

王德利教授委员会聘期工作公示

一、 主要研究方向或领域

生态系统功能

二、 主要学术兼职

中国草学会副理事长、中国生态学会理事、中国草学会草地管理专业委员会主任、吉林省生态学会理事长、吉林省草原学会理事长、国务院学位委员会第七届学科评议组成员（2014-2020）、教育部高等学校教学指导委员会——环境科学与工程类专业教学指导委员会委员（2018-2022）

三、 聘期内推动学科建设成效

学科评估：生态学“A类”

学科人才梯队建设：培养长江学者1人，引进中科院百人计划1人

学术交流：组织学术会议1次，12次参加国际/国内学术会议并做特邀报告

平台基地建设：获批吉林松嫩草地生态系统国家野外科学观测研究站（国家级）、草地生态与利用国际科技合作基地（省级），并获得草地动植物关系及生态系统功能创新引智基地（111计划）连续支持

四、 人才培养情况

指导学生或青年教师取得的突出成绩：作为导师获得2021年第十七届“挑战杯”全国大学生课外学术科技作品竞赛优秀三等奖，2019年王栋奖学金（中国草学会，博士研究生朱玉）与2017年王栋奖学金（博士研究生李杰，中国草学会）、2016年吉林省优秀博士学位论文（钟志伟）

课程建设参与情况、培养方案制定情况：组织生态学专业/研究生制定新培养方案

五、 聘期内取得的主要科研和教学成果

1. 学术论文（均为通讯或第一作者）

1. Yu Wanying, Wang Congwen, Liu Guofang, **Wang Deli**. 2022. Variations in fine root traits with different orders and their relationships with leaf traits in a semiarid inland dune. *Plant and Soil* 472: 193-206
2. Li Jie, Chai Hua, Ding Shiwen, Wang Jinsong, Li Xincheng, Li Yinong, Li Tianyun, Liu Jushan, Wang Hongjun, Liang Cunzhu, Wang Chengjie, Liu Yuan, Luo Yiqi, Wang Ling, **Wang Deli**. 2021. Herbivore species-specific grazing of grassland type-specific can assist with promoting shallow layer

