

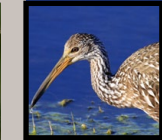
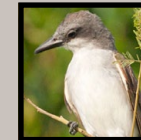
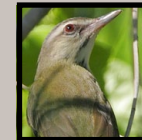
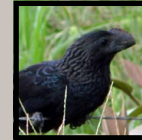
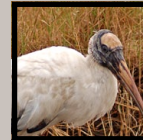
## BIRD SONGS OF FLORIDA

---

Geoffrey A. Keller



Covering over 100 species of birds, including such characteristic Florida species as Wood Stork, Short-tailed Hawk, Limpkin, Smooth-billed Ani, Antillean Nighthawk, Gray Kingbird, Florida Scrub-Jay, and Black-whiskered Vireo, this sound guide is designed as an audio companion to your favorite field guide, as well as a companion to such books as the American Birding Association's *A Birder's Guide to Florida* by Bill Pranty.



The Macaulay Library  
Cornell Lab of Ornithology  
159 Sapsucker Woods Road  
Ithaca, New York 14850  
telephone: 607-254-2404  
email: [macaulaylibrary@cornell.edu](mailto:macaulaylibrary@cornell.edu)  
website: [www.macaulaylibrary.org](http://www.macaulaylibrary.org)

## **BIRD SONGS OF FLORIDA**

*Geoffrey A. Keller*

### *Foreward*

Florida is a unique former paradise, engulfed in monumental change. The Seminoles knew it as an unbroken mosaic of wetlands, scrubs, seashores, prairies, and steamy forests. Mammoth oaks, palms, cypresses, and mahoganies were laced together from the Florida Panhandle to the Keys by a nearly continuous forest of stately pines. A subtropical peninsula attached to a temperate zone continent, Florida served for eons as a prolific reservoir of biological diversity.

Birds have always recognized Florida as a distinctive crossroads between the northlands and the tropics. Resident species are a mix of northern birds at the southern tip of their ranges, tropical species absent from the rest of the continent, and western species isolated by thousands of miles from their main populations. In addition, Florida hosts droves of non-breeding visitors from the frozen forests, shrublands, and prairies each winter and almost equal numbers of summertime breeders that retreat to the tropics as the snowbirds arrive.

Today, the huge trees are gone. Vast wetlands have been leveed or drained, prairie grasses have been replaced by domestic forage crops, and almost every inch of seashore can be viewed from an upper-story window. The visual and biological impacts of explosive human immigration dominate the landscape throughout the peninsula. Beginning when railroads still were the main route in, and exploding after the air-conditioner was invented, Florida has continuously harbored many of the fastest-sprawling cities in the United States. Growth of Florida's human population seems destined to proceed in permanent fast-forward. Some bird species are adjusting to this ever-spreading human landscape. Others, sadly, are slowly perishing in our wake.

As we measure the long-term impact of human growth and industry on the native landscape across our continent, birds increasingly serve at the forefront in the effort. They are diurnal, numerous and conspicuous, ecologically varied, and extremely sensitive to habitat change. Equally important, they are for the most part beautiful and easy for non-specialists to identify—so much so, in fact, that throngs of enthusiastic hobbyists scour the countryside each year in search of them. Naturally, this search is most feverish in the corners of North America where bird diversity is highest. Florida is such a place.

For bird watchers who visit Florida, the experience is always enhanced if they take the time to learn the songs and calls of the birds found there. Some populations of birds in the state have distinctively different song dialects than other birds of the same species living elsewhere in North America. Several reclusive or uncommon species such as Mangrove Cuckoo or “Cape Sable” Seaside Sparrow can be difficult to find without a firm knowledge of their vocalizations. The outstanding collections of bird songs in this guide, recorded by Geoff Keller and others, will help everyone learn these vocalizations and increase their enjoyment and appreciation of one of North America's richest birding areas.

John W. Fitzpatrick  
Louis Agassiz Fuertes Director  
Cornell Lab of Ornithology

### *Acknowledgments*

We extend a heartfelt thanks to the individuals and organizations who generously shared their time, knowledge, and facilities for the making of this audio guide. They include Ted Below, National Audubon Society; Ed Carlson and Andre Breton, National Audubon Society Corkscrew Swamp Sanctuary; Joan Morrison, University of Florida; Stuart Pimm, University of Tennessee; Hillary Swain and Ralph Risch, Archbold Biological Station. The Macauay Library also wishes to acknowledge the assistance of Tom Weber of the Florida State Museum for contributing several important recordings. Oliver H. Hewitt provided Geoff Keller with several excellent recording opportunities and personally made a number of the recordings that appear on this publication. A special thanks to William R. Evans, Rob C. Faucett, and James E. Richardson who pursued several species and sounds that appear on this audio guide only through their efforts.

