

Yan SUN Resume

Huazhong Agricultural University, College of Resources & Environment, Professor

Education:

- (1) 2009-09 to 2013-09, University of Fribourg, Ecology & Evolution, PhD
- (2) 2006-09 to 2009-07, CAS, MSc
- (3) 2002-09 to 2006-07, Wuhan University, BSc

Postdoctoral work experience:

- (1) 2017-10 to 2020-12, University of Fribourg
- (2) 2016-04 to 2017-09, University of Tübingen
- (3) 2015-08 to 2016-03, University of Fribourg
- (4) 2014-02 to 2015-07, University of California, Berkeley
- (5) 2013-10 to 2014-01, University of Fribourg

Research and work experience(Except Postdoctoral work experience)

- (1) 2021-09 to present, Huazhong Agricultural University, College of Resources & Environment, Professor
- (2) 2021-01 to 2021-08, University of Fribourg, Biology Department, Senior Researcher

Grants:

- (1) National Science Foundation of China, 32201438, Evolutionary change of *Ambrosia artemisiifolia* under global warming, 2023-01 to 2025-12, Ongoing
- (2) Swiss National Science Foundation, P2FRP3_148577, Herbivores as drivers of demography and evolutionary change? A case study of common ragweed and potential insect biological control agents, 2014-02 to 2015-07
- (3) Swiss National Science Foundation, P300PA_161014, Herbivores as drivers of demographic and evolutionary change in invasive alien plants under present and future climate conditions, 2016-04 to 2017-09
- (4) Novartis Foundation for Medical-Biological Research, medizinisch-biologische Forschung, #17B083, Insect-plant interactions under climate change: an evolutionary approach, 2018-01 to 2018-12.
- (5) European Cooperation in Science and Technology, Short Term Scientific mission, COST-STSM-FA1203-13474, COST-STSM-FA1203-27630, COST-STSM-ECOST-STSM-FA1203-060416-073555, COST-STSM-ECOST-STSM-FA1203-201016-081200, 2013 to 2016.

Five selected publications:

- (1) **Yan Sun**; Tobias Züst; Daniele Silvestro; Matthias Erb; Oliver Bossdorf; Pierre Mateo; Christelle Robert; Heinz Müller-Schärer; Climate warming can reduce biocontrol efficacy and promote plant invasion due to both genetic and transient metabolomic changes, *Ecology Letters*, 2022, 25: 1387–1400
- (2) **Yan Sun**; Oliver Bossdorf; Ramon D. Grados; ZhiYong Liao; Heinz Müller-Schärer; Rapid genomic and phenotypic change in response to climate warming in a widespread plant invader, *Global Change Biology*, 2020, 26: 6511–6522
- (3) **Yan Sun**; George K. Roderick; Rapid evolution of invasive traits facilitates the invasion of common ragweed, *Ambrosia artemisiifolia*, *Journal of Ecology*, 2019, 107: 2673–2687
- (4) Benno Augustinus; **Yan Sun***; Carine Beuchat; Urs Schaffner; Heinz Müller-Schärer; Predicting impact of a biocontrol agent: integrating distribution modeling with climate-dependent vital rates, *Ecological Applications*, 2020, 30(1): e02003
- (5) **Yan Sun**; Heinz Müller-Schärer; Urs Schaffner; Fighting neobiota with neobiota: Consider it more often and do it more rigorously, *Biological Conservation*, 2022, 268: 109506

Other publications:

