

Bird Checklists

A Review and Guidelines

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Checklists have long been an extremely useful and inexpensive (sometimes free) information base for visitors and employees alike. A checklist and park brochure often are all the references needed to find many of an area's key natural resources. Although most North American parks have bird checklists, a few also have a checklist of mammals, reptiles and amphibians, trees and shrubs, and wildflowers. Checklists provide a first-level database for learning about the park's biodiversity. A park's checklist of birds can be an extremely useful reference for anyone with an interest in birds, whether they are an avid birder or someone with only a casual interest in wildlife.

For three years (1990-93), I visited more than 100 national park areas in the United States and Canada, from Jasper National Park in Alberta to Everglades National Park in Florida, and from Gros Morne National Park in Newfoundland to Chiricahua National Monument in Arizona. Results of my travels included two published books—*The Visitor's Guide to the Birds of the Eastern National Parks United States and Canada* (1992) and a second one on the Rocky Mountain National Parks (1993); a third manuscript on the Central National Parks will be published in summer 1994. I plan to complete the set of four volumes with the Western National Parks bird book by 1995.

My research included considerable use of park references, thus providing an unusual opportunity to assess each area's bird checklist. Although I found that most checklists were well done, others

were inadequate or poorly done, and a few, frankly, were an embarrassment. It was obvious from the wide range of styles and formats found that there were no adequate guidelines. This paper is intended to fill that vacuum.

Review of Current Checklists

Of the 104 bird checklists gathered during the last three years, 75 (72%) were printed and 29 (18%) were xeroxed from either typed or computer-generated originals. Of the 75 printed checklists, 53 (71%) were folders with one to five folds; 18 (24%) were booklets with four to 12 stapled pages; and four (5%) were included in books of 32 or more pages. Sixty (58%) of the 104 checklists were dated; the remainder were undated. Thirty-nine (52%) of the 75 printed checklists were published by cooperating associations, 20 (27%) directly by national parks, and 16 (21%) by other organizations. The "other" organizations

included four book publishers, U.S. Fish and Wildlife Service, U.S. Forest Service, state Natural Resource Departments, and several private organizations, such as Audubon Societies, Bird Clubs, and an Environmental Education Center.

The most obvious problems found included misspelling, incorrect and/or out-of-date bird names, bird names not in proper sequence, and obvious errors in status. For example, a checklist that includes Merlin as a nesting bird in a southwestern park or Greater Roadrunner in a northern forest park is simply incorrect.

Such errors are not only embarrassing to Parks Canada and the National Park Service, but for a park to give or sell such a reference is inexcusable. Although park agencies have little control over inaccuracies that occur in magazine articles and books written by non-employees, agencies or their cooperating associations do have control over "in-house" material. Handouts and sales materials published by the parks are representatives of that park's integrity and professionalism.

Preparing a Checklist of Birds

A bird checklist is a small, usually pocket-sized list of all species known to occur within a limited geographical area. It includes a blank space in front of each species so that the user can check off the species detected. The more useful checklists also include codes for species abundance by time of year, nesting status, and habitat preferences. And most

checklists also provide space for the user's name, date of observation, weather, and additional notes.

Where does one start in developing a checklist of birds? The first step is to recognize the value and need for such a document. The compiler must then gather together all previous park records into some kind of usable format so that each species can be adequately assessed. The park's "field observation" cards, if properly used and maintained, are extremely important, although pertinent reports and letters can also be very helpful. Checklists turned in by highly qualified birders provide valuable references as well.

Current computer files make the task of record compilation much easier than it once was when each species was entered into a notebook in such a way as to show time of year, abundance, and other factors. Less imaginative compilers used only the stack of field observation cards. Most parks possess a staff capable to undertake such a project, but if not, local bird or nature clubs or a knowledgeable individual in the adjacent community can usually be found to provide assistance. Local birders are usually honored to be asked for help, and will take on such a project with considerable interest and enthusiasm.

Should all parks develop a bird checklist? Except for the few historic sites without any natural habitat, every park should possess a checklist of birds that is readily available to the public. Checklists

priced at a minimum cost (25–50 cents) and prominently displayed are better, in my opinion, than free ones kept out of sight and available only on request. Visitors are more likely to purchase a checklist at a moderate price than they are to ask for a copy; the more active birders will acquire a checklist whether they are being sold or are free of charge.

