

# Journal of Mountain Science (Monthly)

<http://jms.imde.ac.cn>

## General Table of Contents (Vol. 14, 2017)

1-14 LIN Wei, YANG Fan, ZHOU Liang, XU Jian-gang, ZHANG Xing-qi

**Using modified Soil Conservation Service curve number method to simulate the role of forest in flood control in the upper reach of the Tingjiang River in China**

15-30 HU Tao, HUANG Run-qiu

**A catastrophic debris flow in the Wenchuan Earthquake area, July 2013: characteristics, formation, and risk reduction**

31-45 LI Zhi-qiang, XUE Yi-guo, LI Shu-cai, ZHANG Le-wen, WANG Dan, LI Bin, ZHANG Wen, NING Kai, ZHU Jian-ye

**Deformation features and failure mechanism of steep rock slope under the mining activities and rainfall**

46-59 MALYGINA Natalia, PAPINA Tatiana, KONONOVA Nina, BARLYAEVA Tatiana

**Influence of atmospheric circulation on precipitation in Altai Mountains**

60-76 EWANE Basil Ewane, Heon-Ho LEE

**Tree-ring reconstruction of streamflow for Palgong Mountain forested watershed in southeastern South Korea**

77-93 YU Kai-feng, Frank LEHMKUHL, Dimitri FALK

**Quantifying land degradation in the Zoige Basin, NE Tibetan Plateau using satellite remote sensing data**

94-105 WANG Guo-yi, ZHAO Ming-fei, KANG Mu-yi, XING Kai-xiong, WANG Yu-hang, XUE Feng, CHEN Chen

**Diurnal and seasonal variation of the elevation gradient of air temperature in the northern flank of the western Qinling Mountain range, China**

106-118 WANG Meng, LIU Guo-hu, JIN Tian-tian, LI Zong-shan, GONG Li, WANG Hao, YE Xin

**Age-related changes of leaf traits and stoichiometry in an alpine shrub (*Rhododendron agglutinatum*) along altitudinal gradient**

119-127 Parveen K. CHHETRI, Krishna B. SHRESTHA, David M. CAIRNS

**Topography and human disturbances are major controlling factors in treeline pattern at Barun and Manang area in the Nepal Himalaya**

128-141 Rupal M. BRAHMBHATT, I. M. BAHUGUNA, B. P RATHORE, Anil V. KULKARNI, Rajesh D. SHAH, A. S. RAJAWAT, Jeffrey S. KARGEL

**Significance of glacio-morphological factors in glacier retreat: a case study of part of Chenab basin, Himalaya**

142-157 SUN Xiang-yang, WANG Gen-xu, HUANG Mei, HU Zhao-yong, SONG Chun-lin

**Effect of climate change on seasonal water use efficiency in subalpine *Abies fabri***

158-174 Asam FARID, Perviez KHALID, Khan Zaib JADOON, Muhammad Asim IQBAL, Muhammad SHAFIQUE

**Applications of variogram modeling to electrical resistivity data for the occurrence and distribution of saline groundwater in Domail Plain, northwestern Himalayan fold and thrust belt, Pakistan**

175-187 WANG Xiang-rong, RONG Qi-guo, SUN Shu-li, WANG Hui

**Stability analysis of slope in strain-softening soils using local arc-length solution scheme**

188-195 WU Guo-jun, CHEN Wei-zhong, YUAN Jing-qiang, YANG Dian-sen, BIAN Han-bian

**Formation mechanisms of water inrush and mud burst in a migmatite tunnel: a case study in China**

196-204 WANG Ming-min, WU Shu-guang, WANG Gui-lin

**Limit analysis method for active earth pressure on laggings between stabilizing piles**

205-218 Geoffrey MUKWADA, Desmond MANATSA

***Acacia mearnsii* management in a South African National Parks: SWOT analysis using hot topics in biological invasion as a guide**

219-236 YAN Yan, CUI Peng, CHEN Su-chin, CHEN Xiao-qing, CHEN Hua-yong, CHIEN Yi-liang

