

Kutuharjun julkaisut ja kirjoitukset vuodesta 2009:

Vuosi 2009 (puuttuvat norjalaisten ja kanadalaisten julkaisut):

Muuttoranta K, Nieminen M & Mäki-Tanila A 2009. Emät vaikuttavat vasoihin pitkään. Poromies 5/2009: 30.
Muuttoranta K, Nieminen M & Mäki-Tanila A 2009. Eläinvalinnalla enemmän euroja. Poromies 6/2009: 24-25.

Vuosi 2010 (tästä eteenpäin kaikki julkaisut mukana):

Muuttoranta K, Mäki-Tanila A 2010. Haastattelututkimus porojen valinnan tavoitteista. Poromies 5/2010: 44-45.

Muuttoranta K, Nieminen M & Mäki-Tanila A 2010. Emällä on suuri vaikutus vasan kasvuun. Poromies 5/2010: 45-46.

Muuttoranta K, Nieminen M & Mäki-Tanila A 2010. Estimating Maternal Effects on Growth of Reindeer (*Rangifer t. tarandus*). Proceedings of the 9th World Congress on Genetics Applied to Livestock Production, Leipzig, Germany, 1st – 6th August 2010. ISBN 978-3-00-031608-1

Mäki-Tanila A, Muuttoranta K & Nieminen M 2010. Maternal effects affect the genetic variation of meat production in reindeer. Presentation in the 61st Annual Meeting of the European Association for Animal Production, Heraklion, Greece, 23 – 27 August 2010

Muuttoranta K, Nieminen M & Mäki-Tanila A 2010. Estimating maternal effects on weight records of Kutuharju reindeer. Presentation in the 16th Nordic Conference on Reindeer and Reindeer Husbandry Research, Tromsø, Norway, 16 – 18 November 2010. Rangifer Report No. 14 (2010), p. 103-104.

Weladji RB, Holand Ø, Gaillard J-M, Yoccoz NG, Mysterud A, Nieminen M & N. Stenseth NC 2010. Age-specific changes in different components of reproductive output in female reindeer: Terminal allocation or senescence? *Oecologia* 162: 261-271

Vuosi 2011:

Muuttoranta K & Mäki-Tanila A 2011. Selection decisions among reindeer herders in Finland. *Rangifer* 31(1): 129 – 138.

Muuttoranta K, Nieminen M & Mäki-Tanila A 2011. Influence of dam information on selection practices in reindeer. Presentation in the 13th International Arctic Ungulates Conference, Yellowknife, Northwest Territories, Canada, 22–26 August 2011:

<http://www.auc2011.ca/images/2011ArcticUngulateConferenceProgram.pdf>

Morden CC, Weladji RB, Ropstad, Dahl EE, Holand Ø, Mastromonaco G & M. Nieminen M 2011. Faecal hormones as a non-invasive population monitoring method for reindeer and caribou. *Journal of Wildlife Management* 75: 1426-1435.

Tennenhouse EM, Weladji RB, Holand Ø, Røed KH & Nieminen M 2011. Mating group composition influence somatic costs and activity in rutting dominant male reindeer (*Rangifer tarandus*). *Behavioral Ecology and Sociobiology* 65: 287-295

Vuosi 2012:

- Muuttoranta K & Mäki-Tanila A 2012. Regional differences in reindeer herding operations in Finland. *Acta Agriculturæ Scandinavica, Section A – Animal Science*,62(3): 142 – 152.
DOI:10.1080/09064702.2012.747560
- Muuttoranta K & Mäki-Tanila A 2012. The reindeer herders are interested in selective breeding. Presentation in the 63rd Annual Meeting of the European Federation of Animal Science, Bratislava, Slovakia, 27 – 31 August 2012. Book of abstracts No 18 (2012):
http://www.eaap.org/Previous_Annual_Meetings/2012Bratislava/Bratislava_2012_Abstracts.pdf
- Holand Ø, L'Italien L, Weladji RB, Djaković N, Røed K, Hovland AL & Nieminen M 2012. Shit happens – a glimpse into males' mating tactics in a polygynous ungulate - the reindeer. *Rangifer* 32: 65-72.
- Body G, Weladji RB & Holand Ø 2012. The recursive model as a new approach to validate and monitor activity sensors. *Behavioral Ecology and Sociobiology* 66: 1531-1541
- L'Italien L, Weladji RB, Holand Ø, Røed KH, Nieminen M & Côté SD 2012. Mating group size and stability in reindeer: the effects of male characteristics, sex ratio and male age-structure. *Ethology* 118: 783-792
- Holand Ø, Weladji RB, Mysterud A, Røed KH, E. Reimers E & Nieminen M 2012. Induced orphaning reveals post-weaning maternal care in reindeer. *European Journal of Wildlife Research* 58: 589-596.
- Tennenhouse EM, Weladji RB, Holand Ø & Nieminen M 2012. Timing of reproductive effort differs between young and mature male reindeer. *Annales Zoologici Fennici* 49: 152-160.
- Djaković N, Holand Ø, Hovland AL, Røed K, Weladji RB, Fjelstad E & Nieminen M 2012. Association patterns and kinship in female reindeer (*Rangifer tarandus*) during rut. *Acta Ethologica* 15: 165–171

