

# LIJST ARTIKELEN EN PUBLICATIES PCLAKE EN PCDITCH

## WETENSCHAPPELIJKE ARTIKELEN

Aldenberg, T., Janse, J.H. & Kramer, P.R.G. (1995) • Fitting the dynamic model PCLake to a multi-lake survey through Bayesian Statistics. Ecological Modelling, 61, 83-99.

van Altena, C., Bakker, E.S., Kuiper, J.J., Mooij, W.M. (2016) • The impact of bird herbivory on macrophyte biomass and the resilience of the clear water state in shallow lakes: a model study. Hydrobiologia 777, 197-207.

Belolipetsky, P.V., Belolipetskii, V.M., Genova, S.N. & Mooij, W.M. (2010) • Numerical modeling of vertical stratification of Lake Shira in summer. Aquatic Ecology, 44, 561-570.

Degermendzhy, A.G., Zadereev, E.S., Rogozin, D.Y., Prokopkin, I.G., Barkhatov, Y. V., Tolomeev, A.P., Khromechek, E.B., Janse, J.H., Mooij, W.M. & Gulati, R.D. (2010) • Vertical stratification of physical, chemical and biological components in two saline lakes Shira and Shunet (South Siberia, Russia). Aquatic Ecology, 44, 619-632.

Fragoso, C.R., Motta Marques, D.M.L., Ferreira, T.F., Janse, J.H. & van Nes, E.H. (2011) • Potential effects of climate change and eutrophication on a large subtropical shallow lake. Environmental Modelling & Software, 26, 1337-1348.

Fragoso, C.R., van Nes, E.H., Janse, J.H. & da Motta Marques, D. (2009) • IPH-TRIM3D-PCLake: A three-dimensional complex dynamic model for subtropical aquatic ecosystems. Environmental Modelling & Software, 24, 1347-1348.

Genova, S.N., Belolipetskii, V.M., Rogozin, D.Y., Degermendzhy, A.G. & Mooij, W.M. (2010) • A one-dimensional model of vertical stratification of Lake Shira focussed on winter conditions and ice cover. Aquatic Ecology, 44, 571-584.

van Gerven, L.P.A., Brederveld, R.J., Klein, J.J.M. De, Deangelis, D.L., Downing, A.S., Faber, M., Gerla, D.J., Hoen, J., Janse, J.H., Janssen, A.B.G., Jeuken, M., Kooi, B.W., Kuiper, J.J., Lischke, B., Liu, S., Petzoldt, T., Schep, S.A., Teurlincx, S., Thiange, C., Trolle, D., Nes, E.H. Van, Mooij, W.M. & Gerven, L.P.A. Van. (2015) • Advantages of concurrent use of multiple software frameworks in water quality modelling using a database approach. Fundamental and Applied Limnology.

van Gerven, L.P.A., J. J. M. de Klein, D.J. Gerla, B. W. Kooi, J. J. Kuiper, and W.M. Mooij. (2015) • Competition for Light and Nutrients in Layered Communities of Aquatic Plants. The American Naturalist 186: 72-83.

van Gerven, L.P.A., JJ. Kuiper, J. H. Janse, A.B.G. Janssen, M. Jeuken, W.M. Mooij and J.J.M. de Klein. (2016) • How regime shifts in connected aquatic ecosystems are affected by the typical downstream increase of water flow. Accepted for publication in Ecosystems.

ter Heerdt, G.N.J., Schep, S.A., Janse, J.H. & Ouboter, M. (2007) • Climate change and the EU Water Framework Directive: how to deal with indirect effects of changes in hydrology on water quality and ecology? Wat. Sci. Tech. 56 (4): 19-26.

Hu, F., Bolding, K., Bruggeman, J., Jeppesen, E., Flindt, M.R., van Gerven, L.P.A., Janse, J.H., Janssen, A.B.G., Kuiper, J.J., Mooij, W.M., Trolle, D. (2016) • FABM-PCLake - linking aquatic ecology with hydrodynamics. Geoscientific Model Development 9, 2271-2278.

Janse, J.H., & T. Aldenberg. (1990) • Modelling phosphorus fluxes in the hypertrophic Loosdrecht Lakes. Hydrobiological Bulletin 24: 69-89.

