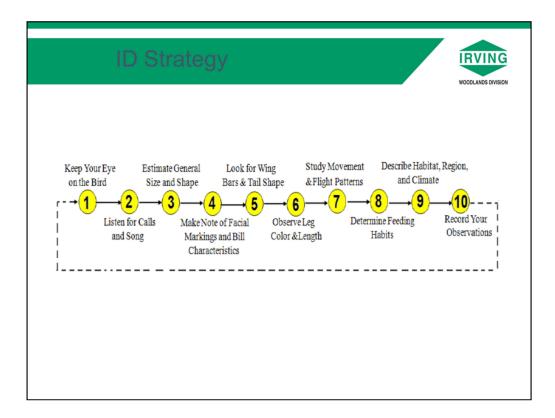


There are roughly 420 species of birds in NB over the course of a year. How do you narrow down the birds identity, especially when a lot of the time you only have a short period of time to observe before they take off?



<u>Helpful Hints:</u>

1) **Try and put bird in a basic family**. While we likely look at colour first, we'd never compare a reddish duck with a reddish cardinal. Ask yourself, is it a duck, is it a dove, is it a heron, is it a hawk, is it a sparrow, etc. We'll talk about families in a bit when we discuss Field Guides

2) What is its size ?- compare it to a familiar bird (ie crow, robin, chickadee). This narrows down your options considerably

3) **What is its shape?** Slender like a Heron or chunky like a robin? Long legs?, Bill/beak shape, tail notched or flat across the back?

4) **How does the bird behave?** Pump or wag its tail? Walk down the tree trunk? Does it walk on thr ground or hop? Note these characteristics to narrow down

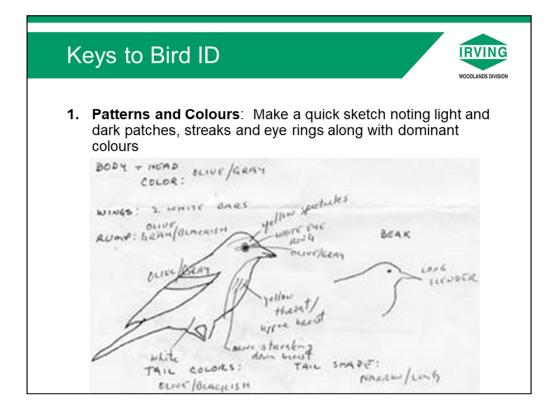
5) **What are its specific field marks?** Streaked chest feather, eye ring? "mask" over its eyes?

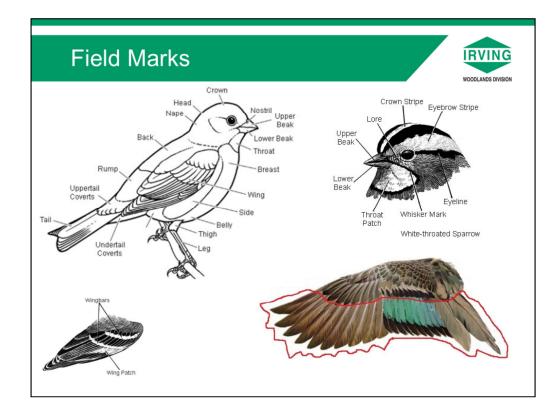
6) **What is its voice like?** Melodic like a warbler?, caw like a crow ? Does it say its name (ie Chicadee-dee-dee)

7) **What does it fly like?** Is it a glider, heavy flapper, does it fly straight ahead or undulating flight?

8) Where is the bird found? Habitat will help narrow down

9) **When is it found?** Do you only see it in the fall and/or spring? Winter only (redpolls are NB winter visitors, coming from the sub-arctic) Look at range maps



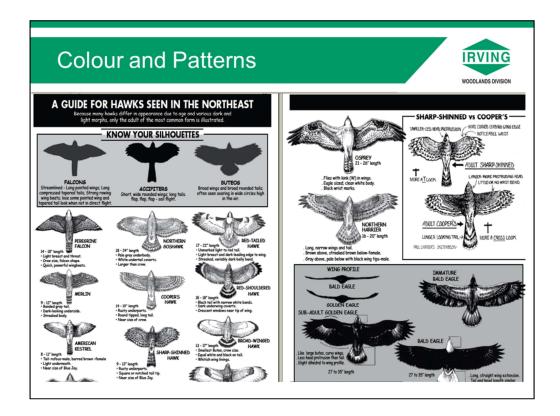


•Make notes of:

