

Species assessment: Regional (BCR)

2 Measures of Vulnerability:

- Population Size (PS) Global
- Distribution (BD, ND) Global

2 Measures of Concern:

- Population Trend (PT_L) Regional
- Threats to Pop'n (TB_L, TN_L) Regional

Regional Responsibility

- Relative Density (RD_b, RD_w) Regional

Breeding Score = PS + BD + PT_L + TB_L + RD_b

Winter Score = PS + ND + PT + TN_L + RD_w

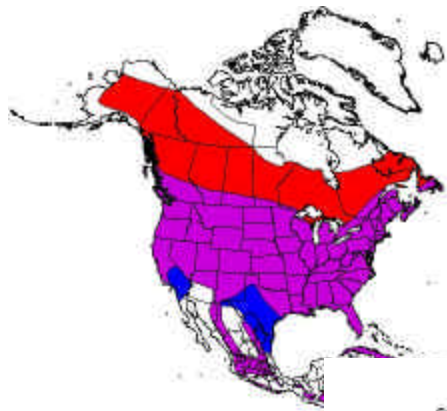
Population Size (PS)

Score	Global Population	Example
1	> 50,000,000	White-throated Sparrow
2	> 5,000,000	Bobolink
3	> 500,000	Black-billed Cuckoo
4	> 50,000	Northern Goshawk
5	< 50,000	Kirtland's Warbler

Distribution

Breeding (BD) & Non-breeding (ND)

Score	Global Range Size within Season
1	> 4,000,000 km ²
2	2,000,000 – 4,000,000 km ²
3	1,000,000 – 2,000,000 km ²
4	500,000 – 1,000,000 km ²
5	< 500,000 km ²



