# RICHARD D. DURTSCHE

Department of Biological Sciences and Center for Natural Sciences and Mathematics Northern Kentucky University Highland Heights, Kentucky 41099 USA Marital Status: Married, Children: 2 Tel: work (859) 572-6637 home (513) 528-5290 FAX (859) 572-5639 e-mail: durtsche@nku.edu

# **EDUCATION**

May 1999 **Ph.D.** Zoology. University of Oklahoma, Norman, OK (Advisor: Laurie J. Vitt) Areas: Ecology, Physiology, and Vertebrate Biology.

Dissertation: "The Ontogeny of Diet in the Mexican Spiny-tailed Iguana, *Ctenosaura pectinata*: Physiological Mechanisms and Ecological Consequences"

1988 **M.A.** Biology. California State University, Fullerton (Advisor: Bayard H. Brattstrom)

Thesis: "Food and Foraging of the fringe-toed lizard *Uma inornata*, an endangered species from the Coachella Valley, California"

1983 **B.S.** Biology, **B.A.** Chemistry. University of Minnesota, Duluth

#### **CURRENT POSITIONS**

# **Assistant Professor of Biology**

Vertebrate Zoology, General Biology

Department of Biological Sciences, Northern Kentucky University, Highland Heights, KY.

#### **Adjunct Professor**

1997 - present

Centro de Investigaciones, Universidad Autonoma del Estado de Morelos, Cuernavaca, Morelos, MX.

#### TEACHING EXPERIENCE

#### **Instructor and Adjunct Professor**

General Biology, Tropical Natural History

Department of Biology, University of Central Oklahoma, Edmond, OK.

#### **Instructor**

Principles of Physiology Laboratory

1999-2000

Department of Zoology, University of Oklahoma, Norman, OK.

Human Physiology

Summer 1999

Department of Zoology, University of Oklahoma, Norman, OK.

Tropical Ecology - Co-Instructor and Graduate Teaching Assistant

1997

Department of Zoology, University of Oklahoma, Norman, OK.

Tropical Field Ecology (presented in Spanish)

Summer 1995

Universidad Autonoma del Estado de Morelos, Cuernavaca, Morelos, MX.

College Preparatory School Science Teacher

1991-92

The International School of Minnesota, Eden Prairie, MN.

6th grade Science 7th grade Life Science 8th grade Earth Science

9th grade Chemistry 10-12th grade Biology 6 - 12th grades Computer Science

*Introductory Zoology* (1 semester) (Lecture and Laboratory) 1987

Department of Biology, Cerritos College, Cerritos, CA.

Introductory Herpetology (1 quarter)

1982

Free University, University of Minnesota, Duluth.

### Laboratory Coordinator and Laboratory Instructor (Graduate Teaching Associate) 1997 - 1999

Human Physiology (5 semesters)

Department of Zoology, University of Oklahoma, Norman, OK.

### **Graduate Teaching Assistant**

1993-96

Department of Zoology, University of Oklahoma, Norman, OK.

Introductory Zoology Laboratory (3 semesters)

Human Physiology Laboratory (1 semester)

Herpetology Laboratory (1 semester)

Ecology Laboratory (2 semesters)

Department of Biological Sciences, Learning Resources Center 1984-87

California State University, Fullerton.

General Zoology Laboratory (2 semesters)

Invertebrate Zoology Laboratory (1 semester)

Marine Ecology Laboratory (1 semester)

Learning Strategies in Biology and Chemistry (2 semesters)

### **Guest Lecturer**

Department of Zoology, University of Oklahoma, Norman, OK.

Introductory Zoology 1993 Ecology 1994 1996 Herpetology Human Physiology 1997, 1998

Leader Spring Frogs and Salamanders Field Excursion

Bell Museum of Natural History, University of Minnesota, Minneapolis.

#### RESEARCH EXPERIENCE

#### **Graduate Research Assistant**

Oklahoma Museum of Natural History, Norman, OK.

1992-93, 1996

1984

- collections management: Herpetology Collection.

Department of Biological Sciences, California State University, Fullerton. 1985-86

- collections management: Marine Invertebrate Collection
- animal care: Fish Collection

Wildlife Technician summer 1991

Non-Game Wildlife - Minnesota County Biological Survey, Minnesota Department of Natural Resources, St. Paul, MN.

- wildlife specialist conducting biodiversity studies of reptiles and amphibians in Morrison County, MN.

