E)	
CHSW	5(F0)(V)			
WDDU	1(80m)(E)			
RWBL		1(90m)(E)		
PIW0		1(20m)(S)(D)		
YIVI			1(70m)(SE)	
COYE				1(30m)(E)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 21

Date 6-9-99

Time Period 1

Survey Time 0823 - 0833

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
AMRE	1(20m)(E); 1(10m)(E)		1(10m)(NE)(V)	
PRWA	1(30m)(E)			
AMCR	3(10m)(E); 3(20m)(N)(V)			
HQWR	1(30m)(SW)		1(70m)(W)	
COGR (1)	1(50m)(S); 2(60m)(W)(V)			
SOSP	1(20m)(N)(V)			
GREG	1(100m)(N)(V)			
EUST	1(10m)(W)(V)		2(20m)(SW)(V)	
RHW0 (1)	1(100m)(W); 1(100m)(SW)			
COGR (2)	1(50m)(W)(V); 5(30m)(NE)(V)			
TRSW	2(10m)(SW)(V)	2(30m)(NE)(V)		
BGGN	1(10m)(E)			1(10m)(E)
WAVI	1(40m)(SE)			
RHW0 (2)	1(30m)(SE)(V); 1(30m)(SW)			
NOCF	1(50m)(W); 1(80m)(SE)	1(40m)(E)		
RHW0 (3)	1(110m)(W)			
TUTI		1(80m)(N)		
RWBL (1)			1(30m)(N); 1(20m)(NW)(V)	1(10m)(SE)(V); 2(PT)(V)
TUVU			1(40m)(E)(V)	1(60m)(W)
WODU				1(F0)(V)
DOW0				1(30m)(W)(V)
RWBL (2)				5(60m)(W)
MPLL				1(20m)(SW)(V)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 24

Date 6-9-99

Time Period 1

Survey Time 0919 - 0929

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
NOCH	1(30m)S ; 1(40m)N			
PRWA (1)	1(30m)W ; 1(30m)NE		1(30m)NWXV	
AMRE (1)	1(10m)SW(V) ; 1(10m)SW(XV)			
INBU	1(30m)W(V)			
HOWR (1)	1(30m)W(V) ; 1(30m)W(XV)		1(10m)NE	1(60m)NE
AMRE (2)	1(10m)E ; 1(PT)(V)			
HOWR (2)	1(50m)N			
NOPR	1(50m)E			1(30m)SW
BLJH	1(50m)NE			
PRWA (2)	1(10m)NE			
TVAU	1(F0)V			
G-CFL (1)	1(80m)NW) ; 1(30m)W(XV)			1(100m)NE
CHSW	1(70m)NW(V)	2(10m)W(XV)		
GBHE	3(30m)N(V)		1(60m)W	
SOSP	1(80m)W		1(30m)NE	1(20m)S
COGR	1(20m)W(XV)		1(20m)NWXV	
G-CFL (2)	1(60m)E			
BAOR		1(30m)NWXV		
RBWD				1(30m)N(V)
EAST			1(170m)E	1(40m)SW
BCCH			1(60m)S	1(50m)NE) ; 1(50m)NE
RPMO				2(100m)W) ; 1(150m)SE

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 28

Date 6-15-99

Time Period 1

Survey Time 0931-0941

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
PIWO	(70m)(E)			
BROR	(20m)(SE)(V)			
YTVI	(50m)(S)			
AMCR (I)	(200m)(SE); 1(100m)(W)	1(20m)(W)(V)		
COGR	1(40m)(E)			
INBU	1(60m)(NW)		1(70m)(N)	
HOWR (I)	(30m)(SE); 1(120m)(E)			
REVI (I)	(60m)(SW); 1(60m)(NE)			
SOSP	1(80m)(NW); 1(80m)(NW)			
AMCR (2)	2(150m)(S); 2(130m)(E)			
BCCH (I)	(20m)(NE); 1(40m)(N)			
WBNI (I)	(100m)(SE); 2(70m)(E)			
DOWO	1(70m)(S)			
TRSW	4(60m)(S)			
BCCH (2)	(40m)(NW)			
REVI (2)	(60m)(NW)			
WBNI (2)	(60m)(S)			
HOWR (2)	(90m)(SE)			
BLTP	1(30m)(W)(V)			
RBWO	1(60m)(N)	1(20m)(E)(V); 2(20m)(E)(V)		1(50m)(NW)
GBHE		2(150m)(W)		
GCEL			1(50m)(NW)	
BRGR				1(70m)(W)
AMRE				1(60m)(S)
				1(40m)(NW); 1(90m)(NW)