*Janse, J.H.J. van der Does, & J.C. van der Vlugt. (1993) • PCLake: Modelling eutrophication and its control measures in Reeuwijk lakes. Strategies for Lake Ecosystems beyond 2000. Proceedings of the 5th International Conference on the Conservation and Management of Lakes, Stresa, Italy.*

*Janse, J.H., & L. van Liere. (1995) • PCLake: a modelling tool for the evaluation of lake restoration scenarios. Water Science and Technology 31: 371-374.*

*Janse, J.H., R.D. Gulati & E. Van Donk. (1995) • Modelling nutrient cycles in relation to food-web structure in a biomanipulated shallow lake. Neth. J. Aquat. Ecol. 29: 67-79.*

*Janse, J.H. (1997) • A model of nutrient dynamics in shallow lakes in relation to multiple stable states. Hydrobiologia, 342/343, 1-8.*

*Janse, J.H. (1998) • A model of ditch vegetation in relation to eutrophication. Water Science and Technology, 37, 139-149.*

*Janse, J.H., Aldenberg, T. & Kramer, P.R.G. (1992) • A mathematical model of the phosphorus cycle in Lake Loosdrecht and simulation of additional measures. Hydrobiologia, 233, 119-136.*

*Janse, J.H., Donk, E. Van & Aldenberg, T. (1998) • A model study on the stability of the macrophyte-dominated state as affected by biological factors. Water Research, 32, 2696-2706.*

*Janse, J.H. & Van Puijenbroek, P.J.T.M. (1998) • Effects of eutrophication in drainage ditches. Environmental Pollution, 102, 547-552.*

*Janse, J.H., Ligvoet, W., Van Tol, S. & Bresser, A.H.M. (2001) • A model study on the role of wetland zones in lake eutrophication and restoration. The Scientific World Journal 1: 605 - 614.*

*Janse, J.H., Scheffer, M., Lijklema, L., Van Liere, L., Sloot, J.S. & Mooij, W.M. (2010) • Estimating the critical phosphorus loading of shallow lakes with the ecosystem model PCLake: Sensitivity, calibration and uncertainty. Ecological Modelling, 221, 654-665.*

*Janse, J.H., De Senerpont Domis, L.N., Scheffer, M., Lijklema, L., Van Liere, L., Klinge, M. & Mooij, W.M. (2008) • Critical phosphorus loading of different types of shallow lakes and the consequences for management estimated with the ecosystem model PCLake. Limnologica-Ecology and Management of Inland Waters, 38, 203-219.*

*Janssen, A.B.G., Teurlincx, S., An, S. Q., Janse, J.H., Paerl, H.W. & Mooij, W. (2014) • Alternative stable states in large shallow lakes? Journal of Great Lakes Research. 40, 4, 813-826*

*Janssen, A.B.G., Arhonditsis, G.B., Buesen, A. et al. (2015) • Exploring, exploiting and evolving diversity of aquatic ecosystem models: a community perspective. Aquatic ecology 49: 513.*

*Kong, X., He, Q., Yang, B., He, W., Xy, F., Janssen, A.B.G., Kuiper, J.J., van Gerven, L.P.A., Qin, N., Jiang, Y., Liu, W., Yang, C., Bai, Z., Zhang, M., Kong, F., Janse, J.H., Mooij, W.M. (2016) • Hydrological regulation drives regime shifts: evidence from paleolimnology and ecosystem modeling of a large shallow Chinese lake. Global Change Biology, In Press.*

*Kuiper, J.J., C. van Altena, P.C. de Ruiter, L.P. a van Gerven, J.H. Janse, & W.M. Mooij. (2015) • Food-web stability signals critical transitions in temperate shallow lakes. Nature communications, 6*

*van Liere, L. & Janse, J.H. (1992) • Restoration and resilience to recovery of the Lake Loosdrecht ecosystem in relation to its phosphorus flow. Hydrobiologia, 233, 95-104.*

*van Liere, L., Janse, J., Jeuken, M., van Puijenbroek, P., Schoumans, O., Hendriks, R., Roelsma, J., Jonkers, D. (2002) • Effect of nutrient loading on surface waters in polder Bergambacht, The Netherlands. IAHS-publ. 273.*