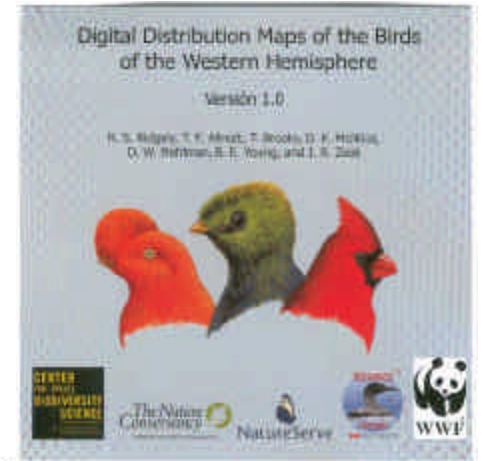
BD=1

Northern Flicker
 Breeding
 Year-round
 Winter



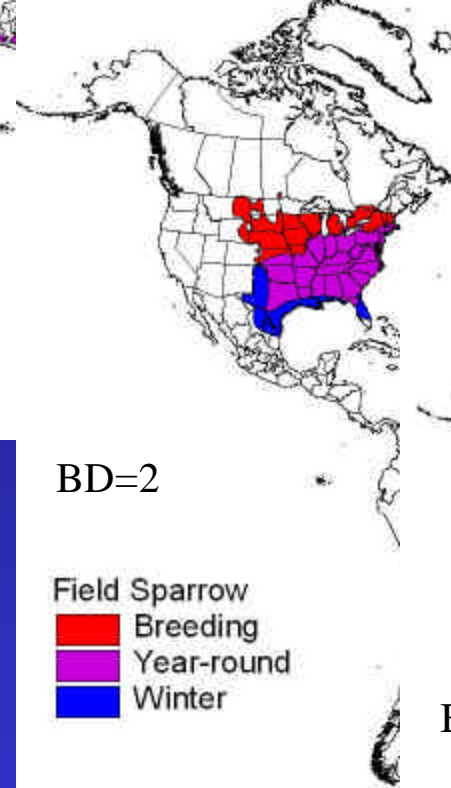
BD=4

Chestnut-backed Chickadee
 Year-round



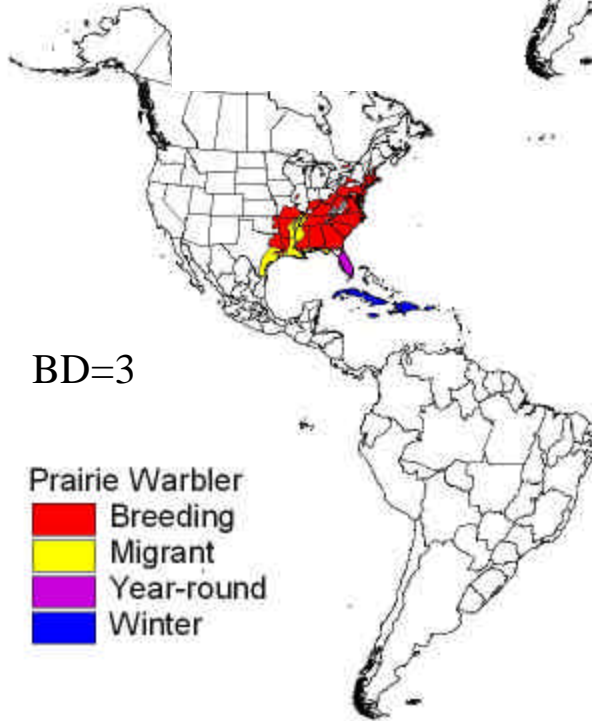
BD=2

Field Sparrow
 Breeding
 Year-round
 Winter



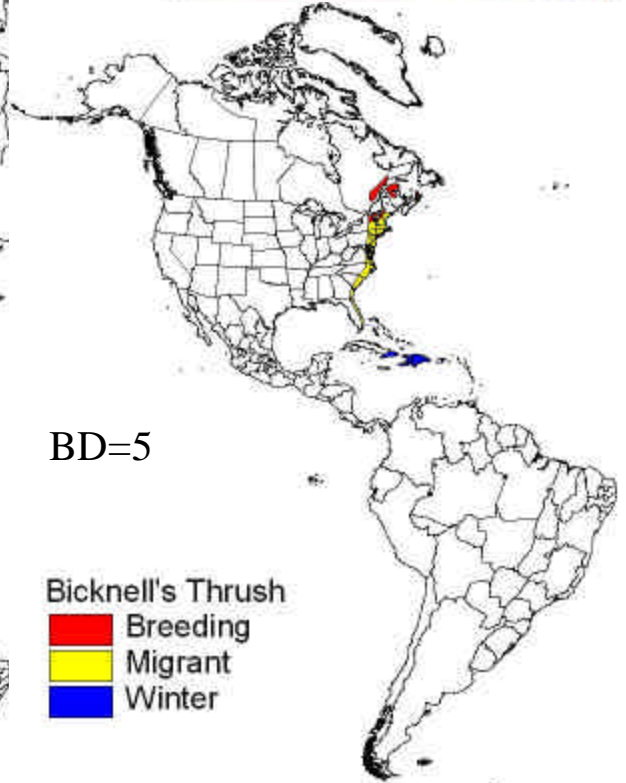
BD=3

Prairie Warbler
 Breeding
 Migrant
 Year-round
 Winter



BD=5

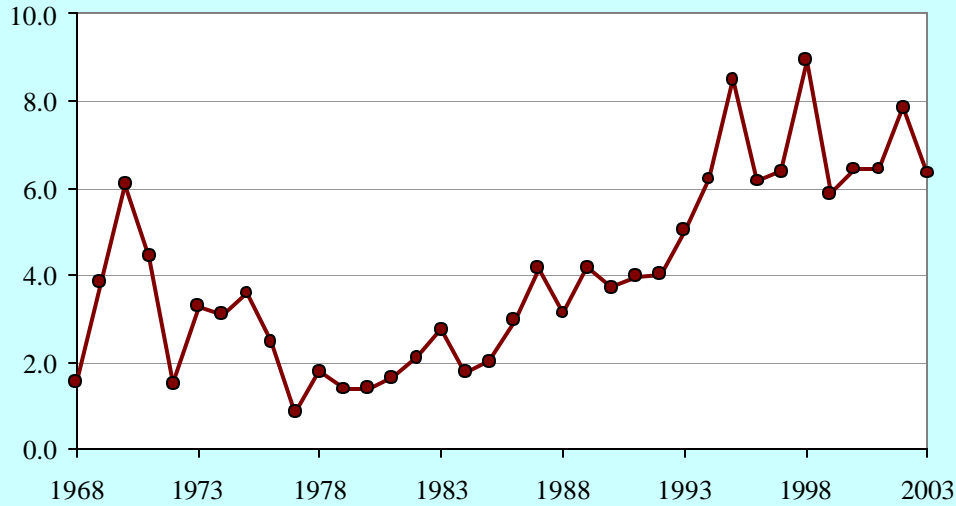
Bicknell's Thrush
 Breeding
 Migrant
 Winter