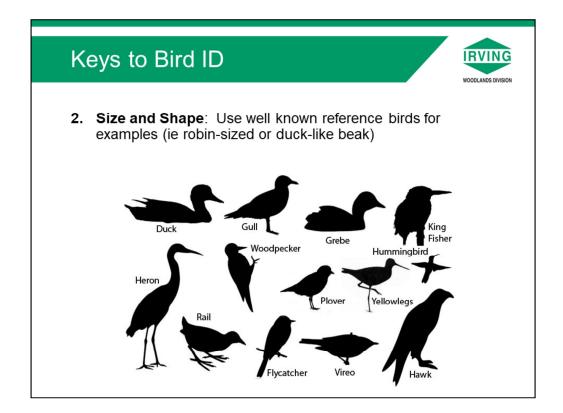
•Wing patches (blocks of color on the wing)

•wingbars (stripes across the folded wing)

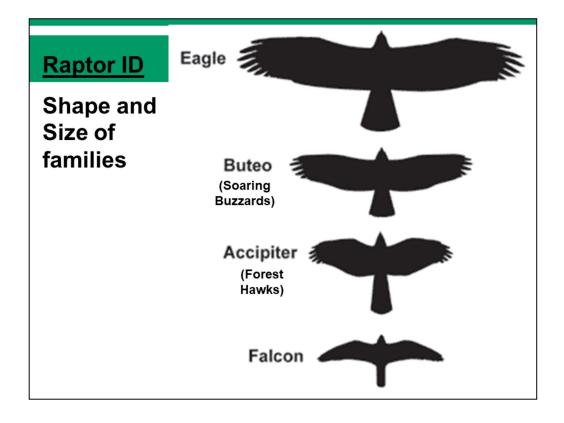
- •Colour of the **Wing lining** (the feathers covering the underside of the wing)
- •Primaries (the long flight feathers on the outer half of the wing) provide thrust
- •Secondaries (the flight feathers on the inner half of the wing)
- •Speculum (the patch of colored secondaries that helps identify many ducks)



Note the underside colour patterns and general shape as it flies over you

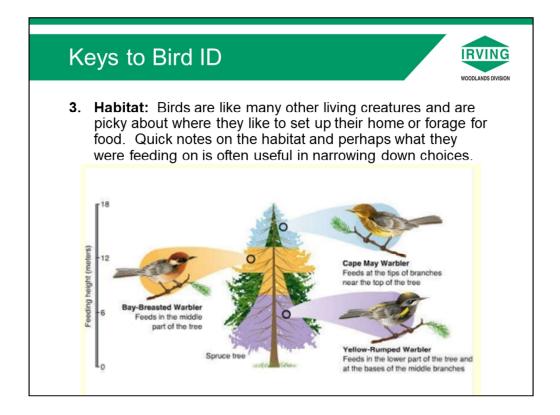


Even if you don't know the actual dimensions of a robin , you can look that up in your guide (23-28 (9-11") long) , then compare all other similar –sized birds.

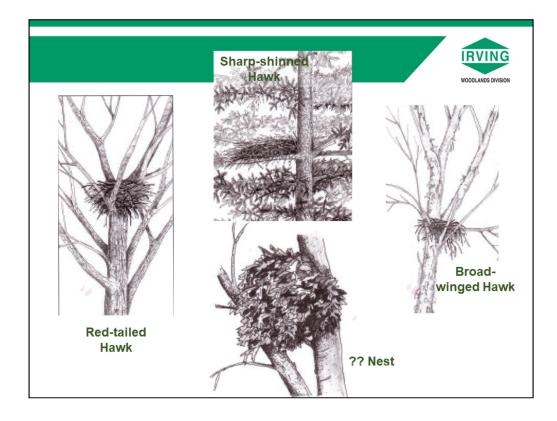


HANDOUT: North East hawk Watch guide. www.battaly.com/nehw

- I. Falcons Long, narrow wings (typically pointed) and narrow tail: Falcons(Kestrel, Merlin, Peregrines, Gyrfalcon)
- II. Accipiters Short, broad wings with rounded tips and long, narrow tail: Sharp-shinned Hawks, Coopers Hawk, Northern Goshawk
- III. Buteos Broad wings, relatively long and rounded at tips. Tails short and broad: Rough-legged Hawk, Red-tailed Hawk, Red-shouldered Hawk, Broad-winged Hawk



Are they flying above a waterbody, swooping around like a swallow, or are they perched on a branch in a mature hardwood forest. Even within warbler family, each species typically will be found gleaning for insects different part of forest and indeed the same tree (see diagram). These warblers have developed niches, so they don't overly compete for resources.



