

## Publikationer relaterade till verksamheten i SLU:s miljöanalysprogram Giftfri miljö 2013-2015

### Vetenskapliga publikationer

Malmsten J., D. Gavier Widén, G. Rydevik, L. Yon, M. R. Hutchings, C-G Thulin, L. Söderquist, A. Aspan, S. Stuen, and A-M. Dalin: Temporal and spatial variation in *Anaplasma phagocytophilum* infection in Swedish moose (*Alces alces*). (2013) *Epidemiology and Infection* (DOI: <http://dx.doi.org/10.1017/S0950268813002094>).

Malmsten, J and A-M Dalin, Reproductive failure in moose (*Alces alces*) due to embryonic mortality and unfertilized oocytes. (2013) *Acta Theriologica* (accepted for publication)

Persson ., Rotander, A., Kärroman, A., van Bavel, B. & Magnusson, U. 2013 Perfluoroalkyl acids in subarctic wild male mink (*Neovison vison*) in relation to age, season and geographical area. *Environ Int.* 59:425-30

Carlsson, G., Patring, J., Kreuger, J., Norrgren, L. & Oskarsson, A. 2013. Toxicity of 15 veterinary pharmaceuticals in zebrafish (*Danio rerio*) embryos. *Aquatic toxicology* 126, 30-41.

Larsbo, M., Löfstrand, E., van Alphen de Veer, D. & Ulén, B. 2013. Pesticide leaching from two Swedish topsoils of contrasting texture amended with biochar. *Journal of Contaminant Hydrology* 147 (2013) 73–81.

Ulen, B., Larsbo, M., Kreuger, J. & Svanbäck, A. 2013. Spatial variation in herbicide leaching from amarine clay soil via subsurface drains. *Pest Management Science* 2013, wileyonlinelibrary.com, DOI 10.1002/ps.3574.

von der Ohe, P. C. & Goedkoop, W. 2013. Distinguishing the effects of habitat degradation and pesticide stress on benthic invertebrates using stressor-specific metrics. *Science of The Total Environment*, Volume 444, 1 February 2013, Pages 480–490.

Åkesson, M., Sparrenbom, C.J., Carlsson, C. & Kreuger, J. 2013. Statistical screening for descriptive parameters for pesticide occurrence in a shallow groundwater catchment. *Journal of hydrology* 477, 165-174. DOI:10.1016/j.jhydrol.2012.11.025.

Malmsten, J, L Söderquist, CG Thulin, D. Gavier-Widen, L. Yon, MR Hutchings, and A-M Dalin, 2014. Reproductive characteristics in female Swedish moose (*Alces alces*) with emphasis on puberty, timing of oestrus and mating, *Acta vet scand*, 56:23.

Olsson, A, J Malmsten, J Frössling, G Bölske, A Aspan, AM Dalin and A Lindberg, 2014. Surveys on *Coxiella burnetti* infections in Swedish cattle, sheep, goats and moose, *Acta vet scand*, 56:39.

Ulen, B.M., Larsbo, M., Kreuger, J.K. & Svanbäck, A. 2014. Spatial variation in herbicide leaching from a marine clay soil via subsurface drains. *Pesticide Management Science* 70, 3, 405-414. DOI: 10-1002/ps.3574

Åkesson, M., Bendz, D., Carlsson, C., Sparrenbom, C.J. & Kreuger, J. 2014. Modelling pesticide transport in a shallow groundwater catchment using tritium and helium-3 data. *Applied Geochemistry* 50, 231-239. DOI:10.1016/j.apgeochem.2014.01.007

Bundschuh, M., Goedkoop, W. & Kreuger, J. 2014. Evaluation of pesticide monitoring strategies in agricultural streams based on the toxic-unit concept – Experiences from long-term measurements. *Science of the Total Environment* 484, 84-91. DOI: 10.1016/j.scitotenv.2014.03.015

Larsbo, M., Koestel, J. och Jarvis, N. 2014. Relations between macropore network characteristics and the degree of preferential solute transport, *Hydrol. Earth Syst. Sci.*, 18(12), 5255-5269.

