

Patrice Boily, Ph.D.

EDUCATION

- Ph. D. 1995. University of Guelph, Department of Zoology. Dissertation: Partitioning variation in resting metabolic rates of captive female grey seals (*Halichoerus grypus*). 182 p.
 B. Sc. in Biology (Ecology) 1990. Université de Sherbrooke, Département de Biologie

PROFESSIONAL EXPERIENCE

- 08/2008-present. Associate Professor. Western Conn. State University, Dept. Biology and Env. Sci.
 08/2006-07/2008. Assistant Professor. Western Conn. State University, Dept. Biology and Env. Sci.
 08/2002-08/2006. Associate Professor (Tenured). Univ. New Orleans, Dept. Biological Sciences.
 08/1996-2002. Assistant Professor. University of New Orleans, Dept. Biological Sciences.
 1995-1996. Post-doctoral researcher and lecturer. Université du Québec à Trois-Rivières (Dept. Chimie-Biologie) and Groupe de Recherche Inter-universitaire en Limnologie

REFEREED PUBLICATIONS:

- Boily, P. 2008. The use of armadillos of the genus *Dasyopus* as experimental models to investigate the source of physiological variability. Pp. 126-129. In *Biology of the Xenarthrans*, Univ. Florida Press.
- Superina, M. and Boily, P. 2007. Hibernation and daily torpor in an armadillo, the pichi (*Zaedyus pichiy*). *Comp. Biochem. Physiol. Part A*. 148:893-898.
- Boily, P., Rees, B. B., Williamson, L. A. C. 2007. Vertebrate osmoregulation: A student laboratory exercise using teleost fish. *Advances in Physiological Education*. 31:352-357.
- Enders, E. C., Boisclair, D., Boily, P. and Magnan, P. 2006. Effects of body mass and water temperature on the standard metabolic rate of juvenile yellow perch, *Perca flavescens* (Mitchill). *Environ. Biol. Fish* 76:399-407
- Boily, P. and Knight, F. M. 2004. Cold-induced fever and peak metabolic rate in the nine-banded armadillo (*Dasyopus novemcinctus*). *Physiol. Biochem. Zool.* 77: 651-657.
- Boily, P. 2002. Individual variation in metabolic traits of wild nine-banded armadillos (*Dasyopus novemcinctus*) and the aerobic capacity model for the evolution of endothermy. *J. exp. Biol.* 205: 3207-3214.
- Boily, P. and Magnan, P. 2002. Relationship between individual variation in morphological characters and swimming costs in brook charr (*Salvelinus fontinalis*) and yellow perch (*Perca flavescens*). *J. exp. Biol.* 205: 1031-1036.
- Boily, P., P. H. Kvadheism and L. P. Folkow. 2000. Cutaneous heat flux models do not reliably predict metabolic rates of marine mammals. *J. theor. Biol.* 207:317-323.
- Knopper, L. D. and Boily, P. 2000. The energy budget of captive Siberian hamsters, *Phodopus sungorus*, exposed to photoperiod changes: mass loss is caused by a voluntary decrease in food intake. *Physiol. Biochem. Zool.* 73:517-522.
- Knopper, L. D. and Boily, P. 2000. Relationship between apnea duration and rate of oxygen consumption by captive female gray seals resting on land. *Mar. Mammal Sci.* 16: 676-681.
- Boily, P. and Lavigne, D. M. 1997. Developmental and seasonal changes in resting metabolic rates of captive female grey seals. *Can. J. Zool.* 75:1781-1789
- Boily, P. 1996. Metabolic and hormonal changes during the molt of captive gray seals (*Halichoerus grypus*). *Am. J. Physiol.* 270: R1051-R1058
- Boily, P. and Lavigne, D. M. 1996. Thermoregulation of juvenile grey seals, *Halichoerus grypus*, in air. *Can. J. Zool.* 74:201-208

REFEREED PUBLICATIONS (CONTINUED):

Boily, P. and Lavigne, D. M. 1995. Resting metabolic rates and respiratory quotients of gray seals, *Halichoerus grypus*, in relation to time of day and duration of food deprivation. *Physiol. Zool.* 68:1181-1193

Boily, P. 1995. Theoretical heat flux in water and habitat selection of phocid seals and beluga whales during the annual molt. *J. theor. Biol.* 172:235-244.

OTHER PUBLICATIONS:

Boily, P. 2007. Answers to end-of-chapter questions for the companion website of a textbook (*Principles of Animal Physiology*, by Moyes and Schulte 2nd Ed. 2008).