**Characteristics and interpretation of the seismic signal of a field-scale landslide dam failure experiment**

237-248 MA Chao, WANG Yu-jie, DU Cui

**Comparison of the entrainment rate of debris flows in distinctive triggering conditions**

249-268 DU Guo-liang, ZHANG Yong-shuang, IQBAL Javed, YANG Zhi-hua, YAO Xin

**Landslide susceptibility mapping using an integrated model of information value method and logistic regression in the Bailongjiang watershed, Gansu Province, China**

269-281 XIE Xiang-ping, WEI Fang-qiang, YANG Hong-juan, XIE Tao

**Experimental study on large wood filtration performance by herringbone water-sediment separation structure**

282-295 ARAOS. José Miguel, LE ROUX. Jacobus Philipus, GUTIERREZ. Néstor Mauricio

**Relict glacial landscape in the Sierra Baguales Mountain Range (50°-51° S): evidence of glaciation dynamics and types in the eastern foothills of the southern Patagonian Andes**

296-315 EWANE Basil Ewane, LEE Heon-Ho

**Influence of vegetation cover and other sources of variability on sediment and runoff response in a burned forest in South Korea**

316-324 YU Yan-ling, PAN Feng, LIU Xin-you, CHEN Wen-hua, HE Da-ming

**Variations and trends of trans-boundary runoff in the longitudinal range-gorge region**

325-335 WANG Yong-yan, WEN An-bang, GUO Jin, SHI Zhong-lin, YAN Dong-chun

**Spatial distribution, sources and ecological risk assessment of heavy metals in Shenjia River watershed of the Three Gorges Reservoir Area**

336-345 WU Li-yun, HE Dong-jin, YOU Wei-bin, JI Zhi-rong, TAN Yong, ZHAO Li-li

**The dynamics of landscape-scale ecological connectivity based on least-cost model in Dongshan Island, China**

346-355 XIAN Jun-ren, CHEN Guo-peng, LIU Yin-zhan, XU Xiao-xun, YANG Zhan-biao, YANG Wan-qin

**Positive adaptation of *Salix eriostachya* to warming in the treeline ecotone, East Tibetan Plateau**

356-368 LI Guo-yu, MA Wei, MU Yan-hu, WANG Fei, FAN Shan-zhi, WU Ya-hu

**Effects of freeze-thaw cycle on engineering properties of loess used as road fills in seasonally frozen ground regions, North China**

369-381 SHEN Yang, WANG Xin, LIU Han-long, DU Wen-han, WANG Bao-guang, XU Hai-dong

**Influence of principal stress rotation of unequal tensile and compressive stress amplitudes on characteristics of soft clay**

382-389 WANG Kui, ZHAO Ming-jie, SUN Xiao

**Wave-electric field coupling imaging diagnostic method for filled subgrade**

390-402 Laura CAPLINS, Sarah J. HALVORSON

**Collecting *Ophiocordyceps sinensis*: an emerging livelihood strategy in the Garhwal, Indian Himalaya**

403-416 Vikram S. Negi, Rakesh K. Maikhuri, Dalbeer Pharswan, Shinny Thakur, Pitamber P. Dhyani

**Climate change impact in the Western Himalaya: people's perception and adaptive strategies**

417-431 CUI Yi-fei, ZHOU Xiao-jun, GUO Chao-xu

**Experimental study on the moving characteristics of fine grains in wide grading unconsolidated soil under heavy rainfall**

432-441 Nima BABANOURI, Hesam DEGHANI

**Investigating a potential reservoir landslide and suggesting its treatment using limit-equilibrium and numerical methods**

442-452 Viacheslav I. KHARUK, Sergei T. IM, Maria L. DVINSKAYA, Kenneth J. RANSON, Il'ya A. PETROV

**Tree wave migration across an elevation gradient in the Altai Mountains, Siberia**

453-473 Niels SCHWAB, Udo SCHICKHOFF, Birgit BÜRZLE, Michael MÜLLER, Jürgen BÖHNER, Ram Prasad CHAUDHARY, Thomas SCHOLTEN, Jens OLDELAND