Steffens, K., Larsbo, M., Moeys, J., Kjellström, E., Jarvis, N. och Lewan, E. 2014. Modeling pesticide leaching under climate change: parameter vs. climate input uncertainty. *Hydrology and Earth System Sciences*, 18, 479-491.

Persson, S. and U. Magnusson (2015). "Environmental pollutants and alterations in the reproductive system in wild male mink (*Neovison vison*) from Sweden." *Chemosphere* 120(0): 237-245.

Pohl, Örn, Norrgren, Carlsson (2015). Toxicological evaluation of water from stormwater ponds using *Xenopus tropicalis* embryos. *Wetlands Ecology and Management*, 23:1091–1098. DOI 10.1007/s11273-015-

Ahrens, L., Daneshvar, A., Lau, A.E. & Kreuger, J. 2015. Characterization of five passive sampling devices for monitoring of pesticides in water. *Journal of Chromatography A*, 1405, 1-11. DOI: 10.1016/j.chroma.2015.05.044.

Persson S, Jensen TH, Blomström AL, Appelberg MT, Magnusson U. Aleutian mink disease virus in free-ranging mink from Sweden. *PLoS One*. 2015 Mar 30;10(3):e0122194. doi: 10.1371/journal.pone.0122194. eCollection 2015.

Jarvis, N. 2015. Extended sorption partitioning models for pesticide leaching risk assessments: Can we improve upon the KOC concept? *Science of The Total Environment*, volume 539, 294–303.

Rasmussen, J.J., Wiberg-Larsen, P., Baattrup-Pedersen, A., Cedergreen, N., McKnight, U.S., Kreuger, J., Jacobsen, D., Kristensen, E.A. & Friberg, N. 2015. The legacy of pesticide pollution: An overlooked factor in current risk assessments of freshwater systems. *Water Research* 84, 25-32. DOI: 10.1016/j.watres.2015.07.021

Rundlöf, M., Andersson, G. K. S., Bommarco, R., Fries, I., Hederström, V., Herbertsson, L., Jonsson, O., Klatt, B. K., Pedersen, T. R., Yourstone, J. och Smith, H. G. 2015. Seed coating with a neonicotinoid insecticide negatively affects wild bees. *Nature* 521, 77–80.

Steffens, K., Jarvis, N., Lewan, E., Lindström, B., Kreuger, J., Kjellström, E. & Moeys, J. 2015. Direct and indirect effects of climate change on herbicide leaching – A regional scale assessment in Sweden. *Science of the Total Environment*, 514, 239-249. <http://dx.doi.org/10.1016/j.scitotenv.2014.12.049>.

### Presentationer vid vetenskapliga konferenser

Jonas Malmsten "1st International Workshop on Moose Health", Uppsala, 23-24 Okt 2013. (Management challenges with growing ungulate populations)

Kreuger, J., Larsson, M. & Nanos, T. 2013. Atmospheric transport and deposition of pesticides in Sweden. Abstract to the 2013 York Conference Pesticide Behaviour in Soils, Water and Air. 2-4 September 2013, UK. 2 pp. Oral presentation.

Boye, K., Gönczi, M., Jarvis, N., Kreuger, J. & Moeys, J. 2013. Surface runoff of pesticides in Sweden – risk assessment and mitigation. Abstract to the 2013 York Conference Pesticide Behaviour in Soils, Water and Air. 2-4 September 2013, UK. 2 pp. Poster presentation.

Larsbo, M., Etana, A., Jarvis, N., Gönczi, M. & Kreuger, J. 2013. Pesticide losses in surface runoff from a clay soil in south east Sweden. Abstract to the 2013 York Conference Pesticide Behaviour in Soils, Water and Air. 2-4 September 2013, UK. 2 pp. Poster presentation.

Ahrens, L., Daneshvar, A., Kreuger, J. & Gönczi, M. 2013. Calibration and field evaluation of passive samplers for monitoring pesticides in water. Abstract to the 2013 York Conference Pesticide Behaviour in Soils, Water and Air. 2-4 September 2013, UK. 2 pp. Poster presentation.