Magnan, P., P. East, P. Boily. October 1997. Augmentation des taux de conversion alimentaire et homogénéisation de la croissance chez l'omble de fontaine et l'omble chevalier produits en pisciculture. Doc. de recherche N° 97.x, Soc. Rech. Dével. Aquiculture Continentale.

PRESENTATIONS AT PROFESSIONAL MEETINGS: Research (Since 2000 only)

Not listed: 25 oral and poster presentations from 1991-1999

Boily, P. Voluntary motor activity contributes to the increase in body temperature caused by menthol application to the skin of gerbils. Society for Integrative and Comparative Biology (SICB), Boston, MA. Jan. 2009. Oral or poster presentation (to be determined).

Superina, M. and Boily, P. Hibernation and daily torpor in an armadillo, the pichi (*Zaedyus pichiy*). SICB, San Antonio, TX. Jan. 2008. Oral Presentation.

Gipson, K. S., Boily, P. Effect of stress and stress-induced fever on sprint speed in laboratory rats. Gulf Coast Physiological Society Meeting, Mobile, AL. March 2004. Poster presentation

Boily, P. and Knight, F.M. Functional significance of cold-induced fever. Gulf Coast Physiological Society Meeting, Mobile, AL. March 2004. Poster Presentation.

Boily, P. Effectiveness using of computer-based tools to teach a junior-level physiology course. SICB, New Orleans. Jan. 2004. Oral presentation.

Gipson, K. S., Boily, P. Protti, L. Effect of stress and stress-induced fever on sprint speed in Sprague-Dawley rats. SICB, New Orleans. Jan. 2004. Poster presentation.

Boily, P. and Knight, F.M. Adaptive significance of cold-induced fever. SICB, Toronto. Jan. 2003. Poster presentation.

Boily, P. and Knight, F. M. Adaptive significance of cold-induced fever. APS Intersociety meeting: "The Power of Comparative Physiology", San Diego, CA. Aug. 2002. Poster presentation.

Boily, P. and Knight, F. M. Functional significance of cold-induced hyperthermia in the nine-banded armadillo (*Dasypus novemcinctus*). Experimental Biology, New Orleans, LA. April 2002. Poster presentation.

Boily, P. and Knight, F.M. Cold-induced hyperthermia and maximum metabolic rate in the nine-banded armadillo. SICB, Chicago, IL. Jan. 2001. Poster presentation.

Boily, P., P. G. O'Neil and P. A. Prodohl. Testing predictions of the aerobic capacity model using wild, free-ranging nine-banded armadillos (*Dasypus novemcinctus*) as models. Comparative Physiology symposium; Society for Experimental Biology. Aug. 2000. Cambridge, UK. **Invited** oral presentation.

Boily, P. and B. B. Rees. Basal and maximal metabolic rate, and cytochrome C oxidase activity in Siberian hamsters at different photoperiods. Jan. 2000. SICB. Atlanta. Oral presentation.

Published Abstracts:

- Boily, P. 2003. Effectiveness of using computer-based tools to teach a junior-level physiology course. *Integrative and Comparative Biology* 43(6, Suppl.): 1063.
- Gipson, K. S., Boily, P. Protti, L. 2003. Effect of stress and stress-induced fever on sprint speed in Sprague-Dawley rats. *Integrative and Comparative Biology* 43(6, Suppl.): 885.
- Boily, P. and Knight, F.M. 2002. Adaptive significance of cold-induced fever. *Integrative and Comparative Biology*. 42(6, Suppl.):1198.
- Boily, P. and Knight, F. M. 2002. Functional significance of cold-induced hyperthermia in the nine-banded armadillo (*Dasypus novemcinctus*). *FASEB Journal* 16(4): A43.

Published Abstracts (continued):

- Boily, P. and Knight, F.M. 2000. Cold-induced hyperthermia and maximum metabolic rate in the nine-banded armadillo. *American Zoologist*. 40(6):948.
- Boily, P., P. G. O'Neil and P. A. Prodohl. 2000. Testing predictions of the aerobic capacity model using wild, free-ranging nine-banded armadillos (*Dasypus novemcinctus*) as models. *Comp. Biochem. Physiol. Part B* 126 (Suppl. 1): S13
- Boily, P. and B. B. Rees. 2000. Basal and maximal metabolic rate, and cytochrome C oxidase activity in Siberian hamsters at different photoperiods. *American Zoologist* 39(5):556A
- Boily, P. 1999. Resting and maximum metabolic rates of the nine-banded armadillo (*Dasypus novemcinctus*). *American Zoologist*. 38(5):126A.
- L. D. Knopper, J. Jastram and P. Boily. 1999. Individual variation in average daily and basal metabolic rates of captive Siberian hamsters, *Phodopus sungorus sungorus*: repeatability and correlations. *American Zoologist*. 38(5):46A.
- Boily, P., Kvadsheim, P. H. and Folkow, L. P. 1998. Validation of a cutaneous heat flux model to predict metabolic rates of marine mammals. *American Zoologist*. 37(5):149A
- Knopper, L. D. and Boily, P. 1998. The relationship between apnea duration and rate of oxygen consumption in captive female gray seals. *American Zoologist*. 37(5):147A
- Boily, P., Magnan, P., Boisclair, D. 1996. Individual variation in swimming metabolism of brook charr: the cost of large body size. *American Zoologist*. 36(5):61A