**Implications of tree species – environment relationships for the responsiveness of Himalayan krummholz treelines to climate change**

474-491 ZHANG Jia-ming, XU Ze-min, LI Feng, HOU Ru-ji, REN Zhe

**Quantification of 3D macropore networks in forest soils in Touzhai valley (Yunnan, China) using X-ray computed tomography and image analysis**

492-500 HAN Hee, JANG Kwang-min, CHUNG Joo-sang

**Selecting suitable sites for mountain ginseng (*Panax ginseng*) cultivation by using geographically weighted logistic regression**

501-512 ZHANG Yong, ENOMOTO Hiroyuki, OHATA Tetsuo, KADOTA Tsutomu, SHIRAKAWA Tatsuo, TAKEUCHI Nozomu

**Surface mass balance on Glacier No. 31 in the Suntar–Khayata Range, eastern Siberia, from 1951 to 2014**

513-526 YANG Li-hui, ZHENG Xiang-min, YE Wei

**Sedimentary environment of vermicular red clay in South China**

527-538 HAN Yong, ZHENG Fen-li, XU Xi-meng

**Effects of rainfall regime and its character indices on soil loss at loessial hillslope with ephemeral gully**

539-548 QIAN Jing, ZHANG Li- Ping, WANG Wen-Yan, LIU Qiao

**Organic carbon losses by eroded sediments from sloping vegetable fields in South China**

549-557 HU Chun-sheng, HU Chen-qi, LIU Shao-chen, XU Guang-lai, WU Li, YANG Li-hui

**Dating of the topmost terrace in the Jingxian Basin, Anhui Province: an indication of the establishment of the Qingyijiang River**

558-570 RANA Santosh Kumar, RANA Hum Kala, GHIMIRE Suresh Kumar, SHRESTHA Krishna Kumar, RANJITKAR Sailesh

**Predicting the impact of climate change on the distribution of two threatened Himalayan medicinal plants of Liliaceae in Nepal**

571-580 ZHONG Qi-ming, CHEN Sheng-shui, DENG Zhao

**Numerical model for homogeneous cohesive dam breaching due to overtopping failure**

581-594 ZHANG Ding-wen, SHU Ji-cheng, SUN Jian-ping

**Observed deformation characteristics of a deep excavation for the spring area in Jinan, China**

595-608 TAO Hui, LIU Jia-ming, DENG Yu, DU Ao

**Tourism sectorization opportunity spectrum model and space partition of tourism urbanization area: a case of the Mayangxi ecotourism area, Fujian province, China**

609 Erratum to: DOI: 10.1007/s11629-016-4107-z

610 Erratum to: DOI: 10.1007/s11629-016-4096-y

611-620 CHEN Ning-sheng, ZHU Yun-hua, HUANG Qi, IQBAL Javed, DENG Ming-feng, HE Na

**Mechanisms involved in triggering debris flows within a cohesive gravel soil mass on a slope: a case in SW China**

621-635 PASTORELLO Roberta, MICHELINI Tamara, D'AGOSTINO Vincenzo

**On the criteria to create a susceptibility map to debris flow at a regional scale using Flow-R**

636-648 SALVATICI Teresa, MORELLI Stefano, PAZZI Veronica, FRODELLA William, FANTI Riccardo

**Debris flow hazard assessment by means of numerical simulations: implications for the Rotolon creek valley (Northern Italy)**

649-661 HUANG Bo-lin, WANG Shi-chang

**Wave attenuation mechanism of cross-plates applied in landslide-induced tsunami in river course**

662-673 Kerstin ANSCHLAG, Dylan TATTI, Niels HELLWIG, Giacomo SARTORI, Jean-Michel GOBAT, Gabriele BROLL

**Vegetation-based bioindication of humus forms in coniferous mountain forests**

674-693 DING Lin, QIN Fa-chao, FANG Hai-dong, LIU Hui, ZHANG Bin, SHU Cheng-qiang, DENG Qing-chun, LIU Gang-cai, YANG Qian-qian