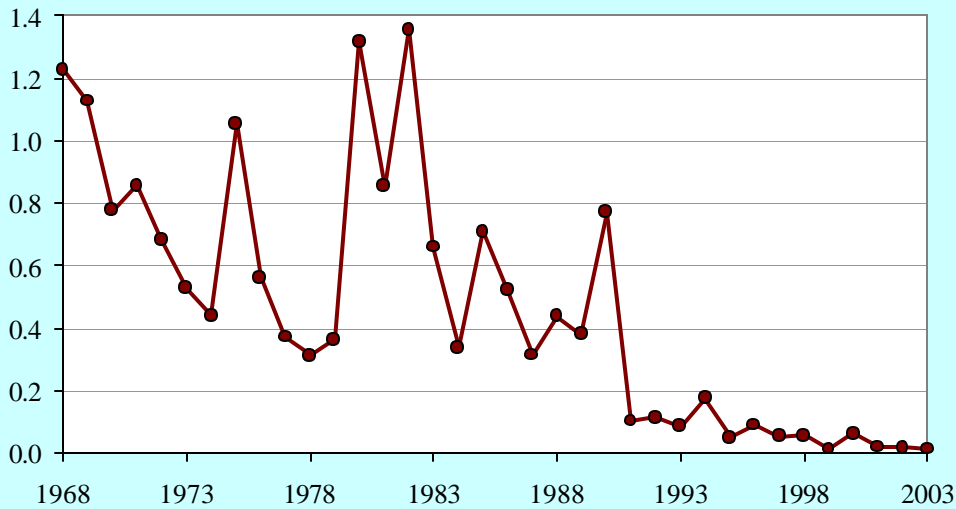
Population Trend (PT)

Score	Meaning	% Change over 30 yrs	Annual Rate of Change
1	Large Increase	+50% or more	> 1.36%
2	Stable or Increase	-15% to +50%	-0.54% to 1.36%
3	Uncertain Trend	Variable or Unknown	
4	Moderate Decline	-15% to -50%	-0.54% to -2.27%
5	Large Decline	-50% or more	< -2.27%

Winter Wren - BBS Index, BCR 12 Ontario



Chimney Swift - BBS Index, BCR 12 Ontario



BCR 12

Ontario Breeding Bird Atlas	1 st Atlas Squares (adj.)	2 nd Atlas Squares	Percent Change
Winter Wren	409.7	437	+ 7%
Chimney Swift	332.3	126	- 62%

Threats

Breeding (TB) and Non-breeding (TN)

Score	Future Condition are Expected to:	Example
1	Improve; enhanced by human activities	Common Grackle
2	Remain Stable	Sharp-shinned Hawk
3	Decline: slightly to moderately	Field Sparrow
4	Deteriorate: strongly	Northern Harrier
5	Deteriorate: extremely, major range contraction	Loggerhead Shrike

Relative Density

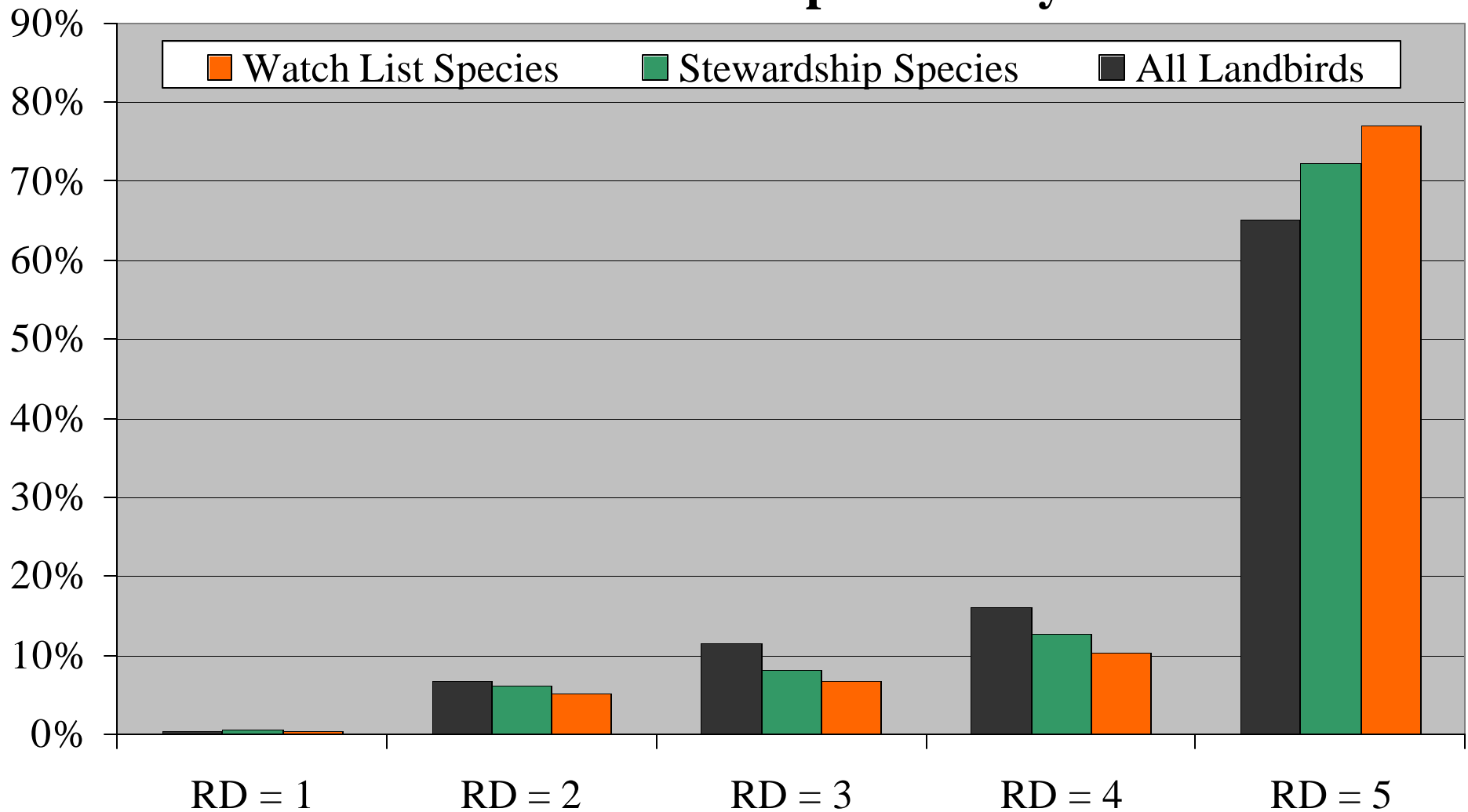
Breeding (RDb) & Winter (RDw)

