

Jim - Final draft of this -
I have not repeated info
but marked in red significant
observations - all by me unless otherwise noted. P.C.P.

Fourth Supplementary Breeding Bird Census of
Big Sand Mound Nature Preserve,
Louisa County, Iowa
P. C. Petersen
July, 1990

Aims and Methods

The 1990 survey reevaluated the breeding bird population of the preserve with an emphasis on noting significant changes from the 1987 survey. The ~~two~~ point counts were repeated in the same early morning period and under moderate weather conditions to follow the pattern of previous census efforts in 1982, 1983, 1984, and 1987. One observer only was involved in the counts except for the last one which Dr. Tim Brush assisted. The first count was made on May 17 under clear skies with the temperature between 61° and 65° F. and the wind northwest at 10-15 mph. The second count was done on June 10 with very little wind, 0-8 mph, from the west, clear skies and temperature of 63° to 65° F. The final count was conducted on June 26 with partly cloudy to overcast skies, temperature 75° to 78° F., the wind northeast at 2-20 mph, rising at the last stop.

Pete - Do what you
want with my additions. You
may or may not want to use them

Dr. Tim
Brush

Summary of Breeding Species

This year marks the completion of the Iowa Breeding Bird Atlas project. The nature preserve area is in a priority block of nine square miles and has been intensively worked for breeding species. Dr. Tim Brush has spent about 200 hours on the preserve in the breeding seasons of 1988, 1989 and 1990. His observations confirmed the nesting of many species seen in connection with his work on nesting Prothonotary Warblers. As a result of all this work, 140 species have been observed during the breeding season with 60 confirmed breeders and 33 more probable breeders. The following lists identify these species.

Cover note: This year's survey was the first time
the Song Sparrow made itself evident.

Old IBC cover drawing.

Breeding Season Species by Category
Period 1982-1990

Confirmed Breeders (41)

Pied-billed Grebe	Tufted Titmouse
Wood Duck	White-breasted Nuthatch
Mallard	Brown Creeper
Hooded Merganser	House Wren
American Kestrel	Blue-gray Gnatcatcher
Northern Bobwhite	Eastern Bluebird
Killdeer	Wood Thrush
Mourning Dove	American Robin
Black-billed Cuckoo	Gray Catbird
Yellow-billed Cuckoo	Northern Mockingbird
Great Horned Owl	Brown Thrasher
Barred Owl	Cedar Waxwing
Chuck-will's-widow	European Starling
Red-headed Woodpecker	Warbling Vireo ^{perhaps - Unconfirmed Vireo}
Red-bellied Woodpecker	Red-eyed Vireo
Downy Woodpecker	Prothonotary Warbler
Hairy Woodpecker	Common Yellowthroat
Northern Flicker	Northern Cardinal
Pileated Woodpecker	Rose-breasted Grosbeak
Eastern Wood-Pewee	Indigo Bunting
Eastern Phoebe	Dickcissel
Great Crested Flycatcher	Rufous-sided Towhee
Eastern Kingbird	Chipping Sparrow
Horned Lark	Field Sparrow
Tree Swallow	Lark Sparrow
Northern Rough-winged Swallow	Grasshopper Sparrow
Barn Swallow	Red-winged Blackbird
Blue Jay	Common Grackle
American Crow	Brown-headed Cowbird
Black-capped Chickadee	Northern Oriole

Probable Breeders (x)

Green-backed Heron
Black-crowned Night-Heron
Blue-winged Teal
Turkey Vulture
Red-tailed Hawk
Ring-necked Pheasant
American Coot
Spotted Sandpiper
American Woodcock
Common Nighthawk
Whip-poor-will
Chimney Swift
Ruby-throated Hummingbird
Belted Kingfisher
Willow Flycatcher
Purple Martin
Bank Swallow

Carolina Wren
Sedge Wren
Marsh Wren
~~Yellow-throated Vireo~~
Northern Parula
Yellow Warbler
Black-and-White Warbler
American Redstart
Yellow-breasted Chat
Blue Grosbeak
Song Sparrow
Eastern Meadowlark
Western Meadowlark
Orchard Oriole
Pine Siskin
American Goldfinch