There are a few ground rules that apply to compiling a checklist:

- Include only species that have actually been recorded within the park, not species that happen to fall within the area according to a field guide, state bird book, or a regional checklist;
- Bird names must comply with those used in the most recent (1994) *A.O.U. Check-list of North American Birds*, published by the American Ornithologists' Union—the official arbitrator of the classification of North American birds;
- Bird names must be listed in the sequence established by the A.O.U. Checklist, not alphabetically;
- All checklists must be dated; and,
- The checklist must be updated at least every three to five years.

Approximately ten years of bird records, depending upon the amount of birding activity in the park, are necessary before an adequate checklist can be prepared. Only actual on-site records should be utilized. The value of using only existing records is to establish a baseline that will then serve as a

reference for reporting new records. Species reported only five or fewer times should be included in a secondary "Hypothetical Species" list.

Too many checklists are published with the assumption that the new publication will suffice for several years. But this defeats the purpose of a checklist that should be used to highlight species for a possible change in status. For example, once a species on the Hypothetical Species list is recorded more than five times, it should be moved to the main list. Because of the need for regular revisions, most printed checklists should be published in a fairly inexpensive format. Xeroxed checklists that are neatly typed or computer-generated and folded are perfectly adequate. In fact, for new areas without an extensive avian database, such a method is recommended.

Checklists come in a wide range of formats, but pocket-sized checklists are handiest and receive the greatest use; larger-format bird lists often are left at home or in the vehicle and receive minimal use. I believe that the use of quality paper, so that the checklist does not come apart in the field, is far more important than an expensive production.

A few parks also offer an annotated checklist that amounts to a booklet or full-blown book. In such cases, each species has a few lines of description or annotations. Although these more extensive publications are extremely useful, they are not a substitute

for a field checklist.

What to Include

Abundance status should be included for each species for Spring (Sp), Summer (Su), Fall (Fa), and Winter (Wi), or, in southern areas that experience significant post-breeding dispersal, such as Big Bend National Park, Summer (Su), After Breeding (AB), Winter (Wi), and Migrant (Mi) categories may best apply (Wauer 1988). Consistency of abundance codes is extremely important so that "A" always means

abundant, not accidental; "C" always means common, not casual; "F" means fairly common, not frequent; "U" means uncommon; "R" means rare, "O" means occasional; "S" means casual; "X" means accidental; "I" means irruptive/irregular; and "E" means extirpated. And a key to abundance should be included that defines all the terms used.

A recent model for abundance codes was published in *Birding* (Allen 1993) and includes the following:

Category Code		Definition	Numeric Criteria
Abundant	A	Usually present in large numbers	±50/day
Common	C	Usually present in moderate numbers	10-50/day
Fairly common	F	Usually present in small numbers	5-10/day
Uncommon	U	Usually present in low numbers	1-5/day
Rare	R	One to a low number present annually	1-5/annually
Casual	S	Absent some years, but a low number present several times each decade	
Irruptive or Irregular	I	Fairly common to abundant some years, totally absent in others	
Accidental	X	One record, judged unlikely to be repeated	
Extirpated	E	No longer occurs in area, but formerly of annual occurrence	

Other Information Code		Description
Permanent Resident	P	Individuals present throughout the year
Nesting or Breeding	N	One or more pairs known to nest annually
Migrant	M	Migrating individuals occur annually
Local	L	Not present throughout, but at least fairly common where present

Breeding status can be shown in a separate column or by an asterisk or dot after the species name. If nesting is only assumed, the use of a question mark (?) adequately explains this status, informing birders to be extra watchful for nesting birds of that particular species.

Habitat designations are also extremely helpful and can easily be listed under the heading of Habitat Type (HT). Although habitats vary considerably across the continent, a few basic suggestions include Water (W), Riparian (R), Desert (D), Field (FI), Grassland (G), Meadow (M), Woodland (O) Forest (FO), Alpine (A), Tundra (T), and Urban (U). These can be expanded for further clarification: Lake (Wl), River (Wr), Coniferous Forest (Fc), Deciduous Forest (Fd), etc.

All of these symbols might appear on a checklist as illustrated below.