Gregory F. Budney  
Macaulay Library  
Cornell Lab of Ornithology

Geoffrey A. Keller  
Nashville, Indiana

## Using this audio guide

Covering over 100 species of birds, including such characteristic Florida species as Wood Stork, Short-tailed Hawk, Limpkin, Smooth-billed Ani, Antillean Nighthawk, Gray Kingbird, Florida Scrub-Jay, and Black-whiskered Vireo, this sound guide is designed as an audio companion to your favorite field guide, as well as a companion to such books as the American Birding Association's *A Birder's Guide to Florida* by Bill Pranty.

## Playing recordings in the field

Please use these recordings responsibly. Playing back recordings in the field is known to attract birds, but it can also disturb them. Refrain from using playback near nesting birds or when a bird shows signs of becoming particularly agitated.

## List of songs and calls

The common and scientific names on this list follow *The Clements Checklist of Birds of the World: version 6.5*. All species have a unique track number that permits rapid access. The track numbers precede the species' common name.

## Recordists

Arthur A. Allen, Richard Bradley, Warren Y. Brockelman, Gregory F. Budney, Jeff Cox, William R. Evans, Rob C. Faucett, William R. Fish, William W.H. Gunn, David S. Herr, Oliver H. Hewitt, Geoffrey A. Keller, Peter Paul Kellogg, James W. Kimball, Randolph S. Little, Marion P. McChesney, Kenneth Meyer, Eugene S. Morton, Theodore A. Parker III, Clayton Reeves, George B. Reynard, James E. Richardson, Mark B. Robbins, Paul A. Schwartz, Robert C. Stein, Charles A. Sutherland, and Arnoud B. van den Berg.

## Species

### 1. Bird Songs of California

2. **Mottled Duck** *Anas fulvigula*  
Call; FL

3. **Northern Bobwhite** *Colinus virginianus*  
"Bob-white" call; FL  
Covey call; OH

4. **Pied-billed Grebe** *Podilymbus podiceps*  
Song; SC

5. **Wood Stork** *Mycteria americana*  
Calls and bill clacking; FL

6. **Least Bittern** *Ixobrychus exilis*  
Song; FL

7. **Osprey** *Pandion haliaetus*  
Flight calls near nest; FL

8. **Swallow-tailed Kite** *Elanoides forficatus*  
Call; FL

9. **White-tailed Kite** *Elanus leucurus*  
Calls; FL

10. **Snail Kite** *Rostrhamus sociabilis*  
Call; FL

11. **Bald Eagle** *Haliaeetus leucocephalus*  
Calls; CO

12. **Red-shouldered Hawk** *Buteo lineatus*  
Call; FL

13. **Short-tailed Hawk** *Buteo brachyurus*  
Call; FL

14. **Crested Caracara** *Caracara cheriway*  
Call, rattle call; FL

15. **Black Rail** *Laterallus jamaicensis*  
"Kick-kee-kerr" call; CA

16. **Clapper Rail** *Rallus longirostris*  
"Kek" call; FL  
"Kek-kek-kerr" call; FL  
Grunt call; FL

17. **King Rail** *Rallus elegans*  
"Tic-terr" call; NJ  
"Tic" call; NJ  
Grunt call; FL

18. **Purple Gallinule** *Porphyrio martinica*  
Calls, cackle; FL

19. **Common Moorhen** *Gallinula chloropus*  
"Craw" call, cackle; SC

20. **Limpkin** *Aramus guarana*  
"Scream" call; FL

21. **"Florida" Sandhill Crane**  
*Grus canadensis pratensis*  
Unison call; FL  
Calls; FL