Larsson, M., Nanos, T., Boye, K. & Kreuger, J. 2013. The Swedish environmental monitoring program for pesticides and examples of monitoring data applications. Abstract to the 2013 York Conference Pesticide Behaviour in Soils, Water and Air. 2-4 September 2013, UK. 2 pp. Poster presentation.

Jonsson, O. & Kreuger, J. 2013. Determination of pesticides in bees and pollen by liquid and gas chromatography coupled to mass spectrometry. Abstract to the 2013 York Conference Pesticide Behaviour in Soils, Water and Air. 2-4 September 2013, UK. 2 pp. Poster presentation.

Persson S, Rotander A, Kärrman A, van Bavel B, Magnusson U. Perfluoroalkyl acids and the anogenital distance in wild male mink (*Neovison vison*) [abstract]. 7th Copenhagen Workshop on Endocrine Disrupters (COW) 28-31 May 2013, Copenhagen, Denmark

Ljungvall K, Magnusson U, Norrby M, Bergquist J, Pettersson J, Persson S. Heavy metals in female mink in Sweden [abstract]. Workshop on female reproduction and endocrine disrupting chemicals, November 5-6 2013, Centre for Reproductive Biology Uppsala, Sweden.

Hagberg, J., Rotander, A., Persson, S., Magnusson, U, van Bavel, B. Levels of polybrominated dibenzo-p dioxins and furans in minks from Sweden [abstract] Sixth International Symposium On Flame Retardants, April 7-10, 2013, San Francisco, California

Persson, S., Rotander, A., Kärrman, A., van Bavel, B. & Magnusson, U. (2014) Associations between the anogenital distance and environmental concentrations of perfluoroalkyl acids and DDE in wild male mink (*Neovison vison*) Society of Environmental Toxicology and Chemistry (SETAC) Europe 24th Annual Meeting, 11-15 May, Basel.

Steffens, K., Moeys, J., Lindström, B., Kreuger, J., Lewan, E. & Jarvis, N. 2014. Climate change impacts on risks of groundwater pollution by herbicides: a regional scale assessment. EGU General Assembly Conference Abstracts 16, 8812.

Goedkoop, W., Rydh, J., Gardeström, J. & Kreuger, J. 2014. Pesticide mixture toxicity and effects on benthic invertebrates and algae in agricultural streams – field and laboratory studies. SETAC Basel. Abstract ID 21483 (2 p).

Kreuger, J., Lindström, B., Larsson, M. & Gönczi, M. 2014. Monitoring long-term trends of pesticides in surface waters.

SETAC Basel. Abstract ID 20917 (1 p).

Orlinskiy, P., Sattler, C., Kirst, I., Münze, R., Kreuger, J., Paulsson, E., Peterson, M. & Liess, M. 2014. Refuge habitats enhance recovery from pesticide effects. Deutschen Gesellschaft für Limnologie (German Limnological Society) 29/9-3/10 2014 in Magdeburg, Germany. Abstract ID 3946 (2 p). [www.ufz.de/dgl2014](http://www.ufz.de/dgl2014)

Oskarsson A, Tröger R, Kreuger J, Ahrens L, Wiberg K and Lundqvist J. Society of Toxicology 2015, konferens i San Diego, USA, mars 2015: Oxidative stress response in samples from surface water and a drinking water treatment plant.

Lundqvist J, Tröger R, Le Godec T, Ohlsson-Andersson Å, Rosenmai AK, Ahrens L, Wiberg K and Oskarsson A. Society of Toxicology 2016, konferens i New Orleans, USA, mars 2016: In vitro bioassays and chemical analysis of drinking water from source to tap.

