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## Primary fields of research

I have a PhD in evolutionary biology, population genetics and ecology. In my research, I have primarily focused on evolution of **plants defenses against insect herbivores** and pathogens

interactions between **plants, beneficial plant-associated microbes, and insect herbivores**

**hybridisation** between plant species or ecotypes, and its role in evolution. The main focus here has been **hybridisation between cultivated plants and their wild relatives**, its influence on the possible spread of transgenes from genetically modified crops, and its role in evolution of genetic resources

**inbreeding depression in plants** and its influence on evolution of mating system and **conservation** of small isolated plant populations

## Publications

### **Different herbivore responses to two co-occurring chemotypes of the wild crucifer *Barbarea vulgaris***

Christensen, S., Enge, S., Jensen, K. R., Müller, C., Kiær, L. P., Agerbirk, N., Heimes, C. & Hauser, T. P., 15 Feb 2019, In : *Arthropod-Plant Interactions*. 13, 1, p. 19-30 12 p.

### **The cytochrome P450 CYP72A552 is key to production of hederagenin-based saponins that mediate plant defense against herbivores**

Liu, Q., Khakimov, B., Cozzi, F., Olsen, C. E., Jensen, K. R., Hauser, T. P. & Bak, S., 2019, (Accepted/In press) In : *New Phytologist (Online)*. 27 p.

### **The genome sequence of *Barbarea vulgaris* facilitates the study of ecological biochemistry**

Byrne, S. L., Erthmann, P. Ø., Agerbirk, N., Bak, S., Hauser, T. P., Nagy, I., Paina, C. & Asp, T., 2017, In : *Scientific Reports*. 7, 14 p., 40728.

### **A hybridisation barrier between two evolutionary lineages of *Barbarea vulgaris* (Brassicaceae) that differ in biotic resistances**

Christensen, S., Sørensen, H., Munk, K. R. & Hauser, T. P., 2016, In : *Evolutionary Ecology*. 30, 5, p. 887-904 8 p.

### **Ecotypic differentiation of two sympatric chemotypes of *Barbarea vulgaris* (Brassicaceae) with different biotic resistances**

Heimes, C., Agerbirk, N., Sørensen, H., van Mølken, T. & Hauser, T. P., 2016, In : *Plant Ecology*. 217, 9, p. 1055-1068 14 p.

### **Frøet - menneskets rejsekammerat**

Hauser, T. P., 2016, In : *Praktisk Økologi*. 3, p. 21-25

### **Morphology, phylogeny, and taxonomy of *Microthlaspi* (Brassicaceae: Coluteocarpeae) and related genera**

Ali, T., Schmücker, A., Runge, F., Solovyeva, I., Nigrelli, L., Paule, J., Buch, A.-K., Xia, X., Ploch, S., Orren, O., Kummer, V., Linde-Laursen, I., Orgaard, M., Hauser, T. P., Celik, A. & Thines, M., 2016, In : *Taxon*. 65, 1, p. 79-98 20 p.

### **Naturressourcer og økologi - øvelseskompendium**

Strobel, B. W., Jensen, P. M., Hauser, T. P., Bruun, S., Vesterdal, L., Rasmussen, J., Langer, V., Kjær, E. D., Torp, A. M., Pedersen, K. E. & Dalhoff, K., 2016, 12. ed. 105 p.

**Identification and genome organization of saponin pathway genes from a wild crucifer, and their use for transient production of saponins in *Nicotiana benthamiana***

Khakimov, B., Poulsen, V. K., Erthmann, P. Ø., Fukushima, E. O., Augustin, J. M., Olsen, C. E., Scholtalbers, J., Volpin, H., Andersen, S. B., Hauser, T. P., Muranaka, T. & Bak, S., 2015, In : The Plant Journal. 84, 3, p. 478-490 13 p.

**Interactive impacts of a herbivore and a pathogen on two resistance types of *Barbarea vulgaris* (Brassicaceae)**

Heimes, C., Thiele, J., van Mølken, T. & Hauser, T. P., 2015, In : Oecologia. 177, 2, p. 441-452 12 p.

