

## Two-Page CV: Academic, Research, Last Years' Focus

PI (Musiani, Calgary)

### BACKGROUND

INSTITUTION	SPECIALIZATION	DEGREE
University of Rome	Ecology	NSERC Postdoctoral Fellow 2005
University of Calgary	Applied Animal Ecology	PhD 2003
University of Siena, Italy	Ecology	Master Degree (with honours) 1997
University of Rome, Italy	Biology	Undergrad Degree 1994

### POSITIONS HELD

Present	<b>Professor, tenured</b> Biological Sciences, University of Calgary <b>(Assistant Prof 2005-2010; Associate Prof 2011-2015)</b>
Sep '10-Present	<b>Professor, tenured (joint position)</b> Faculty of Veterinary Medicine, University of Calgary
Jul '08-Present	<b>Faculty Affiliate</b> Wildlife Biology Program, College of Forestry and Conservation, University of Montana

**TOP 5 HIGH IMPACT RESEARCH CONTRIBUTIONS, PICKED FROM 48 PEER-REVIEWED PAPERS (SINCE Jun 2010).** *Marked as follows: Graduate Student/Fellow, Musiani, and Journal Names in Bold; Major Funding Sources in Parenthesis. Ordered by Impact Factor.*

- VonHoldt BM**, Pollinger JP, Lohmueller KE, Han E, Parker HG, Quignon P, Degenhardt JD, Boyko AR, Earl DA, Auton A, Reynolds A, Bryc K, Brisbin A, Knowles JC, Mosher DS, Spady TC, Elkahoun A, Geffen E, Pilot M, Jedrzejewski W, Greco C, Randi E, Bannasch D, Wilton A, Shearman J, **Musiani M**, Cargill M, Jones PG, Qian Z, Huang W, Ding ZL, Zhang Y-P, Bustamante CD, Ostrander EA, Novembre J, Wayne RK (2010). Genome-wide SNP and haplotype analyses reveal a rich history underlying dog domestication. ***Nature*** 464:898–902. (NSF, NSERC) **Impact Factor: 36.280.**
- Anderson TM**, vonHoldt BM, Candille SI, **Musiani M**, Greco C, Stahler DR, Smith DW, Padhukasahasram B, Randi E, Leonard JA, Bustamante CD, Ostrander EA, Tang H, Wayne RK, Barsh GS (2009). Molecular and evolutionary history of melanism in North American gray wolves. ***Science*** 323:1339-1343. (NSF, NSERC). **Impact Factor: 31.201.**
- Yannic G**, Pellissier L, Ortego J, Lecomte N, Couturier S, Cuyler C, Dussault C, Hundertmark KJ, Irvine RJ, Jenkins DA, Kolpashikov L, Mager K, **Musiani M**, Parker KL, Roed KH, Sipko T, Skarphéðinn GP, Weckworth BV, Guisan A, Bernatchez L, Cote SD (2013). Genetic diversity in caribou linked to past and future climate change. ***Nature Climate Change***: <http://dx.doi.org/10.1038/nclimate2074>. (NSERC, CAPP). **Impact Factor: 14.472.**
- vonHoldt BM**, Pollinger JP, Earl DA, Knowles JC, Boyko AR, Parker H, Geffen E, Pilot M, Jedrzejewski W, Jedrzejewski B, Sidorovich V, Creco C, Ettore R, **Musiani M**, Kays R, Bustamante CD, Ostrander EA, Novembre J, Wayne RK (2011). A genome-wide perspective on the evolutionary history of enigmatic wolf-like canids. ***Genome Research*** 21:1294–1305. (NSF, NSERC) **Impact Factor: 14.397.**
- Weckworth BV**, **Musiani M**, DeCesare NJ, McDevitt AD, Hebblewhite M, Mariani S (2013). Preferred habitat and effective population size drive landscape genetic patterns in an endangered species. ***Proceedings of the Royal Society B***, 280: 20131756. <http://dx.doi.org/10.1098/rspb>. (CAPP, NSERC, ACA, Alberta Innovates) **Impact Factor: 5.683.**

**Note:** The above, very high impact papers resulted from large international collaborations. In the other papers published (also with good impact factors), the inputs of my lab only were more prominent and I was lead author in 35, while my graduate students and PostDocs were always first authors, with just a couple of exceptions.

**TOP 5 MAJOR GRANTS AND AWARDS.** *Ordered by If Principal Investigator and Amount.*

- Title:** Linear Features, Forestry and Wolf Predation of Caribou and Other Prey in West Central Alberta, **Role: Principal Investigator.** Petroleum Technology Alliance of Canada (PTAC), Canadian Association of

Petroleum Producers (CAPP), Shell, Weyerhaeuser Company, Alberta Fish and Wildlife, Alberta Conservation Association. **\$1,379,000 (2007-2010)**. **Split:** \$665,000 from CAPP and \$714,000 from Weyerhaeuser, Parks Canada and Shell.

2. **Title:** The Role of Predation in Woodland Caribou Declines **Role: Principal Investigator**. Petroleum Technology Alliance of Canada (PTAC), Canadian Association of Petroleum Producers (CAPP), Shell. **\$345,000** over 3 years (2011-2013).
3. **Title:** Developing Multivariate Approaches To Analyze Ecological Variation In Caribou, **Individual (Musiani) Discovery Grant**, Natural Sciences and Engineering Research Council of Canada (NSERC). **\$140,000** over 5 years (2011 onward).
4. **Title:** Montane Elk Research Program, **Role: Co-Principal Investigator**. Shell Canada and National Science and Engineering Research Council of Canada (NSERC, CRD project), **\$1,700,000 (2008 - 2012)**. **Split:** \$750,000 from NSERC and \$950,000 from Shell. **Note: project got "EMERALD AWARD", 2013**, <http://emerald.foundation.ca/>
5. **Title:** Genomic-Scale SNP Genotyping of the Arctic Wolf: Ecology and Adaptation over Space and Time, **Role: Co-Principal Investigator** (with R.K. Wayne, UCLA). National Science Foundation (NSF). **\$885,000 (2008 - 2011)**.

### SUMMARY RECORD OF GRADUATE TRAINING AND MENTORSHIP (NSERC FORMAT)

	Currently		Over the past six years (excluding the current year)		Total
	Supervised	Co-supervised	Supervised	Co-supervised	
Undergraduate					
Master's	3	1	6	2	12
Doctoral	2	2	2	2	8
Postdoctoral			3	2	5
Others			2		2
Total	5	3	13	6	27

**Note on Postdoctoral Fellows (PDFs):** In the last 5 years, I supervised 3 PDFs, which has been very beneficial for my lab and for them too. They all work in the research arena now, as Assistant Professors in Canada and Ireland (two of them) and with the Ministry of the Environment in Greece.

### PAST ACADEMIC HONOURS

- "EMERALD AWARD", 2013, Recipient: Montane Elk Project.
- NSERC PDF (Postdoctoral), 2003
- NSERC PGS B (Doctoral), 2001
- Honorary Killam Memorial Scholarship, 2001
- Izaak Walton Killam Memorial Scholarship, 2001
- Italian National Research Council Study Abroad Scholarship, Molecular Biology, 2001
- Italian National Research Council Study Abroad Scholarship, BioMed, 2001
- Italian National Research Council Study Abroad Scholarship, Biology, 2000
- University of Rome Study Abroad Scholarship, BioMed, 1999
- Government of Canada Award, 1998
- Government of Poland Award, 1995