

Curriculum vitae

Yiannis G. Matsinos, PhD

Associate Professor, Department of the Environment, University of the Aegean

Personal data

Date of Birth: 6-5-1963

Family status: married, one child

Nationality: Greek

Work address

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Studies

Ph.D. The University of Tennessee, Knoxville,
Theoretical Ecology, December 1994

M.Sc. The University of Tennessee, Knoxville,
BioMathematics, December 1990

B.Sc. National and Kapodistrian University of Athens
Mathematics, February 1986

Fields of Research Expertise

Computational Ecology – Mathematical Modelling

Risk Assessment

Statistical and quantitative methods for wetland management (Everglades NationalPark)

Landscape Ecology

Mathematical Biology

Quantitative Conservation Ecology

Development and application of individual based models in Population Biology

Dynamical Systems Theory

Modelling for Sustainable Tourism

Professional Affiliations

American Mathematical Society

Society of Industrial and Applied Mathematics

Ecological Society of America

Resource Modelling Association

Society of Environmental Toxicology and Chemistry (SETAC)

International Society of Ecological Modelling

Lyonia

New York Academy of Sciences

Colonial Waterbird Society

International Research Collaborations

Department of Biology, University of Miami (Prof. DeAngelis)
Environmental Sciences Division, Oak Ridge National Laboratory (Dr. Suter)
Department of Ecology and Systematics, University of Tennessee (Prof. Simberloff)
Lex Brown, Dean, Faculty of Environmental Sciences, Griffith University
Volker Grimm, Department of Ecological modelling, UFZ, Leipzig, Germany
Yu-Pin Lin, Professor National Taiwan University
Department of Bioenvironmental Systems Engineering
Department of Zoology, University of Wisconsin Madison, USA (Prof. Turner)
Institute of Ecology, University of Georgia (Prof. B.T. Patten)
KFA Juelich (Dr. W.F. Wolff)
Leipzig University (Prof. C.Wissel)
Department of Ecology, University of Seattle, (Prof. R. McKelvey)
Department of Oceanography-BATMARE Bergen University (Prof. Oyvind Fiksen)
Committed to Green, Scotland (J. Smith)

Teaching and Professional Experience

2006- Associate Professor , Department of Environmental Sciences in the research field “Structure, Dynamics and Management of Ecosystems with emphasis on Statistical methods”

2010 visiting professor UFZ (Department of Conservation Biology, Leipzig
<http://www.ufz.de/index.php?de=5433>)

1997-2006 Assistant Professor , Department of Environmental Sciences in the research field “Structure, Dynamics and Management of Ecosystems with emphasis on Statistical methods”

Adjunct Professor, Department of Environmental Studies (Oct 1996- Nov. 1997)

Senior Research Fellow (ecological modeling using supercomputers)
PARAGON-Lockheed Martin - Oak Ridge National Laboratory, Section of Theoretical Ecology, University of Tennessee 1991-1994

1996- 1999 Research Associate of the European Network “Biodepth”
(Scientific officer A. Troumbis)

Chair of the Organizing committee of the European Platform of Biodiversity Research Strategy (meeting under the Greek Presidency, June 2003, Lesvos, Greece)

Chair of the Organizing committee of the World Congress of Natural Resource Modelling (Sigri, Lesvos, Greece 23-26 June 2002)

Governing Board Member of Greek Ecological Association

Scientific evaluator of research projects under the 5th and 6th Framework Programmes DGXII (Energy, Environment and Sustainable Development (Brussels at the Committees of Key Action: Global Change, Climate and Biodiversity (1998-

Editorial board

1. Lyonia (www.lyonia.org)
2. Scientific Journals International (*Environment*) (www.scientificjournals.org)
3. Nature Conservation <http://www.pensoft.net/journals/natureconservation>

Referee in the peer review scientific journals:

1. Journal of the Society of Environmental Toxicology and Chemistry SETAC (1997-)
2. Web Ecology (1999-)
3. Oikos (2000-)
4. Statistical Models in Medical research (1998-)
5. Risk analysis (1996-)
6. Colonial Waterbirds (1993-)
7. Springer-Verlag Book Series in Ecological Modelling (1993-)
8. Mathematical and Computer Modelling (1996-)
9. Chemosphere (2003-)

RESEARCH PROJECTS

- FP7 integrated project SCALES <http://www.scales-project.net> SCALES stands for Securing the Conservation of biodiversity across Administrative Levels and spatial, temporal, and Ecological Scales. The SCALES project will seek ways to build the issue of scale into policy and decision making and biodiversity management. The general objective of SCALES is to provide the most appropriate assessment tools and policy instruments to foster our capacity for biodiversity conservation across spatial and temporal scales and to disseminate them to a wide range of users. Yiannis Matsinos serves at the steering committee of SCALES. (2009-2013)
- EUROPEAN ECOLOGICAL FEDERATION (www.eef.org) Yiannis Matsinos is a member of the Board of EEF and heads the Greek Ecological Society at the European Council.