**Multiple hydroxyphenethyl glucosinolate isomers and their tandem mass spectrometric distinction in a geographically structured polymorphism in the crucifer *Barbarea vulgaris***

Agerbirk, N., Olsen, C. E., Heimes, C., Christensen, S., Bak, S. & Hauser, T. P., 2015, In : Phytochemistry. 115, p. 130-142 13 p.

**Consequences of combined herbivore feeding and pathogen infection for fitness of *Barbarea vulgaris* plants**

van Mølken, T., Poulsen, V. K., Munk, K. R., Olsen, C. E., Sundelin, T., Dam, N. M. V. & Hauser, T. P., 2014, In : Oecologia. 175, 2, p. 589-600 12 p.

**Different geographical distributions of two chemotypes of *Barbarea vulgaris* that differ in resistance to insects and a pathogen**

Christensen, S., Heimes, C., Agerbirk, N., Poulsen, V. K., Olsen, C. E. & Hauser, T. P., 2014, In : Journal of Chemical Ecology. 40, 5, p. 491-501 11 p.

**Phylogeny of an *Albugo* sp. infecting *Barbarea vulgaris* in Denmark and its frequency of symptom development in natural populations of two evolutionary divergent plant types**

van Mølken, T., Heimes, C., Hauser, T. P. & Sundelin, T., 2014, In : Fungal Biology. 118, 3, p. 340-347 8 p.

**Population fluctuations, losses to grazing, and reproductive success of *Dactylorhiza sambucina* on Bornholm, Denmark**

Sonne, M. N. & Hauser, T. P., 2014, In : Annales Botanici Fennici. 51, 6, p. 375-386 12 p.

**Combined effects of arthropod herbivores and phytopathogens on plant performance**

Hauser, T. P., Christensen, S., Heimes, C. & Kiær, L. P., 2013, In : Functional Ecology. 27, p. 623-632 10 p.

**Cross compatibility of cultivars of *Gossypium hirsutum* L. and feral *Gossypium barbadense* L. in the Southern Highlands of Tanzania**

Shilla, O., Hauser, T. P. & Tibazarwa, F. I., 2012, In : African Journal of Agricultural Research. 7, 47, p. 6289-6296 8 p.

**Genetic and geographic structure of an insect resistant and a susceptible type of *Barbarea vulgaris* in western Europe**

Hauser, T. P., Toneatto, F. & Nielsen, J. K., 2012, In : Evolutionary Ecology. 26, 3, p. 611-624 14 p.

**Genetic diversity and similarity in the *Barbarea vulgaris* complex (Brassicaceae)**

Toneatto, F., Hauser, T. P., Nielsen, J. K. & Ørgaard, M., 2012, In : Nordic Journal of Botany. 30, 4, p. 506-512 7 p.

**Hybridization potential between cultivated rice *Oryza sativa* and African wild rice *Oryza longistaminata***

Kanya, J. I., Hauser, T. P., Kinyamario, J. I. & Amugune, N. O., 2012, In : International Journal of Agricultural Research. 7, 6, p. 291-302 12 p.

**Hybridization between *Pyrola grandiflora* and *Pyrola minor* in West Greenland: a tension zone maintained by clonality**

Hauser, T. P., Bohr, M. B., Dienst, D. N., Nielsen, K. B. & Philipp, M., 2012, In : Botany. 90, p. 1036-1047 12 p.

**Natural colonisation of an open area by *Quercus robur* L. – From where did the vectors disperse the seed?**

Olrik, D. C., Hauser, T. P. & Kjær, E. D., 2012, In : Scandinavian Journal of Forest Research. 27, 4, p. 350-360 11 p.

**Reduced sexual compatibility between cultivated and wild chicory and their F<sub>1</sub> hybrids**

Hauser, T. P., Bagger Jørgensen, R. & Toneatto, F., 2012, In : Genetic Resources and Crop Evolution. 59, 5, p. 783-791 9 p.

**UDP-glycosyltransferases from the UGT<sub>73C</sub> subfamily in *Barbarea vulgaris* catalyse Sapogenin 3-O-glucosylation in Saponin-mediated Insect resistance**

Augustin, J. M., Drok, S., Shinoda, T., Sanmiya, K., Nielsen, J. K., Khakimov, B., Olsen, C. E., Hansen, E. H., Poulsen, V. K., Ekstrøm, C. T., Hauser, T. P. & Bak, S., 2012, In : Plant Physiology. 160, 4, p. 1881-1895 15 p.