Vuosi 2013:

- Melnicky NA, Weladji RB, Holand Ø & Nieminen M 2013. Scaling of antler size in reindeer (*Rangifer tarandus*): sexual dimorphism and variability in resource allocation. *Journal of Mammalogy* 94: 1371-1379.
- Muuttoranta K, Tapio M, Holand Ø, Røed KH, Nieminen M & Mäki-Tanila A 2013. Genetic and environmental effects in the variation of birth date and birth weight of reindeer calves. *Rangifer* 33(1):25-35.
<http://dx.doi.org/10.7557/2.33.1.2598>
- Muuttoranta K, Tapio M, Holand Ø, Røed, KH, Nieminen, M & Mäki-Tanila A 2013. Genetic variation in meat production related traits in reindeer (*Rangifer t. tarandus*). *Rangifer* 34: 21-36.

Vuosi 2014:

- Body G, Weladji RB, Holand Ø, & Nieminen M 2014. Fission-fusion group dynamics in reindeer reveal an increase of cohesiveness at the beginning of the peak rut. *Acta ethol.* DOI: 10.1007/S10211-014-0190-8
- Body G, Weladji RB, Holand Ø, & Nieminen M 2014. Highly Competitive Reindeer Males Control Female Behavior during the Rut. *PLoS one* 9. DOI: 10.1371/journal.pone.0095618
- Engelhardt S, Holand Ø, Nieminen M & Weladji RB 2014. Allosuckling in reindeer (*Rangifer tarandus*): milk-theft, mismothering or kin selection?" *Behavioural Processes*: 107:133-141
- Holand Ø 2014. Reinens reproduksjonsstrategi (in Norwegian). *Norsk Vet Tidskrift*, 2:92-100.
- Muuttoranta K & Mäki-Tanila A 2014. Reindeer production in Finland – integration of traditional and new technologies. *Kappale kirjassa: Cattle husbandry in Eastern Europe and China - Structure, development paths and optimization.* Toim.: Kuipers, A., Roztalnyy, A. and Keane, G. EAAP Scientific Series, Publication No. 135. ISBN: 978-90-8686-232-0978, DOI: 10.3920/978-90-8686-785-1.
- Våge DI, Nieminen M, Andersen D, & Røed KH 2014 Two missense mutations in melanocortin 1 receptor (MC1R) are strongly associated with dark ventral coat color in reindeer (*Rangifer tarandus*). *Animal Genetics* 45 (5): 750-753.

Vuosi 2015:

- Body G, Weladji RB, Holand Ø & Nieminen M 2015. Measuring variation in the frequency of group fission and fusion from continuous monitoring of group sizes. *J. Mammal.* 94: 791-799.
- Body G, Weladji, RB, Holand Ø. & Nieminen M 2015. Fission-fusion group dynamics in reindeer reveal an increase of cohesiveness at the beginning of the peak rut. *Acta Ethologica* 18:101-110
- Djakovic N, Holand Ø, Hovland AL, Røed KH, Weladji RB & Nieminen M 2015. Effects of males' presence on female behaviour during the rut. *Ethology Ecology & Evolution* 27:148-160.
- Engelhardt SC, Weladji RB, Holand Ø, Røed KH & Nieminen M 2015. Evidence of Reciprocal Allonursing in Reindeer, *Rangifer tarandus*. *Ethology* 121:245-259
- Pintus E, Uccdeddu S, Røed KH, Gonzalez JP, Carranza J, Nieminen M & Holand Ø 2015. Flexible mating tactics and associated reproductive effort during the rutting season in male reindeer (*Rangifer tarandus*, L. 1758). *Current Zool.* 61:802-810.
- Uccdeddu S, Body G, Weladji RB, Holand Ø & Nieminen M 2015. Foraging competition in larger groups overrides harassment avoidance benefits in female reindeer (*Rangifer tarandus*). *Oecologia* 179: 711-718.
DOI 10.1007/s00442-015-3392-5

Vuosi 2016:

- Engelhardt SC, Weladji RB, Holand Ø, Røed KH & M Nieminen 2016. Allonursing in reindeer, *Rangifer tarandus*: a test of the kin-selection hypothesis. *Journal of Mammalogy* 97: 689-700. DOI:
<http://dx.doi.org/10.1093/jmammal/gyw027>
- Engelhardt SC, Weladji RB, Holand Ø & Nieminen M 2016. Allosuckling in reindeer (*Rangifer tarandus*): A test of the improved nutrition and compensation hypotheses. *Mammalian Biology* 81:146-152.

