

Curriculum Vitae

Personal data

Full name: Onno Everhardus Diekmann
National identity card: NTGH5K7F5
Birth place and date: Naarden 11-11-1966
Nationality: Netherlands
Address: Centro de Ciência do Mar
Universidade do Algarve, FCT-FCMA
Gambelas, 8005-139, Faro

Contact data:
Mobile: +351936983335
Telephone: +351289800900 ext 7355
Mobiel: +31-(0)614596073

Email: onno.diekmann@gmail.com

Academic degrees

2003 PhD, University of Amsterdam, The Netherlands
Biodiversity and Evolutionary Biology
1994 Master, University of Groningen, The Netherlands, Marine Biology

Previous and current scientific and/or professional activities

1995-1996 researcher in molecular ecology group Netherlands Institute of Ecology
2003-present Postdoctoral researcher at the Center for Marine Science

Area of scientific activity

Restoration of seagrass habitat

Restoration of the seagrass meadow in the Marine Park of Arrábida, Portugal, by relocating seagrasses from healthy donor populations to the restoration area. Studying the genetic diversity of donor populations and checking the genetic diversity of the restored meadow in order to restore a genetically diverse meadow and increase seagrass transplant survival.

Study habitat preference, population diversity and genetic structure of seagrass associated *Syngnathus* species in relation to habitat fragmentation

Study of habitat preference of several Syngnathid fishes. The influence of habitat fragmentation on syngnathid population structure, genetic diversity and connectivity.

Population genetics of seagrasses

Investigating population genetic structure and genetic diversity in different seagrass species across the

Atlantic / Mediterranean divide to determine barriers that restrict geneflow between populations. I'm also working on the genetic structure of *Zostera marina* populations at the Southern limit of distribution. For *Zostera noltii* genetic structure and diversity is studied in relation to different disturbances.

Population genetics of amphibians

Spatial structure of amphibian (meta)populations in Mediterranean farmland: implications for conservation management

Domain of specialization

Population genetic studies in marine organisms such as corals, seagrasses, algae and fishes.
Study of seagrass associated Syngnathid fishes in relation to seagrass habitat fragmentation.

Present research interests

Restoration and conservation of seagrass habitat.

Seagrass associated organisms in relation to seagrass habitat fragmentation.

Genetic diversity in seagrass populations under different levels of disturbance. Conservation and restoration of seagrasses.

Genetic diversity and differentiation in the seagrass species *Zostera noltii* and *Cymodocea nodosa* across the Atlantic-Mediterranean divide.

Genomics approaches to study adaptive divergence.

Population genetics of amphibians

Publications

Thesis

The coral genus *Madracis*. Speciation in corals and their symbionts. 2003 Pag. 1-135 ISBN 90-76894-28-0

Chapters in books

Peter Bondo Christensen, Elena Díaz Almela, Onno Diekmann (2004) Can transplanting accelerate the recovery of seagrasses? In: "European Seagrasses: an introduction to monitoring and management", Eds. Jens Borum, Carlos M. Duarte, Dorte Krause-Jensen and Tina M. Greve.

Papers in international scientific periodicals with referees

[17] Diekmann OE, Serrão EA. (2012) Range-edge genetic diversity: locally poor extant southern patches maintain a regionally diverse hotspot in the seagrass *Zostera marina*. *Molecular Ecology* 21: 1647–1657. doi:10.1111/j.1365-294X.2012.05500.x

[16] Van de Vliet MS, Beebe T, Diekmann OE. (2011) Genetic evidence for a distinct *Pelodytes* lineage in southwest Portugal: implications for the use of pre-developed microsatellite markers. *Conservation Genetics*, DOI 10.1007/s10592-011-0299-5

[15] Diekmann OE, Gouveia L, Perez JA, Gil-Rodríguez C, Serrão EA (2010) The possible origin of *Zostera noltii* in the Canary Islands and guidelines for restoration. *Marine Biology*. *Marine Biology* 157: 2109-2115 DOI 10.1007/s00227-010-1467-8