<u>Nesting Preferences</u>: Peterson has a whole guide dedidicated to identifying birds by the nest they make nd where they make it (ie habitat)

Bald Eagle 50-200m from shore. Typically in top of super canopy tree wP

N Goshawk – M/O TH with as low as 10-12 ha of m/o

Red-tailed Hawk – Lg trees near water or forest edge. Hunts open country (meadows, pasture wetlands)

Broad-winged hawk: needs large mixed or decid near water or forest edge

Osprey - at or near water

Red Shouldered Hawk – m/o TH (closure greater than 80%). Re-uses nest. Feeds in wetlands and margins

Kestrel, Barred or Boreal Owl: cavity in 30+ dbh

Merlin sometimes cavity

Sharp-Shinned Hawk: Dense conif or mixed (80% closure) min size of 4ha for nesting

Coopers Hawk: Dense decid or mixed (60-70% closure), min of 6ha. Hunts wetlands, fields, floodplains

Active nests of some species will often have fresh foliage (conifer branches*). After hatch there may be pellets, excrement and prey remains on ground below



•Typically in Ig decid but sometimes in conif (pine,hemlock) at crotch near trunk or limb in lower canopy (open understory).

•Build as high as 23m (75'), with avg ht. of 9.1-12.2m (30-40')

•Frequently returns to same nest site year after year, building on top of old, but will make new. Will occupy other hawk nests.

•Nest diam. 91-122cm (3-4'). Nest ht. 46-89cm (18-35")

•Nesting Season: March-mid August

White line over the eye

Largest of our accipters (raven-sized)

Very territorial; will attack humans near nest tree

Can travel 100kph (60 mph) through forest



•Sometimes you have to be careful as one season it may be a Redtailed hawk nest then the next season become someone elses!

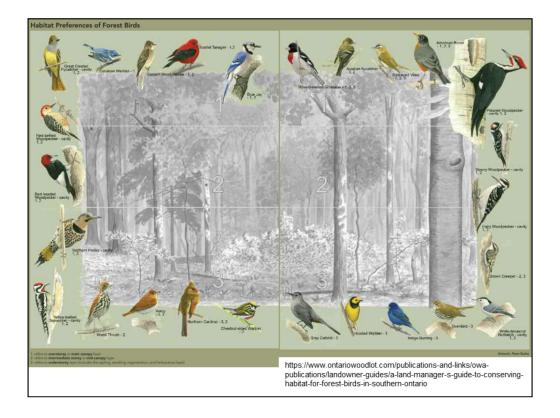
•Great Horned Owl (GHO) are non migratory (and early breeders) therefore can easily take over an old nest in Feb/Mar before othere arrive north.

•Commonly uses the old nest of a large bird such as GBH, crows or hawks.

•May also use cavity of large trees.

•GHO - Earliest species to nest in northeast. Typically laid early to mid-March depending on latitude. Hatch mid to late April.

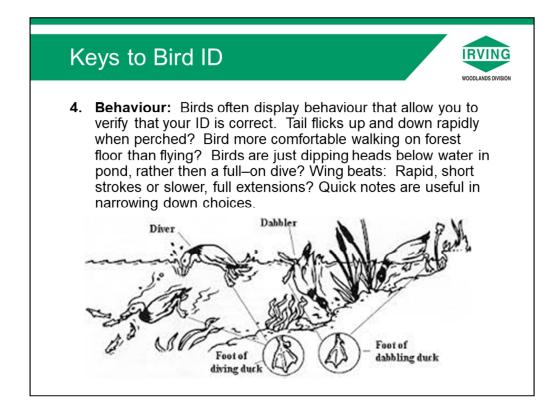
• Short-tailed Shrew skull in pellet (brown incisors – all other rodents have wht to beige/yel incisors



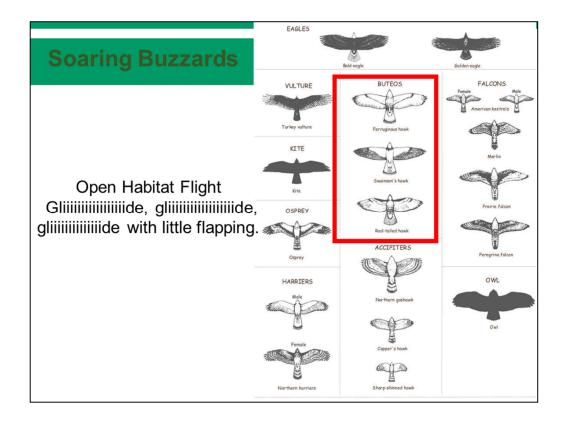
A good chart (although poor scan) of where in the forest you are likely to see some of the more common forest birds.

- 1- Overstory or main canopy layer
- 2 Intermediate or mid canopy layer

3 – Understory layer which includes sapling, seedling, regeneration and herbaceous layer



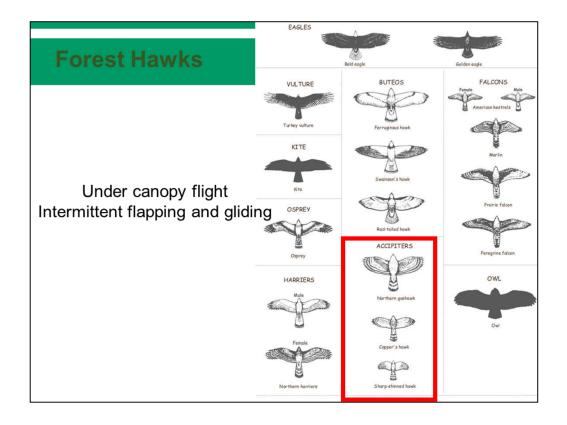
Grade 4- Some of you would have taken a Ducks Unlimited Project Webfoot field trip and learned about dabbling ducks vs divers and some of their other unique behaviour.