**The role of saponins in the tripartite interaction between *Barbarea vulgaris* (Brassicaceae), flea beetles and white rust.**

van Mølken, M. A. R., Hauser, T. P., Andersen, S. B., Augustin, J. M., Bak, S., Poulsen, V. K., Munk, L. & Nielsen, J. K., 2010.

**Genetic and sexual separation between insect resistant and susceptible *Barbarea vulgaris* plants in Denmark**

Toneatto, F., Nielsen, J. K., Ørgaard, M. & Hauser, T. P., 2010, In : Molecular Ecology. 19, 16, p. 3456-3465 10 p.

**Genetic variation of inbreeding depression among floral and fitness traits in *Silene nutans***

Thiele, J., Hansen, T. M., Siegismund, H. R. & Hauser, T. P., 2010, In : Heredity. 104, 1, p. 52-60 9 p.

**Interactions between *Barbarea vulgaris*, flea beetles and white rust**

Hauser, T. P., Andersen, S. B., Augustin, J. M., Bak, S., Poulsen, V. K. & Munk, L., 2010.

**Planters naturlige forsvar mod forskellige samtidige skadevoldere**

Hauser, T. P., Nielsen, J. K., Munk, L., Poulsen, V. K., Bak, S., van Mølken, T. & Andersen, S. B., 2010, *Plantekongres 2010: sammendrag af indlæg: 12-14 januar i Herning Kongrescenter*. Dansk Landbrugsrådgivning, p. 402-403 2 p.

**Colonization of an open heath land by *Quercus robur*: where do the seeds come from?**

Olrik, D. C., Kjær, E. D. & Hauser, T. P., 2009. 1 p.

**De dyrkede arters oprindelse: 150-året for udgivelsen af Darwins "Arternes Oprindelse"**

Hauser, T. P., 2009, Frederiksberg: Det Biovidenskabelige Fakultet for Fødevarer, Veterinærmedicin og Naturressourcer, Københavns Universitet. 34 p.

**De dyrkede arters oprindelse: 150-året for udgivelsen af Darwins "Arternes Oprindelse" fejres i Haven**

Hauser, T. P., 2009, Frederiksberg

**Dispersal distance of rice (*Oryza Sativa* L.) pollen at the Tana River delta in the coast province, Kenya**

Kanay, J. I., Kinyamario, J. I., Amugune, N. O. & Hauser, T. P., 2009, In : African Journal of Biotechnology. 8, 10, p. 2265-2270 6 p.

**Flowering does not decrease vegetative competitiveness of *Lolium perenne***

Thiele, J., Jørgensen, R. B. & Hauser, T. P., 2009, In : Basic and Applied Ecology. 10, 4, p. 340-348 9 p.

**Spontaneous gene flow and population structure in wild and cultivated chicory, *Cichorium intybus* L.**

Kiær, L. P., Felber, F., Flavell, A., Guadagnuolo, R., Guiatti, D., Hauser, T. P., Olivieri, A., Scotti, I., Syed, N., Vischi, M., Wiel, C. V. D. & Jørgensen, R. B., 2009, In : Genetic Resources and Crop Evolution. 56, 3, p. 405-419 15 p.

**The Origin of Cultivated Species: The LIFE Gardens celebrate the 150th anniversary of the publication of Darwin's On the Origin of Species**

Hauser, T. P., 2009, DK-Frederiksberg

**The variability of processes involved in transgene dispersal - case studies from *Brassica* and related genera**

Jørgensen, R. B., Hauser, T. P., D'Hertefeldt, T., Andersen, N. S. & Hoofman, D., 2009, In : Environmental science and pollution research international. 16, 4, p. 389-395 7 p.

**Susceptibility of wild carrot (*Daucus carota* ssp. *carota*) to *Sclerotinia sclerotiorum***

Jensen, B. D., Finckh, M. R., Munk, L. & Hauser, T. P., 2008, In : European Journal of Plant Pathology. 122, 3, p. 359-367 9 p.