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1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 29

Date 6-15-99

Time Period 1

Survey Time 0955 - 1005

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
COGR (1)	(40m)(S) ; 2(30m)(W)			
NOCR	(50m)(N) ; 1(10m)(E)(C)	1(100m)(E)		
HQWR (1)	(50m)(NW) ; 1(60m)(E)	1(140m)(SE)		
WBNU (1)	(100m)(E) ; 1(60m)(E)		1(10m)(N)	
BHOR	(80m)(SE) ; 1(10m)(E)(C)			
PRWH (1)	(130m)(W) ; 1(70m)(NW)			
REVI	(40m)(N)			
HAWO	(50m)(NW)			
BLJA	(150m)(SE)			
WBNU (2)	(60m)(SE) ; 1(30m)(SE)			
HQWR (2)	(50m)(W) ; 1(100m)(SE)			
AMRE	(60m)(E)		1(30m)(E)	
BHCO	(40m)(NW)			
RHWD	2(30m)(W)	2(110m)(SE)		1(50m)(NW) ; 1(60m)(N)
EWPE (1)	(80m)(NW) ; 1(40m)(S)			1(40m)(E)
PRWA (2)	(20m)(XXV) ; 1(20m)(NW)			
TUVU	(F0)(V)			
COGR (2)	(20m)(N)			
AMGR	(130m)(W)			
EWPE (2)	(70m)(SE)			
BRCR		1(50m)(E)		
RBWD			1(100m)(E)	
BCCH			2(30m)(SE)(C)	1(90m)(SE)
GRHE				1(90m)(E)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 31

Date 6-22-99

Time Period 1

Survey Time 0956 - 1006

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR	1 (10m)(NE)			
SOSP (1)	1 (50m)(E) ; 1 (20m)(S)	1 (60m)(N)		
GBHE	1 (F0)(V)			
AMRE (1)	1 (60m)(W) ; 1 (40m)(E)	1 (40m)(NW)		1 (F0)(V)
NOCA	1 (20m)(XX)(V) ; 1 (10m)(N)(V)		1 (10m)(SE)(V)	
GCEL	1 (70m)(NW) ; 1 (100m)(W)			
BCCH	2 (30m)(W)		1 (30m)(W)	
TYVI	1 (80m)(E)			
AMRE (2)	1 (50m)(S) ; 1 (70m)(W)			
PRWA	1 (10m)(W)(V)		1 (10m)(SW)(V)	
AMRE (3)	1 (70m)(S) ; 2 (10m)(N)(V)			
AMCR	1 (20m)(NW)			
BGGN	2 (30m)(SW)			1 (130m)(NW)
RHOW	2 (20m)(W) ; 1 (180m)(NW)			
SOSP (2)	1 (60m)(SW)			1 (60m)(S)
RBWO	1 (20m)(E)		1 (70m)(N)	
DOWO	1 (80m)(SE) ; 1 (100m)(SE)			
TYVA	1 (90m)(S)(V) ; 1 (100m)(S)(V)			
BRCR		1 (40m)(N)		
EMPE		1 (40m)(NW)(V)		
INBU			1 (80m)(W)	
BLJA				1 (70m)(W)
PIWO				1 (130m)(SW)
REVI				1 (150m)(N)
				1 (50m)(W)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 36

Date 6-9-99

Time Period 1

Survey Time 0719 - 0729

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
RHW0	1(10m)(SW) ; 1(20m)(N)		2(30m)(SW)	
EUST	1(10m)(SW) ; 3(50m)(NE)			
HAND	1(20m)(SW)(V)			1(30m)(NE) ; 2(30m)(S)
T4T1	1(60m)(SW) ; 1(60m)(N)			
EWPE	1(20m)(NE) ; 1(50m)(S)			
YTVI	1(80m)(SE)			
REVI	1(30m)(E) ; 1(30m)(NE)			
PRVB	1(100m)(SW) ; 1(60m)(N)			
W0DU	1(40m)(N)			
HQWR	1(30m)(N) ; 1(50m)(SW)(V)		1(60m)(S)	1(40m)(E) 1(40m)(S) ; 1(10m)(E)
D0W0	1(60m)(W)			
PIW0	1(250m)(E)			
SOSP	1(80m)(NE)			
RBW0	1(100m)(SW)			
AMCR		2(200m)(E) ; 2(220m)(SE)		
WBNUI			1(90m)(SW) ; 1(80m)(W)	
BCCB			2(20m)(E)	
GBHE				2(150m)(SW)(C) 1(180m)(S) ; 2(40m)(S)(V)
RSHA				