HANDOUT: North East hawk Watch guide. www.battaly.com/nehw

Soaring Buzzards (Buteos): Long, wide wings and short, broad tail. Built to catch thermals/updrafts and minimize flapping. Generally found in more open areas

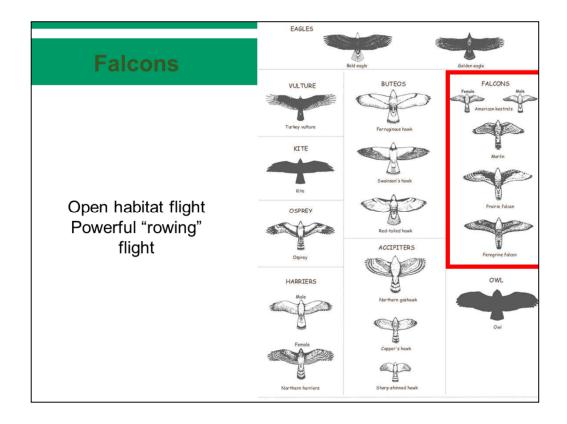
Diet: Hare, rodents, snakes, small birds



Forest Dwelling Hawks (Accipters): Short, rounded wings and long narrow tail. Built for rapid flight and quick turns, but speed not sustainable.

Under canopy flight: intermittent flapping and gliding

<u>Diet:</u>Birds



Falcons: Long pointed wings and long tail. Fast. Generally more open habitat.

Open habitat flight: Powerful "rowing" flight

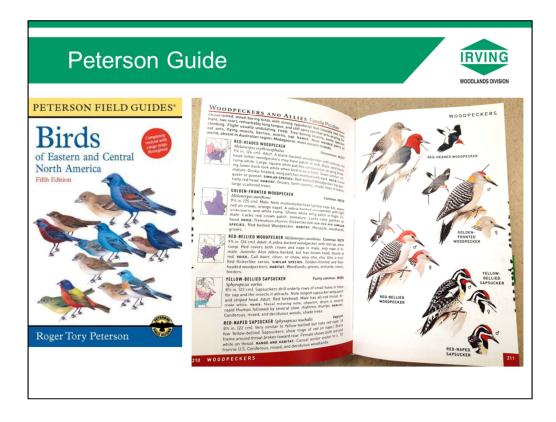
Diet: Birds



A good guide, like those listed on the nex slide will provide notes on these key identifying features (as well as songs & calls)



There are a number of very good general bird guides available. IMO – some are better for beginners than others. Here are my thoughts on the top 4 guides for eastern NA.



I like Peterson Guides for several reasons...

1) For each bird, there are arrows pointing to the most important field marks for identification.

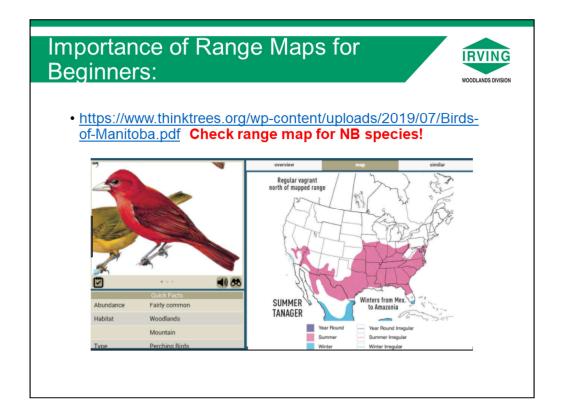
2) The font size of the descriptions are larger and easier to read than National Geographic's.

3) I also like how Peterson lists anbundance (Common, Uncommon, scarce, etc) plus categories of voice, similar species, and habitat are bolded and described within the description

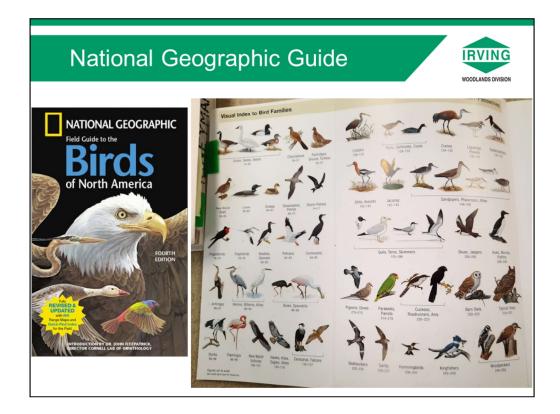
4) Peterson paintings are superior to National Geographics (IMHO) paintings.