- [14] Becheler R, Diekmann O, Hily C, Moalic Y, Arnaud-Haond S (2010) The concept of population in clonal organisms: mosaics of temporally colonized patches are forming highly diverse meadows of *Zostera marina* in Brittany. *Molecular Ecology* 19: 2394-2407. doi: 10.1111/j.1365-294X.2010.04649.x.
- [13] Diekmann, O. E., Gouveia, L., Serrão, E. T., & van de Vliet, M. S. (2009). Highly polymorphic microsatellite markers for the black striped pipefish, *Syngnathus abaster*. *Molecular Ecology Resources* 9(6): 1460-1466
- [12] Van De Vliet, M. S., Diekmann, O. E., Serrão, E. T., & Beja, P. (2009). Development and characterization of highly polymorphic microsatellite loci for the Western Spadefoot toad, *Pelobates cultripes*. *Conservation Genetics*, 10, 993-996. DOI: 10.1007/s10592-008-9670-6.
- [11] Mirjam S. van de Vliet, Onno E. Diekmann and Ester T. A. Serrão (2009) Highly polymorphic microsatellite markers for the short-snouted seahorse (*Hippocampus hippocampus*), including markers from a closely related species the long-snouted seahorse (*Hippocampus guttulatus*). *Conservation genetic resources* 1(1): 93-96. DOI: 10.1007/s12686-009-9022-y
- [10] Van de Vliet, Mirjam; Diekmann, Onno; Serrão, Ester ; Beja, Pedro (2009) Isolation of highly polymorphic microsatellite loci for a species with a large genome size: Sharp-ribbed Salamander (*Pleurodeles waltl*). *Molecular Ecology Resources* 9: 425–428
- [9] Van de Vliet MS, Diekmann OE, Serrão ETA, Beja P. (2008) Highly polymorphic microsatellite loci for the Parsley frog (*Pelodytes punctatus*): characterization and testing for cross-species amplification. *Conservation Genetics* 10(3): 665-668. DOI 10.1007/s10592-008-9609-y
- [8] Diekmann O. E., Coyer J. A., Ferreira J., Olsen J. L., Stam W. T., Pearson G. A., Serrão E. A. (2005). Population genetics of *Zostera noltii* along the west Iberian coast: consequences of small population size, habitat discontinuity and near-shore currents. *Mar Ecol Prog Ser* 290: 89-96
- [7] Coyer J.A., Diekmann O.E., Serrão E.A., Procaccini G., Milchakova N., Pearson G.A., Stam W.T., Olsen J.L. (2004). Population genetics of *Zostera noltii* (dwarf eelgrass) throughout its biogeographic range. *Mar Ecol Prog Ser* 281:51–62
- [6] Vermeij M.J.A., Diekmann O.E., Bak R.P.M. (2003) A new species of Scleractinian coral (Cnidaria, Anthozoa), *Madracis carmabi* n.sp. from the Southern Caribbean. *Bull. Mar. Sci.* 73 (3): 679-684
- [5] Diekmann, O.E., R.P.M.Bak, W.T.Stam, J.L.Olsen (2003) Genetic variation within *Symbiodinium* clade B from the coral genus *Madracis* in the Caribbean Netherlands Antilles. *Coral Reefs* 22 (1): 29-33
- [4] Diekmann, O.E., L. Tonk, R.P.M. Bak, W.T. Stam, J.L. Olsen (2002) No habitat correlation of zooxanthellae in the coral genus *Madracis* on a Curaçao reef. *MEPS* 227: 221-232
- [3] Diekmann, O.E., R.P.M. Bak, J.L. Olsen, W.T. Stam (2001) Molecular genetic evidence for probable reticulate speciation in the coral genus *Madracis* from a Caribbean fringing reef slope. *Marine Biology* 139: 221-233

[2] Monique J.M. de Bie, Arjen G.C.L. Speksnijder, George A. Kowalchuk, Tim Schuurman, Gabriel Zwart, John R. Stephen, Onno E. Diekmann, Hendrikus J. Laanbroek (2001) Shifts in the dominant populations of ammonia-oxidizing β -subclass proteobacteria along the eutrophic Schelde estuary. *Aquatic Microbial Ecology* 23: 225-236

[1] Van Oppen, M.J.H., Diekmann, O.E., Wiencke, C., Stam, W.T., Olsen, J.L., (1994) Tracking dispersal routes: phylogeography of the Arctic-Antarctic disjunct seaweed *Acrosiphonia arcta* (Chlorophyta). *Journal of Phycology* 30: 67-80.

Communications

Other oral communications

Onno Diekmann, Filipe Alberto, Licinia Gouveia, Carlos Duarte, Ester Serrão (2008) Genetic diversity and differentiation in the seagrass species *Zostera noltii* and *Cymodocea nodosa* across the Atlantic-Mediterranean divide. ISBW8, 1-5 September, BMSC Bamfield, Vancouver Island, Canada.