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1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 44

Date 6-22-99

Time Period 1

Survey Time 0844 - 0854

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
SOSP (1)	1(40m)(SE) ; 1(60m)(W)		1(70m)(W)	
RWBL (1)	1(30m)(N) ; 1(30m)(N)			1(10m)(S)(V) ; 1(30m)(E)(V)
WODU	1(10m)(N)(V) ; 1(30m)(E)(V)		1(30m)(E) ; 1(90m)(SW)	
BGGN	1(30m)(SE) ; 2(40m)(W)			
DOWN0	1(60m)(SE)			
HOWR (1)	1(40m)(W) ; 1(90m)(NW)		1(50m)(SE)	
RWBL (2)	1(10m)(N)(V) ; 1(30m)(SW)(V)			
SOSP (2)	1(100m)(N)			
PRWA (1)	1(20m)(SE)(V) ; 1(50m)(S)	2(120m)(S) ; 1(80m)(SW)		
WAYI (1)	2(20m)(E) ; 1(30m)(S)		1(40m)(SE)	
RHW0	1(150m)(S)			
EWPE	1(20m)(E)			
HOWR (2)	1(80m)(S) ; 2(30m)(S)(V)			
WAYI (2)	1(60m)(W) ; 1(30m)(NE)			
RBW0	1(30m)(E) ; 1(100m)(SE)	1(100m)(W)		
TRSW	6(70m)(W)			
RWBL (3)	1(30m)(W)			
BROR		1(50m)(SE)		
WBNVU		1(20m)(SW)		1(50m)(SE)
BHCO		1(50m)(SE)		1(40m)(E)
PRWA (2)		1(60m)(SE)		
AMRE			1(70m)(W)	
COGR			1(30m)(SW)	
GCFE			1(100m)(E)	
AMCR			1(150m)(SE)	1(50m)(E) ; 1(30m)(SE)(V)
BRCR				1(60m)(SW)
GRHE				1(10m)(E)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 18

Date 7-11-99

Time Period 2

Survey Time 0859 - 0909

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
SOSP (1)	1(30m)XW) ; 1(30m)XSE)		1(30m)XE)	
WAVI	1(50m)XNW)			
BAOR	1(30m)XE)			
HOWR (1)	1(30m)XNE) ; 1(40m)XE)		1(80m)XNW) ; 1(70m)XW)	1(40m)XW)
BCCB	1(60m)XE)			
RHWD (1)	1(40m)XE) ; 1(30m)XS)V)	1(10m)XNW)XV) ; 1(40m)XSE)	1(70m)XSW)	1(80m)XS)
RWBL	1(30m)XE)V) ; 2(50m)XSE)			
PIWD	2(40m)XN)	1(40m)XE)	1(100m)XE)	
HOWR (2)	1(40m)XNW)			
AMGO	1(40m)XS)			
AMCR	1(100m)XE)			
WBNU (1)	1(60m)XW) ; 1(50m)XSW)			
NOFL	1(40m)XSE)		1(30m)XSW)	
PRWA	1(40m)XSW) ; 1(60m)XNW)			
RBWO	1(80m)XE)		1(40m)XS) ; 1(60m)XSE)	
SOSP (2)	1(40m)XS)			
RHWD (2)	1(90m)XNW)	1(60m)XSE)		
TRSW	1(150m)XSW)V)			
AMRE (1)	1(30m)XSW) ; 1(40m)XW)		1(90m)XNW)	
WBNU (2)	1(50m)XSE)			
AMRE (2)	1(50m)XW)			
EAST (1)		2(50m)XSE)		
RSHA		1(40m)XSE)		
DOMO			1(50m)XS)	1(70m)XND)
EUST (2)			1(80m)XNW)XV)	
COGR				2(40m)XS)
GBHE				1(40m)XNW) ; 1(EO)V)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 22