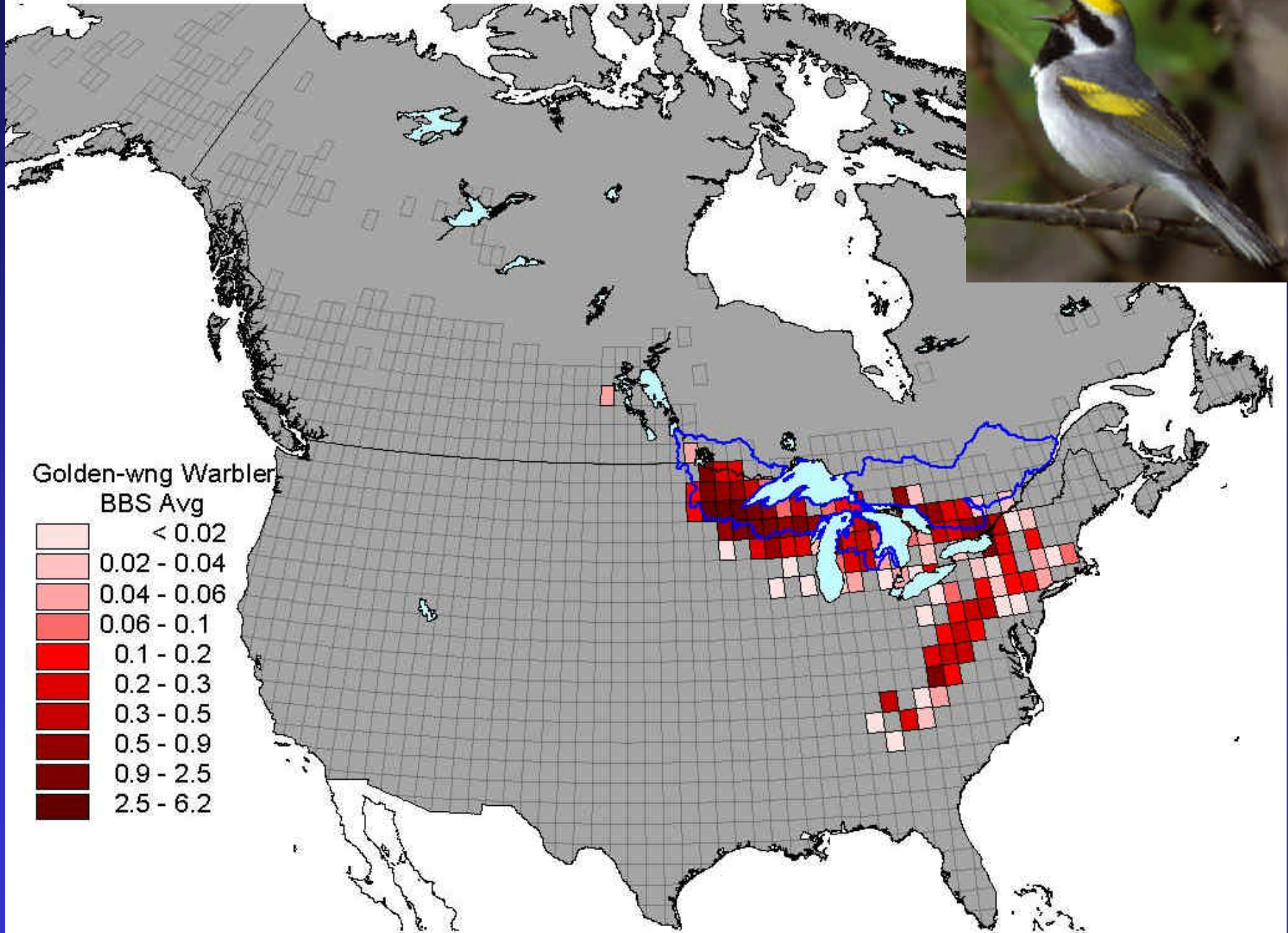
Score	Percent of Maximum Density*
1	< 1%
2	1 to 9.9 %
3	10 to 24.9%
4	25 to 49.9%
5	50 to 100%

