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The effects of rearing conditions on sexual traits and preferences in zebra finches

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Curriculum vitae

I was born 27 April 1978 in Villeneuve-Saint-Georges, France. I entered the Pierre et Marie Curie national junior secondary school in Héricourt in 1989. In 1996 I passed the French scientific Baccalaureate at the Louis Aragon national secondary school in Héricourt. The same year I opted to study Biology at the University of Besançon where I got interested in studying Behavioural Biology and Ecology after a course in this field in 1999/2000. In 2000, I carried out my first behavioural biology research project which aimed at establishing the social structure and reproductive capacities in a recently restructured group of Guinea baboon, *Papio papio*, in the zoo of the History Natural Museum of Besançon. For this undergraduate project, I was supervised by Prof. Gérard Brand from the Laboratory of Neurosciences at the University of Besançon and Jean-Yves Robert, Assistant Curator at the History Natural Museum. From 2001 onwards, I investigated sexual selection and mating systems in agile frogs, *Rana dalmatina*, supervised by Prof. Thierry Lodé from the Laboratory of Animal Ecology at the University of Angers. During the course of this research project I was awarded two diplomas: In June 2001 I passed my 'Diplôme d'Etudes Approfondies' (equivalent of MSc Degree) in Behavioural Biology at the University of Paris XIII and in December 2002 the 'Diplôme d'Etudes Supérieures Universitaires' (lit. University High Education Diploma) in Biology at the University of Metz. In winter and spring of 2003, while looking for a PhD position, I worked as a substitute teacher in several Junior High Schools in Angers and its surroundings.

In September 2003 I took up the PhD project presented in this thesis investigating developmental influences on female preferences for a sexually selected and culturally transmitted trait, the song, in zebra finches, *Taeniopygia guttata*, at the Behavioural Biology group at Leiden University under the supervision of Dr. Katharina Riebel and Prof. Carel ten Cate. This work was supported by the Research Council for Earth and Life Sciences (ALW) with financial aid from the Netherlands Organization for Scientific Research (NWO).

In October 2007, I was awarded a French university post-doctoral fellowship to study whether egg color is a sexually selected signal influencing paternal investment in blue tits, *Cyanistes caeruleus*. I took up this position in January 2008 and I am working since as a post-doctoral research fellow at the Centre of Functional and Evolutionary Ecology (CEFE, CNRS) at the University of Montpellier in

collaboration with Dr. Arnaud Grégoire and Dr. Claire Doutrelant
(CNRS).

List of publications

Holveck, M. J. & Riebel, K. 2007. Preferred songs predict preferred males: female zebra finches show consistent and repeatable preferences across different testing paradigms. *Animal Behaviour*, 74, 297-309. (Chapter 2 of this thesis)

Verhulst, S., **Holveck, M. J.** & Riebel, K. 2006. Long-term effects of manipulated natal brood size on metabolic rate in zebra finches. *Biology letters*, 2, 478-480. (Chapter 3 of this thesis)

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Lodé T., **Holveck M. J.**, Lesbarreres D. & Pagano A. 2004. Sex-biased predation by polecats influences the mating system of frogs. *Proceedings of the Royal Society B-Biological Sciences*, 271, S399-S401.

Holveck M. J. & Riebel K. - Low quality females avoid high quality males when choosing a mate. *Submitted*. (Chapter 5 of this thesis)

Holveck M. J., Riebel K., Lachlan, R.F., Goncalves Vieira de Castro A. C. & ten Cate, C. - Song syntax learning and singing consistency as long-term signals of past developmental condition in zebra finches. *Submitted*. (Chapter 4 of this thesis)