5) Has thumbnail range maps on page with bird AND more detailed range maps with notes at the end of the book

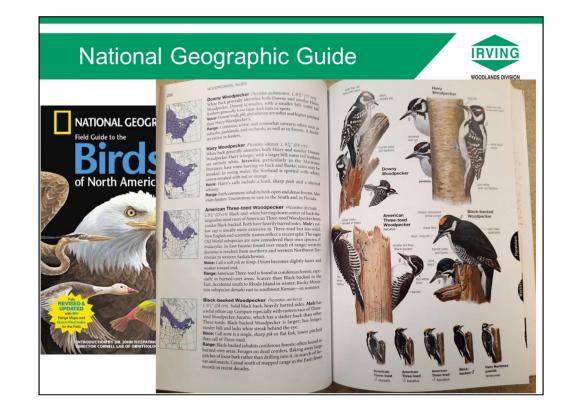
BUT It **does not** have a visual family index to help guide you in you choices. You need to already know these and then thumb thru to the right section of the book.



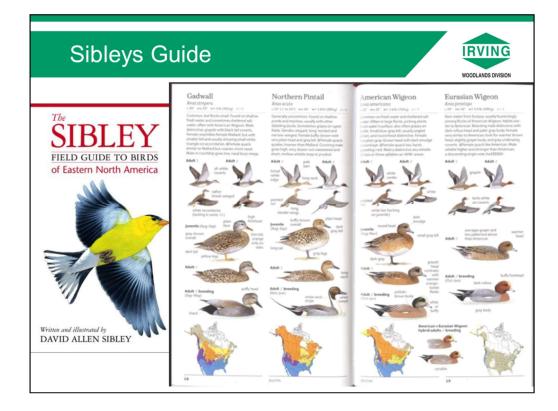
Some field guides are better than others in terms of being able to key out species and sub-species. If in doubt between two, **it may be worthwhile to look at the small range maps** typically provided. This MAY help you decide.



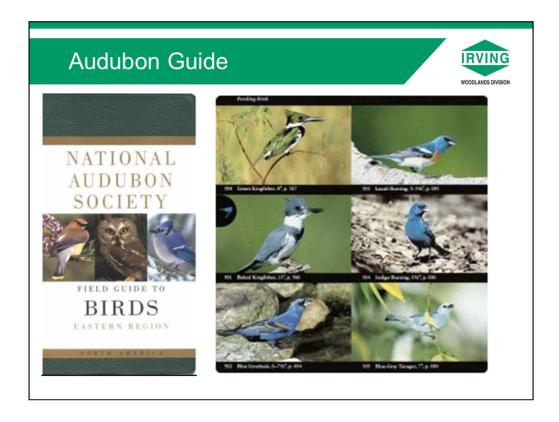
Acceptable paintings of birds and good range maps and descriptions but for beginner, the incorporation of the visual family index to narrow down where to look for your bird within the book. For a beginner, this will make for quicker ID



Because of the quick visual reference guide to families at the start of the book, this would be the pocket guide I would recommend to those just getting into the business.



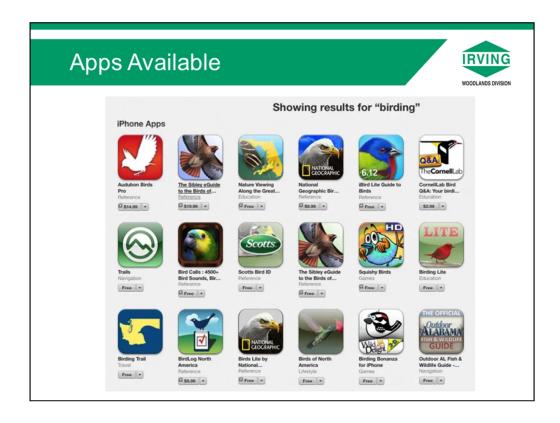
Although favoured by more seasoned birders for their stunning paintings, good descriptions and great range maps, it is a guide that assumes you know bird families well enough that you can flip through quickly to your bird with that knowledge. Most of you are just getting to know your families. Go with Nat. Geographic guide



If you're going to purchase one field guide, **I** *don't* **recommend** one that only has actual photographs such as Audubon's or Stokes.

In a photo of a bird, you are seeing one individual of that species, in one light condition, in one molt stage, etc.

It's also difficult to see field marks on photographs. Use these guides only as a secondary source.



Lots of apps available. I don't use any except of for a bird song recognizer so I can't comment on how good they are. I do see some familiar titles and if you have the opportunity to carry around a national Geographic Guide on your phone, I'd say go for it. Likely cheaper than book, always available, actual songs and calls to compare and more compact.