Lundqvist J<sup>1</sup>, Kreuger J<sup>2</sup>, Oskarsson A<sup>1</sup> SETAC, Barcelona maj 2015 . Integrated chemical and toxicological profiling of surface water samples from Swedish rural areas

### Doktorsavhandlingar

Persson, S. (2013). The wild male mink as a sentinel for endocrine-disrupting chemicals and reproductive toxicity. Diss. Uppsala: Swedish University of Agricultural Sciences. ISBN 9157678685.

Malmsten J. (2014). Reproduction and health of moose. Diss. Uppsala: Swedish University of Agricultural Sciences ISSN 1652-6880.

Steffens, Karin (2015). *Modelling climate change impacts on pesticide leaching*. Acta Universitatis agriculturae Sueciae, 1652-6880; 2015:35. Sveriges lantbruksuniversitet, Uppsala. ISBN 978-91-576-8268-0

### Licentiatavhandling

Rydh Stenström, J. 2013. Mixture Toxicity of Pesticides and Biological Effects in Agricultural Streams.. Institutionen för vatten och miljö. Sveriges lantbruksuniversitet.

### Examensarbeten

Examensarbete från Jaclyn Martin: Forest harvest effects on mercury in European perch.

BSc thesis at SLU (Jelena Rakovic): Effects of the carotenoid inhibiting herbicide diflufenican on the photosynthesis of benthic algae (<http://stud.epsilon.slu.se/6961/>)

MSc thesis at UU (Kristina Åkerman, to be defended 12/11): The effects of diflufenican on benthic algae.

BSc thesis at University of Aveiro, Portugal (Sara Gonçalves): Effects of metal contamination on diatoms: Toxicity of copper to *Nitzschia palea* and alterations of zinc to the volatile metabolome and biochemical status of *Achnanthes minutissimum*.

Svanström P. (2014) Pathogens and antibiotic resistant bacteria in abattoir waste and animals, a study involving abattoir wastewater, earthworms and Marabou storks. Degree project ISSN 1652-8697 (supervisor Leif Norrgren)

Thorell J. (2014) Cleaning process of abattoir wastewater with focus on bacterial pathogens. Degree project 1652-8697 (supervisor Leif Norrgren)

Nesrin Negm: (2015) Bioaccumulation of Poly- and PerfluoroalkylSubstances (PFASs) and Mercury in European Perch (*Perca fluviatilis*) Spatial distribution and forest clear-cut (CC) effects in Swedish lakes. Institutionen för Vatten och MiljöHandledare: Staffan Åkerblom

### Rapporter

Ericsson G, W Neumann , J Malmsten, A-M Dalin, H Dettki, K Nilsson, E Andersson, Å Nordström, F Stenbacka. Årsrapport GPS-älgarna Öland 2012/2013; Rörelse, reproduktion och överlevnad , SLU

Neumann W, G Ericsson, A Hågeryd, E , Å , H Dettki, F Stenbacka, L Edenius, J Malmsten, A-M Dalin Årsrapport GPS-älgarna Växjö 2012/2013: Rörelse, hemområden och reproduktion, SLU.

Neumann W, G Ericsson, Hr Dettki, G Bergqvist, E Andersson, Å Nordström, F Stenbacka, L Edenius, J Malmsten, A-M Dalin. Årsrapport SYDÄLG Öster Malma 2012/2013: Rörelse, hemområden och reproduktion, SLU

EFSA PPR Panel. 2013a. Scientific Opinion on the report of the FOCUS groundwater working group (FOCUS, 2009): assessment of lower tiers. EFSA Journal 2013;11(3):3114. [29 pp.]

doi:10.2903/j.efsa.2013.3114. [www.efsa.europa.eu/efsajournal](http://www.efsa.europa.eu/efsajournal) (J. Kreuger var medlem i arbetsgruppen som förberedde det vetenskapliga yttrandet)

EFSA PPR Panel. 2013b. Scientific Opinion on the report of the FOCUS groundwater working group (FOCUS, 2009): assessment of higher tiers. EFSA Journal 2013;11(6):3291. [25 pp.]

doi:10.2903/j.efsa.2013.3291. [www.efsa.europa.eu/efsajournal](http://www.efsa.europa.eu/efsajournal) (J. Kreuger var medlem i arbetsgruppen som förberedde det vetenskapliga yttrandet)

Jonsson, O., Fries, I. & Kreuger, J. 2013. Utveckling av analysmetoder och screening av växtskyddsmedel i bin och pollen. CKB rapport 2013:1. Sveriges lantbruksuniversitet.