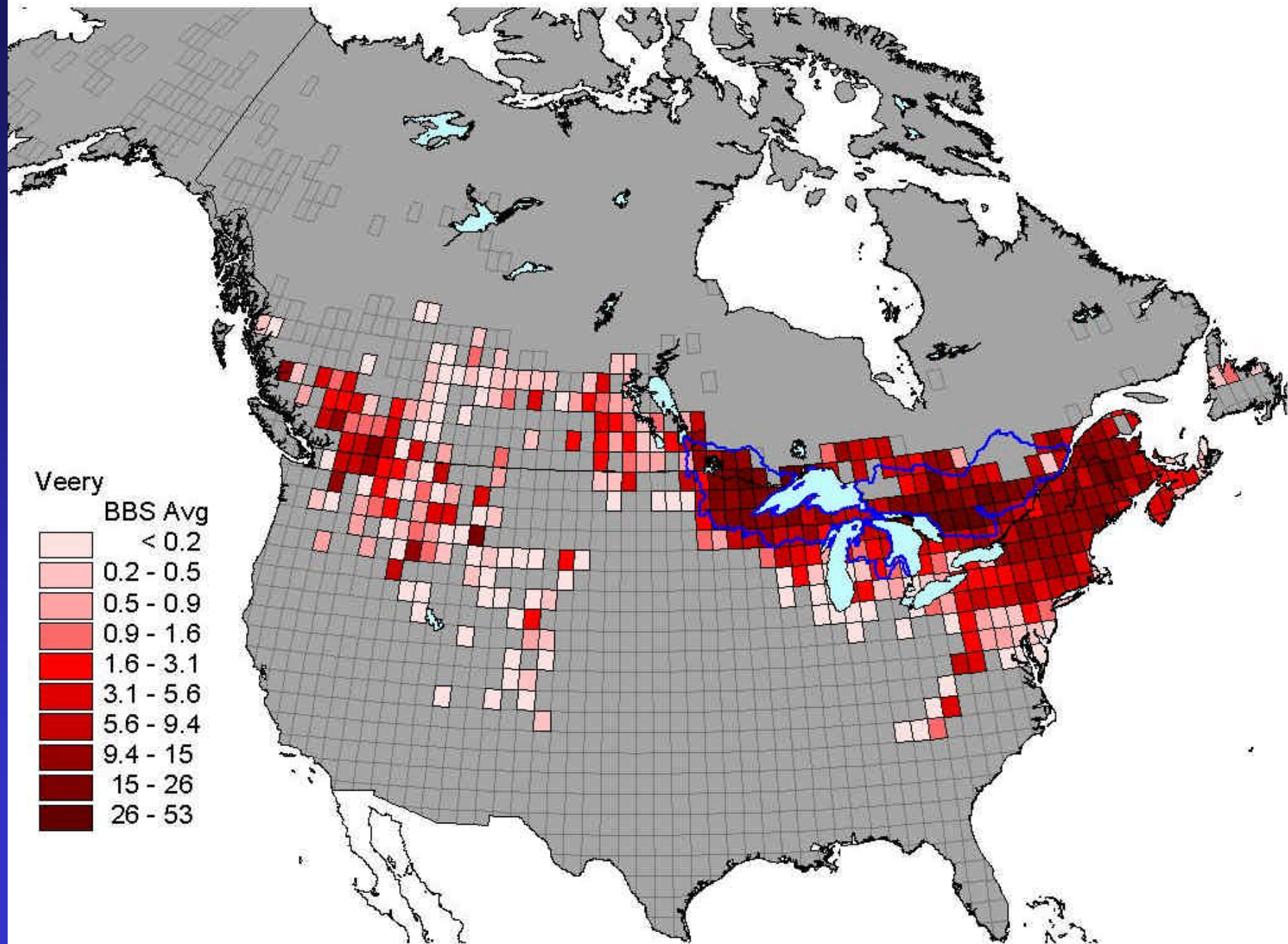
* average density in BCR, relative to BCR in which maximum species density occurs