There are a few additional ingredients that can be included, and although each adds to the value of the checklist, they might be considered non-essential. These additional ingredients are listed in my order of priority:

- (1) Map with key birding sites.
- (2) Few of the most worthwhile references.
- (3) Birding ethics. The most complete "Code of Ethics" is that of the American Birding Association (1993) that includes 18 topics listed under four general headings: "I. Birders must always act in ways that do not endanger the welfare of birds or other wildlife. II. Birders must always act in ways that do not harm the natural environment. III. Birders must always respect the rights of others. IV. Birders in groups should assume special responsibilities."

Figures 1 and 2 are two examples of an excellent checklist.

Common Name	Seasonal Abundance				Nesting	Habitat Type
	Sp	Su	Fa	Wi		
___ Common Loon	C	C	C		*	Wl
___ Cooper's Hawk	F	F	F		?	R, FO
___ Snowy Owl				I		FI, M
___ American Robin	A	C	C	R	*	O, FI, FO, U
___ American Pipit	U		F			FI, M

✓ **Legend:**

Habitat Codes (HC)									
F	-	forest (all types)							
C	-	coniferous forests							
P	-	pine or Douglas-fir forests							
S	-	spruce or spruce/fir forests							
B	-	deciduous forests							
D	-	burnt lands							
K	-	timberland (stunted, open forests)							
M	-	shrubby meadows							
G	-	grassland							
A	-	alpine areas							
L	-	lakes							
R	-	rivers							
W	-	wetlands (marshes & bogs)							
T	-	townsites, landfills (man-made habitats)							

Abundance:

- Abundance is based on the number of individuals of a species a competent observer might expect to find in a single day in suitable habitat.
- Common: more than 25
 - ▲ Fairly Common: 6 to 25
 - Uncommon: 1 to 5
 - Rare: one or none; unlikely to be seen
 - Very Rare: has been recorded fewer than 5 times

Breeding Status:

Bold type indicates species known or believed to breed in Banff National Park.
The names and order of the species follow the American Ornithologists Union Checklist (1983).

Name:									
HC									
Red-throated Loon	L								
Pacific Loon	WL								
Common Loon	WL								
Pied-billed Grebe	WL								
Horned Grebe	WL								
Red-necked Grebe	WL								
Eared Grebe	WL								
Western Grebe	L								
American White Pelican	WL								
American Bittern	WL								
Great Blue Heron	WLR								
Great Egret	W								
Green-backed Heron	W								
Tundra Swan	WL								
Trumpeter Swan	WL								
Snow Goose	L								
Canada Goose	WLR								
Wood Duck	WL								
Green-winged Teal	WLR								
Mallard	WLR								
Northern Pintail	WL								
Blue-winged Teal	WL								
Cinnamon Teal	WL								
Northern Shoveler	WL								
Gadwall	WL								
American Wigeon	WLR								
Canvasback	WL								
Redhead	L								
Ring-necked Duck	WL								
Lesser Scaup	WL								
Harlequin Duck	RL								
Oldsquaw	L								
Surf Scoter	L								
White-winged Scoter	L								
Common Goldeneye	WLR								
Barrow's Goldeneye	WLR								
Bufflehead	WLR								
Hooded Merganser	WLR								
Common Merganser	LR								
Red-breasted Merganser	LR								

Name:									
HC									
Ruddy Duck	WL								
Turkey Vulture	WL								
Osprey	WLR								
Bald Eagle	WLR								
Northern Harrier	WMA								
Sharp-shinned Hawk	FWM								
Cooper's Hawk	DPM								
Northern Goshawk	FWM								
Broad-winged Hawk	F								
Swainson's Hawk	GM								
Red-tailed Hawk	DPM								
Ferruginous Hawk	G								
Rough-legged Hawk	GMW								
Golden Eagle	AGM								
American Kestrel	FWSGMT								
Merlin	FWAT								
Peregrine Falcon	WAGM								
Gyrfalcon	AGM								
Prairie Falcon	WAGM								
Gray Partridge	GM								
Ring-necked Pheasant	MGW								
Spruce Grouse	C								
Blue Grouse	BKMF								
White-tailed Ptarmigan	KMA								
Ruffed Grouse	DP								
Sharp-tailed Grouse	WGM								
Virginia Rail	WL								
Sora	WL								
American Coot	WL								
Black-bellied Plover	WL								
Lesser Golden Plover	WLR								
Semipalmated Plover	LR								
Killdeer	WLR								
American Avocet	RL								
Greater Yellowlegs	WLM								
Lesser Yellowlegs	WLM								
Solitary Sandpiper	WLM								
Spotted Sandpiper	RLWM								
Upland Sandpiper	GM								
Long-billed Curlew	MW								