Lindström, B., Larsson, M., Nanos, T. & Kreuger, J. 2013. Resultat från miljöövervakningen av bekämpningsmedel (växtskyddsmedel) - Årssammanställning 2012. Institutionen för vatten och miljö. Rapport 2013:14. Sveriges lantbruksuniversitet.

Larsson, M., Graaf, S., Nanos, T., Boye, K. & Kreuger, J. 2013. Undersökning av växtskyddsmedel i privata dricksvattenbrunnar från ett jordbruksområde i södra Halland. CKB rapport 2013:2. CKB rapport 2013:1. CKB, Sveriges lantbruksuniversitet, Uppsala. ISBN: 978-91-576-9198-9.

Larsson, M., Boström, G., Gönczi, M. & Kreuger, J. 2014. Kemiska bekämpningsmedel i grundvatten 1986-2014. Sammanställning av resultat och trender i Sverige under tre decennier, samt internationella utblickar. CKB Rapport 2014:1 (HaV rapport 2014:15). 107 pp. ISBN: 978-91-87025-60-0.

Boström, G., Gönczi, M. & Kreuger, J. 2014. Kemiska bekämpningsmedel i Skånes ytvatten 1983-2014. Med jämförelser mot den nationella miljöövervakningen. CKB Rapport 2014:2 (HaV rapport 2014:16). 63 pp. ISBN: 978-91-87025-61-7.

van der Linden, T., Brown, C. & Kreuger, J. 2014. Review of the Danish risk assessment methodology regarding leaching to groundwater. Report to the Danish Environmental Protection Agency 2 December 2014 (21 p).

Sjöberg, K., Brorström-Lundén, E., Pihl Karlsson, G., Danielsson, H., Hansson, K., Wängberg, I., Potter, A., Kreuger, J., Lindström, B., Areskoug, H., Alpfjord, H. & Andersson, C. 2014. Sakrapport 2013. Data från övervakning inom Programområde Luft t.o.m. år 2013. IVL Rapport C 53. 120 pp.

Boström, G., Moeys, J., Jarvis, N., Gönczi, M. & Kreuger, J. 2015. Riskkartering av bekämpningsmedel i Skånes grundvatten. Simuleringar med MACRO-SE. CKB rapport 2015:1. 49 pp + bilagor. CKB, Sveriges lantbruksuniversitet, Uppsala. ISBN: 978-91-576-9301-3.

Goedkoop, W. & Kahlert, M. 2015. Biologiska effekter av bekämpningsmedel i vattendrag - Erfarenheter från 6 års studier av bottenfauna och kiselalger i jordbruksbäckar. CKB rapport 2015:2. Sveriges lantbruksuniversitet. ISBN: 978-91-576-9355-6.

Linden, T. v.d., Brown, C. & Kreuger, J. 2015. Review of the Danish risk assessment methodology regarding leaching to groundwater. Report to the Danish Environmental Protection Agency 14 April 2015 (21 p).

Lindström, B., Larsson, M., Boye, K., Gönczi, M. & Kreuger, J. 2015. Resultat från miljöövervakningen av bekämpningsmedel (växtskyddsmedel). Långtidsöversikt och trender 2002-2012 för ytvatten och sediment. Rapport 2015:5. 87 pp + bilagor. Institutionen för vatten och miljö, Sveriges lantbruksuniversitet, Uppsala. ISBN: 978-91-576-9320-4.

Lindström, B. & Kreuger, J. 2015. Resultat från miljöövervakningen av bekämpningsmedel (växtskyddsmedel). Årssammanställning 2013. Rapport 2015:10. 40 pp + bilagor. Institutionen för vatten och miljö, Sveriges lantbruksuniversitet, Uppsala.