

刘满强，南京农业大学资源与环境科学学院、教授、博士生导师。

一、教育经历

2001/09-2005/06，南京农业大学，资源与环境科学学院，博士

1999/09-2001/06，南京农业大学，资源与环境科学学院，硕士

1994/09-1998/06，南京农业大学，资源与环境科学学院，学士

二、工作经历

2014/01-至今，南京农业大学，资源与环境科学学院，教授

2011/07-2011/08，爱尔兰环境中心，访问学者

2009/09-2010/07，丹麦哥本哈根大学，博士后

2009/04-2009/05，苏格兰作物研究所，微生物分子生态学研究组，访问学者

2009/01-2013/12，南京农业大学，资源与环境科学学院，副教授

2005/06-2008/12，南京农业大学，资源与环境科学学院，讲师

三、获奖情况

1. “土壤动物与微生物的相互作用及其生态功能” 第五届中国土壤学会科学技术奖一等奖（2010年度，3/10）

2. 南京农业大学 2016 年度“教学质量优秀奖”

3. 南京农业大学第八届“优秀教学奖”（2019）

四、教学情况

主讲本科生《生态学》、《土壤生物与生态学》及研究生《土壤生态学》、《生态学研究进展》和《生态学研究方法》课程。潜心备课教

学, 获得过数次教学质量优秀评价和 3 次南京农业大学年度教学质量优秀奖。

五、学术兼职

现为江苏省生态学会副理事长, 江苏省土壤学会教育委员会主任, 国际土壤生态学会终身会员等。Biology and Fertility of Soils, Applied Soil Ecology, European Journal of Soil Biology, Soil Ecology Letters, Rhizosphere, 《南京农业大学学报》的编委。

六、主持项目

1. 国家重点研发计划“连作障碍抑制作物对养分吸收利用机理与消减技术”(2016-2020);

2. 国家绿肥产业技术体系项目: “旱地土壤及肥水管理岗位”(2017-2020)

3. 国家自然科学基金面上项目: “蚯蚓介导的土壤过程对植物生长和抗(虫)性的影响”(2018-2021)

4. 国家科技基础资源调查专项课题“东部农区蚯蚓多样性及物种分布调查”(2019-2023)

七、发表论文(第一或通讯作者)

1. Li, X., Geisen, S., Bellard C., Hu, F., Li, H., Chen, X., **Liu, M.**, 2019. Agriculture erases climate constraints on soil nematode communities across large spatial scales. *Global Change Biology* DOI: 10.1111/gcb.14821

2. Liu, T., Chen, X., Gong, X., Lubbers., I., Jiang, Y., Feng., W., Li., X., Whalen, J.K., Bonkowski, M., Griffiths, B., Hu, F., **Liu, M.**, 2019. Earthworms coordinate soil biota to improve multiple ecosystem functions. *Current Biology* 29, 3420-3429.

3. Hu, Z., Chen, X., Yao, J., Zhu, C., Zhu, J., Liu, M., Plant-mediated effects of

elevated CO₂ and rice cultivars on soil carbon dynamics in a paddy soil. *New Phytologist*

4. Xiao, Z., Jiang, L., Chen, X., Zhang, Y., Defosse, E., Hu, F., **Liu, M.**, Rasmann, S., 2019. Earthworms suppress thrips attack on tomato plants by concomitantly modulating soil properties and plant chemistry. *Soil Biology & Biochemistry* 130, 23-32.

5. Gong, X., Wang, S., Wang, Z., Jiang, Y., Hu, Z., Zheng, Y., Chen, X., Li, H., Hu, F., Liu, M., Scheu, S., 2019. Earthworms modify soil bacterial and fungal communities through enhancing aggregation and buffering pH. *Geoderma* 347, 59-69.

6. Gong, X., Chen, T.-W., Zieger, S.L., Bluhm, C., Heidemann, K., Schaefer, I., Maraun, M., **Liu, M.**, Scheu, S., 2018. Phylogenetic and trophic determinants of gut microbiota in soil oribatid mites. *Soil Biology & Biochemistry* 123, 155-164.

7. Shen, D., Ye, C., Hu, Z., Chen, X., Guo, H., Li, J., Du, G., Adl, S., Liu, M., 2018. Increased chemical stability but decreased physical protection of soil organic carbon in response to nutrient amendment in a Tibetan alpine meadow. *Soil Biology & Biochemistry* 126, 11-21.

8. Liu, T., Chen, X., Qi, L., Chen, F., Liu, M., Whalen, J.K., 2018. Root and detritus of transgenic Bt crop did not change nematode abundance and community composition but enhanced trophic connections. *Science of the Total Environment* 644, 822-829.