Date 7-6-99

Time Period 2

Survey Time 0952-1002

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
RHWD	1(60m)(SE); 1(30m)(E)		1(70m)(SE)	
SOSP (1)	1(30m)(N); 1(70m)(W)			
NOCA	1(80m)(N)	1(30m)(NW)		
COYE	1(30m)(W)			
WBNV	1(10m)(NE)			
AMCR	1(50m)(W); 1(200m)(SE)			
GBHE	1(40m)(NE)(V)			
AMRE (1)	1(30m)(W); 1(70m)(E)		1(50m)(NE)	
HOWR	1(40m)(E)			
TRSW	4(90m)(E); 3(80m)(EXV)	1(10m)(SXV)	3(40m)(SXV)	1(60m)(NW) 1(90m)(SXV)
WODU	2(50m)(E)			
SOSP (2)	1(80m)(SW); 1(70m)(N)			
AMRE (2)	1(30m)(W); 1(40m)(N)			
RWBL (1)	1(50m)(EXV); 1(50m)(E)(V)			
COGR (1)	2(40m)(EXV); 5(60m)(E)		1(FO)(V); 1(40m)(SW)	1(80m)(NW) 2(130m)(SXV)
EJST	2(50m)(EXV)			
RWBL (2)	1(50m)(EXV)			
EMPE	1(80m)(S)			
CHSW	1(50m)(E)(V)		1(50m)(SXV)	
BKSW	1(10m)(SE)(V)			
MODD	1(100m)(E)			
COGR (2)	2(30m)(EXV)		8(80m)(SXV)	
BCCH		1(100m)(SE)		
GCFE		2(30m)(SW)(V)		
GRCR				1(50m)(NE)
PIWD			1(30m)(N)	
TNBU			1(90m)(N)	
BEKI			1(90m)(W)	
DOWD			1(60m)(SW)	1(30m)(SE)(V)
KILL				1(100m)(N)
AMGO				1(150m)(EXV) 1(40m)(S)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 30

Date 7-8-99

Time Period 2

Survey Time 0909 - 0919

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
TYVI	1(80m)XNE)			
AMRE (1)	1(10m)X(S) ; 1(80m)X(N)		1(70m)X(W)	
TYVU	2(F0)X(V)			
NOCP (1)	1(40m)X(E) ; 1(10m)X(N)X(V)		1(70m)X(NE)	
HOWR (1)	1(40m)X(E) ; 1(60m)X(SW)			
INBU (1)	1(50m)X(E) ; 1(80m)X(NE)			
HOWR (2)	1(10m)X(E)X(V) ; 1(140m)X(E)			
RBWO	1(40m)X(NE)		1(50m)X(S)	
RHW0	2(30m)X(E)			
GBHE (1)	1(90m)X(E) ; 2(80m)X(S)			
HOWR (3)	1(150m)X(S) ; 1(160m)X(NE)			
HOWR (4)	1(30m)X(N)			
WBNU	1(30m)X(N)X(V)			
GCFI	1(70m)X(W)		2(90m)X(W)	2(70m)X(N) 1(60m)X(W)
NOCP (2)	1(140m)X(S)			
SOSP	1(40m)X(W)			
BHCO	1(50m)X(E)			
AMRE (2)	1(30m)X(S)			
DOW0	1(140m)X(S)		1(80m)X(W)	
WODU	2(90m)X(SE)			
INBU (2)	1(40m)X(E)			
GBHE (2)	1(130m)X(NW)			
YTWA		1(60m)X(N)		
BRCR			1(50m)X(E)	
RWBL			2(60m)X(E)	
COGR			1(50m)X(S)	
TRSW				
AMG0				4(F0)
HAW0				1(50m)X(SE)
AMCR				1(40m)X(SW)
				1(90m)X(NW)

Appendix 3. Agricultural Edge census sheets, 1999 (early and late season)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 33

