

KEY TO BIRDS IN FLIGHT

(Covering the more common summer birds of
the Douglas Lake region)

Harley P. Brown

1944

Problem in Ornithology 119

University of Michigan

Biological Station

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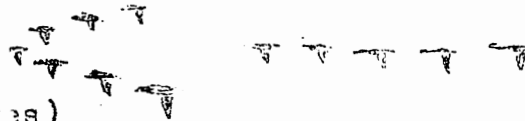
This key represents an attempt to aid the student in field identification. It is designed for use in conjunction with Peterson's Field Guide to the Birds, and contains page references to this manual. The key is an experiment, the value of which is to be determined by application. If it but succeeds in making the observer more aware of flight characteristics, it may be worth the effort.

The following standards of comparison are employed; crow, pigeon (the common domestic or feral pigeon), robin, and sparrow (the common English or House Sparrow). Symbols and abbreviations are as follows: ± -more or less, relatively; ♂ -male; ♀ -female; ad -adult; imm -immature; prob -probably; us -usually.

I. Birds in a flock (organized group, often with a leader)

A. Birds crow-size or larger

B. Flock in V-formation or line



C. Birds duck-size; (us in lines)

1. Flying low over water; body, head, and tail stretched, horizontal; flight rapid



Mergansers p.32

- 1a. Us high in the air; body tilted; body dark



prob Black Duck p.21

Ca. Birds goose-size; (often in V-formation)

1. Birds ± completely black; tail long; wingbeat rapid; neck held slightly above the horizontal



Double-crested Cormorant p.9

- 1a. Birds not completely black; tail short



prob Canada Goose p.18

Ba. Flock compact or stringy, but not in formation

1. Body, head, and tail stretched, horizontal; flight rapid and direct; (flying low over water)



Mergansers p.32

1a. Body us ±tilted, not so stretched, or, if so, flight
erratic, rather than steady and direct
prob Surface-feeding Ducks p.20

Aa. Birds smaller than crow-size ("blackbirds")

1. Flock ± compact, turning etc. in unison; wingstrokes
rapid; tails short

Starlings p.117

1a. Flock ± loose, stringing out; wingstrokes moderate;
tails not noticeably short; (often several species in one
flock)

2. Tails conspicuously long; flight ± even; (birds com-
pletely blackish)

prob Bronzed Grackle p.141

2a. Tails of moderate length; flight ± undulating;
(birds not completely blackish, tho they may appear so)

3. Birds black with red on wings, or streaked brown;
robin-size

Redwing p.139

3a. No red; body black (with brown head) or gray;
sparrow-size or a little larger

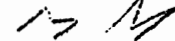
Cowbird p.142

II. Birds not in organized flock (may be congregated in a group)

A. Associated with water

B. Larger than robin

C. Graceful, ± soaring (gulls and terns)


D. Tail forked (terns) 

1. Gull-size (about crow-size)


Caspian Tern p.78

1a. Pigeon-size or smaller

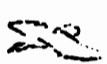
2. Tail deeply forked; about pigeon-size (but
slimmer); color light except black top of
head)

 Common Tern p. 76

2a. Tail only moderately forked; smaller than
pigeon; dark or pied; (us about marsh)

 Black Tern p.79

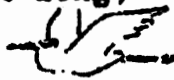
Da. Tail not forked

 Gulls p.71-72

Ca. Not noticeably graceful or soaring (but may glide,
e.g. Great Blue Heron)

D. Neck S-shaped, or seeming short and pouched beneath;
wings bending downward; feet trailing in rear

1. Wingstroke slow, easily counted; bird large (over
three feet long)



Great Blue Heron p.11

1a. Wingstroke moderately rapid; bird less than
three feet long

2. Crow-size or smaller

3. Black back, large buffy wing-patch;
(about pigeon-size; us. flushed from
marsh reeds)

Least Bittern p.14

3a. Uniformly dark above (not black);
(about crow-size; often in trees or bushes)

Green Heron p. 13

2a. Larger than crow-size

3. Wing-tips black, rest of body yellowish
brown; (wingstroke rapid)

American Bittern p.14

3a. Wing-tips not black; (either white below
with black back and gray wings, or all
brownish [imm]); wingstroke slow;
chunky, short-legged appearance)

