

Curriculum Vitae

Dr. John Cossel Jr.

(updated January 2021)

Education

Doctor of Arts (DA) in Biology (2003), Idaho State University

Master of Science (MS) in Science Education (1996), Oregon State University

Bachelor of Arts (BA) in Biology Education (1991), Northwest Nazarene University

Professional Experience

2010 – present: Professor of Biology, Northwest Nazarene University (NNU), Nampa, ID

2006 – present: Biology Department Chairman, NNU, Nampa, ID

1999 – 2010: Associate Professor of Biology, NNU, Nampa, ID

1998: Adjunct Professor, NNU, Nampa, ID

1996 – 1998: Doctoral fellow, Dept. of Biological Sciences, Idaho State University, Pocatello, ID

1992 – 1996: Secondary science teacher, Joint School Dist. No. 370, Homedale, ID

1993: Secondary science teacher, Nampa Summer School Prgrm., Nampa, ID

1991 – 1992: Secondary science teacher, Nampa Christian Schools, Nampa, ID

Research: Publications and Presentations

Recent findings of *Isthmohyla pictipes* (Anura: Hylidae) in Costa Rica: variation and implications for conservation. 2020. Chaves-Acuña, W., G. Chaves, J. Klank, E. Arias, F. Bolaños, A. Shepack, T. Leenders, J. Cossel, and J. Faivovich. **(Paper)** Zootaxa 4881 (3): 499–514.

Vocalizations of five species of frogs in the *Craugastor podiciferus* species group (Anura: Craugastoridae) from Costa Rica. 2019. J. Cossel, Jr., J. E. Twining, K. L. di Stefano, A. O'Brien, A. S. Reich, and J. Sandoval-Alanis. **(Paper)** Herpetological Conservation and Biology 14(1):235-249.

Field Guide to the Frogs and Toads of Costa Rica. 2019. J. Cossel, Jr. and B. Kubicki. **(Book)** BookBaby. 226pp.

Temporal and spectral analysis of the advertisement call of *Craugastor stejnegerianus* (Anura: Craugastoridae) in Costa Rica. 2017. Twining, J. E., and J. O. Cossel, Jr. **(Paper)** Mesoamerican Herpetology 4: 129–136.

Vocalizations of *Pristimantis cruentus* (Anura: Craugastoridae) in Costa Rica. 2016. Salvador, C. and J. Cossel Jr. **(Paper)** Mesoamerican Herpetology 3: 548–556.

Smilisca phaeota (Cope, 1862). Colonization. 2016. V. Acosta-Chaves, J. Cossel Jr. **(Paper)** Mesoamerican Herpetology 3: 713–715.

Pristimantis altae (Coral-spotted Robber Frog): vocalizations. 2016. J. Cossel Jr., G. Alvarado, R. Cossel. **(Paper)** Herpetological Review 47(1): 115–118.

First Record of the Pathogenic Fungus *Batrachochytrium dendrobatidis* in *Hypsiboas riojanus* and *H. callipleura* from Central Bolivia (Anura: Hylidae). 2016. **(Paper)** E. Lindquist, J. Cossel Jr., K. Cordoba, J. Salamanca, I. Zambana, H. McFarland, K. Luthman. Herpetological Review 47(3): 400–402.

First record of the pathogenic fungus *Batrachochytrium dendrobatidis* in the Marbled Water Frog *Telmatobius marmoratus* (Anura: Leptodactylidae) from Lake Titicaca, Bolivia. 2014. **(Paper)** J. Cossel Jr., E. Lindquist, H. Craig, and K. Luthman. Diseases of Aquatic Organisms 112: 83–87.

Observations of a Remnant Population of the Critically Endangered Hylid Frog *Isthmohyla rivularis* on the Monteverde Cloud Forest Preserve, Costa Rica. 2014. **(Paper)** Olsen, A., and J. Cossel. Herpetological Review 45(2): 205–208.

Limb Malformations of the Critically Endangered Stream-breeding Frog *Isthmohyla rivularis* in the Monteverde Cloud Forest Preserve, Costa Rica. 2014. **(Paper)** A. Hedrick and J. Cossel. Herpetological Review 45(1): 5–8.

UROTHECA GUENTHERI (Striped Glasstail). ANTIPREDATOR DEFENSE. 2014. **(Paper)** J. Cossel Jr. Herpetological Review 45(3): 521–522.

Nothing Makes Sense in (Herpetology) Except in the Light of Evolution. J. Cossel Jr. 2013. **(Chapter)** *In* Nazarenes Exploring Evolution. S. Walker and T. Oord Eds. Russell Media. ISBN-10: 1937498417. 376 pp.

Mastigodryas melanolomus (Salmon-bellied Racer) Elevation. 2012. Hille, D. and J. Cossel Jr. **(Paper)** Herpetological Review 43(4):660–661.

