

## *CURRICULUM VITAE*

### **MARK A. SHIELDS**

Biology Department  
Coastal Carolina Community College  
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#### **EDUCATION**

Ph.D. Marine Science, North Carolina State University, 1998  
Dissertation advisors: Drs. James F. Parnell, Jeffrey R. Walters, and Thomas G. Wolcott.

Graduate program, Department of Zoology and Physiology, University of Wyoming, 1985–1987.

M.S. Coastal Biology, University of North Carolina at Wilmington, 1985  
Thesis advisor: Dr. James F. Parnell.

B.S. Natural Resources, *summa cum laude* with distinction in wildlife management, The Ohio State University, 1981

#### **EMPLOYMENT**

Biology Instructor, Coastal Carolina Community College, Jacksonville, NC.  
Sep 1987 – present  
General Biology, Introductory Botany, Introductory Zoology, Environmental Biology, Anatomy and Physiology, and Introductory Microbiology. Also serve as Faculty Advisor and as Co-advisor to eXtreme Science Club.

Graduate Research Assistant, Center for Marine Science Research,  
University of North Carolina at Wilmington, May – Jul, 1991–1993  
Dissertation research on Brown Pelicans.

Graduate Research Assistant, Wyoming Cooperative Wildlife Research  
Unit, University of Wyoming, Jun 1985 – Mar 1987  
Effects of water diversion on riparian wildlife and their habitats.

Graduate Research Assistant, Department of Biological Sciences, University  
of North Carolina at Wilmington, Jan – May 1985  
Management plan for North Carolina colonial waterbirds and their habitats.

Graduate Teaching Assistant, Department of Biological Sciences, University of North Carolina at Wilmington, Aug 1984 – Dec 1984  
Animal Biology and Ornithology labs.

Graduate Research Assistant, Department of Biological Sciences, University of North Carolina at Wilmington, May 1982 – Aug 1984  
Thesis research on White Ibises and Fish Crows; warden for National Audubon Society's Battery Island Sanctuary.

Young Adult Conservation Corps, Cedar Island National Wildlife Refuge, Cedar Island, NC, Mar 1981 – Mar 1982  
Environmental education and interpretation.

### **INTERESTS**

Evolutionary and behavioral ecology; applied population ecology; conservation biology; management of colonial waterbirds; biology of odonata; ecology of carnivorous plants; nature photography; kayaking.

### **THESIS AND DISSERTATION**

Shields MA. 1998. Proximate and ultimate causes of hatching asynchrony in the Brown Pelican. Ph.D. dissertation, North Carolina State University, Raleigh, NC.

Shields MA. 1985. An analysis of Fish Crow predation on eggs of the White Ibis at Battery Island, North Carolina. M.S. thesis, University of North Carolina at Wilmington, Wilmington, NC.

### **PUBLICATIONS**

Shields MA, Petranka J. 2018. A new field mark for differentiating between females of *Gomphaeschna antilope* (Taper-tailed Darner) and *Gomphaeschna furcillata* (Harlequin Darner). *Argia* 30:15-17.

Shields MA. 2016. New records of *Lestes vidua* (Carolina Spreadwing) in North Carolina. *Argia* 28:8-9.

Shields MA. 2016. Prolonged flight seasons of odonates in North Carolina associated with record-breaking warmth. *Argia* 28:11-13.

- Shields M. 2014. Brown Pelican (*Pelecanus occidentalis*). The Birds of North America (Rodewald PG, Ed.). Cornell Lab of Ornithology, Ithaca, NY; Available from: <https://birdsna-org.bnaproxy.birds.cornell.edu/Species-account/bna/species/brnpel>. DOI: 10.2173/bna.609
- Shields M. 2002. Brown Pelican (*Pelecanus occidentalis*). In The Birds of North America, No. 609 (A. Poole and F. Gill, Eds.). The Birds of North America, Inc., Philadelphia, PA.
- Shields MA. 2000. Establishment and persistence of mass hierarchies in broods of the Brown Pelican. *Wilson Bulletin* 112: 187-194.
- Parnell JF, Golder WW, Shields MA, Quay TL, Henson TM. 1997. Changes in nesting populations of colonial waterbirds in coastal North Carolina, 1900-1995. *Colonial Waterbirds* 20: 458-469.
- Parnell JF, Shields MA. 1990. Management of North Carolina's colonial waterbirds. UNC Sea Grant Publication Number UNC-SG-90-03.
- Shields MA, Parnell JF. 1990. Marsh nesting by American Oystercatchers in North Carolina. *Journal of Field Ornithology* 61: 431-433.
- Shields MA. 1988. A Red-shafted × Yellow-shafted Flicker intergrade in Carteret County, N.C. *Chat* 52: 78-79.
- Shields MA. 1987. Internest displacement of White Ibis eggs. *Wilson Bulletin* 99: 273-275.
- Frederick PC, Shields MA. 1986. Corrections for the underestimation of brood parasitism frequency derived from daily nest inspections. *Journal of Field Ornithology* 57: 224-226.
- Frederick PC, Shields MA. 1986. Suspected intraspecific egg dumping in the White Ibis (*Eudocimus albus*). *Wilson Bulletin* 98: 476-478.
- Parnell JF, Needham RN, Soots, RF Jr, Fussell JO III, Dumond DM, McCrimmon DA Jr, Bjork RD, Shields MA. 1986. Use of dredged-material deposition sites by birds in coastal North Carolina, USA. *Colonial Waterbirds* 9: 210-217.
- Shields MA, Bjork RD. 1986. The breeding birds of Battery Island, N. C.: an update. *Chat* 50:101-104.
- Shields MA, Parnell JF. 1986. Fish Crow predation on eggs of the White Ibis at Battery Island, North Carolina. *Auk* 103: 531-539.

