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Research interests:

Behavioral ecology of freshwater fishes, especially the evolution of mate recognition systems and their role in speciation in pupfishes (*Cyprinodon*).

Allometry of sexually-selected traits.

Community structure and conservation of desert fishes.

Professional Preparation

B.A. 1962 D'Youville College, Buffalo, NY

M.S. 1964 U. of Michigan

Ph.D. 1975 U. of Southern California

Appointments

- 1994– Professor, Department of Biology, U. of New Mexico, Albuquerque, NM. 1975
- 1999 Visiting Professor, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA.
- 1994 Visiting Professor, Konrad Lorenz Institute for Comparative Ethology, Vienna, Austria
- 1991 Visiting Fellow, CSIRO Centre for Arid Zone Research, Alice Springs, Australia
- 1987–94 Associate Professor, Department of Biology, U. of New Mexico, Albuquerque, NM.
- 1984–86 Assistant Professor, tenure track. Department of Ecology and Evolutionary Biology, U. of Arizona, Tucson, AZ.
- 1976–84 Assistant Professor, half time, non-tenure track. Department of Ecology and Evolutionary Biology, U. of Arizona, Tucson, AZ.
- 1975-76 Post-doctoral Fellow, Department of Biology U. of Utah, Salt Lake City UT.

Selected Publications

Tech, C. and A. Kodric-Brown. Effects of visual preferences, mating system, and male-male competition on assortative mating between two pupfish species, *Cyprinodon elegans* and *C. variegatus*, and their hybrids. *Anim. Behav.* (in press).

Kodric-Brown, A. and J.H. Brown. 2007. Native fishes, exotic mammals, and the conservation of desert springs. *Front. Ecol. Environ.*

Kodric-Brown, A., C. Wilcox, J.G. Bragg and J.H. Brown. 2007. Dynamics of fish in Australian desert springs: role of large-mammal disturbance. *Diversity Distrib.*

Kodric-Brown, A., R.M. Sibly and J.H. Brown. 2006. The allometry of ornaments and weapons. *PNAS* 103:8733-8738.

Kodric-Brown, A. and P.F. Nicoletto. 2005. Courtship behavior, swimming performance, and microhabitat use of Trinidadian guppies. *Env. Biol. Fishes.* 73:299-307.

Kodric-Brown, A and J. Rosenfield. 2004. Populations of Pecos pupfish (*C. pecosensis*) differ in their susceptibility to hybridization with sheepshead minnow (*C. variegatus*). *Behav. Ecol. Sociobiol.* 56:116-123.

Rosenfield, J.A., S. Nolasco, S. Lindauer, C. Sandoval, and A. Kodric-Brown. 2004. The role of hybrid vigor in the replacement of Pecos pupfish by its hybrids with sheepshead minnow. *Cons.Biol.* 18:1-10.

Rosenfield, J. and A. Kodric-Brown 2003. Sexual selection promotes hybridization between Pecos pupfish, *Cyprinodon pecosensis* and sheepshead minnow, *C. variegatus*. *J. Evol. Biol.* 16:595-606.

Kodric-Brown, A. and S.C. Johnson. 2002. Ultraviolet reflectance patterns of male guppies enhance their attractiveness to females. *Anim. Behav.* 63:391-396.

Kodric-Brown, A. and U. Strecker. 2001. Responses of *Cyprinodon maya* and *C. labiosus* females to visual and olfactory cues of conspecific and heterospecific males. *Biol. J. Linnean Soc.* 73:541-548.

Kodric-Brown, A. 2001. Age and experience affect female choice in the guppy (*Poecilia reticulata*). *Am. Nat.* 157:316-323.

Nicoletto, P.F. and A. Kodric-Brown. 1999. The use of digitally-modified videos to study the function of ornamentation and courtship in the guppy, *Poecilia reticulata*. *Env. Biol. Fishes* 56:333-341.

Strecker, U. and A. Kodric-Brown. 1999. Mate recognition systems in a species flock of Mexican pupfish. *J. Evol. Biol.* 12:927-935.

Kodric-Brown, A. 1998. Sexual dichromatism and temporary color changes in the reproduction of fishes. *Amer. Zool.* 38:70-81.

Kodric-Brown, A. 1996. Role of male-male competition and female choice in the development of breeding coloration in pupfish (*Cyprinodon pecosensis*). *Behav. Ecol.* 7:431-437.

Kodric-Brown, A. and J.H. Brown. 1993. Highly structured fish communities in Australian desert springs. *Ecology* 74:1847-1855.

Kodric–Brown, A. 1990. Mechanisms of sexual selection: Insights from fish. *Ann. Zool. Fennici*. 27:87-100.

Kodric–Brown, A. and J.H. Brown. 1984. Truth in advertising: The kinds of traits favored by sexual selection. *Am. Nat.* 124:305-322.

Graduate Students:

Current:

Andrew Edelman –

Daniella Swenton –

Julie McIntyre – (co-advisor – David Lightfoot)

Diana Andres (co-advisor – Paul Watson)

Angela Hung –

Recent:

Pamella Keil – (co-advisor – Paul Watson)

Cynthia Tech –

Publication:

Tech, C. 2006. Postzygotic incompatibilities between the pupfishes, *Cyprinodon elegans* and *Cyprinodon variegatus*: hybrid male sterility and sex ratio bias. *J. Evol. Biol.* 19:1830-1837

Lisa Schwanz –

Jonathan Rosenfield -