Participation at the European Program “Biodepth” (EU-DGXII) studying the effects of biodiversity on ecosystem functioning in model grassland ecosystems (1996-1999)

Research Program “Iraklitos” EPEAEK III “Modelling of the population dynamics of *Caretta caretta* sp. and assessment of the impacts of habitat fragmentation” (2003-2005)

Research Program “Pythagoras” EPEAEK III «study of receptor D (VDR) in osteosarcoms» (2005-2007)

Research Program “Pythagoras” EPEAEK III “Soundscape” (2005-2007) Research Program EPEP «Study of Community Dynamics of competing species following invasion, with the aid of mathematical models of the Lotka-Volterra type and spatially-explicit. (1998-2000)

Member of the Greek Board of examinations for natural sciences of Greek Students transferring from abroad (Ministry of Education- Aristotle University of Thessaloniki) (2001-

Scientific Evaluator of the Mobility Programme “Leonardo” (2004-

Scientific Evaluator of the Greek Secretariat on Research and Technology (2002-

Scientific Evaluator of the Greek Ministry of Education on EPEAEK I, II, III (2000-
Scientific Evaluator of ASEP (fields of Mathematics, IT)
Chairman of the organizing and Scientific committee of the “4th International Marine Environmental Modeling Seminar”, Athens, 4-6 October 2000
Chairman of the Organizing and Scientific Committee of the 12th Annual Greek conference of the Greek Society of Social Pediatrics (Lesvos, 2000)
Guest invited speaker in Concerted Action on Mediterranean Desertification Think Tank 4: Human Dimensions of Deserification, Naples, Italy, 24-26 July 1998
Guest invited speaker in Diversitas-GCTE-TERI Workshop, Imperial College, Silwood Park, UK, 24-27 June 1997
Special Advisor to the Secretary General of Greek National Tourism Organization in assessment of the risks from tourism development to the natural environment (1996-1997)
Research Associate *Sympraxis* Contribution to research on regional development and environment (1995- 1997)

Selected Publications

Book chapters

1. **Y. G. Matsinos** and D. L. DeAngelis, *Can individual-based models yield a better assessment?* In: Quantitative Methods in Conservation Biology, Scott Ferson (ed.) Springer Verlag, New York, 2000.
2. Troumbis, A., **Matsinos, Y.**, Young, J. and Watt, A.D. (Eds.) 2003. Biotic resources in a changing world: Science for better governance, proceedings of an electronic conference. University of the Aegean, Lesvos.
<http://bio.emodnet.eu/component/imis/?module=ref&refid=184934>
3. **Y. G. Matsinos** invited contribution (chapter) for “Resilience” in “Population Dynamics”, *Encyclopedia of Ecology*, S. E. Jorgensen editor 2009
<http://www.elsevierdirect.com/brochures/ecology/content.html>
4. Breckling, B., G. Pe'er and **Y.G. Matsinos** (2011). Cellular Automata in Ecological Modelling. in: Jopp, F., H. Reuter and B. Breckling (Eds.): Modelling Complex Ecological Dynamics. Springer

PAPERS

Journal Publications

1. Using an Object-Oriented Model for Ecological Risk Assessment on a Great Blue Heron Colony by Y. G. Matsinos, D. L. DeAngelis, and W. F. Wolff, *Mathematical and Computer Modeling*, (1994) vol.20, #8.
2. Parameter estimation, reliability, and model improvement for spatially-explicit models of animal populations by M.J. Conroy, Y. Cohen, F. C. James, Y. G. Matsinos, B. Maurer, and S. Rathbun, *Ecological Applications* (1995) vol.5, No 1
3. Linking Behavior to population based models; an overview by Y. G. Matsinos and D. L. DeAngelis, *Ecologia Austral.* (1997) Vol 6. #2 pp. 32-67