9. Xiao, Z., Wang, X., Koricheva, J., Kergunteuil, A., Le Bayon, R.-C., **Liu, M.**, Hu, F., Rasmann, S., 2018. Earthworms affect plant growth and resistance against herbivores: A meta-analysis. *Functional Ecology* 32, 150-160.

10. Zheng, Y., Wang, S., Bonkowski, M., Chen, X., Griffiths, B., Hu, F., Liu, M., 2018. Litter chemistry influences earthworm effects on soil carbon loss and microbial carbon acquisition. *Soil Biology & Biochemistry* 123, 105-114.

11. Gong, X., Jiang, Y., Zheng, Y., Chen, X., Li, H., Hu, F., Liu, M., Scheu, S., 2018. Earthworms differentially modify the microbiome of arable soils varying in residue management. *Soil Biology & Biochemistry* 121, 120-129.

12. Hu, Z., Zhu, C., Chen, X., Bonkowski, M., Griffiths, B., Chen, F., Zhu, J., Hu,

S., Hu, F., **Liu, M.**, 2017. Responses of rice paddy micro-food webs to elevated CO₂ are modulated by nitrogen... *Soil Biology & Biochemistry* 114: 104-113.

13. Chen, X., Liu, T., Li, X., Li, H., Chen, F., **Liu, M.**, Whalen, J.K., 2017. Soil nematode community varies between rice cultivars but is not affected by transgenic Bt rice expressing Cry1Ab or Cry1Ab/Cry1Ac. *Biology & Fertility of Soils*, 53: 501-509.

14. Xiao, Z., Liu, M., Jiang, L., Chen, X., Griffiths, B.S., Li, H., Hu, F., 2016. Vermicompost increases defense against root-knot nematode (*Meloidogyne incognita*) in tomato plants. *Applied Soil Ecology* 105, 177-186.

15. Ma C, Li S-p, Pu Z, Tan J, Liu M, Zhou J, Li H, Jiang L. 2016. Different effects of invader-native phylogenetic relatedness on invasion success and impact: a meta-analysis of Darwin's naturalization hypothesis. *Proceedings of the Royal Society B: Biological Sciences* 283: 20160663.

16. Wu, D., **Liu, M.**, Song, X., Jiao, J., Li, H., Hu, F., 2015. Earthworm ecosystem service and dis-service in an N-enriched agroecosystem. *Soil Biology and Biochemistry* 82, 1-8

17. Ma, C., **Liu, M.**, Wang, H., Chen, C., Fan, W., Griffiths, B., Li, H., 2015. Resource utilization capability of bacteria predicts their invasion potential in soil. *Soil Biology & Biochemistry* 81, 287-290

18. Song, X., Liu, M., Wu, D., Griffiths, B., Jiao, J., Li, H., Hu, F., 2015. Interaction matters: synergy between vermicompost and PGPR agents improves soil quality, crop quality and crop yield in the field. *Applied Soil Ecology* 89, 25-34

19. Huang, J., Liu, M., Chen, X., Chen, J., Li, H., Hu, F., 2015. Effects of intraspecific variation in rice resistance to aboveground herbivore, brown planthopper, and rice root nematodes on plant yield, labile pools of plant and rhizosphere soil. *Biology and Fertility of Soils* 51, 417-425

20. Song, X., Liu, M., Wu, D., Qi, L., Ye, C., Jiao, J., Hu, F., 2014. Heavy metal and nutrient changes during vermicomposting animal manure spiked with mushroom residues. *Waste Management* 34, 1977-1983.

21. Huang, J., **Liu, M.**, Chen, X., Chen, J., Chen, F., Li, H., Hu, F., 2013. Intermediate herbivory intensity of an aboveground pest promotes soil labile

resources and microbial biomass via modifying rice growth. *Plant and Soil* 367, 437-447.

22. Yang, J., Li, X., Xu, L., Hu, F., Li, H., **Liu, M.**, 2013. Influence of the nitrification inhibitor DMPP on the community composition of ammonia-oxidizing bacteria at microsites with increasing distance from the fertilizer zone. *Biology and Fertility of Soils* 49, 23-30

23. Huang, J., **Liu, M.**, Chen, F., Griffiths, B., Chen, X., Johnson, S., Hu, F., 2012. Crop resistance traits modify the effects of an above-ground herbivore, brown planthopper, on soil microbial biomass and nematode community via changes to plant performance. *Soil Biology and Biochemistry* 49, 157-166.