Others Seen During the Breeding Season

*Well past migration period
for the species*
~~all of Mar.~~

Double-crested Cormorant
Great Blue Heron
Great Egret
Little Blue Heron
Least Bittern
American Bittern
Canada Goose
Northern Pintail
Northern Shoveler
Gadwall
Lesser Scaup
Sharp-shinned Hawk
Cooper's Hawk
Red-shouldered Hawk
Broad-winged Hawk
Sora
Semipalmated Plover
Solitary Sandpiper
Lesser Yellowlegs
Semipalmated Sandpiper
Ring-billed Gull
Herring Gull
Rock Dove
Olive-sided Flycatcher

Yellow-bellied Flycatcher
Acadian Flycatcher
Alder Flycatcher
Least Flycatcher
Cliff Swallow
Hermit Thrush
Bell's Vireo
Solitary Vireo
~~Philadelphia Vireo~~
Tennessee Warbler
Orange-crowned Warbler
Nashville Warbler
Chestnut-sided Warbler
Blackpoll Warbler
Cerulean Warbler
Scarlet Tanager
Vesper Sparrow
Savannah Sparrow
Lincoln's Sparrow
White-crowned Sparrow
Bobolink
Yellow-headed Blackbird
House Finch
House Sparrow

Recommendations

The drought of 1988 and 1989 created hardships for all aquatic species. The Prothonotary Warbler population was reduced to only one nesting pair in 1990 and they were not successful. Water levels are rising, but the impact has been ⁱⁿ significant. Anything that can be done to bring water levels to a point closer to historic average should be done.

Dr. Brush has erected 150 nest boxes and this has resulted in a large increase in the breeding of House Wrens. They should not have a negative impact on other cavity nesters since an ample supply of boxes is present.

The proposed access road from the northwest would allow easier access and should be pursued. Small groups of visitors do not seem to negatively affect the breeding birds. It is also recommended that this survey be repeated in 1993.

Species Accounts

The species listed include all seen on the three visits. Two numbers follow the name. The first is the average seen at the ten points for ~~one visit~~ ^{per visit} in 1990. The second, the same for 1987.

Pied-billed Grebe - One seen June 10 on Beatty's Pond.

Great Blue Heron (1.3, 21.3) - Two to five seen on each visit. Probably visitors from the nearby colony in Illinois. The lack of water in Spring Lake combined to make observations of large numbers almost impossible and to reduce utilization of the preserve.

Great Egret (.3, .3) - One seen flying over point 8 on June 10.

Canada Goose (0, .3) - Four seen flying over on June 10, but not found at a point count.

Wood Duck (1.7, 3) - From 3-25 seen per visit, but the low water level has made breeding difficult.

Mallard (2, 3.3) - From 2-10 seen per visit, but low water has reduced breeding habitat as for Wood Duck.

Hooded Merganser (.3, 0) - A full grown young or female seen at point one on the small pond off the preserve next to the ash pond on June 10. The low water has negatively impacted them also.

Turkey Vulture - Three seen on May 17 and one on June 10 flying over the preserve, but not noted on a point count either year.

Broad-winged Hawk - One migrant seen on May 17 flying over.

Red-tailed Hawk (1.3, 1.3) - One or two seen on each visit, usually along the west border of the preserve.

American Kestrel (.3, 2) - One seen near the gate on June 26. In 1987, a family group of six was seen, hence the higher number.

Ring-necked Pheasant (1.3, .3) - One heard on May 17 and three on June 10 with the increase possibly due to the increased cover produced by the rainfall.

Northern Bobwhite (1, 4) - One heard on May 17 and a pair seen at point 5 on June 26. The increase in cover should have helped this species also, but apparently it did not. *Tim Brush says singing males heard on June 13, on both sides of the pond west border.*

Sora - One seen along Beatty's Pond on May 17 by Dr. Tim Brush, probably a migrant.

Killdeer (2.3, 4.3) - Lack of any mudflat due to vegetation made Killdeer hard to observe, but from three to eight were recorded.