- of soil carbon sequestration. *Environmental Research Letters*, 16(11): 114033.
3. Iqra Naeem, Wu Xuefeng, Talal Asif, Wang Ling, **Wang Deli**. 2021. Livestock diversification implicitly affects litter decomposition depending on altered soil properties and plant litter quality in a meadow steppe. *Plant and Soil* 473: 49-62
 4. Qu Tongbao, Guo Weiqiang, Yang Chengxi, Zhang Jianfeng, Yang Yurong, **Wang Deli**. 2021. Grazing by large herbivores improves soil microbial metabolic activity in a meadow steppe. *Grassland Science* 67(1): 30-40.
 5. Liu Jushan, Forest Isbell, Ma Quanhui, Chen Ying, Xing Fu, Sun Wei, Wang Ling, Li Jian, Wang Yunbo, Fou Fujiang, Xin Xiaoping, Nan Zhibiao, Nico Eisenauer, **Wang Deli Wang**. 2022. Overgrazing, not haying, decreases grassland topsoil organic carbon by decreasing plant species richness along an aridity gradient in Northern China. *Agriculture, Ecosystems and Environment* 332: 107935.
 6. Zhiwei Zhong, Guoliang Li, Dirk Sanders, Deli Wang, Robert D. Holt, Zhibin Zhang. 2022. A rodent herbivore reduces its predation risk through ecosystem engineering. *Current Biology* 32: 1-6.
DOI: 10.1016/j.cub.2022.02.074
 7. Zhong Zhiwei, Li Xiaofei, Dirk Sanders, Liu Yiming, Wang Ling, Yvette K. Ortega, Dean E. Pearson, **Wang Deli**. 2022. Large herbivores facilitate a dominant grassland forb via multiple indirect effects. *Ecology* e3635.
 8. Naeem Iqra, Asif Talal, Zhang Tianyu, Guan Yue, Wu Xuefeng, Tariq Hina, **Wang Deli**. 2022. Mixing effects of three Eurasian plants on root decomposition in the existence of living plant community in a meadow steppe. *Science of the Total Environment* 811: 151400
 9. 王岭, 张敏娜, 徐曼, **王德利**. 2021. 草地多功能提升的多样化家畜放牧理论及应用. *科学通报* 66(30): 3791-3798.
 10. **Wang Deli**, Nkurunziza Venuste, Barber Nicholas A., Wang Jingting, Zhu Hui. 2021. Introduced ecological engineers drive behavioral changes of grasshoppers, consequently linking to its abundance in two grassland plant communities. *Oecologia* 195: 1007-1018
 11. Yang Yurong, Chen Siying, Wu Xuefeng, Syed Sajid Iqbal, Syed Irfan Ullah, Shah, Huang Beitong, Guan Pingting, **Wang Deli**. 2021. Grazing affects bacterial and fungal diversities and communities in the rhizosphere and endosphere compartments of *Leymus chinensis* through regulating nutrient and ion distribution. *Microorganisms* 9: 476.
 12. Li Xiaofei, Wang Shengnan, Chelse Prather, Wan Ho Yi, Zhu Hui, Petri Nummi, Moshe Inbar, Gao Qiang, **Wang Deli**, Zhong Zhiwei. 2021. Large herbivores facilitate an insect herbivore by modifying plant community composition in a temperate grassland. *Ecology and Evolution* 11: 16314-16326.
 13. Wu Xuefeng, Yang Jingjing, Ruan Hang, Wang Shengnan, Yang Yurong, Iqra Naeem, Wang Ling, Liu Lee, Wang Deli. 2021. The diversity and co-occurrence network of soil bacterial and fungal communities and their implications for a new indicator of grassland degradation. *Ecological Indicators* 129: 107989.
 14. Ruan Hang, Wu Xuefeng, Wang Shengnan, Yang Jingjing, Zhu Hui, Guo Qinfeng, Wang Ling, **Wang Deli**. 2021. The responses of different insect guilds to grassland degradation in northeastern China. *Ecological Indicators* 133: 108369
 15. Chen Ying, Zhang Yao, Uffe N. Nielsen, Ma Quanhui, Zhang Xiang, Huang Xuwen, Pan Duofeng, Yue Xiuquan, Liu Jushan, **Wang Deli**. 2021. Cattle grazing mitigates the negative impacts of nitrogen addition on soil nematode communities. *Ecological Indicators* 129: 107876
 16. Zhong Zhiwei, Li Xiaofei, Dirk Sanders, Liu Yiming, Wang Ling, Yvette K. Ortega, Dean E. Pearson, **Wang Deli**. 2021. Soil engineering by ants facilitates plant compensation for large herbivore removal