# **Biological Consultant**

1988

Nicaraguan Ministry of Natural Resources (IRENA), Managua, Nicaragua.

- developed and established an iguana ranching (headstart) program for the management and conservation of *Iguana iguana*.
- develop biodiversity surveys in rocky intertidal and rainforest ecosystems for the Wildlife Department.

# **Field Biologist**

Department of Biology, University of California, Riverside. summer 1985

- assist in demographic surveys of the endangered fringe-toed lizard, *Uma inornata*, in the Coachella Valley, CA.

Arrowhead Regional Development Commission, Duluth, MN. summer 1983

assist in a wildlife conservation and management program to translocate nesting colonies
of Common Terns and Piping Plovers from areas of development to a wildlife refuge
and bird sanctuary.

Curatorial Assistant 1984

James Ford Bell Museum of Natural History, University of Minnesota, Minneapolis, MN.

- collections management: Herpetology Collection.

### ADDITIONAL EMPLOYMENT EXPERIENCE

Applied Forester 1989

Bohus Skogstjänst, Uddevalla, Sweden.

- crew foreman in charge of forestry management of a 500 hectare estate.

Cabinet Maker 1990-91

Snickar Bolaget. Uddevalla, Sweden

- created fine woodworking interiors for yachts, sailboats, and hotels.

### **GRANTS**

Graduate Student Senate Conference Fee Grant, University of Oklahoma, 1999. (\$250)

Department of Zoology, Travel Grant, University of Oklahoma, 1999. (\$350)

Department of Zoology, Travel Grant, University of Oklahoma, 1998. (\$200)

University of Oklahoma Graduate College Dissertation Support Grant, 1997 (\$750)

Department of Zoology, Summer Research Assistantship, University of Oklahoma, 1997. (\$2,000)

Graduate Student Senate Research Grant, University of Oklahoma, 1997. (\$250)

Department of Zoology, Travel Grant, University of Oklahoma, 1997. (\$400)

American Museum of Natural History, Theodore Roosevelt Fund Award 1996. (\$850)

Hach Co. Equipment Grant (principle investigator) 1996. (\$4,000)

Department of Zoology, Summer Research Assistantship, University of Oklahoma, 1996. (\$1,900)

Department of Zoology, Travel Grant, University of Oklahoma, 1996. (\$480)

Graduate Student Senate Conference Fee Grant, University of Oklahoma, 1996. (\$250)

Graduate Student Senate Conference Fee Grant, University of Oklahoma, 1996. (\$100)

American Museum of Natural History, Theodore Roosevelt Fund Award 1995. (\$850)

Graduate Student Senate Research Grant, University of Oklahoma, 1995. (\$250)

Department of Zoology, Summer Research Assistantship, University of Oklahoma, 1995. (\$1,900)

Department of Zoology, Travel Grant, University of Oklahoma, 1995. (\$300)

Sigma Xi Scientific Research Society Grant-in-Aid of Research, 1994. (\$400)

University of Oklahoma President's International Travel Fund Grant, 1994 (\$350)

Graduate Student Senate Research Grant, University of Oklahoma, 1994. (\$249)

Department of Zoology, Summer Research Assistantship, University of Oklahoma, 1994. (\$1,800)

Department of Zoology, Travel Grant, University of Oklahoma, 1994. (\$250)

Graduate Student Senate Research Grant, University of Oklahoma, 1993. (\$250)

Loren G. Hill Fund Summer Research Assistantship, University of Oklahoma, 1993. (\$864)

Department of Zoology, Travel Grant, University of Oklahoma, 1993. (\$250)

Graduate Student Senate Conference Fee Grant, University of Oklahoma, 1993. (\$100)

Graduate Student Senate Research Grant, University of Oklahoma, 1992. (\$250)

Sigma Xi Scientific Research Society Grant-in-Aid of Research, 1986. (\$150)

Departmental Associations Council research grant, CSUF, Fullerton, California (1986). (\$300)

Three research grants by the CSUF Department of Biology (1986) (\$150 ea.)

GRANT TOTAL = \$20,743

#### **HONORS/AWARDS**

Southwestern Association of Naturalists, Wilk's Award Student Competition Finalist, 1999. Department of Zoology, Award for Excellence in Graduate Student Teaching, University of Oklahoma, 1997-98.

1st Place, University of Oklahoma Graduate Student Poster Competition, 1995-96.

National Dean's List, 1995-96.

Jerome Wilson Scholarship in Biology, California State University, Fullerton, 1986.