Date 6-18-99

Time Period 1

Survey Time 0655 - 0705

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR	1(40m)X(W); 1(50m)X(E)			
BCCH (1)	1(100m)X(N); 1(30m)X(NW)	1(70m)X(NW)		
DOWE (1)	1(60m)X(E); 1(120m)X(NW)		1(60m)X(W); 1(70m)X(E)	
GBHE	1(150m)X(NW)			
BHQR	1(20m)X(SW)			
WAVI	2(20m)X(W)			
RWBL (1)	1(30m)X(NW); 1(70m)X(NE)			
RWBL (2)	1(20m)X(NE); 2(70m)X(N)			
NOCR	1(60m)X(SE)			
AMRO	1(80m)X(S)		1(100m)X(SW)	1(50m)X(NE)
INBU	1(110m)X(SE)	1(120m)X(E)		
RHWO	1(200m)X(NW)			
RBWO	1(60m)X(W); 1(150m)X(NW)	1(40m)X(W)		
DOWQ (2)	1(80m)X(W)			
YIVI	1(110m)X(N)	1(80m)X(NE)		1(100m)X(NE)
BLJA		1(70m)X(E)		
AMGO		1(30m)X(NE)		
PRWA		1(50m)X(NW); 1(100m)X(NW)		
BAOW			1(150m)X(SW)	
GCEL			1(120m)X(NW)	1(90m)X(W); 1(80m)X(N)
EAST			1(50m)X(NE)	1(30m)X(NW)
BCCH (2)			1(60m)X(SE)	



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 37

Date 6-18-99

Time Period 1

Survey Time 0802-0812

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
DOWNO	1(10m)(E); 1(10m)(SE)			
HAWO	1(40m)(E); 1(30m)(S)	1(20m)(SE)(V)		1(100m)(N); 1(40m)(SE)
HOWR (1)	1(40m)(SE); 1(10m)(SE)			
WODU (1)	1(30m)(SE)(V); 1(80m)(W)			
BCCH (1)	1(90m)(SE); 1(50m)(W)			
RWBL (1)	1(20m)(NE); 1(30m)(N)		1(50m)(SW)	1(120m)(SE); 1(60m)(S)
AMCR	1(50m)(NE)			1(200m)(S)
PRWA	1(40m)(NW); 1(40m)(E)			
HOWR (2)	1(60m)(NW); 1(80m)(N)			
HOWR (3)	1(20m)(S); 1(90m)(W)			
SOSP	1(80m)(SE)			
WBNU (1)	1(50m)(SW); 1(50m)(SW)			
AMGO	1(20m)(W)			
WODU (2)	2(50m)(NW)			
RBWO	1(70m)(NW); 1(70m)(W)			
HOWR (4)	1(10m)(E)			
BCCH (2)	1(30m)(SE); 1(50m)(N)			
NOC9	1(100m)(E)			
COGR	1(30m)(W)		1(50m)(NW)	
RWBL (2)	1(60m)(NE)			
AMRE	1(60m)(NE)			
WBNU (2)	1(90m)(W)			1(100m)(N)
BHCO		1(40m)(E)		
GCFL		1(120m)(NE); 1(120m)(NE)		1(30m)(NW)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 38

Date 6-18-99

Time Period 1

Survey Time 0836-0846

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
DW0 (1)	1 (30m)(E) ; 1 (30m)(W)			
EWPE	1 (30m)(SE)	1 (30m)(E)		
WBNU (1)	1 (90m)(SE) ; 1 (30m)(W)	1 (40m)(NE)		
DW0 (2)	1 (30m)(SE) ; 1 (40m)(W)			
HOWR (1)	1 (80m)(NW) ; 1 (30m)(NE)			
HOWR (2)	1 (40m)(SE)		1 (60m)(W)	
PRV9	1 (20m)(E)(V)			
RBW0 (1)	1 (100m)(W) ; 1 (20m)(NW)			
RHW0	1 (40m)(W) ; 1 (60m)(NE)			
SOSP	1 (70m)(N)		1 (80m)(W)	1 (50m)(W)
RWB1	2 (60m)(NW)		2 (60m)(N)	
AMCR	1 (50m)(N) ; 1 (60m)(E)		1 (80m)(E) ; 1 (30m)(NW)	2 (150m)(N)
GCF1	1 (40m)(NE)			1 (80m)(W)
RBW0 (2)	1 (10m)(SE) ; 1 (50m)(E)			
BRCR	1 (20m)(NE)			
HAW0	1 (40m)(S)			
BCH	5 (30m)(W)(V) ; 1 (70m)(N)	1 (40m)(E)		
RBW0 (3)	1 (90m)(N)			
WBNU (2)	1 (110m)(NW)			
EUST	2 (20m)(W)		2 (20m)(E)(V)	
PIW0			1 (100m)(W) ; 1 (20m)(SW)	
WODU			1 (70m)(NW)	
TYVI				1 (70m)(NW)
COGR				2 (20m)(W)(V)
GRHE				1 (100m)(SW)
NOCR				1 (80m)(NW)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 43

