



OTTER INFORMATION

A Bibliography of North American River Genetics Research

(as of December 2024)

- Beheler, A.S., J.A. Fike, G. Dharmarajan, O.E. Rhodes, and T.L. Serfass. (2005).** Ten new polymorphic microsatellite loci for North American river otters (*Lontra canadensis*) and their utility in related mustelids. *Molecular Ecology Notes*, **5**: 602- 604.
- Beheler, A.S., J.A. Fike, L.M. Murfitt, O.E. Rhodes, and T.L. Serfass. (2004).** Development of polymorphic microsatellite loci for North American river otters (*Lontra canadensis*) and amplification in related Mustelids. *Molecular Ecology Notes*, **4**(1): 56-58.
- Ben-David, M., T. Kondratyuk, B.R. Woodin, P.W. Snyder, and J.J. Stegeman. (2001).** Induction of cytochrome P4501A1 expression in captive river otters fed Prudhoe Bay crude oil: Evaluation of immunohistochemistry and quantitative RT-PCR. *Biomarkers*, **6**: 218-235.
- Birkenheuer, A. J., C.A. Harms, J. Neel, H.S. Marr, M.D. Tucker, A.E. Acton, A. D. Tuttle, and M.K. Stoskopf. (2007).** The identification of a genetically unique piroplasma in North American river otters (*Lontra canadensis*). *Parasitology*, **134**: 631-635.
- Blundell, G.M., M. Ben-David, P. Groves, R.T. Bowyer, and E. Geffen. (2002).** Characteristics of sex-biased dispersal and gene flow in coastal river otters: Implications for natural re-colonization of extirpated populations. *Molecular Ecology*, **11**(3): 289-303.
- Blundell, G.M., M. Ben-David, P. Groves, R.T. Bowyer, and E. Geffen. (2004).** Kinship and sociality in coastal river otters: Are they related? *Behavioral Ecology*, **15**(5): 705- 714.
- Brandhagen, M.D. (2003).** Monitoring of the North American river otter (*Lontra canadensis*) using molecular analysis of scat: A noninvasive technique and its potential application to otter management and conservation. Ph.D., *George Mason University*. Fairfax, Virginia.
- Brandt, J.R. (2010).** Assessing the origin of North American river otters in North Dakota using microsatellite analysis. M.S., *Frostburg State University*, Frostburg, Maryland.
- Brandt, J.R., A.L. Brandt, F.K. Ammer, A.L. Roca, and T.L. Serfass. (2014).** Impact of population expansion on genetic diversity and structure of river otters (*Lontra canadensis*) in central North America. *Journal of Heredity*. **105**(1): 39-47.
- Brzeski, K., M. Szykman Gunther, and J.M. Black. (2013).** Evaluating river otter demography using noninvasive genetic methods. *Journal of Wildlife Management*, **77**: 1523-1531.
- Cotey, S.R., R. Scimeca, L. Chang, A.L. Carpenter, E.E. Will, C. Ott-Conn. A.L. Mayer, and M.V. Reichard. (2022).** *Toxoplasma gondii* prevalence, partial genotypes, and spatial variation in North American river otters (*Lontra canadensis*) in the upper peninsula of Michigan, USA. *Journal of Wildlife Diseases*, **58**(4): 869-881.
- DePue, J.E. (2007).** Limited geneflow among reintroduced river otter populations in Colorado: Evidence from DNA collected with a novel method. M.S., *University of Wyoming*. Laramie, Wyoming.
- Duque, S.L.A., L.Y. Orozco-Jimenez, C. Zapata-Escobar, and J.A. Palacio-Baena. (2018).** Conservation genetics of otters: Review about the use of non-invasive samples. *Therya*, **9**(1)-No pages indicated
- Fike, J.A. (2005).** Genetic structure of river otter populations in eastern North America and an assessment of genotyping error rates associated with alternative sources of DNA. M.S., *Frostburg State University*, Frostburg, Maryland.