**Adventitious presence of other varieties in oilseed rape (*Brassica napus*) from seed banks and certified seed**

Jørgensen, T., Hauser, T. P. & Jørgensen, R. B., 2007, In : Seed Science Research. 17, 2, p. 115-125 11 p.

**Genealogy, morphology and fitness of spontaneous hybrids between wild and cultivated chicory (*Cichorium intybus*)**

Kiær, L. P., Philipp, M., Jørgensen, R. B. & Hauser, T. P., 2007, In : Heredity. 99, 1, p. 112-120 9 p.

**Hybrids between cultivated and wild carrots in natural populations in Denmark**

Magnussen, L. S. & Hauser, T. P., 2007, In : Heredity. 99, 2, p. 185-192 8 p.

**Survival and flowering of hybrids between cultivated and wild carrots (*Daucus carota*) in Danish grasslands**

Hauser, T. P. & Shim, S. I., 2007, In : Environmental Biosafety Research. 6, p. 237-247 11 p.

**The temporal development in a hybridizing population of wild and cultivated chicory (*Cichorium intybus* L.)**

Sørensen, B. S., Kiær, L. P., Jørgensen, R. B. & Hauser, T. P., 2007, In : Molecular Ecology. 16, 16, p. 3292-3298 7 p.

**Frequency-dependent fitness of hybrids between oilseed rape (*Brassica napus*) and weedy *B. rapa* (*Brassicaceae*)**

Hauser, T. P., Damgaard, C. & Jørgensen, R. B., 2003, In : American Journal of Botany. 90, 4, p. 571-8 8 p.

**Gene introgression and consequences in Brassica: Introgression from Genetically Modified Plants into wild relatives and its consequences**

Jørgensen, R. B., Ammitzbøll, H., Hansen, L. B., Johannessen, M., Andersen, B., Hauser, T. P., Nijs, H., Bartsch, D. & Hauser, T. P., 2003, *Introgression from Genetically Modified Plants into wild relatives and its consequences*. Nijs, H. & Bartsch, D. (eds.). CABI

**Hybrids between cultivated and wild carrots: a life history: Introgression from Genetically Modified Plants into wild relatives and its consequences**

Hauser, T. P., Bjørn, G. K., Magnussen, L., Shim, S. I., Nijs, H., Bartsch, D. & Hauser, T. P., 2003, *Introgression from Genetically Modified Plants into wild relatives and its consequences*. Nijs, H. & Bartsch, D. (eds.). CABI

**Frost sensitivity of hybrids between wild and cultivated carrots**

Hauser, T. P., 2002, In : Conservation Genetics. 3, p. 75-78 4 p.

**Male fitness of oilseed rape (*Brassica napus*), weedy *B. rapa* and their F(1) hybrids when pollinating *B. rapa* seeds**

Pertl, M., Hauser, T. P., Damgaard, C. & Jørgensen, R. B., 2002, In : Heredity. 89, 3, p. 212-8 7 p.

**Hybrids between wild and cultivated carrots in Danish carrot fields**

Hauser, T. P. & Bjørn, G. K., 2001, In : Genetic Resources and Crop Evolution. 48, p. 499-506 8 p.

**A- or C-chromosomes, does it matter for the transfer of transgenes from *Brassica napus*?**

Tomiuk, J., Hauser, T. P. & Jørgensen, R. B., 2000, In : Theoretical and Applied Genetics. 100, p. 750-754 5 p.

**Extreme variation in flowering time between populations of *Silene nutans***

Hauser, T. P. & Weidema, I. R., 2000, In : Hereditas. 132, p. 95-101 7 p.

**Inbreeding and outbreeding effects on pollen fitness and zygote survival in *Silene nutans* (Caryophyllaceae)**

Hauser, T. P. & Siegismund, H. R., 2000, In : *Journal of Evolutionary Biology*. 13, p. 446-454 9 p.

**Vil transgener overføres til vilde gulerødder via Sydeuropa?**

Hauser, T. P., 2000, In : *Miljøforskning*. 43, p. 34 1 p.