*van Liere, L., Janse, J.H., Arts, G.H.P. (2007) • Setting critical nutrient values for ditches using the eutrophication model PCDitch. Aquatic Ecology, 41, 443-449.*

*Lischke, B., Hilt, S., Janse, J.H., Kuiper, J.J., Mehner, T., Mooij, W.M. & Gaedke, U. (2014) • Enhanced Input of Terrestrial Particulate Organic Matter Reduces the Resilience of the Clear-Water State of Shallow Lakes: A Model Study. Ecosystems, 17, 616-626.*

*Mellios, N., D. Kofinas, C. Laspidou, & T. Papadimitriou. (2015) • Mathematical Modeling of Trophic State and Nutrient Flows of Lake Karla using the PCLake Model. Environmental Processes 2: 85-100.*

*Mooij, W.M., Brederveld, R.J., de Klein, J.J.M., DeAngelis, D.L., Downing, A.S., Faber, M., Gerla, D.J., Hipsey, M.R., 't Hoen, J., Janse, J.H., Janssen, A.B.G., Jeuken, M., Kooi, B.W., Lischke, B., Petzoldt, T., Postma, L., Schep, S.A., Scholten, H., Teurlincx, S., Thiange, C., Trolle, D., van Dam, A.A., van Gerven, L.P. A., van Nes, E.H. & Kuiper, J.J. (2014) • Serving many at once: How a database approach can create unity in dynamical ecosystem modelling. Environmental Modelling & Software.*

*Mooij, W.M., Janse, J.H., Senerpont Domis, L.N., Hülsmann, S. & Ibelings, B.W. (2007) • Predicting the effect of climate change on temperate shallow lakes with the ecosystem model PCLake. Hydrobiologia, 584, 443-454.*

*Mooij, W.M., De Senerpont Domis, L.N. & Janse, J.H. (2009) • Linking species-and ecosystem-level impacts of climate change in lakes with a complex and a minimal model. Ecological Modelling, 220, 3011-3020.*

*Mooij, W.M., Trolle, D., Jeppesen, E., Arhonditsis, G., Belolipetsky, P. V., Chitamwebwa, D.B.R., Degermendzhy, A.G., DeAngelis, D.L., De Senerpont Domis, L.N., Downing, A.S., Domis, L.N.D.S., Elliott, J.A., Fragoso Jr., C.R., Gaedke, U., Genova, S.N., Gulati, R.D., Hakanson, L., Hamilton, D.P., Hipsey, M.R., 't Hoen, J., Huelsmann, S., Los, F.H., Makler-Pick, V., Petzoldt, T., Prokopkin, I.G., Rinke, K., Schep, S.A., Tominaga, K., Van Dam, A.A., Van Nes, E.H., Wells, S.A. & Janse, J.H. (2010) • Challenges and opportunities for integrating lake ecosystem modelling approaches. Aquatic Ecology, 44, 633-667.*

*Nielsen, A., Trolle, D., Bjerring, R., Søndergaard, M., Olsen, J. E., Janse, J.H., Mooij, W.M. & Jeppesen, E. (2014) • Effects of climate and nutrient load on the water quality of shallow lakes assessed through ensemble runs by PCLake. Ecological Applications 24: 1926-1944.*

*Van Puijenbroek, P.J.T.M., Janse, J.H. & Knoop, J.M. (2004) • Integrated modelling for nutrient loading and ecology of lakes in The Netherlands. Ecological Modelling, 174, 127-141.*

*Prokopkin, I.G., W.M. Mooij, J.H. Janse & A.G. Degermendzhy. (2010) • A general one-dimensional vertical ecosystem model of Lake Shira (Russia, Khakasia): Description, parametrization and analysis. Aquatic Ecology 44(3): 585-618.*

*Sachse, R., Petzoldt, T., Blumstock, M., Moreira, S., Pätzig, M., Rücker, J., Janse, J.H., Mooij, W.M. & Hilt, S. (2014) Extending one-dimensional models for deep lakes to simulate the impact of submerged macrophytes on water quality. Environmental Modelling & Software, 61, 410-423.*

*Schep, S., ter Heerdt, G., Janse, J., & Ouboter, M. (2007) • Possible effects of climate change on ecological functioning of shallow lakes, Lake Loenderveen as a case study. Annals of Warsaw University of Life Sciences-SGGW. Land Reclamation, 38, 95-104.*

*Sollie, S., Janse, J.H., Mooij, W.M., Coops, H. & Verhoeven, J.T. a. (2008) • The contribution of marsh zones to water quality in Dutch shallow lakes: a modeling study. Environmental management, 42, 1002-16.*

Trolle, D., Elliott, J.A., Mooij, W.M., Janse, J.H., Bolding, K., Hamilton, D.P. & Jeppesen, E. (2014) • Advancing projections of phytoplankton responses to climate change through ensemble modelling. Environmental Modelling & Software.