Percent of Species Population by RD Score

Percent of U.S./Canada Population by RD score







Priority Species Pool

Continental Concern: PIF Watch List 2004
& Moderate-High Regional Importance ($RD \geq 2$)

Continental Stewardship: in N. Am. Plan
& High Regional Importance ($RD \geq 4$)

Regional Concern: Total Score ≥ 14
& High Regional Threats ($TB/TN \geq 4$)
or Declines ($PT \geq 4$) with Moderate Threats (=3)

Regional Stewardship: $\geq 25\%$ Global Pop'n
or Very High Regional Importance ($RD = 5$)

Listed Species at Risk - Federal or Provincial

Other Species of Management Interest

BCR 12

Continental Concern Species

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Kirtland's Warbler	23	5	5	5	3	5	100%
Bicknell's Thrush	21	5	5	5	3	3	
Golden-winged Warbler	20	4	4	5	3	4	76%
Canada Warbler	17	2	3	5	4	3	23%
Bay-breasted Warbler	16	3	3	4	4	2	9%
Henslow's Sparrow	15	3	4	2	2	4	2%
Red-headed Woodpecker	14	2	3	2	4	3	0%
Olive-sided Flycatcher	14	1	3	2	5	3	3%
Wood Thrush	14	2	2	3	4	3	5%
Worm-eating Warbler	14	3	3	2	3	3	
Rusty Blackbird	13	1	3	3	4	2	2%
Willow Flycatcher	11	1	3	2	2	3	1%

BCR 12

Regional Concern Species

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Connecticut Warbler	17	3	3	4	4	3	8%
Veery	16	2	2	5	4	3	34%
Bobolink	16	2	2	4	4	4	17%
Purple Finch	16	2	3	4	4	3	12%
Black-backed Woodpecker	15	2	3	3	3	4	4%
Least Flycatcher	15	1	2	5	4	3	10%
Sedge Wren	15	3	2	5	1	4	21%
Northern Harrier	14	1	3	3	3	4	1%
Whip-poor-will	14	2	3	2	4	3	5%
Eastern Wood-Pewee	14	1	2	3	5	3	8%
Brown Thrasher	14	1	2	3	5	3	3%
Field Sparrow	14	2	2	2	5	3	1%
Le Conte's Sparrow	14	2	3	3	2	4	3%
Baltimore Oriole	14	2	2	3	4	3	5%

BCR 8

Continental Concern Species

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Bay-breasted Warbler	17	3	3	5	3	3	75%
Canada Warbler	16	2	3	5	3	3	45%
Olive-sided Flycatcher	14	1	3	3	4	3	9%
Short-eared Owl	12	1	3	2	3	3	0%
Rusty Blackbird	12	1	3	3	3	2	8%

BCR 8

Regional Concern Species

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Connecticut Warbler	18	3	3	5	4	3	53%
Boreal Chickadee	14	1	2	4	4	3	12%

BCR 12

Continental Stewardship Species

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Mourning Warbler	16	3	2	5	4	2	20%
Yellow-bellied Sapsucker	14	2	2	5	3	2	23%
Chestnut-sided Warbler	14	2	2	5	3	2	37%
Black-thr. Green Warbler	14	2	2	5	3	2	22%
Blackburnian Warbler	14	2	2	5	2	3	27%
Philadelphia Vireo	13	2	3	4	2	2	9%
Nashville Warbler	13	2	2	5	2	2	24%
Cape May Warbler	13	2	3	4	1	3	13%
Swamp Sparrow	13	2	2	5	2	2	12%
Yellow-bellied Flycatcher	12	2	2	4	2	2	9%
White-throated Sparrow	12	2	1	5	2	2	11%
Alder Flycatcher	11	1	2	4	2	2	3%
Blue-headed Vireo	11	2	2	4	1	2	13%
Magnolia Warbler	10	1	2	4	1	2	10%