**Morphology and controlling factors of the longitudinal profile of gullies in the Yuanmou dry-hot valley**

694-704 XU Xiang, ZHANG Hua-yong, LUO Jian, ZHANG Dong-jie, MA Athen

**Area-corrected species richness patterns of vascular plants along a tropical elevational gradient**

705-715 DUAN Xing-wu, HAN Xu, HU Jin-ming, FENG De-tai, RONG Li

**A novel model to assess soil productivity in the dry-hot valleys of China**

716-730 KIM Dong Eun, SEONG Yeong Bae, CHOI Kwang Hee, YU Byung Yong

**Role of debris flow on the change of <sup>10</sup>Be concentration in rapidly eroding watersheds: a case study on the Seti River, central Nepal**

731-741 LU Heng, FU Xiao, LIU Chao, LI Long-guo, HE Yu-xin, LI Nai-wen

**Cultivated land information extraction in UAV imagery based on deep convolutional neural network and transfer learning**

742-757 LIU Bin

**Vertical patterns in plant diversity and their relations with environmental factors on the southern slope of the Tianshan Mountains (middle section) in Xinjiang (China)**

758-770 QIAN Jian-gu, GU Jian-bo, GU Xiao-qiang, HUANG Mao-song

**Discrete numerical modeling of granular materials considering crushability**

771-781 WANG Xin-gang, WANG Jia-ding, GU Tian-Feng, LIAN Bao-qin

**A modified Hoek-Brown failure criterion considering the damage to reservoir bank slope rocks under water saturation-dehydration circulation**

782-794 Ghulam MURTAZA, Gopal Bahadur THAPA

**Factors affecting technical efficiency of small-scale apple farms in Balochistan Plateau, Pakistan**

795-805 Vishwambhar Prasad SATI, Lalrinpuia VANGCHHIA

**Food security status in rural areas of Mizoram, Northeast India**

806-810 MÜLLER Jonas V, BERG Christian, DÉTRAZ-MÉROZ Jacqueline, ERSCHBAMER Brigitta, FORT Noémie, LAMBELET-HAUETER Catherine, MARGREITER Vera, MOMBRIAL Florian, MONDONI Andrea, PAGITZ Konrad, PORRO Francesco, ROSSI Graziano, SCHWAGER Patrick, BREMAN Elinor

**The Alpine Seed Conservation and Research Network – a new initiative to conserve valuable plant species in the European Alps**

811-822 MORIS Jose V, VACCHIANO Giorgio, ASCOLI Davide, MOTTA Renzo

**Alternative stable states in mountain forest ecosystems: the case of European larch (*Larix decidua*) forests in the western Alps**

823-842 LÓPEZ-MORENO Juan I, REVUELTO Jesús, ALONSO-GONZÁLEZ E, SANMIGUEL-VALLELADO Alba, FASSNACHT Steven R, DEEMS Jeffrey, MORÁN-TEJEDA Enrique

**Using very long-range terrestrial laser scanner to analyze the temporal consistency of the snowpack distribution in a high**

843-858 DROLLINGER Simon, MÜLLER Michael, KOBL Timo, SCHWAB Niels, BÖHNER Jürgen, SCHICKHOFF Udo, SCHOLTEN Thomas

**Decreasing nutrient concentrations in soils and trees with increasing elevation across a treeline ecotone in Rolwaling Himal, Nepal**

859-869 LIU Guang, FAN Jing-hui, ZHAO Feng, MAO Ke-biao

**Monitoring elevation change of glaciers on Geladandong Mountain using TanDEM-X SAR interferometry**

870-884 OU Zhao-rong, ZHU Qing-ke, SUN Yong-yu

**Regional ecological security and diagnosis of obstacle factors in underdeveloped regions: a case study in Yunnan Province, China**