**Ecological risks of growing genetically modified crops**

Jørgensen, R. B., Andersen, B., Snow, A. A. & Hauser, T. P., 1999, In : *Plant Biotechnology*. 16, p. 69-71 3 p.

**Precocious germination of *Brassica rapa* x *B. napus* seeds within pods**

Hauser, T. P. & Østergård, H., 1999, In : *Hereditas*. 130, p. 89-93 5 p.

**Fitness of F1 hybrids between weedy *Brassica rapa* and oilseed rape (*B. napus*)**

Hauser, T. P., Shaw, R. G. & Østergård, H., 1998, In : *Heredity*. 81, p. 429-435 7 p.

**Fitness of backcross and F2 hybrids between weedy *Brassica rapa* and oilseed rape (*B. napus*)**

Hauser, T. P., Jørgensen, R. B. & Østergård, H., 1998, In : *Heredity*. 81, p. 436-443 8 p.

**Introgression of crop genes from oilseed rape (*Brassica napus*) to related wild species - an avenue for the escape of engineered genes**

Jørgensen, R. B., Andersen, B., Hauser, T. P., Landbo, L., Mikkelsen, T. & Østergård, H., 1998, In : *Acta Horticulturae*. 459, p. 211-217 7 p.

**Genes now roam the countryside**

Mikkelsen, T. R., Hauser, T. P. & Jørgensen, R. B., 1997, In : *Recherche*. p. 37-39 3 p.

**Preferential exclusion of hybrids in mixed pollinations between oilseed rape (*Brassica napus*) and weedy *B. campestris***

Hauser, T. P., Joergensen, R. B. & Oestergaard, H., 1997, In : *American Journal of Botany*. 84, p. 756-762 7 p.

**Drought stress and inbreeding depression in *Lychnis flos-cuculi* (Caryophyllaceae)**

Hauser, T. P. & Loeschcke, V., 1996, In : *Evolution*. 50, 3, p. 1119-1126 8 p.

**Spontaneous transfer of traits between crops and weeds: *Brassica napus* and weedy *B. campestris***

Hauser, T. P., Landbo, L., Østergard, H. & Jørgensen, R. B., 1996.

**Transfer of engineered genes from crop to wild plants**

Jørgensen, R. B., Hauser, T. P., Mikkelsen, T. R. & Østergard, H., 1996, In : *Trends in Plant Science*. 1, p. 356-358 3 p.

**Inbreeding depression in *Lychnis flos-cuculi* (Caryophyllaceae): effects of different levels of inbreeding**

Hauser, T. P. & Loeschcke, V., 1995, In : *Journal of Evolutionary Biology*. 8, p. 589-600 12 p.

**Effects of inbreeding in small plant populations: expectations and implications for conservation: Conservation genetics**

Hauser, T. P., Damgaard, C. & Loeschcke, V., 1994, *Conservation genetics*. Loeschcke, V., Tomiuk, J. & Jain, S. K. (eds.). Birkhauser, p. 115-129 15 p.

**Germination, predation and dispersal of *Acacia albida* Seeds**

Hauser, T. P., 1994, In : *Oikos*. 70, p. 421-426 6 p.

**Inbreeding depression and mating-distant dependent offspring fitness in large and small populations of *Lychnis flos-cuculi* (Caryophyllaceae)**

Hauser, T. P. & Loeschcke, V., 1994, In : *Journal of Evolutionary Biology*. 7, p. 609-622 14 p.

### **Notes on soil seed banks of African acacias**

Tybirk, K., Schmidt, L. H. & Hauser, T. P., 1994, In : African Journal of Ecology. 32, p. 327-330 4 p.

## **Activities**

### **Danish Oikos annual meeting**

Thure Pavlo Hauser (Organizer)

10 Mar 2017 → 11 Mar 2017

### **PhD workshop: How to get your paper read and cited**

Thure Pavlo Hauser (Organizer)

9 Mar 2017 → 10 Mar 2017

### **Gordon Conference in Plant - Herbivore Interactions**

Thure Pavlo Hauser (Participant)

13 Feb 2017 → 16 Feb 2017

### **COST action Plant-arthropod-microbe interactions**

Thure Pavlo Hauser (Participant)

31 Jan 2017 → 3 Feb 2017

### **Chair of Danish Oikos, a Danish network of ecologists (External organisation)**

Thure Pavlo Hauser (Chair)

2017 → 2019

### **Foredrag for foreningen Praktisk Økologi, Mere Liv i Haven: "Frøet - menneskets rejsekammerat"**

Thure Pavlo Hauser (Participant)

Sep 2016 → ...

