

CURRICULUM VITAE

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Name: Jørgen Salomonsen
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Born: 1961
Occupation: Software developer at Geological Survey of Denmark and Greenland - GEUS



Presentation and Key Qualifications

With a background in biology, Jørgen has been working with computer programming, ecological modeling and system analysis since the late eighties. He has been involved in several research projects concerning simulation of biogeochemical processes and ecosystem dynamics where he has applied interdisciplinary fields such as information theory, chaos theory and optimization algorithms. In his ph.d. thesis and later in his work as an independant consultant he has applied ecological- and hydrodynamic modeling to gain novel insight into aspects of transport and massbalance of nutrients in coastal ecosytems.

Since 2000 Jørgen has primarily been working as independant software developer. Jørgen holds several Sun certifications in Java technology.

Occupations

- 2007- Software developer at Geological Survey of Denmark and Greenland – GEUS.
- 2004-2007 Entrepreneurship of a software development project in Java for automating industrial lift systems and stock management in warehouses.
- 2001-2004 Java system developer working with data clearing at Dan Net. Key technologies: Oracle, server-side Java and Swing GUI's.
- 2000-2001 Freelance Java developer at 21st. Key technologies: Server-side Java, applets and Swing GUI's.
- 2000-2001 Post Doc. at Institute of Biology, SDU, University of Odense, Denmark. Researching and lecturing in ecological simulation models.
- 1998-2000 Post Doc. at Freshwater Biological Laboratory, University of Copenhagen, Denmark. Researching and lecturing in ecological simulation models.
- 1997-: Co-founder of Aquasim (www.aquasim.dk), an independent consultancy firm specialised in simulation models as decision support tools in environmental management. Working primarily with water quality management of lakes and estuaries for Danish Counties.
- 1997: Post. Doc. at Department of Physical Geography, Utrecht University, Holland. Researching in ecological simulation models and Geographical Information Systems.
- 1996: Post. doc. at Institute for Industrial Chemistry at Padova University, Italy. Researching and lecturing in ecological simulation models. Field work in the Lagoon of Venice.
- 1994-1998: Ph.D. studies in coupling of hydrodynamic transport models with biogeochemical biological models at Institute of Environmental Chemistry, University of Pharmaceutical Sciences and University of Copenhagen, Denmark.
- 1992-1994: Independent consultant specialised in development of simulation models as management tools working for among others the City of Copenhagen, The International Center for Living Aquatic Resources Management (ICLARM), The International Lake Environment Committee (ILEC) and The Danish National Environmental Research Institute (DMU).

Education

- 1998 Ph.D. in aquatic ecology and ecological modelling at The Danish University of Pharmaceutical Sciences and University of Copenhagen. Turnover and advective transport of the macroalgae and macrodetritus examined experimental and by mathematical modelling with special attention to Roskilde Fjord (Denmark) , and the Venice Lagoon (Italy).
- 1991 M.Sc. in aquatic ecology and ecological modelling at Freshwater Biological Laboratory, University of Copenhagen. Thesis: Structural dynamic modelling of Lake Glumsø under reduced nutrient load" (in Danish).
- 1998-2001. Studies in Computer Science at Lyngby Business Academy.
- 1986 - 1988: Studies in music at University of Copenhagen.

Certifications

- 2003: Sun certified web component developer for the Java 2 platform.
- 2003: Sun certified developer for the Java 2 platform.
- 2000: Sun certified programmer for the Java 2 platform.

Selected Publications

- Salomonsen J.; Flindt. M.; Geertz-Hansen, O.; Johansen, C. 1999. Modelling advective transport of *Ulva lactuca* (L.) in the sheltered bay, Møllekrogen, Roskilde Fjord, Denmark. *Hydrobiologia* 397: 241-252
- Salomonsen, J.; Flindt, M.R.; Geertz-Hansen, O. 1997. Significance of advective transport of *Ulva lactuca* for a biomass budget on a shallow water location. *Ecological Modelling* 102. 129-132.
- Salomonsen, J.; Juul Jensen, J. 1996. Use of a lake model to examine exergy response to changes in phytoplankton growth parameters and species composition. *Ecological Modelling* 87.
- Salomonsen, J. 1992. Examination of properties of exergy, power, and ascendancy along a eutrophication gradient. *Ecological Modelling* 62. 171 - 181.
- Flindt, M.R.; Kamp-Nielsen, L.; Marques, J.C.; Pardal, M.A.; Bocci, M.; Bendoricchio, G.; Salomonsen, J.; Nielsen, S.N.; Jørgensen, S.E. 1997. Description of the three shallow estuaries: Mondego River (Portugal), Roskilde Fjord (Denmark) and the Lagoon of Venice (Italy). *Ecological. Modelling* 102. 17-31.

Flindt, M.; Salomonsen, J.; Carrer, M.; Bocci, M.; Kamp-Nielsen, L. 1997. Loss, growth, and transport dynamics of *Chaetomorpha aerea* and *Ulva lactuca* in the Lagoon of Venice during and early summer field campaign. *Ecological Modelling* 133-141.