885-897 ZHAO Wu-fan, XIONG Li-yang, DING Hu, TANG Guo-an

**Automatic recognition of loess landforms using Random Forest method**

898-905 LAI Wen-li, WANG Hong-ruì, WANG Cheng, ZHANG Jie, ZHAO Yong

**Waterlogging risk assessment based on self-organizing map (SOM) artificial neural networks: a case study of an urban storm in Beijing**

906-925 FAN Wen, WEI Xin-sheng, CAO Yan-bo, ZHENG Bin

**Landslide susceptibility assessment using the certainty factor and analytic hierarchy process**

926-935 CHEN Liu-qin, GUO Fu-sheng

**Upper Cretaceous alluvial fan deposits in the Jianglangshan Geopark of Southeast China: implications for bedrock control on Danxia landform evolution**

936-947 LI Long-qi, JU Neng-pan, GUO Yong-xing

**Effectiveness of Fiber Bragg Grating monitoring in the centrifugal model test of soil slope under rainfall conditions**

948-963 FUCHS Michael, AWAN Adnan A, AKHTAR Sardar S, AHMAD Ijaz, SADIQ Simon, RAZZAK Asif, HAIDER Naghmah

**Lithological mapping with multispectral data – setup and application of a spectral database for rocks in the Balakot area, Northern Pakistan**

964-979 BHATTARAI Babu R, WRIGHT Wendy, POUDEL Buddi S, ARYAL Achyut, YADAV Bhupendra P, WAGLE Radha

**Shifting paradigms for Nepal's protected areas: history, challenges and relationships**

980-997 SUN Pi-ling, XU Yue-qing, LIU Qing-guo, LIU Chao, WANG Hong-liang

**Spatiotemporal evolution and driving forces of changes in rural settlements in the poverty belt around Beijing and Tianjin: a case study of Zhangjiakou city, Hebei Province**

998-1007 LEE Dukjae, LEE Ju-Hyoung

**A structural relationship between place attachment and intention to conserve landscapes – a case study of Harz National Park in Germany**

1008 Erratum to: DOI: 10.1007/s11629-016-4077-1

1009-1022 Jesús RODRIGO-COMINO, Stefan WIRTZ, Eric C. BREVIK, José D. RUIZ-SINOGA, Johannes B. RIES

**Assessment of agri-spillways as a soil erosion protection measure in Mediterranean sloping vineyards**

1023-1038 Irene BOLLATI, Beatrice CROSA LENZ, Enrico ZANOLETTI, Manuela PELFINI

**Geomorphological mapping for the valorization of the Alpine environment. A methodological proposal tested in the Loana Valley (Sesia Val Grande Geopark, Western Italian Alps)**

1039-1057 CHEN Chao, AHMAD Sajjad, KALRA Ajay, XU Zhi-xia

**A dynamic model for exploring water-resource management scenarios in an inland arid area: Shanshan County, Northwestern China**

1058-1064 HIROTA Isao

**Local records of long-term dynamics of bamboo gregarious flowering in northern Laos and regional synchronicity of *Dendrocalamus membranaceus* in two flowering sites**

1065-1075 Yagya P. ADHIKARI, Anton FISCHER, Hagen S. FISCHER, Maan B. ROKAYA, Prakash BHATTARAI, Axel GRUPPE

**Diversity, composition and host-species relationships of epiphytic orchids and ferns in two forests in Nepal**

1076-1085 CHENG Dong-bing, DONG Lin-yao, QIAN Feng, SUN Bei

**Observation and modeling on irregular purple soil water infiltration process**

1086-1099 GUO Bing, LUO Wei, WANG Dong-liang, JIANG Lin

**Spatial and temporal change patterns of freeze-thaw erosion in the three-river source region under the stress of climate warming**

1100-1112 CHEN Xing-zhang, CUI Yi-fei

**The formation of the Wulipo landslide and the resulting debris flow in Dujiangyan City, China**

1113-1123 QIAO Liang, MENG Xing-min, CHEN Guan, ZHANG Yi, GUO Peng, ZENG Run-qiang, LI Ya-jun