## NEDERLANDSTALIGE ARTIKELEN

Hazenoot, C., Reeze, B., Matthijs, H., Amsterdam, U. Van & Meeuse, J. (2010) • Effectiviteit bestrijding blauwalgen met waterstofperoxide. H2O, 31-34.

Hofstra, J.J., J.H. Janse & L. van Liere. (1991) • De milieutoestand van de Loosdrechtse Plassen; toepassing van de presentatietechniek AMOEBO en het eutrofiëeringsmodel PCLOOS. H2O 24 (10): 260-265.

Van der Pouw Kraan, E., Maessen, M. & Hemelraad, J. (2011) • Is ecologisch herstel van ondiepe plassen goed te modelleren? H2O, 15, 14, 34-36.

## BOEKHOOFDSTUK

De Meester, L., Declerck, S., Janse, J.H., Dagevos, J.J., Portielje, R., Lammens, E., Jeppesen, E., Lauridsen, T., Schwenk, K. & Muylaert, K. (2006) • Biodiversity in European shallow lakes: a multilevel-multifactorial field study. Wetlands: Functioning, Biodiversity Conservation, and Restoration, 149-167.

## RAPPORTEN

Janse and Aldenberg. (1990) • PCLoos, a eutrophication model of the Loosdrecht Lakes, RIVM report. 714502001, Bilthoven, The Netherlands

Janse, J.H. (1995). • Modellering van eutrofiëring en herstelmaatregelen in de Reeuwijkse Plassen. RIVM rapport 732404004.

Janse, J.H. & P.J.T.M. Van Puijenbroek (1997). • PCDitch, een model voor eutrofiëring en vegetatie-ontwikkeling in sloten. Rapport no. 703715 004, RIVM, Bilthoven.

Jeuken, M.H.J.L., Janse, J.H. & Aldenberg, T. (1999) • PCLake Procesbeschrijvingen DUFLOW, versie 3. p. Hst. 13. STOWA-rapport 99-21.

Vleeshouwers, L.M., Janse, J.H., Aldenberg, T. & Knoop, J.M. (2004) A metamodel for PCLake. RIVM report, 703715007. van Liere, E. & Jonkers, D.A. (red.) (2002) • Watertypegerichte normstelling voor nutriënten in oppervlaktewater. RIVM, rapport nr. 703715005/2002.

Taminskas, J. (2005) • A study of hydrogeological and hydrochemical situation of Dovine river basin and modelling of Zuvintas Lake water quality. Final report PIN-Matra project no. 2003/040. Vilnius.

Witteveen+Bos, (2006) • Interacties tussen stuurvariabelen voor ecologische doelen in meren, fase 2: analyse van simulaties. Report nr. BHV24-1/sc.

Witteveen+Bos, (2008) • Watersysteemanalyse Loosdrechtse Plassen. Report nr. LOOS20-1-1

Witteveen+Bos, (2008) • Nadere uitwerking waterkwaliteiten ecologische kwaliteit Wieringerrandmeer. Report nr. WRW5-32 .

Witteveen+Bos, 2009) • Effecten peilbeheer en waterberging Oldambtmeer. Report nr. VDM53-1-1.

Witteveen+Bos, (2010) • Ecologische modellering Loenderveense Plass en Terra Nova. Report nr. LN4-1-1.

Witteveen+Bos, (2010) • Waterkwaliteit herinrichting Nieuwe Driemanspolder. Report nr. ZTM99-1-1.

Witteveen+Bos, (2010) • Watersysteemanalyse Den Bommel. Report nr. RD36-1.

Witteveen+Bos, (2011) • Nadere analyse stikstof Den Bommel. Report nr. RD36-2.