Vuosi 2017:

- Strong JS, Weladji RB, Holand Ø, Røed KH & Nieminen M 2017. Personality and fitness consequences of flight initiation distance and mating behavior in subdominant male reindeer (*Rangifer tarandus*). *Ethology* 123: 484–492.
- Weladji RB, Body, G. Holand Ø, Meng X & Nieminen M 2017. Temporal variation in the operational sex ratio and male mating behaviours in reindeer (*Rangifer tarandus*). *Behavioural Processes* 140:96-103.

Vuosi 2018:

- Holand Ø & Weladji RB 2018. *Rangifer Mating Strategies*. In Tryvan, M, Kutz, SJ (eds.) *Reindeer and Caribou: Health and Disease*. CRC Press, Boca Raton, London, New York.
- Paoli A, Weladji RB, Holand Ø & Kumpula J 2018: Winter and spring climatic conditions influence timing and synchrony of calving in reindeer. *PLoS ONE* 13(4): e0195603.
<https://doi.org/10.1371/journal.pone.0195603>

Vuosi 2019:

- Paoli, A., Weladji, R.B., Holand, Ø., Kumpula, J. 2019: The onset in spring and the end in autumn of the thermal and vegetative growing season affect calving time and reproductive success in reindeer. *Current Zoology*, 2019, 1–12. doi: 10.1093/cz/zoz032
- Paoli, A., Weladji, R.B., Holand, Ø., Kumpula, J. 2019: Early-life conditions determine the between-individual heterogeneity in plasticity of calving date in reindeer. *Journal of Animal Ecology* 2019: 1–14. doi: 10.1111/1365-2656.13096
- Paoli, Amélie 2019. Breeding phenology of a semi-domesticated reindeer (*Rangifer tarandus*) population in response to climatic variability. PhD thesis, Concordia University, Canada.

Vuosi 2020:

- Holand, H., Kvalnes, T., Røed, K.H., Holand, Ø., Sæther B.-E. & Kumpula, J. 2020: Stabilizing selection and adaptive evolution in a combination of two traits in an arctic ungulate. *Evolution* 74(1): 103–115. doi:10.1111/evo.13894
- de Villemereuil P, Charmantier A, Arlt A, Bize P, Brekke P, Brouwer L, Cockburn, A, Côté S D, Dobson F S, Evans S R, Festa-Bianchet, M, Gamelon M, Hamel S, Hegelbach J, Jerstad K, Kempenaers B, Kruuk, L E B, Kumpula2 J, Kvalnes T, McAdam, A G, McFarlane, S E, Morrissey M B, Pärt, T, Pemberton, J M, Qvarnström A, Røstad O-W, Schroeder J, Senar, J C, Sheldon B C, van de Pol M, Visser, M E, Wheelwright N T, Tufto J, & Chevin L-M 2020: Fluctuating optimum and temporally variable selection in the wild. *PNAS*, (in press)

Tieteelliset käsikirjoitukset:

- Paoli A, Weladji RB, Holand Ø, & Kumpula J. Response of reindeer mating time to climatic variability. Submitted to BMC Ecology. This manuscript basically try to understand the climatic variables driving the males' timing of rutting activities and the females' copulation dates through its mediated effect on the pre-rut physical condition of the individuals.

Poropäivien esityksiä (vain Muuttoranta ym. pitämät listattu)

- 24.-25.4.2008: Muuttoranta, K., Nieminen, M., Mäki-Tanila, A (2008). Kutuharjun porot soveltuват hyvin genetiikkatutkimukseen. <http://www.rktl.fi/www/uploads/pdf/poropaviaat08esitelmat.pdf>
- 23.-24.4. 2009: Muuttoranta, K., Nieminen, M., Mäki-Tanila, A. (2009): Emät vaikuttavat vasoihin pitkään. http://www.rktl.fi/www/uploads/Seminaarit/esitelmativistemelmat_poropaviaat_2009.pdf
- 22.- 23.4.2010: Muuttoranta, K., Nieminen, M. & Mäki-Tanila, A. (2010): Emällä on suuri vaikutus vasan kasvuun. <http://www.rktl.fi/www/uploads/pdf/poropaviaat2010.pdf>
25. -26.4.2013: Muuttoranta, K., Mäki-Tanila, A. (2013): Valinta on tärkeä porotalouden elementti. <http://www.rktl.fi/www/uploads/pdf/abstraktit.pdf>
25. -26.4.2013: Muuttoranta, K., Nieminen, M. & Mäki-Tanila, A. (2013): Vasaominaisuksien vaihtelun päätekijät. <http://www.rktl.fi/www/uploads/pdf/abstraktit.pdf>