**Effect of rainfall on a colluvial landslide in a debris flow valley**

1124-1139 ZHANG Zhi-guo, ZHAO Qi-hua, XU Chen, XU Xiao-yang

**Interaction analyses between tunnel and landslide in mountain area**

1140-1160 Ayberk KAYA, Kadir KARAMAN, Fikri BULUT

**Geotechnical investigations and remediation design for failure of tunnel portal section: a case study in northern Turkey**

1161-1173 HOU Tian-xing, XU Qiang, XIE Hong-qiang, XU Nu-wen, ZHOU Jia-wen

**An estimation model for the fragmentation properties of brittle rock block due to the impacts against an obstruction**

1174-1184 YANG Ji-qing, XU Ze-min, ZHANG Rui, CHEN Ji-pu, REN Zhe, LUO Rong-zhang, ZHANG Xiu-shuo

**Formation and evolution of Emeishan basalt sapolite in vadose zones of Touzhai landslide source rockmass**

1185-1193 WANG Lan-min, WU Zhi-jian, XIA Kun

**Effects of site conditions on earthquake ground motion and their applications in seismic design in loess region**

1194-1201 KONG Ling-wei, WANG Min, GUO Ai-guo, WANG Yong

**Effect of drying environment on engineering properties of an expansive soil and its microstructure**

1202-1211 HU Zheng, YANG Zhong-xuan, Stephen Philip WILKINSON

**Active earth pressure acting on retaining wall considering anisotropic seepage effect**

1212-1228 Hong Chul PARK, Choong Hyeon OH

**Flora, life form characteristics, and plan for the promotion of biodiversity in South Korea's Globally Important Agricultural Heritage System, the traditional Gudeuljang irrigated rice terraces in Cheongsando**

1229-1240 Lefkothea PAPANASTASIOU, Dimitris KALIAMPAKOS

**Energy poverty in Greek mountainous areas: a comparative study**

1241-1261 Franny G. MURILLO-GARCÍA, Mauro ROSSI, Francesca ARDIZZONE, Federica FIORUCCI, Irasema ALCÁNTARA-AYALA

**Hazard and population vulnerability analysis: a step towards landslide risk assessment**

1262-1278 ZHANG Yong-shuang, YANG Zhi-hua, GUO Chang-bao, WANG Tao, WANG Dong-hui, DU Guo-liang

**Predicting landslide scenes under potential earthquake scenarios in the Xianshuihe fault zone, Southwest China**

1279-1291 LENG Xiao-peng, LIU Dun-long, WEI Fang-qiang, HONG Yong, DAI De-fu

**Debris flows monitoring and localization using infrasonic signals**

1292-1302 TANG Yang, YIN Kun-long, LIU Lei, ZHANG Ling, FU Xiao-lin

**Dynamic assessment of rainfall-induced shallow landslide hazard**

1303-1316 Gerrit TOMBRINK

**Flood events and their effects in a Himalayan mountain river: geomorphological examples from the Buri Gandaki Valley, Nepal**

1317-1328 LIU Bo, YANG Jian, Jill F. JOHNSTONE

**Understory vascular plant community assembly in relation to time-since-fire and environmental variables in a Chinese boreal forest**

1329-1340 Pasquale A. MARZILIANO, Vittoria COLETTA, Angelo SCUDERI, Clemente SCALISE, Giuliano MENGUZZATO, Fabio LOMBARDI

**Forest structure of a maple old-growth stand: a case study on the Apennines mountains (Southern Italy)**

1341-1349 Nova D. DOYOG, Young Jin LEE, Sun Joo LEE, Jin Taek KANG, Sung Yong KIM

**Compatible taper and stem volume equations for *Larix kaempferi* (Japanese larch) species of South Korea**

1350-1357 WANG Si-hai, WU Chao, XIAO De-rong, WANG Juan, CHENG Xi-ping, GUO Fang-bin

**Temporal changes in wetland plant communities with decades of cumulative water pollution in two plateau lakes in China's Yunnan Province**