- of aboveground biomass. *Ecology* 102(5): e03312.
17. Yang Jingjing, Wu Xuefeng, Chen Ying, Yang Zhanbo, Liu Jushan, Wu Donghui, **Wang Deli**. 2021. Combined attributes of soil nematode communities as indicators of grassland degradation. *Ecological Indicators* 131: 10821.5
 18. Sun Yue, Wu Ying, Wang Yangzhi, Wang Shengnan, Wang Xiaofei, Li Guo, Zhang Xue, Liang Zidong, Li Jiahao, Gong Lei, Jonathan F. Wendel, **Wang Deli**, Liu Bao. 2021. Homoploid F1 hybrids and segmental allotetraploids of rice subspecies are similarly more tolerant to N-deficiency than are parental lines. *Journal of Experimental Botany* 72(15): 5612-5624.
 19. 钟志伟, 李晓菲, **王德利**. 2021. 植物-植食性动物相互关系研究进展. *植物生态学报* 45 (10): 1036-1048.
 20. Lu Mingzhi, Zou Yuanchun, Xun Qilei, Yu Zicheng, Jiang Ming, Sheng Lianxi, Lu Xianguo, **Wang Deli**. 2021. Anthropogenic disturbances caused declines in the wetland area and carbon pool in China during the last four decades. *Global Change Biology* 27: 3837-3845
 21. Hassan Nazim, Li Xiaofei, Wang Jianyong, Zhu Hui, Petri Nummi, **Wang Deli**, Deborah Finke, Zhong Zhiwei. 2021. Effects of grazing on C:N:P stoichiometry attenuate from soils to plants and insect herbivores in a semi-arid grassland. *Oecologia*, 195(3): 785-795
DOI: 10.1007/s00442-021-04873-3
 22. Naeem Iqra, Asif Talal, Wu Xuefeng, Hassan Nazim, Liu Yiming, Wang Hongjun, Wang Ling, **Wang Deli**. 2021. Species diversity induces idiosyncratic effects on litter decomposition in a degraded meadow steppe. *Frontiers in Environmental Science* 9: 582409.
 23. Wang Ling, Delgado-Baquerizo Manuel, Zhao Xuan, Zhang Minna, Song Yueqing, Cai Jinting, Chang Qing, Li Zhiqiang, Chen Ying, Liu Jushan, Zhu Hui, **Wang Deli**, Han Guodong, Liang Cunzhu, Wang Chengjie, Xin Xiaoping. 2020. Livestock overgrazing disrupts the positive associations between soil biodiversity and nitrogen availability. *Functional Ecology* 34(8): 1713-1720.
 24. Zhu Hui, Li Haiying, Yang Zhiming, Ahungu Abel B., Fei Songlin, Luo Wenbo, Wang Deli. 2020. Intensive grazing enhances grasshopper fitness and abundance in a meadow steppe. *Agriculture, Ecosystems & Environment* 300(15): 107012.
DOI: 10.1016/j.agee.2020.107012
 25. Sui Li, Zhu Hui, Xu Wenjing, Guo Qinfeng, Wang Ling, Zhang Zhengkun, Li Qiyun, **Wang Deli**. 2020. Elevated air temperature shifts the interactions between plants and endophytic fungal entomopathogens in an agroecosystem. *Fungal Ecology* 47: 100940.
 26. Zhu Hui, Venuste Nkurunziza, Wang Jingting, Guo Qinfeng, Ruan Hang, **Wang Deli**. 2020. Effects of large herbivore grazing on grasshopper behaviour and abundance in a meadow steppe. *Ecological Entomology* 45: 1357-1366.
 27. 王英逵, 杨玉荣, **王德利**. 2020. 盐碱胁迫下 AMF 对羊草的离子吸收和分配作用. *草业学报* 29(12): 95-104.
 28. **王德利**, 王岭, 辛晓平, 李凌浩, 唐华俊. 2020. 退化草地的系统性恢复: 概念、机制与途径. *中国农业科学* 53(13): 2532-2540.
DOI: 10.3864/j.issn.0578-1752.2020.13.002
 29. Zhu Yu, Veen Ciska, **Wang Deli**, Wang Ling, Zhong Zhiwei, Ma Quanhui, Li Heng, Li Xincheng, Pan Duofeng, Bakker E. S. 2020. Herbivore phenology can predict response to changes in plant quality by livestock grazing. *Oikos* 129(6): 811-819.
 30. Yang Yurong, Cao Yaping, Li Zhenxin, Zhukova Anastasiia, Yang Songtao, Wang Jinlong, Tang Zhanhui, Cao Yonghong, Zhang Yifei, **Wang Deli**. 2020. Interactive effects of exogenous melatonin and *Rhizophagus intraradices* on saline-alkaline stress tolerance in *Leymus chinensis*. *Mycorrhiza*

30(2): 357-3711-15.