### **Research visit at CSIC, ESTACION EXPERIMENTAL DEL ZAIDIN, Granada**

Thure Pavlo Hauser (Participant)

10 Oct 2015 → 12 Dec 2015

### **Seminar series of Biology dept, Marburg University**

Thure Pavlo Hauser (Speaker)

11 Nov 2014

### **15th International Symposium on Insect-Plant Relationships**

Thure Pavlo Hauser (Participant)

21 Aug 2014

### **Crucifer Genetics Workshop**

Thure Pavlo Hauser (Participant)

2014

### **Gordon Research Conference Plant Herbivore Interactions**

Thure Pavlo Hauser (Participant)

2014

### **Oikos Denmark Annual Meeting**

Thure Pavlo Hauser (Organizer)

2014

**Oikos Denmark Annual Meeting**

Thure Pavlo Hauser (Speaker)  
2014

**Member of the Department Council, Dept of Plant and Environmental Sciences (External organisation)**

Thure Pavlo Hauser (Member)  
1 Apr 2013

**International workshop: "Plant-microbe-insect interactions: from molecular mechanisms to ecological implications", Andalusia International Univ., Spain; Invited speaker**

Thure Pavlo Hauser (Speaker)  
Sep 2012

**British Ecological, Biochemical, and Experimental Biology Societies: "Plant-microbe-insect interactions: from molecular mechanisms to ecological implications", London, UK; invited speaker**

Thure Pavlo Hauser (Speaker)  
Jan 2012 → ...

**Oikos Danmark (External organisation)**

Thure Pavlo Hauser (Board member)  
2012 → ...

**Supervisor for MSc student: Gene flow between cultivated and wild cassava in Tanzania. Mr. Haidari Nawabu**

Thure Pavlo Hauser (Participant)  
1 Jul 2010 → 1 Jan 2012

**referee på forskningsansøgning: Hollandske forskningsråd**

Thure Pavlo Hauser (Participant)  
23 Mar 2010 → ...

**medlem af Udvalget for skovfrø og planter**

Thure Pavlo Hauser (Participant)  
5 Feb 2010 → ...

**Formand PhD bedømmelsesudvalg: PhD studerende fra Skov og Landskab**

Thure Pavlo Hauser (Participant)  
20 Jan 2010

**PhD in gene flow between cultivated and wild rice in East Africa: Mr. James Kenya**

Thure Pavlo Hauser (Participant)  
13 Jan 2010

**Journal of Ecology (Journal)**

Thure Pavlo Hauser (Reviewer)  
1 Jan 2010

**"Introduction to GMO Biosafety Risk Assessment" biosafetybiosafetytraining workshop: organised by Biosafetrain ([www.biosafetrain.dk](http://www.biosafetrain.dk)) and ICGEB (<http://www.icgeb.org/home-ct.html>)**

Thure Pavlo Hauser (Participant)  
19 Oct 2009 → 23 Oct 2009

**PhD course in "Molecular marker analysis of plant population structure and processes"**

Thure Pavlo Hauser (Organizer)  
17 Aug 2009 → 21 Aug 2009

**MSc degree: Thesis title: An assessment for the hybridization potential of wild cotton as a prelude to the introduction of transgenic cotton**

Thure Pavlo Hauser (Participant)

1 Oct 2007 → 5 Feb 2009

**Ecological consequences of gene flow from crops to wild relatives, two crop examples from the composite family (Asteraceae), lettuce and chicory**

Thure Pavlo Hauser (Participant)

13 Nov 2005

**Genetically modified plants and gene flow**

Thure Pavlo Hauser (Participant)

11 Oct 2005

**Forskningens døgn**

Thure Pavlo Hauser (Lecturer)

12 May 2005

**ENRECA/DANIDA (External organisation)**

Thure Pavlo Hauser (Member)

1 Jan 2005 → 31 Dec 2005