1358-1372 XIANG Zhong-xiang, BING Hai-jian, WU Yan-hong, ZHOU Jun, LI Rui, HE Xiao-li

**Tracing environmental lead sources on the Ao mountain of China using lead isotopic composition and biomonitoring**

1373-1383 LI Guang-lu, ZHENG Teng-hui, FU Yu, LI Bai-qiao, ZHANG Teng

**Soil detachment and transport under the combined action of rainfall and runoff energy on shallow overland flow**

1384-1390 Ranjit PANDEY, Kapil K KHADKA, Anuj GHIMIRE, Puja JHA, Umesh PATHAK

**Elevational distribution of butterflies in the Himalayas: a case study from Langtang National Park, Nepal**

1391-1404 SINGH Sartajvir, TALWAR Rajneesh

**Response of fuzzy clustering on different threshold determination algorithms in spectral change vector analysis over Western Himalaya, India**

1405-1418 CHEN Bi-xia, QIU Zhen-mian

**Community attitudes toward ecotourism development and environmental conservation in nature reserve: a case of Fujian Wuyishan National Nature Reserve, China**

1419-1427 Tomasz DUDEK

**Recreational potential as an indicator of accessibility control in protected mountain forest areas**

1428-1444 LI Lian-chong, XING Ya-zi, LIU Xing-zong, MA Ke, XU Nu-wen, ZHANG Fei

**Interaction between anti-shear galleries and surrounding rock in the right-bank slope of Dagangshan hydropower station**

1445-1453 SUN Chang-bin, LI De-wen, SHEN Xiao-ming, KANG Yan-rui, LIU Rui, ZHANG Ya-jiao

**Holocene activity evidence on the southeast boundary fault of Heqing basin, middle segment of Heqing-Eryuan fault zone, West Yunnan Province, China**

1454 Erratum to: DOI: 10.1007/s11629-016-3992-5

1455-1472 Mario A. SORIANO Jr., Johanna DIWA, Srikantha HERATH

**Local perceptions of climate change and adaptation needs in the Ifugao Rice Terraces (Northern Philippines)**

1473-1489 Hag Mo KANG, Hyun KIM, Chang Heon LEE, Chong Kyu LEE, Soo Im CHOI

**Changes and development plans in the mountain villages of South Korea: Comparison of the first and second national surveys**

1490-1499 SOULE Bastien, REYNIER Véronique, LEFEVRE Brice, BOUTROY Eric

**Who is at risk in the French mountains? Profiles of the accident victims in outdoor sports and mountain recreation**

1500-1512 Aabid Hussain MIR, Krishna UPADHAYA

**Effect of traditional management practices on woody species composition and structure in montane subtropical forests of Meghalaya, Northeast India**

1513-1525 WIEDENMANN Johannes, ROHN Joachim, MOSER Michael

**Using LIDAR and ground truth for landslide recognition and characterization of geotechnical and morphological parameters in sedimentary rocks, a case study in Northern Bavaria (Germany)**

1526-1536 ZHANG Shao-jie, CHEN Jiang

**An experimental study: Integration device of Fiber Bragg grating and reinforced concrete beam for measuring debris flow impact force**



1537-1549 AI Hong-zhou, YAO Ling-kan, ZHOU Yi-liang

**Laboratory investigations of earthquake- and landslide-induced composite surges**

1550-1562 CUI Sheng-hua, PEI Xiang-jun, HUANG Run-qiu

**Rolling motion behavior of rockfall on gentle slope: an experimental approach**

1563-1576 HE Jun-dong, XUE Jing-yue, GAO Jing, WANG Jin-niu, WU Yan

**Adaptations of the floral characteristics and biomass allocation patterns of *Gentiana hexaphylla* to the altitudinal gradient of the eastern Qinghai-Tibet Plateau**

1577-1590 LI Xiang-ying, DING Yong-jian, HAN Tian-ding, XU Jian-zhong, KANG Shi-chang, WU Qing-bai, Mika Sillanpää, YU Zhong-bo, YU Cong-rong

