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东北师范大学生命科学学院

职　　称：副教授

研究方向：草地生态学/土壤生态学

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个人简历

张涛博士，副教授，博士生导师，山东临沂人，自2012年以来任职于东北师范大学生命科学学院、草地科学研究所、植被生态科学教育部重点实验室。主要从事地下生态学、草地生态学、全球变化生态学研究，重在研究地下生态系统和地上生态系统相互作用，以及全球气候变化背景下的丛枝菌根真菌的生态功能。主持国家自然科学基金面上项目1项、青年基金1项，吉林省科技厅和教育厅“春苗人才”科研项目各1项，参与国家自然科学基金项目等多项。以第一或通讯作者在Industrial Crops & Products、Science of the Total Environment、Agricultural and Forest Meteorology、Land Degradation & Development、Front. Plant Sci、Scientific Reports等期刊发表SCI论文30余篇。

Global Change Biology, Functional Ecology, Journal of Ecology, Science of the Total Environment, Ecology, Land Degradation & Development, Scientific Reports, Field Crop Research, Geoderman、Catena等杂志审稿人。

曾赴法国、瑞士、捷克、美国、印度等国家进行学术交流。

欢迎对植物-土壤相互作用及全球变化生态学感兴趣的同学报考硕士或博士研究生。

2016.06-至今 东北师范大学 生命科学学院 副教授 博士生导师

2016.03-2018.02 Agroscope, Zürich Switzerland, 博士后 合作导师 Marcel van der Heijden

2012.07-2016.06 东北师范大学 生命科学学院 讲师

主持参与课题：

1.国家自然科学基金面上项目，31770359， 丛枝菌根真菌对松嫩草地植物群落适应温度升高和氮沉降的调控机制，2018/01-2021/12, 60万元，主持

2.吉林省科技厅自然基金，20200201115JC. 温度升高和氮沉降背景下AM真菌对松嫩草地生态系统多功能性的影响机制研究，2020/01-2021/12，8万元，主持

3.中央高校基本科研项目：2412018ZD011，温度升高和氮沉降背景下AM真菌对草地生态系统多功能性的影响，2018.01-2019.12， 30万元，主持

4.国家自然科学基金面上项目，31470405，增温和施氮条件下AM真菌对草地生态系统植物和土壤C、N、P化学计量特征的影响，2015/01-2018/12，86万元，参加

5.国家自然科学基金青年项目，31300097，AM真菌与盐碱化草地藜科植物的共生机理 研究，2014/01-2016/12，23万元，主持

6.吉林省教育厅“春苗计划”研究项目，吉教科字[2013]5号，AM真菌对松嫩盐碱化草地植物群落物种组成的调节机制，2014/01-2015/12，主持

7.荒漠与绿洲生态国家重点实验室开放基金，AM真菌对古尔班通古特沙漠短命植物群 落养分资源分配和物种组成的调节，2013/01-2015/12，10万元，主持

获奖情况：

2014年 东北师范大学 优秀指导教师

2018年 东北师范大学 实践育人标兵

教学信息：

本科教学：土壤生态学、应用生态学、生态学与草业科学研究方法、作物安全生产与绿色生活、教育见习等。

研究生指导：硕士毕业生7人（多名研究生获得国家奖学金或校长奖学金），博士毕业生3名。在读博（硕）士研究生6人。

发表论文：

2020

1. Yang X, Mariotte P, Guo J, Hautier Y*, Zhang T*. 2020. Suppression of arbuscular mycorrhizal fungi decreases the temporal stability of community productivity under elevated temperature and nitrogen addition in a temperate meadow. Science of the Total Environment, https://doi.org/10.1016/j.scitotenv.2020.143137

2. Zhang T, Feng G. 2020. Arbuscular mycorrhizal fungi alleviate the negative effects of increases in phosphorus (P) resource diversity on plant community structure by improving P resource utilization. Plant Soil. In revision.

3. Yang X, Guo R, Knops JMH, Mei L, Kang F, Zhang T*, Guo J. 2020. Shifts in plant phenology induced by environmental changes are small relative to annual phenological variation. Agricultural and Forest Meteorology. 294，108144.

4. Kang F，Yang B, Wujisiguleng, Yang X, Wang L, Guo J, Sun W, Zhang Q, Zhang T*. 2020. Arbuscular mycorrhizal fungi alleviate the negative

effect of nitrogen deposition on ecosystem functions in meadow grassland. Land Degradation & Development. 31:748–759.
5. Jia YY, Sun Y, Zhang T, Shi ZY, et al. 2020. Elevated precipitation alters the community structure of spring ephemerals by changing dominant species density in Central Asia.Ecology and Evolution. 10:2196–2212.
6. Khan Y, Yang X, Zhang XL, Yaseen T,Shi LX, Zhang T*. 2020. Tabassum Arbuscular mycorrhizal fungi promote plant growth of Leymus chinensis (Trin.) Tzvelev by increasing the metabolomics activity under nitrogen addition. Grassland Science. DOI. 10.1111/grs.12299