Electroshocking as a Survey Technique for Stream-dwelling Amphibians. 2012. Cossel, J., M. Peters and J. Sauder. **(Paper)** Wildlife Society Bulletin 36(2):358–364.

Isthmohyla pseudompua (Meadow Treefrog) Predation. 2012. Warrington, J. and J. Cossel Jr. **(Paper)** Herpetological Review 43(3):463–464.

Dendrophidion paucicarinatum (White-lipped Forest Racer) Elevation. 2012. Gilson, P., and J. Cossel Jr. **(Paper)** Herpetological Review 43(2):342.

Chytrid in a Canopy Amphibian: Picado's Bromeliad Treefrog, *Isthmohyla picadoi* (Hylidae), Persists at a Site Affected by *Batrachochytrium dendrobatidis*. 2011. E. Lindquist, M. Shin, J. Cossel, A. Stuckert, M. Bletz, and N. Trimmer. **(Paper)** Herpetological Review 42(2):205–208.

Think Big: Care tips for the Idaho Giant Salamander. 2010. J. Cossel Jr. **(Paper)** Reptiles 18(8):44–49.

Batrachochytrium dendrobatidis in Arboreal and Lotic Water Sources in Panama. 2009. J. Cossel Jr. and E. Lindquist **(Paper)** Herpetological Review 40(1):45–47.

Sagebrush Steppe/Desert Shrublands. C. Jenks, C. Peterson, and J. Cossel Jr. **(Chapter)** *In* Habitat Management Guidelines for Amphibians and Reptiles of the Northwestern United States and Western Canada. 2009. Eds. D. Pilliod and E. Winde. Partners in Amphibian and Reptile Conservation Technical Publication HMG-4.

Hyla picadoi Vocalizations. 2007. E. Lindquist and J. Cossel Jr. **(Paper)** Herpetological Review 38(4):438–440.

Habitat use, home range size and relative abundance of the Great Basin Collared Lizard (*Crotaphytus bicinctores*) in southwestern Idaho. 2004. J. Cossel Jr., K. Oelrich, K. Thoren and J. Butler-Dawson. **(Final report)** WCRP program Idaho Department of Fish and Game. 40pp.

Changes in reptile populations in the Snake River Birds of Prey Area, Idaho between 1978-79 and in reptile populations in the Snake River Birds of Prey Area, Idaho between 1978-79 and 1997-98: The effects of weather, habitat and wildfire. 2003. J. Cossel Jr. **(Doctoral Dissertation)**, Idaho State University. 133pp.

Home Range Size Estimates of the Mojave Black-collared Lizard (*Crotaphytus bicinctores*) in Southwestern Idaho. 2002. J. Cossel, Jr., L. Luckey, and K. Oelrich. **(Final Report)** Nongame Wildlife Research Grant. 19pp.

The occurrence, distribution, relative abundance, and habitat relationships of amphibians and reptiles on the Idaho Army National Guard Orchard Training Area, Ada County, Idaho. 2002. C. Peterson, J. Cossel Jr., D. Pilliod and B. Bean. **(Final Report)** Idaho Army National Guard. 32pp.

Fishes from the Late Miocene Poison Creek and Chalk Hills Formations, Owyhee County, Idaho. 2002. G. Smith and J. Cossel Jr. **(Paper)**, pp. 23–35 *In* W. A. Akersten, M. E. Thompson, D. J. Meldrum, R.A. Rapp, and H. G. McDonald (Eds.). "And Whereas... Papers on the Vertebrate Paleontology of Idaho Honoring John A. White, Volume 2". Idaho Museum of Natural History Occasional Paper 37.

Grants

"Chytrid in the canopy: arboreal amphibians and water sources as potential reservoirs for the pathogenic fungus *Batrachochytrium dendrobatidis*". 2010. J. Cossel Jr. Murdock College Research Program, Life Sciences Grant, Murdock Charitable Trust. **\$54,600.**

"In-stream movements and annual growth of Idaho Giant Salamanders (*Dicamptodon aterrimus*) in Northern Idaho". Northwest Nazarene University. 2009. J. Cossel Jr., J. Sauder Co-investigator. **\$5,000.**

"Distribution and abundance of Idaho Giant Salamanders (*Dicamptodon aterrimus*) in Idaho". 2008. J. Sauder, J. Cossel Jr. Co-investigator. State Wildlife Grant, Potlatch Timber Corporation, and NNU. **\$15,000.**

"Using Passive Integrated Transponders (PIT tags) as a means of locating stream dwelling Idaho Giant Salamanders (*Dicamptodon aterrimus*). 2007. J. Sauder, J. Cossel Jr. Co-investigator. State Wildlife Grant, and NNU. **\$8,000.**

"Establishing an apex study site for the investigation of Idaho Giant Salamander, *Dicamptodon aterrimus* ecology". 2006. J. Cossel Jr. Northwest Nazarene University. **\$5,000.**