Spotted Sandpiper (.3, 0) - One at point 1 on May 17 and a second on the large ash pond on the same day.

Least Sandpiper - Three seen on the large ash pond on May 17, the only observation of this migrant near the preserve.

American Woodcock - One heard before dawn on May 17 and one flushed on June 10 by Brian Blevins were the only ones found. *Tim Brush says 6-7 seen regularly in wet woods throughout June.*

Rock Dove (3.7, 3.3) - Birds which nest on the plant seen flying over at various count points.

Mourning Dove (20.3, 23) - Well distributed with most nesting in the conifers.

Black-billed Cuckoo (.3, .3) - One seen at point 9 on June 26.

Yellow-billed Cuckoo (1.7, 1) - Three seen June 10 and four on June 26, the expected pattern for a late arriving migrant.

Great Horned Owl - Four found on June 10 including one immature just west of Beatty's Pond in the pines along the dunes.

Barred Owl (.7, 0) - Two heard at point 10 on June 26 just as a storm approached and the sky darkened.

Common Nighthawk (.3, 0) - A probable migrant seen flying over point 6 on May 17.

Chuck-will's-widow (1, 0) - One heard on May 17 and June 10 near point 5, seen there on June 26. Dr. Tim Brush located two nests, probably from the same pair, in ^{the} this area on the southeast corner of Beatty's Pond on June 10 and 21, about 120 meters apart. This constitutes the northernmost nest in the Midwest. A second pair seem to be present in the area of the high ground between the east and west areas of Beatty's Pond as both males were heard May 17.

Southwest

with a
western
IBC?

Second try
may have
succeeded -
eggs present until
hatching expected
but yg not
found.

Whip-poor-will (.3, 0) - One heard at point 7 early in the day on May 17, probably just outside the preserve.

Chimney Swift (1.7, .6) - From two to five seen each visit.

Ruby-throated Hummingbird - One observed June 10.

Red-headed Woodpecker (7.7, 6) - Ten to twelve seen per visit.

Red-bellied Woodpecker (1.7, .7) - One to four seen per visit.

Downy Woodpecker (3.3, 5) - Two to six seen per visit.

Hairy Woodpecker (.7, .3) - A nest with young found June 10 by Dr. Tim Brush. Also probably nested outside the preserve between points 7 and 8 in pines.

Northern Flicker (3.3, 3) - One to six seen per visit.

Pileated Woodpecker (1.3, 1.3) - Two birds recorded each visit.

Eastern Wood-Pewee (1, 0) - From one to four recorded per visit.

Least Flycatcher - A probable migrant heard May 17.

Eastern Phoebe (.3, 0) - One at point 2 on June 10.

Great Crested Flycatcher (5.3, 6) - From four to seven per visit.

Eastern Kingbird (1.3, .6) - From two to eight per visit.

Horned Lark (1, .3) - From two to five per visit.

Tree Swallow (.7, 4) - Decreased due to lack of water in ponds.

with
only one

Rough-winged Swallow (0, 1) - Not found on point count, but six seen May 17 and two on June 26.

nesting pair in 1990, compared to 5 in 1988 found by Tim Brush

Cliff Swallow - Also absent from the point counts, but two seen May 17 and one on June 26.

Barn Swallow (5.7, 3.7) - A nest with young seen just outside the preserve on the water control building at the small ash pond.

Blue Jay (12, 12.7) - Twelve to twenty seen per visit.

American Crow (12.7, 37.7) - No flocks seen as in 1987, so point count was lower, but they are not decreasing.

Black-capped Chickadee (11.7, 11.3) - From four to twenty-one found, more obvious when young fledged.

Tufted Titmouse (3.3, .6) - From one to eight per visit.

White-breasted Nuthatch (1.3, 2.3) - From one to three per visit.

→ Brown Creeper - Breeding confirmed when Dr. Tim Brush saw four very recently fledged young in the woods between Spring Lake and Beatty's Pond on May 31.

→ Carolina Wren (.3, 0) - One heard at point 3 on June 10.