BCR 8

Continental Stewardship Species

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Black-backed Woodpecker	16	2	3	5	3	3	23%
Cape May Warbler	16	2	3	5	3	3	65%
Yellow-bellied Flycatcher	15	2	2	5	3	3	76%
Black-thr. Green Warbler	15	2	2	5	3	3	40%
Mourning Warbler	15	3	2	5	3	2	63%
Yellow-bellied Sapsucker	14	2	2	4	4	2	26%
Alder Flycatcher	14	1	2	5	4	2	15%
Philadelphia Vireo	14	2	3	5	2	2	69%
Nashville Warbler	14	2	2	5	3	2	58%
Chestnut-sided Warbler	14	2	2	4	4	2	42%
Blackburnian Warbler	14	2	2	5	2	3	50%
Swamp Sparrow	14	2	2	5	3	2	31%
Blue-headed Vireo	13	2	2	4	3	2	30%
Tennessee Warbler	13	2	1	5	3	2	30%
White-throated Sparrow	13	2	1	5	3	2	37%
Pine Grosbeak	13	1	3	4	3	2	7%
Magnolia Warbler	12	1	2	5	2	2	50%
Lincoln's Sparrow	12	1	2	4	3	2	11%

BCR 12

Regional Stewardship Species

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Black-thr. Blue Warbler	17	3	3	5	3	3	43%
Black-billed Cuckoo	16	2	3	5	3	3	22%
Belted Kingfisher	16	1	3	5	5	2	7%
Rose-breasted Grosbeak	16	2	3	5	4	2	22%
Ruffed Grouse	15	2	2	5	3	3	11%
Sharp-shinned Hawk	14	1	3	5	2	3	4%
Broad-winged Hawk	14	1	3	5	3	2	22%
Northern Flicker	14	1	2	5	4	2	5%
Common Yellowthroat	14	1	2	5	4	2	11%

BCR 8

Regional Stewardship Species

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Great Gray Owl	15	1	4	5	3	2	10%
Boreal Owl	15	1	3	5	3	3	6%
Belted Kingfisher	15	1	3	5	4	2	12%
Purple Finch	15	2	3	4	4	2	32%
Ruffed Grouse	14	2	2	5	3	2	25%
Sharp-shinned Hawk	14	1	3	5	3	2	9%
Northern Flicker	14	1	2	5	4	2	11%
Winter Wren	14	1	2	5	3	3	17%
Ruby-crowned Kinglet	14	1	1	5	5	2	22%
Black-and-white Warbler	14	2	2	5	3	2	39%
Ovenbird	14	2	2	5	3	2	34%
Evening Grosbeak	14	2	2	5	3	2	43%

BCR 12

Species At Risk

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Bald Eagle	13	2	4	2	2	3	1%
Great Gray Owl	13	1	4	3	3	2	1%
Louisiana Waterthrush	13	2	4	1	3	3	0%
Hooded Warbler	13	2	3	2	3	3	
Golden Eagle	12	1	4	1	3	3	0%
Peregrine Falcon	12	1	3	1	3	4	0%
Barn Owl	12	1	3	2	3	3	
Loggerhead Shrike	12	1	3	1	3	4	0%
Northern Bobwhite	11	2	2	1	3	3	0%
Red-shouldered Hawk	10	2	3	2	1	2	1%

BCR 8

Species at Risk

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Bicknell's Thrush	17	5	5	1	3	3	5%
Bald Eagle	13	2	4	1	3	3	1%
Golden Eagle	12	1	4	1	3	3	

BCR 12

Other Management Interest?

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Chimney Swift	13	1	2	2	5	3	1%
Purple Martin	13	1	2	2	5	3	1%
N. Rough-winged Swallow	13	1	2	3	5	2	0%
Bank Swallow	13	1	2	3	5	2	1%
Barn Swallow	12	1	1	4	5	1	1%
Northern Waterthrush	12	1	2	2	5	2	2%
Dark-eyed Junco	11	1	1	2	5	2	1%
Brown-headed Cowbird	11	1	1	3	5	1	2%
Yellow-billed Cuckoo	12	1	2	1	5	3	0%
Common Nighthawk	12	1	2	1	5	3	0%
Western Meadowlark	12	1	2	1	5	3	0%
Nelson's Sharp-tld Sparrow	15	4	3	1	3	4	0%
Blue-winged Warbler	14	3	4	1	3	3	1%
Prairie Warbler	13	3	3	1	3	3	0%
Dickcissel	12	2	2	1	3	4	0%

BCR 12

Other Atlas Declines

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Northern Goshawk	14	1	4	3	3	3	1%
Northern Saw-whet Owl	13	2	3	3	3	2	
Cooper's Hawk	12	1	3	3	2	3	3%
Vesper Sparrow	12	1	2	2	4	3	1%
Eastern Meadowlark	12	1	2	2	4	3	1%
Gray Catbird	11	1	2	2	4	2	6%
Pine Grosbeak	11	1	3	2	3	2	0%
Red Crossbill	10	1	2	2	2	3	0%
Great Horned Owl	9	1	2	2	3	1	0%
House Sparrow	9	1	1	2	4	1	
Cliff Swallow	8	1	1	2	3	1	2%
Eastern Screech-Owl	12	2	3	1	3	3	0%
Horned Lark	9	1	1	1	4	2	0%

BCR 8

Other Management Interest?