4. Modelling spatiotemporal dynamics of a community of annual plant species: implications for management of biodiversity by Y. G. Matsinos and A.Y. Troumbis, *Ecological Modeling* (2002) vol.149, pp.71-83.
5. Conserving Biodiversity in a grassland community; implications of a cellular automaton model by Y. G. Matsinos and A.Y. Troumbis, *Ekologia*, (2003) vol. 20 pp. 337-346
6. An Individual- Oriented Model for Ecological Risk Assessment of Wading Birds, by Y. G. Matsinos, and W. F. Wolff, *Ecological Modeling* (2003) Volume 170, Issues 2-3, 15, pp 471-478
7. Investigating the viability of small squirrel populations; a modelling approach for the Island of Lesvos by Y. G. Matsinos and E. Papadopoulou, *Natural Resource Modeling*, vol 17, No 4 , (2004) pp. 423-444
8. Effects of climatic factors upon sea turtle emerge and successful nesting attempts: Empirical modelling of seasonal trends by Kornaraki, L., Mazaris, A.D., Y. G. Matsinos., Margaritoulis, D. *Natural Resource Modelling* (2004) vol 17, no 4 pp. 445-468.
9. Environmental Education Potential for Greek Ecotourism, by Skanavis, C., Y. G. Matsinos. and Petreniti V., (2004), *International Journal of Environmental Studies*, 61(6)
10. Nest site selection of loggerhead sea turtles: The case of the island of Zakynthos, W Greece A. D. Mazaris, Y. G. Matsinos, D. Margaritoulis, *Journal of Experimental Marine Biology and Ecology* (2006) 336 157–162
11. Urinary excretion of endothelin-1 in children with absorptive idiopathic hypercalciuria by Polyxeni Nicolaidou,, Helen Georgouli, Vasiliki Getsi, Helen Tsapra, Fotini Psychou, Y. G. Matsinos, Petros M. Zeis and Dimitris Gourgiotis, *Pediatric Nephrology*, (2003) Volume 18, Number 11,
12. Endothelin-1 in children with acute poststreptococcal glomerulonephritis and hypertension. Nicolaidou P, Georgouli H, Y. G. Matsinos, Psychou F, Messaritaki A, Gourgiotis D, Zeis P. (2003) *Pediatrics International* Volume 45 Issue 1
13. Vitamin D Receptor Polymorphisms in Hypocalcemic Vitamin D-Resistant Rickets Carriers P. Nicolaidou, A. Papadopoulou, Y. G. Matsinos, H. Georgouli, A. Fretzayas, A. Papadimitriou, K. Priftis, K. Douros, G. P. Chrousos, *Hormonal Research* (2007);67:179–183
14. Using an individual based model for assessment of sea turtle population viability. Mazaris, D. A., Fiksen, O., Y. G. Matsinos. *Population Ecology* (2005) 47 (3): 179-191

15. Effects of anticonvulsant therapy on vitamin D status in children; a prospective monitoring study Nicolaidou P, Georgouli H, Kotsalis H, Y. G. Matsinos, Papadopoulou A, Fretzayas A, Syriopoulou V, Krikos X, Karantana A, Karpathios T. *J Child Neurol.* 2006 Mar;21(3):205-9
16. Calcium and vitamin D metabolism in hypocalcemic vitamin D-resistant rickets carriers. Nicolaidou P, Papadopoulou A, Georgouli H, Y. G. Matsinos, Tsapra H, Fretzayas A, Giannoulia-Karantana A, Kitsiou S, Douros K, Papassotiriou I, Chrousos GP. *Horm Res.* (2006);65(2):83-8.
17. The effect of vitamin K supplementation on biochemical markers of bone formation in children and adolescents with cystic fibrosis P.Nicolaidou . I. Stavrinadis . I. Loukou . A. Papadopoulou .H. Georgouli .K. Douros .K. N. Priftis, D. Gourgiotis . Y. G. Matsinos, S. Doudounakis *Eur J Pediatr* (2006) 165: 540–545
18. Evaluating the effectiveness of the use of different conservation measures on sea turtle nesting beaches: the case of the loggerhead sea turtle (*Caretta caretta*) on Zakynthos Island, Greece. Kornaraki, E., Matossian, D., Mazaris, D.A., Y. G. Matsinos. and Margaritoulis, D., *Biological Conservation* 130 (2006) 324-330
19. An Individual-based model of a sea turtle population to analyze effects of age dependent mortality Mazaris, D., Antonios, Breckling Broder, and Y. G. Matsinos. *Ecological Modelling*, Volume 198, Issues 1-2, 15 September 2006, Pages 174-182
20. An individual based model of sea turtles: Investigating the effect of temporal variability on population dynamics, A. D. Mazaris, Y. G. Matsinos *Ecological Modelling* 194 (2006) 114–124
21. New methods and tools in fire danger rating. Vasilakos, C., K. Kalabokidis, J. Hatzopoulos, G. Kallos, and Y. G. Matsinos. *International Journal of Wildland Fire* (2007)16(3).
22. Development and parameterization of a general forest gap dynamics simulator for the North – Eastern Mediterranean Basin. Fyllas, N.; Phillips O., Kunin, W., Y. G. Matsinos., Troumbis A. *Ecological Modelling*, Volume 204, Issues 3-4, 16 June 2007, Pages 439-456
23. “Identifying wildland fire ignition factors through sensitivity analysis of a neural network”, Christos Vasilakos, Kostas Kalabokidis, John Hatzopoulos, Ioannis Matsinos, 2008, *Nat Hazards*, DOI 10.1007/s11069-008-9326-3