22. **Wilson's Plover** *Charadrius wilsonia*  
Calls; FL

23. **Killdeer** *Charadrius vociferus*  
Alarm calls, trill; FL

24. **Black-necked Stilt**  
*Himantopus mexicanus*  
"Yip" alarm call; SC

25. **Willet** *Tringa semipalmata*  
"Ka-lek," "will-it" alarm calls; FL

26. **Short-billed Dowitcher**  
*Limnodromus griseus*  
Calls; Peru

27. **Long-billed Dowitcher**  
*Limnodromus scolopaceus*  
Calls; KS
28. **Laughing Gull** *Leucophaeus atricilla*  
Calls; FL
29. **Brown Noddy** *Anous stolidus*  
Calls; FL
30. **Black Noddy** *Anous minutus*  
Call; Midway Island
31. **Sooty Tern** *Onychoprion fuscatus*  
Call; FL
32. **Royal Tern** *Thalasseus maximus*  
Call; NJ
33. **Sandwich Tern** *Thalasseus sandvicensis*  
Calls; FL
34. **Black Skimmer** *Rynchops niger*  
Calls; FL
35. **White-crowned Pigeon**  
*Columba leucocephala*  
Song; Cuba
36. **Eurasian Collared-Dove**  
*Streptopelia decaocto*  
Song; Netherlands
37. **White-winged Dove** *Zenaida asiatica*  
Song; FL
38. **Common Ground-Dove**  
*Columbina passerina*  
Song; FL
39. **Yellow-billed Cuckoo**  
*Coccyzus americanus*  
Song, call; FL
40. **Mangrove Cuckoo** *Coccyzus minor*  
Call; FL
41. **Smooth-billed Ani** *Crotophaga ani*  
Calls; FL
42. **Barn Owl** *Tyto alba*  
Hissing call; CA
43. **Eastern Screech-Owl** *Megascops asio*  
Trill song; FL
44. **Great Horned Owl** *Bubo virginianus*  
Song; CA  
Immature call; NE  
“Honk” call; FL
45. **Burrowing Owl** *Athene cunicularia*  
“Ca-hoo” call; ALB  
“Quick, quick” call; FL
46. **Barred Owl** *Strix varia*  
Male song, dueting pair; SC
47. **Common Nighthawk** *Chordeiles minor*  
“Peent” call, “boom” display; FL
48. **Antillean Nighthawk**  
*Chordeiles gundlachi*  
“Pity-pit-pit” call, “boom” display; FL
49. **Chuck-will’s-widow**  
*Caprimulgus carolinensis*  
Song; FL
50. **Whip-poor-will** *Caprimulgus vociferus*  
Call, song; PA
51. **Chimney Swift** *Chaetura pelagica*  
Call (in flight); NY
52. **Red-headed Woodpecker**  
*Melanerpes erythrocephalus*  
“Queark” call, drum; SC
53. **Red-bellied Woodpecker**  
*Melanerpes carolinus*  
“Churr” call; FL  
“Chew” call; FL  
Drum; FL
54. **Downy Woodpecker** *Picoides pubescens*  
Drum; OR  
“Pik” call; FL  
“Whinny” call; IN
55. **Hairy Woodpecker** *Picoides villosus*  
“Rattle” and soft call, tapping; FL  
Drum; FL
56. **Red-cockaded Woodpecker**  
*Picoides borealis*  
Call, chatter call, drum; FL
57. **Northern Flicker** *Colaptes auratus*  
“Wick-wick-wick” call; FL  
“Flicka” call, “clear” call; CO
58. **Pileated Woodpecker** *Dryocopus pileatus*  
Calls; FL  
Drum; FL
59. **Acadian Flycatcher** *Empidonax vireescens*  
Dawn song; SC  
Song, trill; FL  
Call; east TX
60. **Eastern Phoebe** *Sayornis phoebe*  
“Whit” call; FL
61. **Great Crested Flycatcher**  
*Myiarchus crinitus*  
Dawn song; FL  
Calls; FL
62. **Brown-crested Flycatcher**  
*Myiarchus tyrannulus*  
“Whit” call, trill; AZ
63. **Eastern Kingbird** *Tyrannus tyrannus*  
Dawn song; GA  
Song; FL
64. **Gray Kingbird** *Tyrannus dominicensis*  
Dawn song, trill, call; FL
65. **Loggerhead Shrike** *Lanius ludovicianus*  
Songs; FL  
Juvenile call; FL
66. **White-eyed Vireo** *Vireo griseus*  
Song; FL  
Song & mimicry; SC  
Scold; FL  
Whistle call; FL
67. **Yellow-throated Vireo** *Vireo flavifrons*  
Song & single note; FL
68. **Red-eyed Vireo** *Vireo olivaceus*  
Songs; FL  
Call; SC
69. **Black-whiskered Vireo** *Vireo altiloquus*  
Songs; FL
70. **Blue Jay** *Cyanocitta cristata*  
“Jay” call; FL  
“Do-it” call; FL  
“Pre-dudle” & “do-it” calls; FL
71. **Florida Scrub-Jay**  
*Abelocoma coerulescens*  
“Jenk” call & bill tapping; FL  
“Schaaa” call; FL  
“Craw” call, “quesh” call,  
“hiccup” call; FL