Witteveen+Bos, (2011) • Watersysteemanalyse Noorderpark ten behoeve van Watergebiedsplan en Beheerplan Natura 2000. Report nr. ASD1297-1.

Witteveen+Bos, (2012) • Beheerstrategieën zoet en zout Goeree-Overflakkee. Report nr. RD45

Witteveen+Bos, (2013) • Toetsing, verbetering en ontsluiting ecologische modellen PCLake en PCDitch aan de hand van praktijktoepassingen: case Zuidlaardermeer. Report nr. STO170-1-10.

Witteveen+Bos, (2013) • Toetsing, verbetering en ontsluiting ecologische modellen PCLake en PCDitch aan de hand van praktijktoepassingen: case Krimpenerwaard. Report nr. STO170-1-12.

Witteveen+Bos, (2013) • Toetsing, verbetering en ontsluiting ecologische modellen PCLake en PCDitch aan de hand van praktijktoepassingen: case Bergse Plassen. Report nr. STO170-1-13.

Witteveen+Bos, (2013) • Toetsing, verbetering en ontsluiting ecologische modellen PCLake en PCDitch aan de hand van praktijktoepassingen: case Stad van de Zon. Report nr. STO170-1-14.

Witteveen+Bos, (2013) • Toetsing, verbetering en ontsluiting ecologische modellen PCLake en PCDitch aan de hand van praktijktoepassingen: watersysteemanalyse Kardingerplas. Report nr. STO170-1-15.

Witteveen+Bos, (2013) • ‘De punten op de i’: nadere systeemanalyse en optimalisatie. Report nr. RT749-16.

Witteveen+Bos, (2013) • Systeemanalyse recreatiewateren. Report nr. RT722-1.

Witteveen+Bos, (2014) • Toetsing, verbetering en ontsluiting ecologische modellen PCLake en PCDitch aan de hand van praktijktoepassingen: notitie Dobbeplas. Report nr. STO170-9-1.

Witteveen+Bos, (2015) • Toetsing, verbetering en ontsluiting ecologische modellen PCLake en PCDitch aan de hand van praktijktoepassingen: watersysteemanalyse stedelijk watersysteem Urk. Report nr. STO170-2-1.

Witteveen+Bos, (2015) • Toetsing, verbetering en ontsluiting ecologische modellen PCLake en PCDitch aan de hand van praktijktoepassingen: Zegveld. Report nr. STO170-10-1.

Witteveen+Bos, (2015) • Systeemanalyse Markiezaatsmeer en Binnenschelde. Report nr. BR668-21

Witteveen+Bos, (2016) • Systeemanalyse Atolwijk. Report nr. LLS639-1.

Witteveen+Bos, (2016) • Watersysteemanalyse. Effecten van AWZI-effluent op de Krabbeplassen en omgeving. Report nr. DT465-1.

Witteveen+Bos, (2016) • Consequenties gedefosfateerd surplus  
Bethunewater via Loenderveense Plas 2016. Report nr. ASD1566-1.

## MSC-THESIS

Elzinga, J., (2013) • Projected Social and Ecological Impacts of Marker Wetlands Projects on the Lake Markermeer Region.  
- MSc. thesis. Wageningen University and Research Centre, Wageningen, The Netherlands.

*Louwers, E. (2015) • The influence of submerged macrophytes harvesting on a shallow lake system: a harvesting strategy for the Oldambtmeer. MSc. Thesis. Utrecht University, Utrecht, The Netherlands. Witteveen+Bos reportnr. STO170-6.*

*van den Berg, D. (2016) • De invloed van drijvend bouwen op het watersysteem. Een modelstudie naar de invloed van overkluizing. MSc. thesis. Wageningen University and Research Centre, Wageningen, The Netherlands. Witteveen+Bos report nr. ZZECO6000-16/16-002.800.*

## **PHD-THESIS**

*Janse, J.H. (2005) • Model Studies on the Eutrophication of Shallow Lakes and Ditches. PhD Thesis. Wageningen University.*

*Kuiper, J. (2016) • Making eco logic and models work - An integrative approach to lake ecosystem modelling. PhD Thesis. Wageningen University.*

*van Gerven, L.P.A. (2016) • The ecology of ditches: a modelling perspective. PhD Thesis. Wageningen University.*