Songs are typically a specialized series of notes that are used to <u>attract a mate or</u> <u>establish a territory</u>. Birds that use song are normally ones that forage or nest in areas of low long range visibility (ie in underbrush of forests, meadows with tall grass, etc). There are a number of birds that produce little to no song. Birds that are normally found on beaches, rocky shores or even lakes aren't normally known for their songs because the open areas allow them to use sight to attract mates. Herons, ducks and cormorants are good examples of "song-less" birds. **Chicadee – Cheeseburger is song**

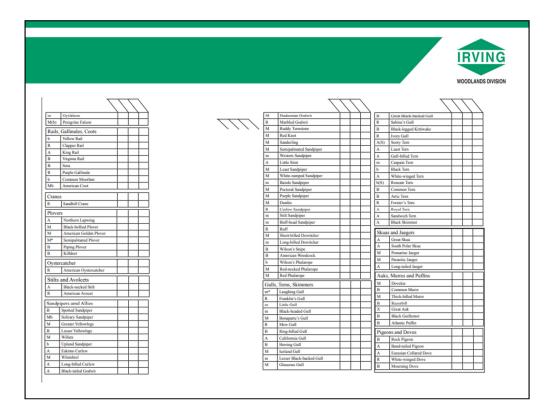
Calls are typically a less complex series of notes that are used as <u>alarm signals</u>, <u>maintaining a flock</u> while flying or foraging and general communication over distance. <u>Chickadees produce two types of alarm signals</u> in response to predators depending on the situation: when flying raptors are detected, chickadees produce the "seet" alarm call. In response to a perched or stationary predator, they produce the "chick-a-dee" call. Chickadees also vary the nature of their calls to communicate even more information about the potential threat. The number of "D" notes in the "chick-a-dee" call varies with the perceived risk, being greatest when the detected predator represents the highest risk to the chickadee.

Chicadee-dee-dee is an alarm call. Tset, tset is a gathering call.



Recording	VO	ur Fi	in) C	10						IRV	'IN	C
Recording	уU			IC.	10								
											WOODLA		/1010
		~		<u> </u>	\ \		<u></u>				TOODER		1310
New Brunswick Bird Checklist (as of 2010)			/	/			\	///			//	$\langle \rangle$	1
	Mb C	Gadwall		Ľ	\square	В	Red-throated Loon		M	Great Blue Heron	\rightarrow	\rightarrow	\rightarrow
is checklist includes all 411 bird species currently ac-	m E	Eurasian Wigeon				A(S)	Pacific Loon		m	Great Egret		++	-
oted by the New Brunswick Bird Records Committee	B /	American Wigeon				B	Common Loon		a	Little Egret			_
BBRC). The names are those adopted by the American	B	Amer. Black Duck					1		m	Snowy Egret			-
nithologists' Union (AOU) as of 2006. Observations of	B	Mallard		-		Greb			m	Little Blue Heron		+	-
y species not on the list or classed as accidental should	BE	Blue-winged Teal		-	\square	в	Pied-billed Grebe		R	Tricolored Heron		+	-
documented by sending written details, photos, etc.		Cinnamon Teal		-	\vdash	M =	Homed Grebe		m	Cattle Egret		+	-
the N.B. Bird Records Committee (address and forms		Northern Shoveler		-	\vdash	M	Red-necked Grebe		B	Green Heron	_	+	-
nilable at http://personal.nbnet.nb.ca/maryspt/BRC/in-	-	Northern Pintail		-	\vdash	A(S)	Eared Grebe		B	Black-corwned Heron		+	-
s.html).		Garganey		-	\vdash	A	Western Grebe		R	Yellow-crowned Heron	_	+	-
		Green-winged Teal		-	\vdash	Flam	-		ĸ	1enow-crowned Heron			_
ame:	-	Canvathack		-	\vdash		Greater Flamingo		Ibis				
ateLocation				-	\vdash	A(0)	Greater Flamingo		A	White Ibis			_
ate- Location-		Redbead		-	\vdash	Albat	rosses		m*	Glossy Ibis			_
ate- Location-		Ring-necked Duck		-	\vdash	A	Yellow-nosed Albatross		Stork				-
egend:		Tufted Duck		-	\square	Euler	ars and Shearwaters			Wood Stork	_		_
egend: - Accidental (records in no more than 5 years of 50)		Greater Scaup		-		M	Northern Fulmar	\rightarrow	A	Wood Stork			_
Breeds annually - uncommon to numerous		Lesser Scaup		<u> </u>	\square				Ame	rican Vultures			
- breeds annually - rare	-	King Eider		<u> </u>	\square	M	Greater Shearwater		R	Black Vulture			_
- infrequent or exceptional breeder (in last 50 years)	-	Common Eider				M	Sooty Shearwater		Mb	Turley Vulture		+	-
- Migrant - uncommon to numerous		Harlequin Duck			\square	м	Manx Shearwater						=
 migrant - rare but annual Very rare (not excepted annually) 		Labrador Duck				Storn	petrels		_	ey, Hawks, Eagles	_	+	_
- Origin debatable		Surf Scoter				M	Wilson's Storm-Petrel		B	Osprey	_	+	
- Sight record only		White-wing Scoter				B	Leach's Storm-Petrel		в	Bald Eagle			
Extinct		Black Scoter				в	Leach's Storm-Petrel		в	Northern Harrier		+	
Former breeder		Long-tailed Duck				Tropi	cbirds		В	Sharp-shinned Hawk		+	_
		Bufflehead				A	Red-billed tropicbird		b	Cooper's Hawk	_		
	-	Common Goldeneye				-			в	Northern Goshawk			
		Barrow's Goldeneye					ies and Gannets		ъ	Red-shouldered Hawk			
		Hooded Merganser				M*	Northern Gannet		в	Broad-winged Hawk	_		
		Common Merganser				Pelica	ins		A	Swainson's Hawk			
	B F	Red-breasted Merganser				R	Amer. White Pelican		в	Red-tailed Hawk			
	M* F	Ruddy Duck				A	Brown Pelican		M	Rough-legged Hawk			
	Pharante	Grouse, and Allies		-			Diving I Cucou		m	Golden Eagle			
		Gray Partridge		-	\vdash	Corm	orants		Falco				
		Ring-necked Phesant		-	\vdash	в	Double-crested Comorant		A(O)	Crested Caracara	_	+	_
		Ruffed Grouse		-	\vdash	M=	Great Cormorant					+	_
	-	Ruffed Grouse		-	\vdash	Harr	as and Bitterns		A	Eurasian Kestrel	_	+	_
	BS	pruce Grouse				B			-	American Kestrel	_	+ +	_
	Loons					-	American Bittern		В	Merlin			_
Nature NB						m*	Least Bittern						