72. **American Crow** *Corvus brachyrhynchos*  
“Caw” call, rattle call; FL
73. **Fish Crow** *Corvus ossifragus*  
“Caw-ah” call; FL  
“Caw” call; SC
74. **Purple Martin** *Progne subis*  
Calls; MD
75. **Cave Swallow** *Petrochelidon fulva*  
Calls; TX
76. **Carolina Chickadee** *Poecile carolinensis*  
Song; SC  
Scold; GA  
“Spittle-chee-ah” call; east TX
77. **Tufted Titmouse** *Baeolophus bicolor*  
Songs; FL  
Call; LA  
Scold; LA
78. **Brown-headed Nuthatch** *Sitta pusilla*  
“Feel-good” call; FL  
Scold; FL
79. **Carolina Wren** *Thryothorus ludovicianus*  
Songs; FL  
“P’dink” calls; FL
80. **Marsh Wren** *Cistothorus palustris*  
Songs, call; FL
81. **Blue-gray Gnatcatcher** *Poliophtila caerulea*  
“Spee” call; FL  
Song; CA
82. **Red-whiskered Bulbul** *Pycnonotus jocosus*  
Song; FL
83. **Eastern Bluebird** *Sialia sialis*  
Song; SC  
Song; FL
84. **Northern Mockingbird** *Mimus polyglottos*  
Song (includes mimicry); SC
85. **Brown Thrasher** *Toxostoma rufum*  
Song (includes mimicry); FL  
Call; FL
86. **Northern Parula (southern race)**  
*Parula americana*  
Songs; FL  
Chip note; FL
87. **“Golden” Yellow Warbler**  
*Dendroica petechia gundlachi*  
Song, call; FL
88. **Yellow-throated Warbler**  
*Dendroica dominica*  
Song, chip note; FL  
Song; SC
89. **Pine Warbler** *Dendroica pinus*  
Songs, chip note; FL
90. **Prairie Warbler** *Dendroica discolor*  
Songs; FL  
Chip note; IN
91. **Prothonotary Warbler** *Protonotaria citrea*  
Songs; FL  
Chip note; FL
92. **Swainson’s Warbler**  
*Limnithlypis swainsonii*  
Songs; FL  
Calls; LA
93. **Common Yellowthroat** *Geothlypis trichas*  
Song; FL  
Call; FL
94. **Hooded Warbler** *Wilsonia citrina*  
Song; FL  
Secondary song; FL  
Call; OH
95. **Yellow-breasted Chat** *Icteria virens*  
Song; FL  
Calls; SC
96. **Eastern Towhee**  
*Pipilo erythrophthalmus*  
“Drink your tea” song; FL  
“Drink tea” song; FL  
“Chewink” call; FL
97. **Eastern Towhee (white-eyed race)**  
*Pipilo erythrophthalmus*  
“Drink drink tea” song; FL
98. **Bachman’s Sparrow** *Peucaea aestivalis*  
Songs; FL  
Atypical song; FL
99. **“Florida” Grasshopper Sparrow**  
*Ammodramus savannarum*  
Song; FL
100. **Seaside Sparrow**  
*Ammodramus maritimus*  
Song; Wakulla Co., FL
101. **“Cape Sable” Seaside Sparrow**  
*Ammodramus maritimus mirabilis*  
Song, call; FL
102. **Summer Tanager** *Piranga rubra*  
Songs; FL  
Song; SC  
“Picky-tuc-i-tuc” call; east TX
103. **Northern Cardinal** *Cardinalis cardinalis*  
Songs; FL  
Call; FL
104. **Blue Grosbeak** *Passerina caerulea*  
Song; FL  
Call; NE
105. **Painted Bunting** *Passerina ciris*  
Song; SC
106. **Red-winged Blackbird**  
*Agelaius phoeniceus*  
Songs, calls; FL
107. **Eastern Meadowlark** *Sturnella magna*  
Songs; FL  
Call, rattle call; FL
108. **Common Grackle** *Quiscalus quiscula*  
Songs, calls; FL
109. **Boat-tailed Grackle** *Quiscalus major*  
Songs, bill snapping; FL  
Calls; FL
110. **Shiny Cowbird** *Molothrus bonariensis*  
Song; Venezuela  
Call; St. Lucia
111. **Brown-headed Cowbird** *Molothrus ater*  
Song; SC  
Chatter call; NY  
Flight call, chatter call; NY
112. **Orchard Oriole** *Icterus spurius*  
Songs, call; FL