Black-crowned Night Heron p.13

Da. Neck not S-shaped in flight

F. Large (goose-size or larger)

1. Legs long and trailing; wingstrokes easily
counted



Sandhill Crane p.48

1a. Legs inconspicuous; wingstrokes too rapid to
count accurately

2. Tail long; dark all over; neck held slightly
above the horizontal



Double-crested Cormorant p.9

2a. Tail short; not dark all over

3. Black above, white below; cheek and chin black

Common Loon p.1

3a. Gray above; neck black; cheek and chin white

Canada Goose p.18

Ea. Medium or small (duck-size or less)

1. Body, head, and tail stretched, horizontal; (flight rapid and direct)

Mergansers p.32

1a. Body etc. tilted

2. Rising from water surface; us crow-size or larger (ducks)

3. Take-off from water airplane-like (gradual); us. on open water (lakes, rivers)

Diving Ducks p.25

3a. Take flight by leaping up from water surface; us on small bodies of water (marshes, ponds, creeks)

Surface-feeding Ducks p.20

2a. Not rising from water surface; us smaller than crow; (shorebirds, et al.)

3. Distinctly aerial (not alighting); slender wings with white bars; us crepuscular; gray

Nighthawk p.91

3a. Not distinctly aerial, or, if seeming so, with two dark bands across white breast

4. Zig-zag flight; us flushed from boggy meadow

Wilson's Snipe p.56

4a. Flight direct

5. Head very large; (often flying from tree; us uttering a rattling call; one or two breast bands; may hover)

Belted Kingfisher p.93

5a. Head not noticeably large (shorebirds)

6. Breast and belly mostly light

7. Two black breast-bands; tail reddish; (about robin-size; often crying "killdeer" or "killdeer")
Killdeer p.54

7a.No breast-bands; tail whitish or brownish

8. About robin-size; (rump white)
Lesser Yellowlegs p.59

8a.About pigeon-size
prob Greater Yellowlegs (p.59) or plover(p.55)

6a.Breast and belly black

7. Tail and rump whitish; axillars ("armpits" of wings) black
Black-bellied Plover p.55

7a.Tail and rump brownish; axillars white
Golden Plover p.55

Ba.Robin-size or smaller

C. Tail forked; (flight graceful)

1. Head appearing short and blunt



Swallows p.102

1a.Head \pm tapering to a point; (us about marsh)



Black Tern p.79

Ca.Tail not forked

1. Wings not pointed; (black with red on wings or all streaked brownish; us about marsh)
Redwing p.139

1a.Wings pointed; (us whitish below)

2. Throat or breast \pm banded with black (plovers)

3. Two such bands; about robin-size
Killdeer p.54

3a.One such band; smaller than robin
Piping or Semipalmated Plover p.53

2a.No black band on breast or throat (sandpipers)

3. Wingstroke short, stiff, below the horizontal; (brownish above, whitish below...very common)
Spotted Sandpiper p.58

3a. Wingstroke $\frac{1}{2}$ deep-sweeping

4. No wing-stripe

5. Whitish rump and tail; (yellow legs)
Lesser Yellowlegs p.59

5a. Rump and legs dark

6. Breast whitish; blackish above; tail
barred

Solitary Sandpiper p.58

6a. Breast streaked; streaked brownish
above; tail not barred

Pectoral Sandpiper p.60

4a. Whitish wing-stripe

5. \neq Clear white below; wing-stripe flashing
white; larger than sparrow

Sanderling p.66

5a. Streaked; wingstripe not very conspicuous;
us sparrow-size

"Peeps": Least, Baird's or
Semipalmated Sandpiper pp.61-64

Aa. Not particularly associated with water

B. Distinctly aerial (seldom alighting; \neq graceful) (swifts,
swallows, hummingbirds, hawks, eagles, etc.)


C. Crow-size or larger

1. Head noticeably small; blackish; tail \neq long; us
soaring very high, with wings held above the hori-
zontal



Turkey Vulture p.34

1a. Head not noticeably small

2. Tail $\frac{1}{2}$ long, not fan-shaped 

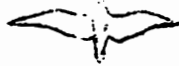
3. Rump white; (us gliding low over fields, wings
held above the horizontal



Marsh Hawk p.41

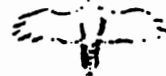
3a. Rump not white

- 4. Wings long and pointed; wingbeats quick and deep



Duckhawk p.43

- 4a. Wings short and rounded



- 5. About crow-size; (us about woods)

Cooper's Hawk p.36

- 5a. Larger than crow

Goshawk p.35

- 2a. Tail = short and/or fan-shaped



- 3. Large (wingspread over four feet); wings relatively long and narrow; us near water; head us white