Graduate Student Scholarship for the School of Mathematics, Science, and Engineering, Alumni Association, California State University, Fullerton, 1986.

Graduate Student Scholarship for the School of Mathematics, Science, and Engineering, Alumni Association, California State University, Fullerton, 1985.

University of Minnesota's Arrowhead Award for leadership, awarded three years, 1978-83.

#### PROFESSIONAL SERVICE

Reviewer for: Canadian Journal of Zoology, Copeia, Herpetologica, Herpetological Natural History, Journal of Herpetology, South African Journal of Zoology, Southwestern Naturalist.

Editorial Board Member for Universidad Autonoma del Estado de Morelos: *Ciencia y Technologia Revista*.

Graduate Student Member, Library Committee, Department of Zoology, University of Oklahoma, 1995-96, 1998-99.

Graduate Student Representative, Department of Zoology, University of Oklahoma, 1996-97.

Science Fair Judge, St. James School, Oklahoma City, Oklahoma, 1996, 1997.

University of Oklahoma Graduate Student Senator, 1994.

Graduate Student Member, Electron Microscopy Committee, Department of Zoology, University of Oklahoma, 1992-94.

Undergraduate Student Representative, Department of Biology, University of Minnesota, Duluth, 1982-83.

Biology Club President, University of Minnesota, Duluth, 1981-82.

#### **SCIENTIFIC MEMBERSHIPS**

Society for Comparative and Integrative Biology
Society for the Study of Amphibians and Reptiles
Herpetologists' League
American Society of Ichthyologists and Herpetologists
Southwestern Association of Naturalists
Comparative Nutrition Society
La Sociedad Herpetologica Mexicana A.C.
Ciencia y Technologia, Universidad Autonoma del Estado de Morelos

#### SCIENTIFIC PRESENTATIONS

#### **Invited Symposia**

- Durtsche, R. D. 1997. The foraging ecology and ontogeny of diet in the iguanid *Ctenosaura pectinata*. in the Herpetologists' League symposium "Biosystematics, Behavioral Ecology, and Conservation of Iguanas", Joint Meetings of The American Society of Ichthyologists and Herpetologists, Herpetologists' League, and the Society for the Study of Amphibians and Reptiles, Seattle, WA.
- Durtsche, R. D. 1983. Identification of Northern Minnesota Reptiles and Amphibians. USDA Forestry Non-game Symposium, Virginia, MN.

### **Invited Seminars**

- 1996 Estrategia alimentaria de la lagartija *Uma inornata* en la epoca de reproducción y no reproducción. (Feeding strategies of the lizard *Uma inornata* in the reproductive and non-reproductive seasons.)

  Instituto de Investigaciones Biologicas, Universidad Autonoma del Estado de Morelos, Cuernavaca, Morelos, MX.
- 1995 Ecologia de la lagartija, Cnemidophorus sacki, en la epocha de reproducción del Estado de Morelos, Mexico. (Ecology of the lizard, Cnemidophorus sacki, in reproductive season in the state of Morelos, Mexico.)
  Instituto de Investigaciones Biologicas, Universidad Autonoma del Estado de Morelos, Cuernavaca, Morelos, MX.
- 1994 Salva la Selva Tropical, Come Una Iguana!. (Save the Tropical Rainforest, Eat an Iguana!) Instituto de Investigaciones Biologicas, Universidad Autonoma del Estado de Morelos, Cuernayaca, Morelos, MX.

#### **Contributed Papers**

- Durtsche, R. D. 1999. Ontogenetic variation in the digestive response on an ectothermic herbivore, the iguanid *Ctenosaura pectinata*. Joint Meetings of The American Society of Ichthyologists and Herpetologists, Herpetologists' League, and the Society for the Study of Amphibians and Reptiles, State College, PA.
- Durtsche, R. D. 1999. Ontogenetic strategies of a size-structured population, nutrition and ecology of the iguana, *Ctenosaura pectinata*. Annual Meeting of the Southwestern Association of Naturalists, Monterrey, MX (Wilk's Award Student Competition Finalist).