House Wren (12, 10.3) - From twenty to twenty-five seen per visit. *10% nested in man7 & the bushes.*

Eastern Bluebird (3, .3) - The boxes recommended in 1987 resulted in a successful nesting near the gate with four young banded May 17 and five more banded in a cavity near the south pond.

Gray-cheeked Thrush - Two migrants seen on May 17, one near point 3.

Swainson's Thrush - One migrant seen on May 17.

Wood Thrush (0, .3) - Two recorded on June 10, but not on point count. *possibly nesting materials on*

American Robin (12.7, 5.3) - No apparent reason for the large increase, but most were around the conifers and many young were seen on June 26.

Gray Catbird (3.7, 2.7) - From two to eight per visit.

→ Northern Mockingbird (.3, .7) - One near the gate on June 10.

Brown Thrasher (5.7, 6.7) - From five to ten per visit.

Cedar Waxwing (4, 15.7) - No flocks seen, hence the lower point count average.

European Starling (28, 116.7) - Also, no large flocks seen as in 1987, but still a very common bird in the open and pine areas after the breeding season.

Yellow-throated Vireo (.7, .6) - One to three found per visit.

Warbling Vireo (1, 2) - Value continues to drop with a new low, two to four found per visit.

Philadelphia Vireo - One of these migrants seen June 10 at point five by Brian Blevins, a very late record.

Red-eyed Vireo (.7, .3) - One or two recorded per visit.

Yellow-rumped Warbler - One migrant seen May 17.

Blackburnian Warbler - One migrant seen May 17.

American Redstart (.3, .3) - One on May 17, two on June 10, one at point 9.

Prothonotary Warbler (.7, 2.3) - Big drop due to lack of water early in nesting season, population down to one pair, which nested in a nest-box, unsuccessfully, per Tim Brush.

Ovenbird - One seen May 17 by Dr. Tim Brush.

Northern Waterthrush - One present on May 17.

Common Yellowthroat (1.7, 0) - From two to six per visit, probably up due to rain and lush vegetation.

Wilson's Warbler - One migrant on May 17.

Northern Cardinal (15, 18.7) - Ten to twenty-five per visit.

Rose-breasted Grosbeak (2, 1.3) - Two to six per visit.

Blue Grosbeak - On May 17, Dr. Tim Brush saw a female off the preserve on the south side of Spring Lake. South of the Northwest end of Spring Lake.

Indigo Bunting (14.7, 14.3) - From twelve to twenty-five per visit.

Dickcissel (7.3, 0) - Big increase, probably due to lush vegetation produced by May and June rains.

Rufous-sided Towhee (.3, 1) - One on June 26, the only record.

Chipping Sparrow (4.3) - Four to eight per visit.

Field Sparrow (10.3, 15.7) - A small reduction, hard to say why, from ten to twenty per visit.

Vesper Sparrow - One on June 10, the only record.

Lark Sparrow (3.7, 5) - Nest with four eggs found on May 17, from five to twelve per visit.

Savannah Sparrow - One on June 10, the only record.

→ Grasshopper Sparrow (9.3, 4) - Also helped by the rain and lush vegetation, six to fifteen per visit.

→ Song Sparrow (.7, 0) - This species is finally showing up. It has always been a mystery why it is not more common.

White-crowned Sparrow - One migrant at point 7 on May 17.

Red-winged Blackbird (20.7, 8) - Helped by the rain and lush vegetation, thirty to fifty per visit.

Eastern Meadowlark (0, .3) - One near the ash pond on May 17.

Western Meadowlark - One west of the preserve on May 17.

→ Yellow-headed Blackbird - Two males observed at Spring Lake in early June by Dr. Tim Brush.

Common Grackle (19.3, 36.3) - No large flocks, hence a drop in point count total.

Brown-headed Cowbird (16.3, 16.3) - Status quo for a pest bird, from twenty to twenty-five per visit.

Northern Oriole (16, 23) - Down a bit, but still very common with twenty to thirty-five per visit.

American Goldfinch (13.7, 15.3) - From ten to twenty per visit.

House Sparrow (.3, 0) - Seen mostly along the west border and near structures around the plant site.

PCP:sf
07/19/90