24. **Liu, M.**, Chen, X., Griffiths, B.S., Huang, Q., Li, H., Hu, F., 2012. Dynamics of nematode assemblages and soil function in adjacent restored and degraded soils following disturbance. *European Journal of Soil Biology* 49, 37-46.

25. **Liu, M.**, Bjørnlund, L., Rønn, R., Christensen, S., Ekelund, F., 2012. Disturbance promotes non-indigenous bacterial invasion in soil microcosms: analysis of the roles of resource availability and community structure. *PLoS ONE* 7, e45306.

26. **Liu, M.**, Chen, X., Chen, S., Li, H., Hu, F., 2011. Resource, biological community and soil functional stability dynamics at the soil-litter interface. *Acta Ecologica Sinica* 31, 347-352.

27. Li, D., Liu, M., Cheng, Y., Wang, D., Qin, J., Jiao, J., Li, H., Hu, F., 2011. Methane emissions from double-rice cropping system under conventional and no tillage in southeast China. *Soil & Tillage Research* 113, 77-81.

28. **Liu, M.**, Hu, F., Chen, X., Huang, Q., Jiao, J., Zhang, B., Li, H. 2009. Organic amendments with reduced chemical fertilizer promote soil microbial development and nutrient availability in a subtropical paddy field: the influence of quantity, type and application time of organic amendments. *Applied Soil Ecology* 42, 166-175.

29. **Liu, M.**, Chen, X., Qin, J., Wang, D., Griffiths, B., Hu, F. 2008. A sequential

extraction procedure reveals that water management affects soil nematode communities in paddy fields. *Applied Soil Ecology* 40, 250-259.

30. 周星, 陈骋, 常海娜, 王东升, 郑勇, 焦加国, 胡锋, 刘满强. 2020. 蚓堆肥热干扰后对土壤质量和作物生长的影响. *土壤学报* 57, 142-152

31. 常海娜, 王春兰, 朱晨, 王东升, 李荣, 周星, 龚鑫, 陈小云, 胡锋, 刘满强. 2019. 不同连作年限番茄根系淀积物的变化及其与根结线虫的关系. *土壤学报*

32. 张宇, 肖正高, 蒋林惠, 钱蕾, 陈小云, 陈法军, 胡锋, 刘满强. 2018. 施氮水平影响蚯蚓介导的番茄生长及抗虫性. *生物多样性*, 26(12): 1296-1307.

33. 马超, 龚鑫, 郜红建, 吴婧, 李大明, 陈小云, 李辉信, 刘满强. 2018. 历史因素对土壤微生物群落与外来细菌入侵间关系的影响. *生态学报*, 38(22): 7933-7941.

34. 王笑, 王帅, 滕明姣, 林小芬, 吴迪, 孙静, 焦加国, 刘满强, 胡锋. 2017. 两种代表性蚯蚓对设施菜地土壤微生物群落结构及理化性质的影响. *生态学报*, 37(15): 5146-5156

35. 蒋林惠, 罗玲, 肖正高, 李大明, 陈小云, 刘满强, 胡锋. 2016. 长期施肥对水稻生长和抗虫性的影响: 解析土壤生物的贡献. *生物多样性*, 24(8): 907-915.

36. 王慧, 桂娟, 刘满强, 卢焱焱, 帕提古丽·亚生, 陈小云, 胡锋. 2015. 稻草和三叶草分解对微型土壤动物群落的影响. *土壤学报*, 52(5): 1124-1134.

37. 陈婧, 陈法军, 刘满强, 冯运, 党志浩, 李辉信, 胡锋. 2014. 温度和CO₂浓度升高下转 Bt 水稻种植对土壤活性碳氮和线虫群落的短期影响. *生态学报*, 34(6): 1481-1489.

38. 刘满强, 黄菁华, 陈小云, 王峰, 葛成, 苏昱, 邵波, 汤英, 李辉信, 胡锋. 2009. 地上部植食者褐飞虱对不同水稻品种土壤线虫群落的影响. *生物多样性* 17, 431-439.

39. 刘满强, 陈小云, 郭菊花, 李辉信, 胡锋. 2007. 土壤生物对土壤有机碳稳定性的影响. *地球科学进展* 22, 152-158.

40. 刘满强, 胡锋, 陈小云. 2007. 土壤有机碳稳定机制研究进展. 生态学报 27, 2642-2650.

八、相关著作

1. 编委之一(9/20), 红壤质量演变与调控. 专著. 科学出版社, 2008. pp308-331

2. 胡锋, 刘满强, 李辉信, 陈小云, 董元华, 杨林章. 土壤生态学发展现状与展望. 见《土壤学学科发展报告》. 2013. 专著. 中国科学技术出版社, pp117-133