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
American Kestrel	13	1	2	3	5	2	5%
Gray Jay	13	1	2	3	5	2	6%
Red-winged Blackbird	11	1	1	2	5	2	1%
Dark-eyed Junco	11	1	1	2	5	2	3%
Brown-headed Cowbird	10	1	1	2	5	1	1%
Wood Thrush	11	2	2	1	3	3	1%

BCR 8

Other Atlas Declines

Breeding Season	Score	BD	PS	RD	PT	TB	%Pop
Northern Goshawk	13	1	4	2	3	3	1%
Yellow Warbler	13	1	2	4	4	2	8%
Osprey	12	1	4	2	3	2	6%
Tree Swallow	12	1	2	4	3	2	12%
Common Nighthawk	11	1	2	2	3	3	2%
Savannah Sparrow	11	1	1	3	4	2	4%
Eastern Kingbird	11	1	2	2	4	2	1%
Ruby-thr Hummingbird	10	1	2	2	3	2	7%
Barn Swallow	10	1	1	2	4	2	1%
Bank Swallow	10	1	2	2	3	2	1%
Cliff Swallow	8	1	1	2	3	1	1%
European Starling	8	1	1	2	3	1	
Great Horned Owl	8	1	2	1	3	1	0%

BCR 12 Priority List (examples)

BCR 12 Priority Species	BREEDING					WINTER					Species at Risk	
	Concern		Stewardship		PIF Score	Concern		Stewardship		PIF Score	CA	ON
	BCR	N.Am.	BCR	N.Am.		BCR	N.Am.	BCR	N.Am.			
Kirtland's Warbler	X	X	X	X	23						E	E
Bicknell's Thrush		X	X	X	21						S	
Golden-winged Warbler	X	X	X		20							
Connecticut Warbler	X			X	17							
Canada Warbler	X	X	X	X	17							
Purple Finch	X				16					14		
Veery	X		X		16							
Bay-breasted Warbler		X		X	16							
Bobolink	X				16							
Black-backed Woodpecker	X				15					14		
Least Flycatcher	X		X		15							
Sedge Wren	X		X		15							
Prothonotary Warbler		X			15						E	E
Henslow's Sparrow	X	X			15						E	E
Red-headed Woodpecker	X	X			14	X	X			15	S	V
Field Sparrow	X				14	X				14		
Northern Harrier	X				14					13		
Whip-poor-will	X				14							
Olive-sided Flycatcher	X	X			14							
Eastern Wood-Pewee	X				14							
Wood Thrush	X	X			14							
Brown Thrasher	X				14							

BCR 8 Priority List (examples)

BCR 8 Priority Species	BREEDING					WINTER					Species at Risk	
	<u>Concern</u>		<u>Stewardship</u>		PIF Score	<u>Concern</u>		<u>Stewardship</u>		PIF Score	CA	ON
	BCR	N.Am.	BCR	N.Am.		BCR	N.Am.	BCR	N.Am.			
Connecticut Warbler	X		X	X	18							
Bay-breasted Warbler		X	X	X	17							
Canada Warbler		X	X	X	16							
Olive-sided Flycatcher	X	X			14							
Boreal Chickadee	X			X	14				X	13		
Short-eared Owl		X			12						S	V
Rusty Blackbird		X			12							
Black-backed Woodpecker			X	X	16			X	X	16		
Cape May Warbler			X	X	16							
Great Gray Owl			X		15			X		15		V
Boreal Owl			X		15			X		14		
Belted Kingfisher			X		15							
Yellow-bellied Flycatcher			X	X	15							
Black-throated Green Warbler			X	X	15							
Mourning Warbler			X	X	15							
Purple Finch			X		15							
Ruffed Grouse			X		14			X		14		
Sharp-shinned Hawk			X		14							
Yellow-bellied Sapsucker			X	X	14							
Northern Flicker			X		14							
Alder Flycatcher			X	X	14							
Philadelphia Vireo			X	X	14							

Priority Species

To Do:

- Identify Conservation Issues / Threats
- Review/Modify Threat Scores
- Screen out Peripheral Species
- Add Species of Mgmt Interest
- Group Species by Habitats

