

# BIOGRAPHY

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**Title and name**  
Dr Gianni Gilioli

**Nationality**  
Italian

**Panel**  
Plant Health

## Education

Degree in Biological Sciences, 1991, Faculty of Mathematical, Physics and Natural Sciences, University of Parma, (Italy)

Ph D in Animal Biology, 1995, Department of Experimental Evolutionary Biology, University of Bologna (Italy)

Post-doc in Mathematics, 1998, Department of Mathematics, University of Parma, (Italy)

## Scientific and risk assessment experience

1. Population ecology and ecosystem ecology: analysis of life-history strategies, experimental and sampling protocols, analysis of population dynamics and simple trophic webs, conservation
2. Biomathematics: parameter estimation, i-state and p-state models for single population dynamics, trophic interaction models, spatial models, eco-epidemiological models
3. Pest risk assessment and management: models for the management of pest population at small- and large-scale, information theory-based approaches for the ranking intervention strategies, models for colonization and spatial diffusion of invasive species, decision support for priority setting for managing invasions
4. Management models for development in Sub-Saharan Africa: management scheme for agropastoral systems, environmental and human health to promote sustainable development in Sub-Saharan Africa

## Main scientific publications

1. Gutierrez A.P., Gilioli G., Baumgärtner J., 2009. Eco-social consequences of disease management in East African agro-pastoral systems: Policy implications. PNAS August 4, 2009 vol. 106(31), 13136-13141
2. Gutierrez A.P., Ponti L., Gilioli G., 2009. Climate Change Effects on Plant-Pest-Natural Enemy Interactions. In: Daniel Hillel and Cynthia Rosenzweig (Eds) Handbook of Climate Change and Agroecosystems: Impacts, Adaptation, and Mitigation. Imperial College Press, London UK
3. Gilioli G., Groppi M., Vesperoni M.P., Baumgärtner J., Gutierrez A.P., 2009. An epidemiological model of East Coast Fever in African livestock. Ecological Modelling, 220, 1652-1662
4. Bodini A., Baumgärtner J., Gilioli G., 2008. Conservation strategies evaluation in an Adaptive Management framework. Animal Conservation, 11(6), 472-475
5. Gilioli G., Bodini A., Baumgärtner J., Weidmann P., Hartmann J., 2008. A novel approach based on information theory to rank conservation strategies: an application to Amphibian metapopulations. Animal Conservation, 11(6), 453-462
6. Baumgärtner J., Gilioli G., Getachew Tikubet, Gutierrez A.P., 2008. Eco-social analysis of an East African agro-pastoral system: management of tsetse and bovine trypanosomiasis. Ecological Economics, 65(1), 125-135
7. Gilioli G., Pasquali S., Ruggeri F., 2008. Bayesian inference for functional response in a stochastic predator-prey system. Bulletin of Mathematical Biology, 70(2), 358-381

8. Gilioli G., Baumgärtner J., 2007, Adaptive Ecosocial System Sustainability Enhancement in Sub-Saharan Africa. *EcoHealth*, 4(4), 428-444
9. Gilioli G., Pasquali S., 2007, Use of individual-based models for population parameters estimation. *Ecological Modelling*, 200, 109-118
10. Herren H.R., Baumgärtner J., Gilioli G., 2007. From integrated pest management to adaptive ecosystem management. In: Scherr, S.J. and J.A. McNeely (ed.), *Farming with nature. The science and practice of ecoagriculture*. Washington, D.C., Island Press, pp.178-190