## ALPHABETIZED LISTING OF COMMON NAMES

*Consult this list to identify the track number where each species can be found.*

SPECIES	TRACK NUMBER				
Ani, Smooth-billed.....	41	Flycatcher, Brown-crested.....	62	Oriole, Orchard.....	112
Bittern, Least.....	6	Flycatcher, Great Crested.....	61	Osprey.....	7
Blackbird, Red-winged.....	106	Gallinule, Purple.....	18	Owl, Barn.....	42
Bluebird, Eastern.....	83	Gnatcatcher, Blue-gray.....	81	Owl, Barred.....	46
Bobwhite, Northern.....	3	Grackle, Boat-tailed.....	109	Owl, Burrowing.....	45
Bulbul, Red-whiskered.....	82	Grackle, Common.....	108	Owl, Eastern Screech-.....	43
Bunting, Painted.....	105	Grebe, Pied-billed.....	4	Owl, Great Horned.....	44
Caracara, Crested.....	14	Grosbeak, Blue.....	104	Parula, Northern.....	86
Cardinal, Northern.....	103	Gull, Laughing.....	28	Phoebe, Eastern.....	60
Chat, Yellow-breasted.....	95	Hawk, Red-shouldered.....	12	Pigeon, White-crowned.....	35
Chickadee, Carolina.....	76	Hawk, Short-tailed.....	13	Plover, Wilson's.....	22
Chuck-will's-widow.....	49	Jay, Blue.....	70	Rail, Black.....	15
Cowbird, Brown-headed.....	111	Jay, Florida Scrub-.....	71	Rail, Clapper.....	16
Cowbird, Shiny.....	110	Killdeer.....	23	Rail, King.....	17
Crane, "Florida" Sandhill.....	21	Kingbird, Eastern.....	63	Shrike, Loggerhead.....	65
Crow, American.....	72	Kingbird, Gray.....	64	Skimmer, Black.....	34
Crow, Fish.....	73	Kite, Snail.....	10	Sparrow, Bachman's.....	98
Cuckoo, Mangrove.....	40	Kite, Swallow-tailed.....	8	Sparrow, "Cape Sable" Seaside.....	101
Cuckoo, Yellow-billed.....	39	Kite, White-tailed.....	9	Sparrow, "Florida" Grasshopper.....	99
Dove, Common Ground-.....	38	Limpkin.....	20	Sparrow, Seaside.....	100
Dove, Eurasian Collared-.....	36	Martin, Purple.....	74	Stilt, Black-necked.....	24
Dove, White-winged.....	37	Meadowlark, Eastern.....	107	Stork, Wood.....	5
Dowitcher, Long-billed.....	27	Mockingbird, Northern.....	84	Swallow, Cave.....	75
Dowitcher, Short-billed.....	26	Moorhen, Common.....	19	Swift, Chimney.....	51
Duck, Mottled.....	2	Nighthawk, Antillean.....	48	Tanager, Summer.....	102
Eagle, Bald.....	11	Nighthawk, Common.....	47	Tern, Royal.....	32
Flicker, Northern.....	57	Noddy, Black.....	30	Tern, Sandwich.....	33
Flycatcher, Acadian.....	59	Noddy, Brown.....	29	Tern, Sooty.....	31
		Nuthatch, Brown-headed.....	78	Thrasher, Brown.....	85
				Titmouse, Tufted.....	77
				Towhee, Eastern.....	96
				Towhee, Eastern (white-eyed).....	97
				Vireo, Black-whiskered.....	69
				Vireo, Red-eyed.....	68
				Vireo, White-eyed.....	66
				Vireo, Yellow-throated.....	88
				Warbler, Hooded.....	94
				Warbler, Pine.....	89
				Warbler, Prairie.....	90
				Warbler, Prothonotary.....	91
				Warbler, Swainson's.....	92
				Warbler, "Golden" Yellow.....	87
				Warbler, Yellow-throated.....	79
				Whip-poor-will.....	50
				Willet.....	25
				Woodpecker, Downy.....	54
				Woodpecker, Hairy.....	55
				Woodpecker, Pileated.....	58
				Woodpecker, Red-bellied.....	53
				Woodpecker, Red-cockaded.....	56
				Woodpecker, Red-headed.....	52
				Wren, Carolina.....	79
				Wren, Marsh.....	80
				Yellowthroat, Common.....	93