24. Integrating new methods and tools in fire danger rating Vasilakos, C., Kalabokidis, K., Hatzopoulos, J., Kallos, G., Matsinos, Y.G. *International Journal of Wildland Fire* Volume 16, Issue 3, 2007, Pages 306-316
25. Evaluating potential threats to birds in Greece: An analysis of a 10-year data set from a rehabilitation centre, Mazaris, A.D., Mamakis, Y., Kalpakis, S., Pouloupoulos, Y., Matsinos, Y.G. *ORYX* Volume 42, Issue 3, July 2008, Pages 408-414
26. Evaluating the effect of varying clutch frequency in nesting trend estimation of sea turtles, Mazaris, A.D., Matsinos, Y.G., Pantis, J.D. *Amphibia Reptilia* Volume 29, Issue 3, 1 July 2008, Pages 361-369
27. The contribution of common and rare species to plant species richness patterns: The effect of habitat type and size of sampling unit, Mazaris, A.D., Tzanopoulos, J., Kallimanis, A.S., Matsinos, Y.G., Sgardelis, S.P., Pantis, J.D. *Biodiversity and Conservation*, Volume 17, Issue 14, December 2008, Pages 3567-3577
28. Spatio-temporal variability in human and natural sounds in a rural landscape Matsinos, Y.G., Mazaris, A.D., Papadimitriou, K.D., Mniestris, A., Hatzigiannidis, G., Maioglou, D., Pantis, J.D. *Landscape Ecology* Volume 23, Issue 8, October 2008, Pages 945-959
29. Mazaris AD, Kramer-Schadt S, Tzanopoulos J, Johst K, Matsinos G, Pantis JD (2009) Assessing the relative importance of conservation measures applied on sea turtles: comparison of measures focusing on nesting success and hatching recruitment success. *Amphibia-Reptilia* 30: 221-231
30. Nest site selection of loggerhead sea turtles: a case study of the island of Zakynthos, W-Greece Mazaris, D. A., Y. G. Matsinos. *Journal of experimental marine biology* Volume 336, Issue 2, 5 (2006), Pages 157–162
31. Identifying wildland fire ignition factors through sensitivity analysis of a neural network Christos Vasilakos, Kostas Kalabokidis, John Hatzopoulos, Ioannis Matsinos *Nat Hazards* (2009) 50:125–143
32. Arable land and habitat diversity in Natura 2000 sites in Greece A.S. Kallimanis, M.A. Tsiafouli, J.D. Pantis, A.D. Mazaris, Y.G. Matsinos, & S.P. Sgardelis, *Journal of Biological Research* 2008. 9: 55-66.
33. The contribution of common and rare species to plant species richness patterns: the effect of habitat type and size of sampling unit A.D. Mazaris, J.

Tzanopoulos, A.S. Kallimanis, Y.G. Matsinos, S.P. Sgardelis, & J.D. Pantis
Biodiversity and Conservation 2008.17 (14): 3567-3577