2019

7. Mei L, Yang X, Zhang SQ, Zhang T*, Guo J. 2019. Arbuscular mycorrhizal fungi alleviate phosphorus limitation by reducing plant N:P ratios under warming and nitrogen addition in a temperate meadow ecosystem. Science of the Total Environment.686, 1129–1139.
8. Zhao YN, Yang B, Li MX, Xiao RQ, Rao KY, Wang JQ, Zhang T*, Guo JX. 2019. Community composition, structure and productivity in response to nitrogen and phosphorus additions in a temperate meadow. Science of the Total Environment 654: 863–871.
9. Li J, Meng B, Chai H, Yang X, Song W, Li S, Lu A, Zhang T*, Sun W*. 2019. Arbuscular mycorrhizal fungi alleviate drought stress in C3 (Leymus chinensis) and C4 (Hemarthria altissima) grasses via altering antioxidant enzyme activities and photosynthesis. Front. Plant Sci. 10:499.
10. Gong S, Zhang T, Guo J. 2019. Warming and nitrogen deposition accelerate soil phosphorus cycling in a temperate meadow ecosystem. Soil Research, 58(1) 109-115
11. Yang B, Zhang T, Huang S, Bhusal DB, Pang X. 2019. Response of Soil Nematode Community to Phosphorous Amendment in a Subalpine Spruce Plantation. Clean – Soil, Air, Water, 1800202
12. Mei L, Yang X, Cao H, Zhang T*, Guo J. 2019. Arbuscular Mycorrhizal Fungi Alter Plant and Soil C:N:P Stoichiometries Under Warming and Nitrogen Input in a Semiarid Meadow of China. Int. J. Environ. Res. Public Health. 16(3), 397.

2018

13. Zhang T*, Hu YJ, Zhang K, Tian CY, Guo JX. Arbuscular mycorrhizal fungi improve plant growth of Ricinus communis by altering photosynthetic properties and increasing pigments under drought and salt stress. Industrial Crops & Products 117: 13–19.
14. Dennert F, Imperiali N, Staub C, Schneider J, Laessle T, Zhang T. et al. 2018. Conservation tillage and organic farming induce minor variations in Pseudomonas abundance, their antimicrobial function and soil disease resistance. FEMS Microbiology Ecology, 94, fy075.

2017

15. Zhao YN, Yu HQ, Zhang T*, Guo JX*.2017. Mycorrhizal colonization of chenopods and itsinfluencing factors in different saline habitats, China. Journal of Arid Land. 9(1): 143–152.

2016

16. Zhang T*, Yang X, Guo R, Guo J*. 2016. Response of AM fungi spore population to elevated temperature and nitrogen addition and their influence on the plant community composition and productivity. Scientific Reports. 6, 24749, doi: 10.1038/srep24749.
17. Zhang T*, Yang SB, Guo R, Guo J*. 2016. Warming and Nitrogen Addition Alter Photosynthetic Pigments, Sugars and Nutrients in a Temperate Meadow Ecosystem. PLoS ONE. 11(5): e0155375.
18. Yang X, Yu HQ, Zhang T*, Guo J. 2016. Arbuscular Mycorrhizal Fungi Improve the Antioxidative Response and the Seed Production of Suaedoideae Species Suaeda physophora Pall under Salt Stress. Not Bot Horti Agrobo，44（2）：533-540.

2015

19. Zhang T, Guo R, Gao S, Guo J*, Sun W*. 2015. Response of plant community composition and productivity to warming and nitrogen deposition in a temperate meadow ecosystem. PLoS ONE, 10(4): e0123160.

20. Gong S#, Zhang T #, Guo R, Shi L, Guo J*, Sun W*. 2015. Response of soil enzyme activity to warming and nitrogen addition in a meadow steppe. Soil Research. 53: 242–252. (Co-first Author)

21. Gong S, Guo R, Zhang T*, Guo J. 2015. Warming and nitrogen addition increase litter decomposition in a temperate meadow ecosystem. PLoS ONE. 10(3): e0116013. (Co-corresponding Author)

22. Zhang T, Song J, Fan JL, Feng G*. 2015. Adaptations of two halophytes and a xerophyte to saline waterlogging and dryness/moist rotations during seed germination. Plant Species Biology, 30, 231–236.

23. Han DF, Cao HB, Shi LX, Zhang T*, Guo J. 2015. Salinity influence on Leymus chinensis characteristics in a temperate meadow ecosystem. Not Bot Horti Agrobo, 43(2):462-467. (Corresponding Author)

2014

24. Cai X, Peng Y, Yang M, Zhang T*, Zhang Q. 2014. Grassland degradation decrease AM fungi species diversity in Tibet Plateau. Not Bot Horti Agrobo, 42(2):333-339. (Corresponding Author)

2012

25. Zhang T, Shi N, Bai DS, Chen YL, Feng G*. 2012. Arbuscular mycorrhizal fungi promote the growth of Ceratocarpus arenarius (Chenopodiaceae) with no nhancement of phosphorus nutrition. PLoS ONE, 7(9): e41151.

26. Zhang T, Tian CY, Sun Y, Bai DS, Feng G*. 2012. Dynamics of arbuscular mycorrhizalfungi associated with ephemeral plants in

Gurbantunggut Desert. Journal of Arid Land, (4)1: 43-51.

27. Zhang T, Sun Y, Shi ZY, Feng G*. 2012. Arbuscular mycorrhizal fungi can accelerate the restoration of degraded spring grassland in Central Asia. Rangeland ecology & management, 65(4):426–432.

2011

28. Zhang T, Sun Y, Song YC, Tian CY, Feng G*. 2011. On-site growth response of a desert ephemeral plant, Plantago minuta, to indigenous arbuscular mycorrhizal fungi in a central Asia desert. Symbiosis, 55:77–84.

社会兼职

获奖情况 (数据来源：科学技术处、社会科学处)

教学信息 (数据来源：教务处)

科研信息

信息维护