Date 6-22-99

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Time Period 1

Survey Time 0757 - 0807

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR(1)	1(30m)(E); 1(40m)(NE)			
DOWO(1)	1(40m)(E); 1(30m)(E)(V)		1(80m)(N)	
HOWR(2)	1(30m)(SE); 1(40m)(NE)			
DOWO(2)	1(30m)(E)(V)			
SOSP(1)	1(40m)(N); 1(30m)(NW)			1(70m)(NW)
PRWA	1(40m)(NW); 1(90m)(W)		1(30m)(NW)(V)	
BEKI	1(60m)(N)			
GCEL	1(100m)(NE)			
COGR(1)	1(30m)(E)(V); 3(30m)(NE)(V)			1(30m)(N)(V)
EWPE	1(30m)(S)		1(80m)(SE)	
HOWR(3)	1(30m)(N)(V); 3(40m)(NE)			
WODU	3(90m)(NW)(V); 3(40m)(N)(V)			
GRHE	1(FO)(V); 1(40m)(N)(V)			
GRHE	1(30m)(N)(V)			
BJJA	1(130m)(S)	2(130m)(W)		
BCCH	4(30m)(E); 1(10m)(W)		1(130m)(SW)	
BGGN	1(30m)(E)			
EAST	1(30m)(N)(V); 1(10m)(N)(V)	1(40m)(E)(V)		1(30m)(N)(V) 2(40m)(E)(V)
NOFL	1(30m)(N)			
COGR(2)	2(60m)(NW)(V)			
SOSP(2)	1(90m)(W)			
HOWR(4)	1(80m)(S)			
RWB	1(80m)(W)			
RWBL	1(80m)(W)			
RBW0		1(40m)(E); 1(90m)(E)	1(70m)(N)	1(30m)(N)(V)
BRCR		1(40m)(S)		
AMCR			1(10m)(E)(V) 1(160m)(SE)	
RHW0(1)				1(130m)(NE); 1(140m)(N)
TRSW				1(FO)(V)
RHW0(2)				1(80m)(E)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 50

Date 6-18-99

Time Period 1

Survey Time 1023 - 1033

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
AMCR	1(10m)(SE); 1(60m)(S)			
SOSP (1)	1(60m)(SW); 1(30m)(S)		1(70m)(SE); 1(10m)(SV)	
BEKI	1(80m)(W)			
HOWR (1)	1(20m)(NE)(V); 1(70m)(E)			
RWBL (1)	2(70m)(W); 1(60m)(E)			
RWBL (2)	1(40m)(E)(V); 1(10m)(SW)(V)			3(PT)(V)
BCCH	4(50m)(NW)			
RBWQ	2(80m)(NE)			
LNBU	1(70m)(SW); 1(70m)(SW)			
GRCR	1(60m)(S)			
COYE	1(60m)(W); 1(80m)(S)			
WAVT	1(50m)(SE); 1(90m)(SW)	1(60m)(S)		
GBHE	1(FO)(V)			
RWBL (3)	1(10m)(W)			
HOWR (2)	1(10m)(N)(V)			
BAOR	1(80m)(SW)			
HWMO	1(50m)(N)			
DOWD		1(10m)(N)(V)		
SOSP (2)			1(90m)(SE)	
GCFE				1(70m)(SW)(V)
BHCO				1(40m)(NE)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 33