- Durtsche, R. D. 1998. The ontogeny of diet in the Mexican spiny-tailed iguana, *Ctenosaura pectinata*. Annual Meeting of the Southwestern Association of Naturalists, Albuquerque, NM.
- Durtsche, R. D. 1998. The digestive physiology of the spiny-tailed iguana, *Ctenosaura pectinata*. Graduate College Graduate Student Poster Competition, University of Oklahoma, Norman, OK.
- Durtsche, R. D. 1997. Ecology of the whiptail lizard, *Cnemidophorus sacki* in Central Mexico during its reproductive season. Annual Meeting of the Southwestern Association of Naturalists, Fayetteville, AR.
- Lutterschmidt, W. I. and R. D. Durtsche 1997. Thermal physiology and metabolic capacities: answers to behavioral and ecological observations of a desert dwelling lizard *Cophosaurus texanus*. Annual Meeting of the Southwestern Association of Naturalists, Fayetteville, AR.
- Durtsche, R. D. 1996. The foraging ecology of the spiny-tailed iguana in Mexico. Graduate College Graduate Student Poster Competition, University of Oklahoma, Norman, OK. (1st Place)
- Durtsche, R. D. 1996. Ecologia de la alimentacion y actividad de la Iguana *Ctenosaura pectinata* en la parte Central de Mexico. (Feeding ecology and activity of the iguana *Ctenosaura pectinata* in Central Mexico.) IV Congresso Nacional de Herpetologia, Cuernavaca, Morelos, MX.
- Durtsche, R. D. 1993. The foraging ecology of the fringe-toed lizard, *Uma inornata* during periods of high and low food resources. Joint Meetings of The American Society of Ichthyologists and Herpetologists, and the Herpetologists' League, Austin, TX.
- Durtsche, R. D. 1987. The feeding habits of the fringe-toed lizard *Uma inornata*. Joint Meetings of The American Society of Ichthyologists and Herpetologists, Herpetologists' League, and the Society for the Study of Amphibians and Reptiles, Veracruz, MX.

### **PUBLICATIONS**

### **Research Articles**

- Durtsche, R. D. 2000. Ontogenetic plasticity of food habits in the Mexican spiny-tailed iguana, *Ctenosaura pectinata*. **Oecologia** 124: 185-195.
- Durtsche, R. D., P. J. Gier, M. M. Fuller, W. I. Lutterschmidt, R. Bradley, C. K. Meier, and S. Hardy. 1997. Ontogenetic variation in the autecology of the greater earless lizard, *Cophosaurus texanus*. **Ecography** 20: 336-346.
- Durtsche, R. D. 1995. Foraging ecology of the fringe-toed lizard *Uma inornata* during periods of high and low food resources. **Copeia** 1995: 915-926.
- Durtsche, R. D. 1992. Feeding time strategies of the fringe-toed lizard *Uma inornata* during breeding and nonbreeding periods. **Oecologia** 89: 85-89.
- Vitt, L. J., P. A. Zani, and R. D. Durtsche. 1995. Ecology of the lizard *Norops oxylophus* (Polychridae) in lowland forest of southeastern Nicaragua. **Canadian Journal of Zoology** 73: 1918-1927.
- Vitt, L. J., P. A. Zani, J. P. Caldwell, and R. D. Durtsche. 1993. Ecology of the whiptail lizard *Cnemidophorus deppii* on a tropical beach. **Canadian Journal of Zoology** 71:2391-2400.

#### **Research Notes**

Durtsche, R. D. 1996. A capture technique for small, smooth-scaled lizards. **Herpetological Review** 27: 12-13.

# SUBMITTED MANUSCRIPTS

- Durtsche, R. D. Size-based habitat selection in Iguanid lizards: ontogenetic maintenance of body temperature with various feeding strategies. *submitted to* **Ecology**.
- Lutterschmidt, W. I. and R. D. Durtsche. Thermal physiology and metabolic capacities: answers to behavioral and ecological observations of a desert dwelling lizard (*Cophosaurus texanus*). under revision for re-submission to **Physiological and Biochemical Zoology**.
- Durtsche, R. D. Identification of northern Minnesota reptiles and amphibians. Proceedings from USDA Forest Service Non-game Symposium (invited paper proceedings never published).

#### MANUSCRIPTS IN PREPARATION

- Durtsche, R. D. Ontogenetic variation in digestion of various diets in an herbivorous lizard (*Ctenosaura pectinata*). in preparation for **Physiological and Biochemical Zoology**.
- Durtsche, R. D. and R. Castro-Franco. Ecology of the whiptail lizard, *Cnemidophorus sacki*, in Central Mexico during its reproductive season. *in preparation for the* **Journal of Tropical Ecology**.

### **LANGUAGES**

Swedish - fluent Spanish - fluent