- 4. Breast and belly white; wings = kinked



Osprey p.42

- 4a. Breast and belly dark; wings = straight



Bald Eagle p.41

- 3a. Size medium; (wingspread less than four feet; wings relatively broad)

- 4. Tail short and broadly fanned



- 5. Tail with heavy dark bands; about crow-size

Broad-winged Hawk p.38

- 5a. Tail with no bands or inconspicuous ones; us streaked breast-band; larger than crow

Red-tailed Hawk p.36

- 4a. Tail longer, not broadly fanned; us light spot toward tip of wing



Red-shouldered Hawk p.37

Ca. Smaller than crow

- 1. Wingbeat so rapid as to render wings ± invisible; may hover or fly backward; very small; humming

Ruby-throated Hummingbird p.93

- 1a. Not as above

- 2. Tail very short; wingbeats very rapid, alternate; about sparrow-size; black



Chimney Swift p.92

2a. Tail relatively long; wingbeats not alternate

3. Robin-size or larger

4. Wings † long, slender, and pointed

5. Flashing white wing-bar; flight erratic;
darting about, often diving; († crepuscular)
Nighthawk p.91

5a. No white wing-bar

6. Rufous red tail and upperparts; often
hovering

Sparrow Hawk p.43

6a. No rufous on tail or upperparts; speedy;
gray or brown above

Pigeon Hawk p.43

4a. Wings † short and rounded; tail † square-
tipped

Sharp-shinned Hawk p.36

3a. Smaller than robin-size; tail forked

4. Tail deeply forked, with white spots; blue-
black above, reddish below



Barn Swallow p.102

4a. Tail only moderately forked

5. Brown breast-band

Bank Swallow p.102

5a. No breast-band

6. Light rump and forehead

Cliff Swallow p.103

6a. Dark rump and forehead

7. Blue-black all over

ad ♂ Purple Martin p.103

7a. Light below, dark above

Tree Swallow, Rough-winged Swallow,
or Purple Martin (p.102)

Ba. Not distinctly aerial; often alighting

C. Head very large and rounded; neckless, mothlike appearance;
nocturnal, us seen flying by day only when disturbed (owls)



1. About robin-size; (reddish brown or gray)

Screech Owl p.86

1a. Crow-size or larger

2. About crow-size; face white, heart-shaped; whitish below, buffy above

Barn Owl p.86

2a. Larger than crow; face not white or heart-shaped

3. Brownish; streaked breast, barred belly; white throat patch

Great Horned Owl p.87

3a. Grayish; barred breast, streaked belly

Barred Owl p.88

Ca. Head not exceedingly large and rounded

D. Pigeon-size or larger

1. Like shorebirds, body slim, wings \pm pointed; buffy brown; pigeon-size; about open areas

Upland Plover p.57

1a. Not as above

2. All black; (often flying from tree-tops, cawing)

Crow p.104

2a. Not all black

3. Black and white with red crest; us among trees of forest; often undulating

Pileated Woodpecker p.94

3a. Brownish; no red crest; us flying from ground upon being disturbed; flying \pm low; \pm whirring

4. Tail pointed; us in \pm open country

Ring-necked Pheasant p.47

4a. Tail fan-shaped; us in woodland

Ruffed Grouse p.44

Da. Smaller than pigeon

E. About \pm open country or marsh (or low bushes)

F. Larger than sparrow

G. Tail long; about robin-size or a little larger

- 1. Tail wedge-shaped, tapering to a point; us
whistling; at take-off



Mourning Dove p.82

- 1a. Tail tip rounded or blunt



- 2. Black or streaked brown

- 3. All blackish; flight \pm even; larger than robin

Bronzed Grackle p.142

- 3a. Black or brown with red on wing or all streaked brown; flight = undulating; robin-size

Red-wing p.139

- 2a. Gray or gray and white

- 3. \pm Uniformly gray; (with black cap and rufous under tail-coverts)

Catbird p.110

- 3a. Largely gray and white

- 4. \pm Slender; no mask; two white wing-bars; \pm floppy

Mockingbird p.110

- 4a. \pm Chunky; black mask; one white wing-bar; swoops, flies low and straight, rises abruptly to perch

prob Migrant Shrike p.117

- Ga. Tail \pm short or of medium length

- 1. Wings \pm long and pointed (shorebird-like); buffy brown; \pm long-necked

Upland Plover p.57

- 1a. Wings \pm rounded

- 2. Body chunky; tail widely spread; wingbeats rapid

- 3. White flashes on sides of tail; breast yellow; (alternates short glides and rapid wingstrokes)