Date 7-7-99

Time Period 2

Survey Time 0638 - 0648

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
GHOW	1(40m)(W)			
SOSP	1(40m)(SW)			
HOWR (1)	1(30m)(NW); 1(50m)(SE)	1(10m)(W)		
NOCH (1)	1(100m)(SE); 1(30m)(NW)(V)		1(130m)(W); 1(80m)(SE)	
RHWO	1(30m)(SE)(V); 1(20m)(SE)			
GBHE	1(50m)(NW)			2(F0)(V)
PRWA	1(30m)(VV)	1(80m)(NE)		
RWBL	2(40m)(VV)		2(40m)(NE)	1(20m)(NV); 1(20m)(XXV)
TRSW (1)	1(50m)(NV); 1(50m)(XXV)			
NOCH (2)	1(90m)(NE); 1(20m)(SW)(V)			
BLJR	1(40m)(SE)			
BCGH	1(10m)(V); 1(20m)(NV)(V)			1(90m)(SE)
GCFL	1(100m)(V); 1(70m)(NE)			1(60m)(SE)
TRSW (2)	1(50m)(NW)(V)			
HOWR (2)	1(10m)(S)			
WBNU			1(10m)(NW)(V)	
AMGO		1(40m)(E)		1(20m)(NW); 1(120m)(E)
DOVO		1(40m)(SE)		1(30m)(S)
WAVI			1(60m)(N)	1(70m)(SE)
TUTI				1(50m)(NE)
WODU				1(100m)(NE)
				1(40m)(N)

1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 34

Date 7-7-99

Time Period 2

Survey Time 0702 - 0712

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HAWO	1(30m)X(S) ; 1(10m)X(SE)X(Y)			
HOWR (1)	1(60m)X(NE) ; 1(40m)X(N)		1(60m)X(N)	
EWPE	1(30m)X(SE)			
WBNU (1)	1(10m)X(W)X(Y) ; 1(10m)X(SE)			
GRCG	1(10m)X(SE)			
HOWR (2)	1(10m)X(E) ; 1(100m)X(NW)			
BCCH (1)	1(10m)X(E) ; 2(30m)X(S)		1(80m)X(N) ; 1(70m)X(W)	
AMCR (1)	1(80m)X(NW) ; 1(90m)X(N)		1(150m)X(NE) ; 1(140m)X(N)	
DOWD	1(60m)X(E)			2(10m)X(E)
WBNU (2)	1(30m)X(N)X(V)			
HOWR (3)	1(80m)X(E)			
RHWO	1(130m)X(N)			
PRWA	1(130m)X(W)			
BCCH (2)	1(10m)X(SE)		2(30m)X(NE)	
SOSP	1(70m)X(E)			1(80m)X(S)
RBWO	1(100m)X(N)			
AMCR (2)	1(80m)X(NW)			
NDCG		1(90m)X(S)		
GBHE				
BLJA		1(90m)X(N)		
BAOR		1(100m)X(S)		
LNBU				1(10m)X(SE)
YBCU				1(90m)X(E)
				1(70m)X(S)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 38

Date 7-7-99

Time Period 2

Survey Time 0809 - 0819

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
HOWR (1)	(30m)X(W) ; (30m)X(E)			
DOWO (1)	(10m)X(NE) ; (180m)X(NW)		(100m)X(NE)	
WBNU (1)	(30m)X(NW) ; (40m)X(E)		(110m)X(W)	
GCF2 (1)	(100m)X(W) ; (100m)X(SE)			(40m)X(SE)
EWPE	(70m)X(W) ; (30m)X(S)		(90m)X(W)	
BRCR (1)	(40m)X(N) ; (30m)X(N)			(70m)X(S)
NOCR	(40m)X(NW)			(40m)X(N)
HOWR (2)	(60m)X(SE) ; (30m)X(NW)			
DOWO (2)	(30m)X(E)			
BCCH	(40m)X(S) ; (60m)X(W)			
PRWA	(50m)X(N) ; (80m)X(N)			
WBNU (2)	(40m)X(E)			
RBWO	(180m)X(N)			
AMCR	(230m)X(N) ; 2(280m)X(N)		(50m)X(SE) ; (100m)X(SE)	
BRCR (2)	(80m)X(NE)			(50m)X(SE)
RHWO (1)	(80m)X(NW) ; (80m)X(S)			
RHWO (2)	(70m)X(NW)			
SOSP	(50m)X(SE) ; (90m)X(E)			
HOWR (3)	(60m)X(S)			
GCF1 (2)	(30m)X(SE)			
HAWO				
AMRE		(60m)X(NE)		
TUTI		(80m)X(N)		
AMGO			(130m)X(N)	
WODU				(80m)X(N)
INBU				(60m)X(N) ; (70m)X(N)
				(130m)X(E)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 46