31. Pan Duofeng, Li Xincheng, De Kejia, Wang Ling, **Wang Deli**, Guo Qinfeng, Gao Chao, Zhong Zhiwei, Zhu Hui, Shen Zhongbao, Seastedt Timothy R. 2019. Food and habitat provisions jointly determine competitive and facilitative interactions among distantly related herbivores. *Functional Ecology* 33: 2381-2390.
32. Zhu Hui, Wang Wenhui, Qu Yekuan, Fu Jun, Jiang Siqi, **Wang Deli**, Kaplan Ian, Ren Bingzhong. 2019. Resource-mediated effects of grazing and irrigation on insect diversity in a meadow steppe. *Insect Conservation and Diversity* 12: 29-38.
33. Liu Jushan, Li Xiaofei, Ma Quanhui, Zhang Xiang, Chen Ying, Isbell Forest, **Wang Deli**. 2019. Nitrogen addition reduced ecosystem stability regardless of its impacts on diversity. *Journal of Ecology* 107: 2427-2435.
34. 王德利, 王岭. 2019. 草地管理概念的新释义. *科学通报* 64(11): 1106-1113.
35. Liu J. S., Chen Y., Du C., Liu X. X., Ma Q. H., Zhang X., **Wang D. L.** 2019. Interactive effects of nitrogen addition and litter on soil nematodes in grassland. *European Journal of Soil Science* 70: 697-706.
36. Cao Yonghong, **Wang Deli**, Heino Mikko, Li Xincheng, Zhu Hui, Liu Jushan, Zou Xuehui. 2019. Fine-scale characteristics of the boundaries between annual patches and perennial patches in a meadow steppe. *Landscape Ecology* 34(4): 811-825.
37. Wang Ling, Delgado-Baquerizo Manuel, **Wang Deli**, Isbell Forest, Liu Jun, Feng Chao, Liu Jushan, Zhong Zhiwei, Zhu Hui, Yuan Xia, Chang Qing, Liu Chen. 2019. Diversifying livestock promotes multidiversity and multifunctionality in managed grasslands. *Proceedings of the National Academy of Sciences of the United States of America* 116(13): 6187-6192.
38. Zhu Yu, Zhong Zhiwei, Pages Jordi F., Finke Deborah, **Wang Deli**, Ma Quanhui, Nazim Hassan, Zhu Hui, Wang Ling. 2019. Negative effects of vertebrate on invertebrate herbivores mediated by enhanced plant nitrogen content. *Journal of Ecology* 107(2): 901-912.
39. Lu Mingzhi, Yang Mengyao, Yang Yurong, **Wang Deli**, Sheng Lianxi. 2019. Soil carbon and nutrient sequestration linking to soil aggregate in a temperate fen in Northeast China. *Ecological Indicators* 98: 869-878.
40. Li Xincheng, Wang Zhongnan, **Wang Deli**, Wang Ling, Pan Duofeng, Li Jie, De Kejia, Seastedt Timothy R. 2019. Livestock grazing impacts on plateau pika (*Ochotona curzoniae*) vary by species identity. *Agriculture, Ecosystems and Environment* 275: 23-31.
41. Liu Jushan, Cui Yao, Li Xiaofei, Wilsey Brian J., Isbell Forest, Wan Shiqiang, Wang Ling, **Wang Deli**. 2018. Reversal of nitrogen-induced species diversity declines mediated by change in dominant grass and litter. *Oecologia* 188(3): 921-929.
DOI: 10.1007/s00442-018-4252-x
42. Li Xiaofei, Zhong Zhiwei, Dirk Sanders, Christian Smit, **Wang Deli**, Petri Nummi, Zhu Yu, Wang Ling, Zhu Hui, Nazim Hassan. 2018. Reciprocal facilitation between large herbivores and ants in a semi-arid grassland. *Proceedings of Royal Society B* 285: 20181665.
43. 曲同宝, 于淼, 朱悦, 杨智明, 王德利. 2018. 松嫩草地豆类草群落土壤细菌碳源利用研究. *草地学报* 26(2): 356-362.
44. Wang Zhongnan, Yuan Xia, **Wang Deli**, Zhang Yang, Zhong Zhiwei, Guo Qinfeng, Feng Chao. 2018. Large herbivores influence plant litter decomposition by altering soil properties and plant quality in a meadow steppe. *Scientific Reports* 8: 9089.
45. **Wang Deli**, Wang Ling, Liu Jushan, Zhu Hui, Zhong Zhiwei. 2018. Grassland ecology in China: perspectives and challenges. *Frontiers of Agricultural Science and Engineering* 5(1): 24-43.