- Fike, J.A., T.L. Serfass, A.S. Behler, and O.E. Rhodes. (2004).** Genotyping error rates associated with alternative sources of DNA for the North American river otter. *IUCN: Otter Specialist Group Bulletin*, **21A**. 15 pp.
- Guertin, D.A, A.S. Harestad, M. Ben-David, K.G. Drouillard, and J.E. Elliott. (2010).** Fecal genotyping and contaminant analyses reveal variation in individual river otter exposure to localized persistent contaminants. *Environmental Toxicology and Chemistry*, **29**(2): 275-284.
- Guertin, D.A., M. Ben-David, A. Harestad, and J.E. Elliott. (2012).** Fecal genotyping reveals demographic variation in river otters inhabiting a contaminated environment. *Journal of Wildlife Management*, **76**(8): 1540-1550.
- Gunther, M. and K. Brzeski. (2013).** Evaluating river otter demography using noninvasive genetic methods. *Journal Wildlife Management*, **78**(8): 1523-1531.
- Hájková, P., B. Zemanová, J. Bryja, B. Hájek, K. Roche, E. Tkadlec, and J. Zima. (2006).** Factors affecting success of PCR. *Notes*, **6**(2): 559-562.
- Hamilton, M.J. and P.K. Kennedy. (1983).** Genetic variation in river otter from western Tennessee. *Journal of the Tennessee Academy of Science*. **58**(1/2): 13.
- Hansen, H. (2004).** The effects of diet, extraction technique and microsatellite primers on genotyping success and error rates of river otter (*Lontra canadensis*) fecal DNA. M.S., *University of Wyoming*. Laramie, Wyoming.
- Hansen, H., M. Ben-David, and D.B. McDonald. (2008).** TECHNICAL ADVANCES: Effects of genotyping protocols on success and errors in identifying individual river otters (*Lontra canadensis*) from their faeces, *Molecular Ecology Resources*, **8**(2): 282-289.
- Klomp, J.A. (2007).** A river otter runs through it: A population genetic analysis of otters in Oregon following recolonization. M.S., *Central Michigan University*. Mount Pleasant, Michigan.
- Klutsch, C.F.C. and P.J. Thomas. (2018).** Improved genotyping and sequencing success rates for North American river (*Lontra canadensis*). *European Journal of Wildlife Research*, **64**(16): 1-3.
- Koepfli, K.P. and R.K. Wayne. (1998).** Phylogenetic relationships of otters (Carnivora: Mustelidae) based on mitochondrial cytochrome *b* sequences. *Journal of Zoology*, **246**(4): 401-416.
- Kolba, N. (2015).** Population genetics of the North American river otter (*Lontra canadensis*). M.S., *Cornell University*, Ithaca, New York.
- Kolba, N. and L. Larch. (unknown).** Genetic structure analysis of North American river otter (*Lontra canadensis*) in the United States. East Stroudsburg University, Wildlife Genetics Laboratory, *East Stroudsburg University*, Stroudsburg, Pennsylvania
- Latch, E.K., D.G. Scognamillo, J.A. Fike, M.J. Chamberlain, and O.E. Rhodes Jr. (2008).** Deciphering ecological barriers to North American river otter (*Lontra canadensis*) gene flow in Louisiana Landscape(aka Landscape genetics of coastal and inland river otters *Lontra canadensis* in Louisiana) *Journal of Heredity*, **99**(3): 265-274.
- Laubach, L.L., N. Kolba, L. Palmer, J. Kauffman, T. Rounsville, and J.E. Huffman.(2014).** Genetic profile, dietary analysis, and parasitic infections of river otters (*Lontra canadensis*) in Pennsylvania. *Northeast Wildlife DNA Laboratory, East Stroudsburg University*. East Stroudsburg, Pennsylvania. 36 pp.
- Loupelle, C. (2004).** Genotoxicity of methylmercury in North American river otters (*Lutracanadensis*). M.S., *McGill University*. Montreal, Quebec.
- McElwee, B. (2008).** The use of molecular scatology to study river otter (*Lontra canadensis*) genetics. Thesis. *Rochester Institute of Technology*, Rochester, New York
- Mowry, R.A., T.M. Schneider, E.K. Latch, M.E. Gompper, J. Beringer, L.S. Eggert. (2014).** Genetics and the successful reintroduction of the Missouri river otter. *Animal Conservation*, **18**: 196-206.
- Mullhollen, J. (2014).** "CSI river otters:" Research Used DNA to Gauge Numbers. *Outdoor News*, March.
- Murphy, S.M., J.R. Adams, and L.P. Waits. (2021).** Evaluating otter reintroduction outcomes using genetic spatial capture–recapture modified for dendritic networks. *Ecology and Evolution*, **11**(1): 15047-15061.

- Padgett-Stewart, T.M., T.M. Wilcox, K.J. Carim, K.S. McKelvey, M.K. Young, and M.K. Schwartz. (2016).** An eDNA assay for river otter detection: A tool for surveying a semi-aquatic mammal. *Conservation Genetics Resources*, **8**(1): 5-7.
- Palmer, L. (2011).** Genetic structure analysis of North American river otters (*Lontra canadensis*) in Pennsylvania and New Jersey. M.S., *East Stroudsburg University*. East Stroudsburg, Pennsylvania.
- Panasci, M., W.B. Ballard, S. Beck, D. Rodriguez, L.D. Densmore, D.B Wester, and R.J. Baker. (2011).** Evaluation of fecal DNA preservation techniques and effects of sample age and diet on genotyping success. *The Journal of Wildlife Management*, **75**: 1616-1624.
- Serfass, T.L. (1994).** Conservation genetics and reintroduction strategies for river otters. Ph.D., *The Pennsylvania State University*. University Park, Pennsylvania.
- Serfass, T.L., R. Cordes, J. Fike, S. Stevens, B. Hubbard, M. Mills and O. Rhodes, Jr. (2004).** Evaluating the distribution and abundance of reintroduced otters in the Allegheny River drainage: Applications of GIS, genetic, and digital technologies for management of a rare species. Fourth Progress Report: Wildlife Conservation and Restoration Account Prepared for: The Pennsylvania Game Commission. 11 pp.
- Serfass, T.L., R.P. Brooks, J.M. Novak, P.E. Johns, and O.E. Rhodes, Jr. (1988).** Genetic variation among populations of river otters in North America: Considerations for reintroduction projects. *Journal of Mammalogy*, **79**(3): 736-746.
- Waits, L.P. and D. Paetkau. (2005).** Noninvasive genetic sampling tools for wildlife biologists: A review of applications and recommendations for accurate data collection. *The Journal of Wildlife Management*, **69**: 1419-1433.
- Wei, Q., X. Wang, Y. Dong, Y. Shang, G. Sun, X. Wu, C. Zhao, W. Sha, and H. Zahang. (2023).** Analysis of the complete mitochondrial genome of *Pteroura brasiliensis* and *Lontra canadensis*. *Animals (Basil)*, **13**(20): 3165

Reference

- Camp, V.L. (2023).** A Bibliography on the North American River Otter (*Lontra canadensis*) 10th Edition. IUCN/Species Survival Commission/Otter Specialist Group (in press)

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