Figure 1. Three panels from Banff National Park's 10-panel Checklist of Birds. Note the clearly explained habitat and abundance codes, and the use of symbols for the abundance coding. (Reduced to 68% of the original size.)

This checklist includes 179 birds that have been recorded in Kootenay National Park. Of these, 59 are definitely known to breed here. This list also includes 11 species anticipated to occur in the Park which have not been positively identified and so are treated as hypothetical.

LEGEND

Assumes that the birder is looking for the birds in the right habitat and at the right time of year.

Abundance

- Status**
 S — Summer
 W — Winter
 P — Permanent
 M — Migrant
 B — Breeding
- Abundance**
 C — Common Sighted at least once on any field trip.
 U — Uncommon Not often seen.
 R — Rare Few sightings per year and not necessarily every year.
 H — Hypothetical Assumed without proof to have been correctly identified.
 A — Accidental Only one or two records, not likely to be seen.

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Figure 2. Two panels from the 6-panel Checklist of Birds of Kootenay National Park. (Reduced to 88% of the original size.)

Loons <i>Gaviidae</i>	S,R	Red-tailed Hawk	S,C,B
Common Loon		Swainson's Hawk	A
		Rough-legged Hawk	H
Grebes <i>Podicipedidae</i>	H	Golden Eagle	S,U
Red-Necked Grebe	M,R	Bald Eagle	S,R
Horned Grebe	M,R	Marsh Hawk	M,R
Eared Grebe	M,R		
Western Grebe	M,R	Osprey <i>Pandionidae</i>	S,R
Pied-billed Grebe	H	Osprey	
Herons <i>Ardeidae</i>	S,R	Falcons <i>Falconidae</i>	S,R
Great Blue Heron		Prairie Falcon	S,R
		Merlin	S,U,B
Swans, Geese and Ducks		American Kestrel	
Anatidae	A	Grouse and Ptarmigan	
Whistling Swan	M,R	<i>Tetraonidae</i>	P,U,B
Canada Goose	A	Blue Grouse	P,U,B
Snow Goose	S,U,B	Spruce Grouse	P,C,B
Mallard	S,R	Ruffed Grouse	P,U,B
Pintail	S,U,B	White-tailed Ptarmigan	P,U,B
Green-winged Teal	S,U		
Blue-winged Teal	M,R	Rails and Coots <i>Rallidae</i>	S,U
American Widgeon	M,R	Sora	S,U,B
Northern Shoveler	S,U,B	American Coot	
Ring-necked Duck	M,R	Plovers <i>Charadriidae</i>	H
Lesser Scaup	S,U	Semipalmated Plover	S,U
Common Goldeneye	S,U,B	Killdeer	
Barrow's Goldeneye	M,R		
Bufflehead	S,U,B	Snipes and Sandpipers	
Harlequin Duck	S,U,B	<i>Scolopacidae</i>	S,U
White-winged Scoter	M,R	Common Snipe	S,C,B
Ruddy Duck	M,R	Spotted Sandpiper	S,R,B
Common Merganser	S,R,B	Solitary Sandpiper	M,R
Red-breasted Merganser	M,R	Greater Yellowlegs	M,U
		Lesser Yellowlegs	M,R
Hawks and Eagles		Baird's Sandpiper	M,R
<i>Accipitridae</i>		Least Sandpiper	M,R
Goshawk	P,R	Short-billed Dowitcher	M,R
Sharp-shinned Hawk	S,U	Western Sandpiper	M,R
Cooper's Hawk	S,R		

Conclusions

Although a bird checklist may seem like a minor document to park administrators responsible for keeping the park afloat amid an ocean of budget cuts and bureaucracy, a park checklist (and

brochure) may be the only park document ever used by a visitor. Therefore, it becomes the sole representative of that park, and should be prepared and published in a professional manner.

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