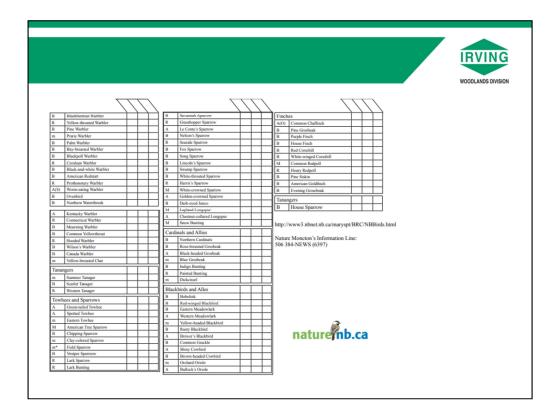
Page 1 of 4



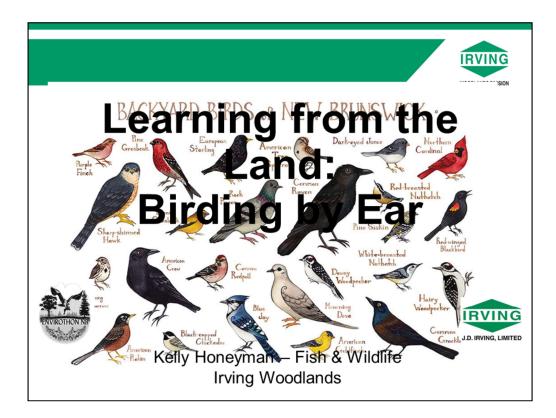
Page 2 of 4

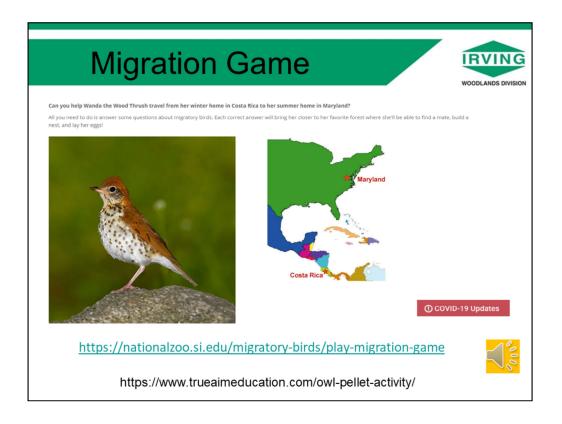
													-		
														///	
													IK	VII	NU
													-		-
													WOODL	ANDS [DIVISIO
	<u>, , , , , , , , , , , , , , , , , , , </u>	_		<u></u>	<u> </u>	<u> </u>			· · · ·	<u> </u>		~	<u> </u>	_	
		//				/				())				//	
X-	Passenger Pigeon	\rightarrow	<u>ا</u>	Amer, Three-toed Woodpecker	\rightarrow	\rightarrow	\rightarrow	Larks		$\rightarrow \rightarrow \rightarrow$	B	Viviry	\rightarrow	\rightarrow	7
_		++-	B	Black-backed Woodnecker	-		Н	B	Horned Lark	+++	m	Gray-cheecked Thrush	+		-
Cuck		\vdash	B	Northern Flicker	-		Н			++	в	Bicknell's Thrush	+		-
m	Yellow-billed Cuckoo	++	В	Pileated Woodpecker			\square	Swall			В	Swainson's Thrush			1
В	Black-billed Cuckoo		Turne	t Flycatchers	-	<u> </u>	=	B	Purple Martin	+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	в	Hermit Thrush			
Barn	Owls		B	Olive-sided Flycatcher	-		-	B	Tree Swallow	+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	В	Wood Thrush			
R	Barn Owl		B	Eastern Wood-Pewee	-		-	b B	N. Rough-winged Swallow	+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	٨	Fieldfare			
Owls			B	Yellow-bellied Flycatcher	-		-	B	Bank Swallow Cliff Swallow	+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	Α	Redwing			
R	Eastern Screech Owl		A	Acadian Flycatcher	-		-	A	Chirl Swallow Cave Swallow	+++	В	American Robin	+	_	_
B	Great Horned Owl		B	Alder Flycatcher	-		-	A	Cave Swanow		R	Varied Thrush			
М	Snowy Owl		в	Willow Flycatcher	-			Titmi	ce		Mock	cers			٦.
M*	Norhtern Hawk Owl		в	Least Flycatcher	-			в	Black-capped Chicadee	+	В	Gray Catbird			1
٨	Burrowing Owl		в	Eastern Phoebe	-			B	Boreal Chicadee	+	В	Northern Mockingbird			1
в	Barred Owl		R	Say's Phoebe				<u> </u>			Α	Sage Thrasher			1
R	Great Gray Owl		Α	Ash-throated Flycatcher				Nuth	atch		b	Brown Thrasher			