Diekmann O.E., Serrão E.A., Pearson G.A. (2005) Populations of *Zostera noltii* under various scales of perturbation. MARBEF meeting Tavira, Portugal

Diekmann et al. (2003) Populations of *Zostera noltii* under various scales of perturbation. CMAR meeting, Santarem, Portugal

Diekmann OE (2003) Phylogeographic patterns in the dwarf eelgrass *Zostera noltii* along the Iberian Peninsula coast inferred from microsatellites. 8th European Marine Biology Symposium, Aveiro, Portugal

Diekmann OE (2000) Zooxanthellae diversity in the coral genus *Madracis*. 9th International Coral Reef Symposium, Bali, Indonesia

Diekmann OE (1998) Phylogenetic reconstruction of the Caribbean reef coral genus *Madracis*. European Meeting of the International Society for Reef Studies, Perpignan, France

Diekmann OE (1997) Differentiation in Caribbean reef building corals: Molecular phylogenetic studies in the genus *Madracis*. Minisymposium Tropical Marine Biology, Amsterdam

Posters in conferences

Onno E. Diekmann, Filipe Alberto, Licinia Gouveia, Ester T.A. Serrão (2008) Genetic diversity of *Zostera noltii* populations under various levels of disturbance. ISBW8, 1-5 September, BMSC Bamfield, Vancouver Island, Canada

Project LIFE06 NAT/P/192 – BIOMARES

Restoration and Management of Biodiversity in the Marine Park Site Arrábida-Espichel (PTCON0010) MarBEF General Assembly 2007

Diekmann OE. (2003) Population structure of the dwarf eelgrass *Zostera noltii* along the Iberian Peninsula: data from microsatellite analyses. European Conference on Coastal Marine Ecosystems: A functional approach to coastal marine biodiversity, Renesse, The Netherlands.

Diekmann OE (1995) Changes in community structure of ammonia-oxidizing β -subgroup

Proteobacteria along the eutrophic Schelde estuary. Workshop Application of DNA Techniques in Ecology, Wageningen.

Funded research projects

DIVIDE: FCT project (POCI/MAR/60044/2004), “Genetic diversity and differentiation in the seagrass species *Zostera noltii* and *Cymodocea nodosa* across the Atlantic-Mediterranean divide”, Starting 01-10-2005 ended 31-04-2009. Total amount granted: 41.400€

BIOMARES: EU funded LIFE program (LIFE 06 NAT/P/0192): Restoration and Management of Biodiversity in the Marine Park Site Arrábida-Espichel (PTCON0010). Starting 01-01-2007 - Ending 31-12-2011. Total amount granted: 2.364.438€

Participation in research projects

EU (EVK3-CT-2000-00044). “Monitoring and Management of European Seagrass Beds (M&MS)”. Feb 2001-Aug 2005 (member of team).

Co-Investigator in a European network of Excellence (MARBEF: Marine Biodiversity and Ecosystem Functioning", (March 2005- February 2008)

Co-Investigator of an FCT project (POCTI/MAR/60179/2004): Neutral and Non-Neutral Genes: Population Diversity and Stability; (March 2004-Feb 2008). Total amount granted: 53.250€

Co-investigator of FCT project PTDC/BIA-BDE/68730/2006: Spatial structure of amphibian (meta)populations in Mediterranean farmland: implications for conservation management. Starting date 01-01-2008 - ending 31-12-2010. Total amount granted: 131.000€

Co-investigator in an FCT project PTDC/MAR/64749/2006: The success of invasive species: exploring the joint role of biotic interactions and of founder effect in *Caulerpa* species. Starting 01-09-2008 - ending 31-08-2011. Total amount granted: 187.140€

Co-investigator in an FCT project MARIN-ERA/MAR/0001/2008: Marine phylogeographic structuring during climate change: the signature of leading and rear edge of range shifting populations. Starting 01-01-2009 - Ending 31-12-2011. Total amount granted: 161.242€

Co-investigator in an FCT project PTDC/MAR/099887/2008: Landscape genetics of a coastal lagoon; an empirical and modeling approach using the seagrass *Zostera noltii* in Ria Formosa. Starting 01-03-2010 – Ending 28-02-2013. Total amount granted 173.073€

Co-investigator in an FCT project PTDC/AAC-CLI/112936/2009: Sex at the edge: How temperature influences sexual selection. Starting 01-03-2011 - Ending 28-02-2014. Total amount granted: 175.800,00