OTHER INVITED LECTURES

- Western Conn. State Univ. Special lecture entitled "The effects of acute psychological stress on physical performance in rats" for the psychology class "Introduction to Brain and Behavior" (PSY 230): March 12 2007
- Western Conn. State Univ. Dept. Biol. Env. Sci., , Monthly Dept. Seminars. Nov. 2006.
- Louisiana State University, LA. Museum of Natural Sciences seminar series. Feb. 2005.
- University of the Ozarks, AR. University-wide seminar, April 2004.
- University of New Orleans. Honors program; Faculty lecture series. March 2001.
- University of the Ozarks, AR. University-wide seminar, December 2000.
- Reproductive Physiology Seminars, LSU, Baton Rouge. December 1999.
- Audubon Center for Research on Endangered Species. Scientific seminar series. May 1999.
- Université de Sherbrooke (Canada). Dept. Biology; weekly depart. seminar series. Feb. 1999
- Université Laval (Canada), Dept. Biology; depart. series in evolutionary physiology. June 1996
- Inter-University meeting of biology students of Québec. Trois-Rivières. Feb. 1996.
- Aventures au pays des blanchons: Tourist expeditions on ice-flows of the Gulf of St.-Lawrence for the observation of seals. Iles-de-la-Madelaine. March 1991

GRANTS*Western Connecticut State University*

CSU-AAUP grant. Effect of cold-induced fever on the peak metabolic rate of mammals. \$5,000.
06/08-06/09

WCSU Faculty development fund: Participation and Oral presentation at the SICB 2008 annual meeting, San Antonio, TX. \$1,200, Jan. 2008.

WCSU Faculty development fund: Participation at the FASEB summer research conference entitled "Energy balance, body fat and disease". \$1,200 Aug. 2007

CSU-AAUP grant. Why do some mammals exhibit a "cold-induced fever"? \$4,000. 06/07-06/08

University of New Orleans

Validating the use of antipyretics to investigate the functional significance of stress-induced fever. Louisiana EPSCoR PFund. \$12,000. Jan. 1-June 30 2005.

Adaptive significance of variations in metabolic rates of mammals, using the nine-banded Armadillo (*Dasyurus novemcinctus*) as a model. NSF \$153,488 08/1997-08/2001. Co-PI: Dr. P. G. O'Neil.

Supplements to the above:

NSF-ROA suppl. \$11,471. May 2000- April 2001.

Three NSF-REU suppl. 1998, 1999, 2000. \$5,000 each (\$15,000 total)

STPIG (UNO internal grant): \$9,000, 2005. \$17,500, 2001; \$11,239, 2000 (Co-PI: Dr. F. Cashner) \$11,678, 1999 (Co-PI: Dr. T. A. Lonergan).

"SMARTer Kids Foundation", Spring 1999. \$800 towards the purchase of a "SMART board".

Travel Grant For Emerging Faculty: Louisiana Board of Regents/EPSCoR. \$500.

AWARDS, LECTURESHIPS OR PRIZESAwards:

Faculty Initiative for Technology in Teaching (UNO): Selected for year 2001 cohort.

Early Career Achievement Award for Excellence in Research (UNO). 2000.

Hoar award. 1994. Canadian Society of Zoologist, award for best student oral presentation

Hon. Mention, Hoar award. 1993. Can. Soc. of Zoologist, award for best student oral presentation

2nd place, Award for excellence in scientific communication (category open to faculty and students).

1993. Society for the Study of Marine Mammals

2nd place, Award for the best M.S. student oral presentation. 1991. Soc. Study of Marine Mammals

Scholarships and fellowships:

Post-Doc. fellowship: Fonds FCAR (Québec). 1997-99 (declined because of employment at UNO)

Post-Doc. fellowship: G.R.I.L. (Québec) 1995-1996

Québec-Ontario Ph.D. Scholarship. Fonds FCAR (Québec). 1992-1994

M.Sc. Post-graduate Scholarship. Fonds FCAR (Québec). 1990-1992

Summer student research grant, NSERC (Canada). 1989