Date 7-12-99

Time Period 2

Survey Time 0857-0907

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
INBL	(80m)E); (50m)E)	(40m)XSE)		
HAWO	(40m)XNW); (10m)XNE(X)			
HOWR (1)	(10m)XNW(XV); (30m)XNX(X)			
EWPE	(60m)XNE); (70m)XNW)		(80m)XNW)	(120m)XE)
VTVI	(100m)XE)			
AMCR (1)	(140m)XNW); (70m)XS)			
AMCR (2)	(200m)XN)			
BCCH	(30m)XE); 2(20m)XE)			
WAVI	(30m)XW); (20m)XW)			
WBNU (1)	(150m)XNW); (40m)XE)			(100m)XNE)
G-CFL	(60m)XE); 2(40m)XNE)			
WBNU (2)	(10m)XS)			
EABL	(80m)XSE)			
YBCU	(50m)XNE)			
HOWR (2)	(10m)XNW(XV)			
SOSP	(90m)XE)			
COYE	(120m)XSE)			
AMGO		(150m)XSE); (F0)		
CEWX			2(40m)XS)	
NOCA			(30m)XSE(XC)	
NOFL				(150m)XW)
RWBL				2(100m)XSE)
COGR				(120m)XW)



1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 50

Date 7-7-99

Time Period 2

Survey Time 0950 - 1000

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
SOSP (1)	1(30m)XNW); 1(50m)XSW)			
AMGO	1(40m)XSE)		1(40m)XNW); 1(30m)XSE)	1(100m)XW)
RWBL (1)	1(60m)XSE); 4(50m)XSW)XV)			
EWPE	1(60m)XN)			
AMCR	1(20m)XSE); 1(200m)XN)			
COGR	2(40m)XE)			1(30m)XNE)XV)
RBW0	1(10m)XE)		1(30m)XNW)	3(30m)XNE)XV)
COYE	1(60m)XSE); 1(70m)XSW)		1(20m)XNE); 1(50m)XN)	
SOSP (2)	1(30m)XSE)			
HOWR (1)	1(40m)XE); 1(50m)XSE)			1(80m)XE)
HOWR (2)	1(60m)XNE); 1(30m)XS)			
WBNI (1)	1(40m)XN); 1(10m)XNV)			
INBA	1(40m)XS); 1(80m)XS)			
WAYI	1(90m)XSW)			1(30m)XNE)
BHCO	1(50m)XSW)XV)			
RWBL (2)	2(30m)XSW); 1(20m)XS)			
DOWD	1(50m)XN)			
HOWR (3)	1(40m)XE)			
WBNI (2)	1(10m)XSW)			
GCFE				
NOCA			1(10m)XNW)	
BLJA			1(50m)XE)	
RHWO			1(40m)XN); 1(40m)XE)	2(60m)XN)



Appendix 4. River Edge census sheets, 2000 (early and late season)

2000
 1999 MILAN BOTTOMS AVIAN POINT COUNT SURVEY

Point # 2

Date 6-7-00

Time Period 1

Survey Time 0655 - 0705

Species	0-5 min.	5-6 min.	6-8 min.	8-10 min.
PIWO	(40m)(W)			
HOWR (D)	(60m)(SE) ; (50m)(SE)			
BAOR (D)	(50m)(SW) ; (30m)(NE)			
SOSP (D)	(80m)(SW)(V) ; (50m)(NE)		(30m)(SE)(V)	(80m)(SE)
PRWA	(70m)(SE) ; (40m)(SE)			(60m)(E)
WAVT	(40m)(E)		(40m)(E)	
AMCR	(850m)(NW)			
DOWO	(60m)(E)		(100m)(SW)	
EWPE	(70m)(SE)		(70m)(SE)	
BAOR (a)	(10m)(SE)			
WODI	(60m)(SE)			
SOSP (a)	(10m)(S)			
COGR	(80m)(E)			
HOWR (a)	(90m)(E)			
WBNI	(130m)(NE)			
AMRO		(100m)(SW)(V)		(70m)(SE)
BGGN		(10m)(SW)(V)		(70m)(SW)
NOFL				
BRCR			(80m)(SW)(V)	(40m)(E)
RWNO			(80m)(S)	(40m)(NE)
RWNO				(150m)(E) ; (80m)(SW)
BCCH				2(30m)(SE)(C)