46. Wang Jingzhi, **Wang Deli**, Li Chunqiang, Seastedt Timothy R., Liang Cunzhu, Wang Ling, Sun Wei, Liang Maowei, Li Yu. 2018. Feces nitrogen release induced by different large herbivores in a dry grassland. *Ecological Applications* 28(1): 201-211

47.

2.科（教）研项目

- (1) 草甸草原智慧修复与生态—生产功能协同提升技术及示范. 国家重点研发计划项目, 2022.9.30-2026.9.30, 1600万元
- (2) 放牧生态系统多营养级生物多样性维持机制: 基于级联效应的研究/ Direct and indirect initiation of bottom-up trophic cascades by large mammalian herbivores in grassland ecosystem. 国家自然科学基金 (Joint NSFC-ISF Research Grant) (编号32061143027), 2020.10.1-2023.9.30, 197万元
- (3) 北方盐碱化草原生态修复技术体系与模式示范. 国家林业和草原局草原管理司 (编号202004202039), 2020.11-2021.4, 15万元
- (4) 氮沉降背景下枯落物对松嫩草地植物多样性及稳定性的作用机制. 国家自然科学基金 (编号31770520), 2018.1-2021.12, 59万元 (直接费用)
- (5) 北方草甸退化草地治理技术与示范 (北方草甸退化草地系统性恢复机理及技术基础). 国家重点研发计划项目 (编号2016YFC0500602), 2016.7-2020.12, 409万元

3.著作教材

- (1) 王德利, 郭继勋. 2019. 松嫩盐碱化草地的恢复理论与技术. 科学出版社, 北京.
- (2) 王德利, 朱慧. 2017. 第 11 章: 大型草食动物对草地昆虫多样性的作用. 现代生态学讲座 (VIII) (高玉葆, 邬建国主编). 高等教育出版社, 北京. 223-238.
- (3) 董世魁 (主编), 王德利 (副主编). 2022. 退化草原生态修复主要技术模式. 中国林业出版社, 北京.

4.科研教学获奖

- (1) 2019 年内蒙古自治区科学技术进步奖, 一等奖, 牧区草原-家畜系统精准生产经营技术研究与示范 (2019-J-010-1-10-R3), 韩国栋、吴建平、王德利...
- (2) 2022 年东北师范大学教学成果奖, 一等奖, 生态学卓越人才实践育人模式 (“4-5-1”) 构建及应用. 王德利、边红枫、李振新、王咏、唐占辉、王岭、江廷磊

5.专利等实用成果

- (1) 一种草食动物采食游走行为记录仪. 2018. 李直强、宋月青、王岭、许彤彤、赵璇、黄月、王德利 (专利号: ZL 201721729881.6, 授权公告号: CN 207733437 U)
- (2) 一种草地空间异质性野外调查的栅格网尺. 2017. 赵璇、常青、王岭、刘鞠善、王德利 (专利号: ZL 201720019842.0, 授权公告号: CN 206330500U)
- (3) 一种便携式分离提取土壤线虫的装置. 2017. 刘鞠善、陈颖、刘晓曦、王德利、王岭 (专利号: ZL 201621256030.X, 授权公告号: CN 206208622U)

- (4) 天然、半天然草地牛羊混合放牧技术规程. 2018. 王德利、刘鞠善、王岭（吉林省地方标准 DB22-T 2948-2018）
- (5) 不同退化程度松嫩草地合理利用技术规程. 2020.王德利、 杨智明、 刘鞠善、王岭、韩国栋（团体标准 T/HXCY 031031-2020）
- (6) 高寒草甸暖季牧场牦牛藏羊混合放牧技术规程. 2020. 王德利、潘多锋、德科加、刘鞠善、李心诚（团体标准 T/HXCY 029-2020）.
- (7) 松嫩草地动态放牧率测算方法. 2020. 王德利、刘军、宫海静、刘鞠善、王明玖、朱慧、韩丁（团体标准 T/HXCY 030-2020）
- (8) 松嫩草地绵羊放牧-舍饲技术规程. 2020. 刘鞠善、杨智明、王德利、王岭、孙伟、孙海霞、孙金艳、钟志伟（团体标准 T/HXCY 032-2020）