- Shields MA. 1985. Selective use of pitfall traps by southern leopard frogs. *Herpetological Review* 16: 14.
- Shields MA, Townsend TW. 1985. Nesting success of Ohio's endangered Common Tern. *Ohio Journal of Science* 85: 45-49.
- Parnell JF, Shields MA, Frierson D. 1984. Hatching success of Brown Pelican eggs after contamination with oil. *Colonial Waterbirds* 7: 22-24.
- Shields MA, Parnell JF. 1984. Occurrence and nesting of the Sooty Tern in North Carolina on the lower Cape Fear River. *Chat* 48: 73-74.
- Webster WD, Colwell PB, Shields MA. 1984. Noteworthy records of mammals from North Carolina. *Journal of the Elisha Mitchell Scientific Society* 100: 112-115.
- Shields MA, Mayes CM. 1983. Occurrence and habitat preference of *Fundulus luciae* (Baird) (Pisces: Cyprinodontidae) on a southeastern North Carolina salt marsh. *Brimleyana* 9:141-144.
- Shields MA, Parnell JF. 1983. Expansion of White Ibis nesting in North Carolina. *Chat* 47: 101-103.

#### **BOOK REVIEWS**

- Shields MA. 2006. Pelicans, Cormorants, and their Relatives, The Pelecaniformes. J. B. Nelson, 2006. Oxford University Press, Oxford, UK. *Integrative and Comparative Biology* 46: 1206-1207.

#### **UNPUBLISHED REPORTS**

- LeGrand HE Jr, Petranka J, Shields MA, Howard TE Jr. 2018. The dragonflies and damselflies of North Carolina, ninth approximation. Available from: <http://dpr.ncparks.gov/odes/PDFs/9th.pdf>
- Shields MA. 1989. Colony site selection by wading birds in the North Carolina estuaries. Final project report to Nongame and Endangered Wildlife Program, North Carolina Wildlife Resources Commission, Raleigh, NC. Contract Number SG198814.

## PRESENTATIONS

- Shields MA. 2007. The future of North Carolina's colonial waterbirds: results of a preliminary population viability analysis. North Carolina Waterbird Management Committee Meeting, Hammocks Beach State Park.
- Shields MA. 2001. Breeding populations of Brown Pelicans along the U. S. Atlantic coast. North Carolina Colonial Waterbird Management Committee Meeting, Morehead City, NC.
- Shields MA. 1994. Effects of observer visitation frequency on Brown Pelican nest survival estimates, Colonial Waterbird Society Annual Meeting, Wrightsville Beach, NC.
- Shields MA. 1991. Hatching asynchrony and brood reduction in Brown Pelicans. Colonial Waterbird Society Annual Meeting, Williamsburg, VA.
- Parnell JF, McCrimmon DA, Shields MA. 1984. Trends in nesting populations of colonial waterbirds in North Carolina estuaries. Wilson Ornithological Society Annual Meeting, Wilmington, NC.
- Shields MA. 1983. Survival of White Ibis eggs at Battery Island, North Carolina. Colonial Waterbird Group Annual Meeting, San Juan, PR.
- Shields MA. 1982. A preliminary analysis of egg predation by Fish Crows (*Corvus ossifragus*) at a North Carolina heronry. Colonial Waterbird Group Annual Meeting, Chevy Chase, MD.
- Shields MA. 1981. Reproductive success of the endangered Common Tern in Ohio. Midwest Fish and Wildlife Conference, Wichita, KS.

## GRANTS, SCHOLARSHIPS, AND AWARDS

- Educator of the Year, Natural Science Division, Coastal Carolina Community College, 2012
- Outstanding Educator for Environmental Efforts, Keep Onslow Beautiful, 2003
- Student Travel Award, Colonial Waterbird Society, 1993
- Nongame and Endangered Wildlife Program Grant, North Carolina Wildlife Resources Commission, 1988
- Undergraduate Honors Research Scholarship, School of Natural Resources, The Ohio State University, 1980

**PROFESSIONAL AND ACADEMIC SERVICE**

Reviewer/editor for The Dragonflies and Damselflies of North Carolina website;  
<http://www.dpr.ncparks.gov/odes/a/accounts.php>

Member of North Carolina Biodiversity Project; <http://nc-biodiversity.com/>

Reviewer for *Journal of Field Ornithology*, *Wilson Journal of Ornithology*,  
*Waterbirds*

FrogWatch USA volunteer

Nightjar Survey Network volunteer

Member of various faculty search committees, Curriculum Committee,  
Vendor/Benefits Committee; Coastal Carolina Community College

**PROFESSIONAL MEMBERSHIPS**

American Association for the Advancement of Science, 1999 –

American Ornithological Society, 1983 –

Association of Field Ornithologists, 1984 –

Botanical Society of America, 2003 –

Dragonfly Society of the Americas, 2016 –

Ecological Society of America, 1985 –

International Carnivorous Plant Society, 1998 –

The Wildlife Society, 1979 –

Waterbird Society, 1981 –

Wilson Ornithological Society, 1983 –