В	Long-eared Owl		в	Creat-cresterd Flycatcher				в	Red-breasted Nuthatch		Starli	ngs			
В	Short -eared Owl		Α	Sulfur-bellied Flycatcher				В	White-breasted Nuthatch			European Starling	+ +	-	-
Goat	suckers		m	Western Kingbird				Creer	NetS		Pipits		+	<u> </u>	=1
в	Common Nighthawk		В	Eastern Kingbird	-			в	Brown Creeper		M	Amercan Pipit	+		-11
Α	Cheuk-will's-widow		R	Scissor-tailed Flycatcher	-			Wren		+++					=
В	Whip-poor-will		A	Fork-tailed Flycatcher				R	Carolina Wren	+ $+$ $+$	Waxy				
Swift	ts		Shrik	25				R A(S)	Carolina Wren Bewick's Wren	+	М	Bohemian Waxwing			_
в	Chimney Swift		R*	Loggerhead Shrike				m*	House Wren	+	В	Cedar Waxwing			
	mingbirds	 	М	Northern Shrike				B	Winter Wren		Wood	1 Warblers			
A		+	Vireo					R	Sedae Wren	+	m	Blue-winged Warbler			1
B	Broad-billed Hummingbird Ruby-throated Hummingbird	+		White-eyed Vireo		-	Н	в	Marsh Wren		R	Golden-winged Warbler			
A	Black-chinned Hummingbird	++		Yellow-throated Vireo			Н	King		<u>+</u>	В	Tennessee Warbler			
A	Rufous Hummingbird			Blue-headed Vireo				B	Golden-corwned Kinglet		m	Orange-crowned Warbler			
_				Warbling Vireo				B	Ruby-crowned Kinglet	+++	в	Nashville Warbler	+	\rightarrow	4
	fisher	\vdash		Philadelphia Vireo						+++	В	Northern Parula	+	\rightarrow	-
В	Belted Kingfisher			Re-eyed Vireo					lers and Gnatcatchers		B	Yellow Warbler Chestnut-sided Warbler	+	\rightarrow	-
Wood	dpeckers		Jays					m	Blue-gray Gnatcatcher		B	Chestnut-sided Warbter Magnolia Warbler	+	+	-
m=	Red-headed Woodpecker		В	Gray Jay			П	Thrush			B	Cape May Warbler	+	+	-
m	Red-breasted Woodpecker		в	Blue Jay					Northern Wheatear		A	Black-throated Gray Warbler	+	+	-
В	Yellow-bellied Sapsucker		A(0)	Black-billed Magpie					Stonechat		B	Black-throated Green Warbler	+	+	-
В	Downy Woodpecker		в	American Crow					Mountain Bluebird		A	Townsend's Warbler		+	-
B	Hairy Woodpecker		B	Common Raven					Townsend's Solitaire		Δ	Hermit Warbler	+ +		-

Page 3 of 4



Page 4 of 4





Note Sound – Is this a song or a call?