- (1) **Yan Sun**; Alexandra R. Collins; Urs Schaffner; Heinz Müller-Schärer; Dissecting impact of plant invaders: Do invaders behave differently in the new range? *Ecology*, 2013, 94(10): 2124–2130 (期刊论文)
- (2) **Yan Sun**; Heinz Müller-Schärer; Urs Schaffner; Plant neighbours rather than soil biota determine impact of an alien plant invader, *Functional Ecology*, 2014, 28: 1545–1555 (期刊论文)
- (3) **Yan Sun**; Jianqing Ding; Evan Siemann; Stephen R Keller; Biocontrol of invasive weeds under climate change: progress, challenges and management implications, *Current Opinion in Insect Science*, 2020, 38: 72–78 (期刊论文)
- (4) **Yan Sun**; Heinz Müller-Schärer; John L. Maron; Urs Schaffner; Origin matters: diversity affects the performance of alien invasive species but not of native species, *The American Naturalist*, 2015, 185(6): 725–736 (期刊论文)
- (5) **Yan Sun**; Heinz Müller-Schärer; John L. Maron; Urs Schaffner; Biogeographic effects on establishment of an invasive alien plant, *American Journal of Botany*, 2015, 102(4): 1–5 (期刊论文)
- (6) **Yan Sun**; Aline Junod; Invasive plants differ from native plants in their impact on native communities, *Journal of Vegetation Science*, 2017, 28: 1250–1259 (期刊论文)
- (7) **Yan Sun**; Olivier Brönnimann; George K. Roderick; Alexander Poltavsky; Suzanne T.E. Lommen; Heinz Müller-Schärer; Climatic suitability ranking of biological control candidates: a biogeographic approach for ragweed management in Europe, *Ecosphere*, 2017, 8(4): e01731 (期刊论文)
- (8) **Yan Sun**; Carine Beuchat; Heinz Müller-Schärer ; Is biocontrol efficacy rather driven by the plant or the antagonist genotypes? A conceptual bioassay approach, *NeoBiota*, 2020, 63: 81–100 (期刊论文)
- (9) **Yan Sun**; Behnaz Pourmorad Kaleibar; Mostafa Oveisi; Heinz Müller-Schärer; Addressing climate change: what can plant invasion science and weed science learn from each other? *Frontiers in Agronomy*, 2021, 2: 626005 (期刊论文)
- (10) Urs Schaffner; Sandro Steinbach; **Yan Sun**; Carsten A. Skjøth; Letty A. de Weger; Suzanne T. Lommen; Benno A. Augustinus; Maira Bonini; Gerhard Karrer; Branko Šikoparija; Michel Thibaudon; Heinz Müller-Schärer; Biological weed control to relieve millions from *Ambrosia* allergies in Europe, *Nature Communications*, 2020, 11: 1745 (期刊论文)
- (11) Vilà Montserrat; José L. Espinar; Martin Hejda; Philip E. Hulme; Vojtěch Jarošík; John L. Maron; Jan Pergl; Urs Schaffner; Yan Sun; Petr Pyšek; Ecological impacts of invasive alien plants: a meta-analysis of their effects on species, communities and ecosystems. *Ecology Letters*, 2011, 14: 702–708. (期刊论文)
- (12) Heinz Müller-Schärer; **Yan Sun***; Urs Schaffner; When a plant invader meets its old enemy abroad: what can be learnt from accidental introductions of biological control agents, *Pest Management Science*, in press.
- (13) Vanessa C. Bieker; Paul Battlay; Bent Petersen; Xin Sun; Jonathan Wilson ; Jaelle C. Brealey; François Bretagnolle; Kristin Nurkowski; Chris Lee; Gregory L. Owens ; Jacqueline Y. Lee; Fabian L. Kellner; Lotte van Boheeman; Shyam Gopalakrishnan; Myriam Gaudeul; Heinz Mueller-Schärer; Suzanne Lommen; Gerhard Karrer; Bruno Chauvel; **Yan Sun**; Love Dalén; Péter Poczai; Loren H. Rieseberg; M. Thomas P. Gilbert; Kathryn A Hodgins; Michael D. Martin; 2022. Uncovering the genomic basis of an extraordinary plant invasion. *Science Advances*, 8(34), p.eabo5115.
- (14) **Sun Yan**; Ding JingQing; Frye M.JI; Effects of resource availability on tolerance of herbivory in the invasive *Alternanthera philoxeroides* and the native *Alternanthera sessilis*. *Weed Research*, 2010, 50: 527–536. (期刊论文)
- (15) **Sun Yan**; Ding JianQing; Ren MingXun; Effects of simulated herbivory and resource availability on the invasive plant, *Alternanthera philoxeroides* in different habitats. *Biological Control*, 2009, 48: 287–293. (期刊论文)
- (16) Müller-Schärer Heinz; **Yan Sun**; Bruno Chauvel; Gerhard Karrer; Gabriella Kazinczi; P. Kudsk; AGJM Lansink Oude et al; Cross-fertilizing weed science and invasion science: *Ambrosia artemisiifolia* as an ideal bridge species. *Basic and Applied Ecology*, 2018, 33: 1–13. (期刊论文)
- (17) Liu YuanYuan; **Yan Sun**; Heinz Müller-Schärer; Rong Yan; ZhiXiang Zhou; YongJian Wang; FeiHai Yu; Do invasive alien plants response differ from non-invasives in dominance and nitrogen uptake to variation of abiotic and biotic environments under global anthropogenic change? *Science of The Total Environment*, 2019, 672: 634–642. (期刊论文)
- (18) Skjøth Carsten Ambelas; **Yan Sun**; Gerhard Karrer; Branko Sikoparija; Matt Smith; Schaffner Urs; Müller-Schärer Heinz; Predicting abundances of invasive ragweed across Europe using a “top-down” approaches. *Science of the Total Environment*, 2019, 686: 212–222. (期刊论文)
- (19) E Lommen Suzanne T.; Emilien F. Jolidon; **Yan Sun**; José I. Bustamante Eduardo; and Heinz Müller-Schärer; An early suitability assessment of two exotic *Ophraella species* (Coleoptera: Chrysomelidae) for biological control of invasive ragweed in Europe. *European Journal of Entomology*, 2017, 114: 160–169. (期刊论文)
- (20) 孙燕; 周忠实; 王瑞; Heinz Müller-Schärer; 气候变化预计会减少东亚地区豚草 的生物防治效果, 生物多样性, 2017, 25(12): 1285–1294. (期刊论文)