Eastern Meadowlark p.138

- 3a. Sides of tail dark; breast brownish; whirring; often in groups

Bob-white p.47

2a. Body not noticeably chunky; tail not very widely spread

3. Belly whitish, tail appearing dark with light edges; flight + bouncing
Prairie Horned Lark p.101

3a. No such contrast between belly and tail

4. Tail noticeably short; bill \geq long; wingbeats rapid; blackish or gray
Starling p.117

4a. Tail not noticeably short; bill short; wingbeats moderate

5. Allblack with brown head or all gray
Cowbird p.142

5a. Yellowish brown (streaky above), or black below, whitish above
Bobolink p.138

Fa. Sparrow-size or smaller

G. Outer tail-feathers white

1. Slate-gray; belly white
Slate-colored Junco p.156

1a. Brownish

2. Flight decidedly undulating; (often about plowed fields, shore flats)
American Pipit p.115

2a. Flight not very undulating; (often about high dry fields, orchards, etc.; chestnut patch on wing-bend)
Vesper Sparrow p.155

Ga. Outer tail-feathers not white

1. Black below, whitish above
ad ♂ Bobolink p.138

1a. Not black below

2. About edge of marsh, among sedges, grasses, or low bushes

3. Yellow breast; olive above; (belly whitish)
Northern Yellowthroat p.135

3a. Grayish breast; reddish brown above
Swamp Sparrow p.160

2a. Not about marsh edge

3. Yellow or greenish with black and white on wings; flight undulating
Goldfinch p.148

3a. Brownish; no noticeable black and white on wings

4. In wet meadow, flitting among reeds or shrubs; small and buffy
Short-billed Marsh Wren p.109

4a. In † dry field or near forest, or, if in wet meadow, sparrow-size and heavily streaked above

5. Pumps tail in flight; breast heavily streaked; tail rounded; (us near edge of woods)

Song Sparrow p.161

5a. Not as above, or, if seeming similar, with slightly forked tail
Field, Savannah, Chipping, or Grasshopper Sparrows (pp.151-158),
or Bobolink (p.138)

Ea. About trees or large bushes, in woodland areas, or near buildings

F. Larger than sparrow

G. Flight undulating (woodpeckers and waxwings)

H. Brownish

1. White rump; much yellow under wings and tail
Flicker p.93

1a. † Brownish, except for yellow tip of tail
Cedar Waxwing p.116

Ha. Black and white (and red)

1. White-backed
prob Hairy Woodpecker p.95

1a. Dark-backed

2. Head all red; flashing black and white
Red-headed Woodpecker p.94

2a. Head not all red; \pm streaked; longitudinal
white patch on black wing
Yellow-bellied Sapsucker p.95

Ga. Flight not particularly undulating

1. Zooming \ddagger directly up from ground in wet woods;
big head, long bill; brownish
Woodcock p.56

1a. Not as above

2. Darting out after insects, us from a prominent
perch (flycatchers)

3. Blackish and white, with white-tipped tail;
(often about telephone poles and wires)
Kingbird p.97

3a. \pm Olive or grayish

4. Tail rufous; belly yellow; breast gray
(us in woodland)
Crested Flycatcher p.98

4a. Tail drab; belly and breast whitish down
the middle, dark on the sides; (us about
dead tree near brush)
Olive-sided Flycatcher p.100

2a. Not darting out; flight \ddagger direct

3. Tail noticeably short; wingbeats rapid;
(blackish or gray; wings \pm short)
Starling p.117

3a. Tail not noticeably short; wingbeats not es-
pecially rapid

4. Conspicuously colorful (bright red, orange,
yellow, or blue)

5. Blue above

6. Grayish breast; white-tipped tail;
larger than robin
Blue Jay p.103

6a. Reddish breast; tail with no white;
Smaller than robin
Bluebird p.113

5a.No blue in plumage

6. Wings with black

7. Head black; body orange; (often about buildings)

ad ♂ Baltimore Oriole p.140

7a.Head and body scarlet; (us in forest)

ad ♂ Scarlet Tanager p.143

6a.Wings not black

7. Body red

♂ Cardinal p.144

7a.Body yellow below, drab above

prob ♀ or imm oriole or tanager (pp140-143)