## ADDITIONAL RESOURCES

**Macaulay Library:** The Macaulay Library at the Cornell Lab of Ornithology is the world's largest natural sound and video archive of animal behavior. Its mission is to collect and preserve recordings of each species' behavior and natural history and to make them available for research, education, conservation, zoos and aquaria, wildlife managers, publishers, the arts, and both public and commercial media. Since 1930, recordists of all backgrounds have contributed their recordings, which now number several hundred thousand in total. A large percentage of the recordings can be searched and played online. To hear more recordings of bird sounds or see videos, visit [www.macaulaylibrary.org](http://www.macaulaylibrary.org).

**eBird:** Visit eBird at [www.ebird.org](http://www.ebird.org)—an online database of bird observations providing scientists, researchers, and amateur naturalists with real-time data about bird distribution and abundance across the world. From the eBird home page, click on the 'View and Explore' data tab. Then click on 'Bar Charts' and select the state or county where you live or want to go birding. Finally, click on the link for the species you are interested in finding.

**All About Birds:** Check out this free online bird guide to help you identify birds of Florida and beyond. Learn about the life history of nearly 600 North American birds, listen to their sounds, and watch videos of their behavior. [www.allaboutbirds.org](http://www.allaboutbirds.org).

**Membership:** The Cornell Lab of Ornithology is supported by 35,000 members. Your support furthers the Lab's mission to protect the earth's wildlife through research, education, and citizen science focused on birds. Visit [www.birds.cornell.edu/membership](http://www.birds.cornell.edu/membership) to find out how you can join and help conserve the birds that touch our lives and enrich our planet.

**Sound Recording Workshop:** Each year the Macaulay Library teaches state-of-the-art techniques for recording the sounds of wildlife with skilled staff from the Cornell Lab of Ornithology. Participants learn through daily field recording sessions, coupled with lectures and demonstrations. If you would like to learn more about recording wildlife, visit [www.macaulaylibrary.org/inside/record/workshops/index.do](http://www.macaulaylibrary.org/inside/record/workshops/index.do).

## CREDITS

**Author:** Geoffrey A. Keller

**Producer:** Gregory F. Budney

**Advisor:** John W. Fitzpatrick

**Supervising Engineer:** Robert W. Grotke

**Studio Engineer:** Steven R. Pantle, Matthew A. Young

**Narration:** Kristen Banfield Bellin

**Text Editing:** Tim Gallagher, Leslie Intemann

**Digital Image Processing:** Jason van Staveren

**Booklet Design and Layout:** Tammy L. Bishop

**Production Facilities:** Macaulay Library, Cornell Lab of Ornithology

**Booklet Images:** Cover from left to right: Florida Scrub-Jay by Lee Kuhn, Limpkin by Laura Erickson, Smooth-billed Ani by Laura Erickson, Black-whiskered Vireo by Greg Lavaty, Gray Kingbird by John McKean, and Wood Stork by Marianne DiAntonio.

**Digital Images:** Bill Adams, Paul Asman and Jill Lenoble, Danny Bales, Donna Bingham, Marianne DiAntonio, Beth Donald, Thomas J. Dunkerton, Bill Dyer, Carl Edwards, Lang Elliot, Laura Erickson, Tim Gallagher, J.M.Garg, Terri Gueck, Michael J. Hopiak, Judy Howle, David A. LaPuma, Greg Lavaty, Richard Lee, Diana LeVasseur, John McKean, David McNicholas, Gary Mueller, Jerry Oldenettel, O.S. Pettingill, Louis Pollicino, Don Rash, Wayne Rasku, Cameron Rognan, Lew Scharpf, Marina Torres, Steve Wells, Sam Wilson, Duncan Wright (USFWS), and B. Young McQueen.

The  Cornell Lab  
of Ornithology

© 1997 Cornell Lab of Ornithology  
[www.birds.cornell.edu](http://www.birds.cornell.edu)