ATTE MOILANEN, DR

PROPOSED ROLE: INTERNATIONAL COLLABORATOR

CURRENT POSITION: Academy Research Fellow, Vice-director of the Metapopulation Research Group, a two-time Finnish Center of Excellence in Science 1999-2011 (lead by academy professor Ilkka Hanski), one of the world's leading research groups in spatial ecology.

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Education MSc Computer Science 1992; Techn. Lic. (Applied mathematics, Helsinki University of Technology 1997); PhD (Ecology, University of Helsinki 1998)

Research interests : Presently focused on developing methods and software for conservation planning. Interests include also spatial ecology in general, decision theory, and optimization.

Students PhD supervisor of Mar Cabeza, Jonna Katajisto, Astrid van Teeffelen and Anni Arponen. Several MSc students.

Teaching experience : Yearly lecturer in the course "Conservation Biology in Fragmented Landscapes" 2000-2005. Teacher in ca 10 courses in Helsinki University of Technology and the University of Helsinki.

Scientific experience : Referee for about two-dozen international journals including Am Nat, Ecology, Ecological Applications, Conservation Biology, Proceedings of the Royal Society. Organizer of two workshops. Dozens of presentations for international audiences.

Major Grants Academy Research Fellow 2003-2008, 600 000 Euros; Finnish Center of Excellence in Science 2006-2011, 3 500 000 Euros (one of six primary investigators).

Publications ca 40 publications in high-level refereed international journals in the fields of ecology and conservation biology; additionally book chapters, and articles in Finish journals and newspapers.

Software Author of multiple pieces of software including SPOMSIM (*Ecol Mod* 2004, 179:533-550), MateSoft (*Molec Ecol Notes* 2004, 4:794-797), VMprogs (Hanski et al. 2000, *Ecology* 81:239-251), RSW (Arponen et al. 2005, *Cons Biol* 19: 2009-2014), Zonation (2005, *Proc B* 272:1885-1891), Parsigal (1998, *Cladistics* 15: 39-50).

Recent research highlights

Moilanen, A. 2005. Reserve selection using nonlinear species distribution models. *Am. Nat.* **165**: 695-706.

Moilanen, A., Franco, A.M.A., Early, R., Fox, R., Wintle, B., and C.D. Thomas. 2005. Prioritising multiple-use landscapes for conservation: methods for large multi-species planning problems. *Proc. R. Soc. Lond. B Biol. Sci.*, **272**: 1885-1891.

Arponen, A., Heikkinen, R., Thomas, C.D. and A. Moilanen. 2005. The value of biodiversity in reserve selection: representation, species weighting and benefit functions. *Cons. Biol.* **19**: 2009-2014.

Moilanen, A., B.A. Wintle., J. Elith and M. Burgman. 2006. Uncertainty analysis for regional-scale reserve selection. *Cons. Biol.*, in press.

Moilanen, A., and I. Hanski. 2006. Connectivity and metapopulation dynamics in highly fragmented landscapes. In: Connectivity Conservation (Krooks and Sanjayan, eds.). Cambridge University Press, Cambridge, UK, in press.