4a.Not conspicuously colorful

5. All blackish

6. Tail long; body † slim; about pigeon-size

Bronzed Grackle p.142

6a.Tail of medium length; body † heavy; larger than pigeon-size

Crow p.104

5a.Not all blackish

6. Flight clean-cut, † powerful; wings and tail pointed; whistling at take-off; grayish

Mourning Dove p.82

6a.Flight † robin-like or sparrow-like; somewhat floppy

7. Tail conspicuously long; body † slim

8. Clear whitish below

9. No white in wings; † olive-brown above (cuckoos)

10. Rufous in wings; tail † black and white

Yellow-billed Cuckoo p.85

10a.No rufous in wings; tail † drab, with but little white

Black-billed Cuckoo p.85

9a. White flashing in wings; gray above;
floppy

Mockingbird p.110

8a. Gray or streaked brownish below;
(± floppy)

9. Slate gray; (us about bushes)

Catbird p.110

9a. Red-brown above; streaked below

Brown Thrasher p.110

7a. Tail not conspicuously long; body ± robin-
like or sparrow-like

8. Robin-like appearance

9. White on tail-tip; breast plain;
gray or blackish above

10. Throat dark; breast whitish;
sides reddish; ± slender; (us
about brush)

Red-eyed Towhee p.150

10a. Throat ± light; breast reddish

Robin p.111

9a. No white on tail; breast ± spotted
or streaked; brownish above

Thrushes (pp111---3)

8a. Sparrow-like appearance; ± chunky;
streaked brownish or black and white with
pink on breast; white wing-patch seeming
to whirl

Rose-breasted Grosbeak p.144

Fa. Sparrow-size or smaller

G. Mostly black and white or gray and white; no yellow

1. Gray above, white belly and outer tail-feathers

Slate-colored Junco p.156

1a. Black on head

2. Throat and crown black; gray above; bounding

Black-capped Chickadee p.105

2a. Throat ± light; (us about tree-trunks)

3. Streaked black and white all over

Black and White Warbler p.121

3a. Not streaked; plain below; undulating flight

4. Uniform gray above and on wings; black cap

Nuthatch (p.106)

4a. Black and white above and on wings; (red on head of male)

Downy Woodpecker p.95

Ga. Not mostly black or gray and white

H. Darting out after insects

1. Orange or yellow on tail and wing; flitting

American Redstart p.136

1a. Rather drab

prob Flycatcher (pp.97-101)

Ha. Not as above

I. Brownish

J. About sparrow-size

1. Us near forest floor; (streaked, thrushlike)

prob Ovenbird p.132

1a. Us fairly high among trees or in open area

prob sparrow (pp.155-161),
Indigo Bunting (p.145), or
Purple Finch (p.146)

Ja. Smaller than sparrow

1. Swooping from one tree trunk to base of another trunk; (very inconspicuous); streaked

prob Brown Creeper p.107

1a. Not as above

2. Us near buildings, flitting about

prob House Wren p.108

2a. Us in forest, about tree roots or bushes; short tail; dark; (rarely seen in flight)

Winter Wren p.108

Ia. Not brownish

J. With bright colors obvious

1. Rich blue all over; (us near edge of woods)

ad ♂ Indigo Bunting p.145

1a. Not blue

2. Reddish purple above; flight undulating; (us rather high among trees; about sparrow size)
prob ad ♂ Purple Finch p.146

2a. Not as above; ± flitting

3. Orange, black, and white

4. Orange on tail and wings

Redstart p.136

- 4a. Orange on head and throat

Blackburnian Warbler p.128

3a. No orange evident

4. Yellow below

5. Back yellowish

6. Wings black; flight undulating

Goldfinch p.148

- 6a. ± Yellow all over

Yellow Warbler p.125

- 5a. Back not yellow

6. Tail and wings flashing white

Magnolia Warbler p.125

- 6a. Little white showing

prob Pine or Nashville Warbler
(pp.120,125)

- 4a. No yellow below

5. Yellow on crown, rump, and wings

Myrtle Warbler p.127

- 5a. Not as above; cheek yellow

prob Black-throated Green W. p.128

Ja. Without conspicuous bright colors; ± olive above

1. About sparrow-size; sluggish

prob Red-eyed or Warbling Vireo (pp. 119-120)

- 1a. Us smaller; flitting

prob ♀ or imm warblers (pp.124-137),
or Golden-crowned Kinglet p.114