34. Simulating nest census data for the endangered species of marine turtle *Caretta caretta* Y.G. Matsinos, A.D. Mazaris (2005) *Lecture Series on Computer and Computational Sciences*, Brill Academic Publishers, the Netherlands (pp. 910-914).
35. Reuter, H., Jopp, F., Calabrese, J., Damgaard, C., Matsinos, Y., Blanco-Moreno, JM., DeAngelis, DL. From organismic interaction to ecosystem organization – Pattern analysis, modeling and process integration across scales. *Basic and Applied Ecology* 11 (2010) 572–581
36. Klaus Henle, William Kunin, Oliver Schweiger, Dirk S. Schmeller, Vesna Grobelnik, Yiannis G. Matsinos, John Pantis, Lyubomir Penev, Simon G. Potts, Irene Ring, Jukka Simila, Joseph Tzanopoulos, Sybille van den Hove, Michel Baguette, Jean Clobert, Laurent Excoffier, Erik Framstad, Małgorzata Grodzinska-Jurczak, Szabolcs Lengyel, Pascal Marty, Atte Moilanen, Emmanuelle Porcher, David Storch, Ingolf Steffan-Dewenter, Martin T. Sykes, Martin Zobel, Josef Settele (2010) *Securing the Conservation of Biodiversity across Administrative Levels and Spatial, Temporal, and Ecological Scales - Research Needs and Approaches of the SCALES Project GAIA - Ecological Perspectives for Science and Society*, Volume 19, Number 3, pp. 187-193(7)
37. Pe'er, G., C. van Maanen, A. Turbé, Y. G. Matsinos and S. Kark (2011). Butterfly diversity at the ecotone between agricultural and semi-natural habitats across a climatic gradient. *Diversity and Distributions* 17:1186–1197.
38. Papanikolaou N.E., Martinou A.F., Kontodimas D.C., Matsinos Y.G. & Milonas P. Functional responses of immature stages of *Propylea quatuordecimpunctata* (Coleoptera: Coccinellidae) to *Aphis fabae* (Hemiptera: Aphididae) *Eur. J. Entomol.* 2011, 108(3): 391–395
39. Life table parameters of the aphid predators *Coccinella septempunctata*, *Ceratomegilla undecimnotata* and *Propylea quatuordecimpunctata* (Coleoptera: Coccinellidae) by Dimitrios C Kontodimas, Panagiotis G Milonas, George J Stathas, Nicolaos E Papanikolaou, Anna Skourti, Yiannis G Matsinos *Eur. J. Entomol.* 105: 427–430, 2008
40. Henle K, Bell S, Brotons L, Clobert J, Evans D, Goerg C, Grodzinska-Jurczak M, Gruber B, Haila Y, Henry PY, Huth A, Julliard R, Keil P, Kleyer M, Kotze D,

Kunin W, Lengyel S, Lin YP, Loyau A, Luck G, Magnuson W, Margules C, Matsinos Y, May P, Sousa-Pinto I, Possingham H, Potts S, Ring I, Pryke J, Samways M, Saunders D, Schmeller D, Simila J, Sommer S, Steffan-Dewenter I, Stoev P, Sykes M, Tóthmérész B, Yam R, Tzanopoulos J, Penev L (2012) Nature Conservation – a new dimension in Open Access publishing bridging science and application. *Nature Conservation* 1: 1-10.

Selected Conference Publications

1. "Modelling sea turtle emerges from the sea during nesting period: A comparison of different forecasting techniques" by Y. G. Matsinos and A. Mazaris, presented at the World Congress on Natural Resource Modeling, Sigri Lesvos, June 23-26, 2002. pp.34-35
2. "Investigating the viability of small squirrel populations; a modelling approach for the Island of Lesvos" by Yiannis Matsinos and Eleni Papadopoulou, presented at the World Congress on Natural Resource Modeling, Sigri Lesvos, June 23-26, 2002 pp. 42-43.
3. *Risk Assessment Modeling in a colony of wading birds* by Y.G. Matsinos and W.F. Wolff, presented at the 3rd World Congress of SETAC, Brighton UK May 21-25, 2000, pp 458-459
4. *The importance of the distribution of feeding sites in a colony of Great Blue Herons; implications of an individual-oriented approach* by Y. G. Matsinos, D. L. DeAngelis and W. F. Wolff; presented at the Annual Meeting of the Ecological Society of America, Hawaii, August 1992, p.263-264.
5. *Risk Assessment on a PCB contaminated Great Blue Heron colony: predictions of an individual-oriented model* by Y. G. Matsinos, D. L. DeAngelis, and W. F. Wolff (invited paper) presented at the Annual Meeting of the Society of Environmental Toxicology and Chemistry, Houston, Texas, November 1993, p.13-14.

Awards

- Science Alliance Award of Excellence (1992)
- National Institute for Academic Excellence award of Academic Achievement (1993)
- New York Academy of Sciences (1996)
- Who is Who in Science (2000)