"Modeling the distribution of the Great Basin Collared Lizard (*Crotaphytus bicinctores*) in Idaho". 2005. J. Cossel Jr. State Wildlife Grant IDFG. **\$13,700.**

"Field Inquiry Research Experience (FIRE) for high school and undergraduate science students and their teachers" 2005. D. Nogales, PI, J. Cossel Jr. Co-investigator. NASA. **\$80,900.**

"Monitoring effects of mining on Great Basin Collared Lizards (*Crotaphytus bicinctores*)." 2004. J. Cossel Jr. Northwest Nazarene University. **\$5,000.**

"Determining the effects of surface mining on reptile populations in southwestern Idaho". 2003. J. Cossel Jr. Murdock Charitable Trust Fund - Undergraduate Research Grant (administered via School of Health and Science, NNU). **\$10,000.**

"Habitat use, home range size, and relative abundance of the Great Basin Collared Lizard (*Crotaphytus bicinctores*) in southwestern Idaho". 2002. J. Cossel Jr. Murdock Charitable Trust Fund - Undergraduate Research Grant (administered via School of Health and Science, NNU), and WCRP Funds (administered by the Idaho Department of Fish and Game). \$12,500 + \$5,500 = **\$18,000.**

"Home range size estimates of the Mojave Black-collared Lizard (*Crotaphytus bicinctores*) in southwestern Idaho". 2001. J. Cossel Jr. Murdock Charitable Trust Fund - Undergraduate Research Grant (administered via School of Health and Science, NNU), and Nongame Wildlife Grant - Idaho Department of Fish and Game. \$8,000 + \$2,000 = **\$10,000.**

"The occurrence, distribution, relative abundance, and habitat relationships of amphibians and reptiles on the Idaho Army National Guard Orchard Training Area, Ada County, Idaho". 1999. C. R. Peterson, J. Cossel Jr. Co-PI. IDARNG. **\$30,000.**

"Changes in Distribution and Relative Abundance of Reptiles in the Snake River Birds of Prey Area between 1978-79 and 1997-98." 1998. C. R. Peterson, J. Cossel Jr. Co-PI. BLM. **\$6,800.**

"Changes in Distribution and Relative Abundance of Reptiles in the Snake River Birds of Prey Area between 1978-79 and 1997-98." 1997. J. Cossel Jr. ISU Graduate Research Committee Grant. **\$1,000.**

"Changes in Distribution and Relative Abundance of Reptiles in the Snake River Birds of Prey Area between 1978-79 and 1997-98." 1997. C. R. Peterson, J. Cossel Jr. Co-PI. BLM. **\$12,000.**

Photography

In: Pilliod et al. 2020. From satellites to frogs: Quantifying ecohydrological change, drought mitigation, and population demography in desert meadows. *Science of The Total Environment* (Online) – 143632.

In: Pilliod, D.S., Goldberg, C.S., Laramie, M.B., and Waits, L.P., 2013. Application of environmental DNA for inventory and monitoring of aquatic species: U.S. Geological Survey Fact Sheet 2012-3146, 4 p.

In: Dodd Jr. 2013. *Frogs of the United States and Canada*, 2-vol. set [Hardcover], ISBN-13: 978-1421406336

In: Amphibians of Montana poster. Montana Natural Heritage Program. 2012.

Cover photo: *Wildlife Society Bulletin*. 2012:36(2)

In: Cossel, J. 2010. Think Big: Care tips for the Idaho Giant Salamander. *Reptiles* 18(8):44-49.

In: NNU Admissions flyer – Biology Program. 2010.

In: C. Jenks, C. Peterson, and J. Cossel Jr. 2009. Sagebrush Steppe/Desert Shrublands. In "Habitat Management Guidelines for Amphibians and Reptiles of the Northwestern United States and Western Canada". 2009. Eds. D. Pilliod and E. Winde. Partners in Amphibian and Reptile Conservation Technical Publication HMG-4.

Gallery Exhibit: Cossel, J. Naked Canaries: A photographic exploration of the beauty and biology of amphibians, the causes of their declines, and their message for us all. 2009 – Current.

Awards

2004. Best Poster – Biology Section, Idaho Academy of Science. S. Young, P. Ott, and J. Cossel Jr.

2003. Outstanding Contributions to Herpetology in Idaho. Idaho Herpetological Society.

Organizations

Herpetologists' League, Society for the Study of Amphibians and Reptiles, Partnership for Amphibian and Reptile Conservation

Courses Taught

Introduction to Biology, Human Biology, Human Anatomy and Physiology I and II, Pathophysiology, Cadaver Dissection I and II, General Zoology, General Biology, Tropical Ecology, Plant and Animal Ecology, Tropical Montane Forest Ecology, Field Ecology, Vertebrate Comparative Anatomy, Amphibians of Idaho, Herpetology, Environmental Science, and Biology Teaching Methods