

ISSN 1674-6767

CN 65-1278/K

Journal of Arid Land

干旱区科学

Vol. 16 No. 1 January 2024 (Monthly)



Sponsored by

 Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences

 Science Press

 China Society of Natural Resources

 Science Press  Springer

Journal of Arid Land

干旱区科学

Contents

Volume 16, Number 1, 31 January 2024

Research article

- 1 Parkland trees on smallholder farms ameliorate soil physical-chemical properties in the semi-arid area of Tigray, Ethiopia**
Selam LJALEM, Emiru BIRHANE, Kassa TEKA, Daniel H BERHE
- 14 Ecological effect of the plantation of *Sabina vulgaris* in the Mu Us Sandy Land, China**
NAN Weige, DONG Zhibao, ZHOU Zhengchao, LI Qiang, CHEN Guoxiang
- 29 Regulation effects of water and nitrogen on yield, water, and nitrogen use efficiency of wolfberry**
GAO Yalin, QI Guangping, MA Yanlin, YIN Minhua, WANG Jinghai, WANG Chen, TIAN Rongrong, XIAO Feng, LU Qiang, WANG Jianjun
- 46 Spatiotemporal changes of gross primary productivity and its response to drought in the Mongolian Plateau under climate change**
ZHAO Xuqin, LUO Min, MENG Fanhao, SA Chula, BAO Shanhu, BAO Yuhai
- 71 Land use change and its driving factors in the ecological function area: A case study in the Hedong Region of the Gansu Province, China**
WEI Zhudeng, DU Na, YU Wenzheng
- 91 Spatiotemporal characteristics and driving mechanisms of land use/land cover (LULC) changes in the Jinghe River Basin, China**
WANG Yinping, JIANG Rengui, YANG Mingxiang, XIE Jiancang, ZHAO Yong, LI Fawen, LU Xixi
- 110 Response of ecosystem carbon storage to land use change from 1985 to 2050 in the Ningxia Section of Yellow River Basin, China**
LIN Yanmin, HU Zhirui, LI Wenhui, CHEN Haonan, WANG Fang, NAN Xiongxiang, YANG Xuelong, ZHANG Wenjun
- 131 Spatiotemporal variations in ecosystem services and their trade-offs and synergies against the background of the gully control and land consolidation project on the Loess Plateau, China**
WANG Jing, WEI Yulu, PENG Biao, LIU Siqu, LI Jianfeng

The cover photo was taken by Mr. YANG Jun.

Abstracted/indexed by: Science Citation Index Expanded, Current Contents/Agriculture, Biology & Environmental Sciences, Scopus, Cambridge Science Abstract, VINITI Abstracts Journal, Centre for Agriculture and Bioscience Abstracts, Index Copernicus, Ulrich's Periodicals Directory, Japan Science and Technology Agency, GeoRef, Chinese Science Citation Database, Chinese Scientific and Technical Papers and Citation Database, and China Academic Journals Integrated Online Database.

Editorial Board of Journal of Arid Land

Chief Editor

CHEN, Xi (China)

Executive Editor-in-Chief

YU, Ruide (China)

Associate Editors

ALLEN, Michael F. (USA)

ARNDT, Stefan K. (Australia)

COHEN, Yehezkel (Israel)

DONG, Zhibao (China)

KARTHE, Daniel (Germany)

LI, Frank Yonghong (China)

LI, Yan (China)

MOORE, Nathan J. (USA)

SHAO, Ming'an (China)

ZHANG, Chi (China)

Members

ABDULLAEV, Alishir (Uzbekistan)

ABUDUWALI, Jilili (China)

AKSOY, Hafzullah (Turkey)

AL-MAKTOUMI, Ali (Oman)

ASHIQ, Ahmad K. (Pakistan)

CHEN, Fahu (China)

CHEN, Mingjie (USA)

CHEN, Yaning (China)

CYFFKA, Bernd (Germany)

DEMAEYER, Phillipe (Belgium)

DING, Jianli (China)

DISSE, Markus (Germany)

DONG, Yunshe (China)

DROBYSHEV, Yuliy I. (Russia)

DZIKITI, Sebinasi (South Africa)

ELSHAER, Hassan M. (Egypt)

FAKHERAN, Sima (Iran)

GROLL, Michael (Germany)

GUAN, Kaiyun (China)

JASHENKO, Roman V. (Kazakhstan)

LEI, Jiaqiang (China)

LI, Baoguo (China)

LI, Lanhai (China)

LI, Larry (USA)

LI, Longhui (China)

LI, Wenjun (China)

LI, Xinrong (China)

LI, Yuqiang (China)

LIU, Hongyan (China)

LIU, Shiyin (China)

LIU, Xuejun (China)

LUO, Geping (China)

LUO, Yi (China)

ŁUPIKASZA, Ewa (Poland)

MALIK, Ireneusz (Poland)

MOSTAFAEIPOUR, Ali (Iran)

MYAGKOV, Sergey (Uzbekistan)

PIRASTEH-ANOSHEN, Hadi (Iran)

SALEHNIA, Nasrin (South Korea)

SHI, Peijun (China)

TIAN, Changyan (China)

TIKUNOV, Vladimir S. (Russia)

WANG, Xinpeng (China)

WANG, Yuan (China)

WELP, Martin (Germany)

WU, Bo (China)

XIA, Cecilia (Australia)

XIA, Jun (China)

XIAO, Wenjiao (China)

YANG, Weikang (China)

ZHANG, Daoyuan (China)

ZHANG, Haiyan (China)

ZHANG, Xiaolei (China)

ZHANG, Xiyi (China)

ZHANG, Yuanming (China)

ZHAO, Wenzhi (China)

ZHOU, Qiming (Hong Kong of China)

ZHU, Xuan (Australia)

ZUBOVICH, Alexander V. (Kyrgyzstan)

ZUO, Xiao'an (China)

Editors

YANG, Jinhua (China)

YUAN, Junfeng (China)

ZHANG, Haiyan (China)

Journal of Arid Land

干旱区科学

ISSN 1674-6767

CN 65-1278/K



Website



Manuscript system



WeChat

Vol. 16 No. 1 31 January 2024 (Monthly)

Edited by: The Editorial Office of Journal of Arid Land

Address: 818 South Beijing Road, Urumqi 830011, Xinjiang, China

Tel: +86-991-7827352

Fax: +86-991-7827335

E-mail: xjjal@ms.xjb.ac.cn

Website: <http://jal.xjegi.com>



Launched in: 2009

Superintended by: Chinese Academy of Sciences

Sponsored by: Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, Science Press and China Society of Natural Resources

Published by: Science Press and Springer-Verlag GmbH Germany, part of Springer Nature

Printed by: Xinjiang Huazhongtu Digital Printing Co. Ltd.

Distributed by: Springer-Verlag GmbH Germany, part of Springer Nature for print version and electronic version outside China
Science Press and China Post Group Co. Ltd. for print version in China

Distribution method: Print version and electronic version

Copyright © Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, Science Press and Springer-Verlag GmbH Germany, part of Springer Nature 2023

Distribution code: 58-419

Price: CNY 100

ISSN 1674-6767



9 771674 676242