**Seasonal variations of organic carbon and nitrogen in the upper basins of Yangtze and Yellow Rivers**

1591-1603 WU Yan-hong, LIANG Jian-hong, BING Hai-jian, WANG Ji-peng, ZHOU Jun, SUN Hong-yang

**Seasonal and spatial distribution of trace metals in alpine soils of Eastern Tibetan Plateau, China**

1604-1614 PAN Ying, WU Jun-xi, LUO Li-ming, TU Yan-li, YU Cheng-qun, ZHANG Xian-zhou, MIAO Yan-jun, ZHAO Yan, YANG Jun-ling

**Climatic and geographic factors affect ecosystem multifunctionality through biodiversity in the Tibetan alpine grasslands**

1615-1623 MA Xing-xing, YAN Yan, HONG Jiang-tao, LU Xu-yang, WANG Xiao-dan

**Impacts of warming on root biomass allocation in alpine steppe on the north Tibetan Plateau**

1624-1632 CAO Bo, PAN Bao-tian, CAI Ming-yong, WANG Jie

**An investigation on changes in glacier mass balance and hypsometry for a small mountainous glacier in the northeastern Tibetan Plateau**

1633-1641 MENG Sheng-wang, LIU Qi-jing, JIA Quan-quan, ZHUANG Hui-xia, QI Ying, LU Cheng-xue, DENG Liu-bao

**Spatial distribution and dynamics of carbon storage in natural *Larix gmelinii* forest in Daxing'anling mountains of Inner Mongolia, northeastern China**

1642-1654 YANG Feng, ZHOU Yi

**Quantifying spatial scale of positive and negative terrains pattern at watershed-scale: Case in soil and water conservation region on Loess Plateau**

1655-1665 QI Chang-guang, ZHENG Jin-hui, ZUO Dian-jun, CHEN Geng

**Measurement on soil deformation caused by expanded-base pile in transparent soil using particle image velocimetry (PIV)**

1666-1676 Imlirenla JAMIR, Vikram GUPTA, Vipin KUMAR, Glenn T. THONG

**Evaluation of potential surface instability using finite element method in Kharsali Village, Yamuna Valley, Northwest Himalaya**

1677-1688 FAN Jian-rong, ZHANG Xi-yu, SU Feng-huan, GE Yong-gang, Paolo TAROLLI, YANG Zheng-yin, ZENG Chao, ZENG Zhen

**Geometrical feature analysis and disaster assessment of the Xinmo landslide based on remote sensing data**

1689-1700 SU Li-jun, HU Kai-heng, ZHANG Wei-feng, WANG Jiao, LEI Yu, ZHANG Chong-lei, CUI Peng, Alessandro PASUTO, ZHENG Quan-hong

**Characteristics and triggering mechanism of Xinmo landslide on 24 June 2017 in Sichuan, China**

1701-1711 OUYANG Chao-jun, ZHAO Wei, HE Si-ming, WANG Dong-po, ZHOU Shu, AN Hui-cong, WANG Zhong-wen, CHENG Duo-xiang

**Numerical modeling and dynamic analysis of the 2017 Xinmo Landslide in Maoxian County, China**

1712-1727 HU Gui-sheng, CHEN Ning-sheng, TANOLI Javed Iqbal, LIU Mei, LIU Rong-Kun, CHEN Kun-Ting

**Debris flow susceptibility analysis based on the combined impacts of antecedent earthquakes and droughts: a case study for cascade hydropower stations in the upper Yangtze River, China**

1728-1738 LIU Yan, WANG Hui-feng, CHEN Hua-yong, HU Kai-heng, WANG Xie-kang

**The properties of dilute debris flow and hyper-concentrated flow in different flow regimes in open channels**

1739-1750 YU Fang-wei, PENG Xiong-zhi, SU Li-jun

**A back-propagation neural-network-based displacement back analysis for the identification of the geomechanical parameters of the Yonglang landslide in China**

1751-1762 KANG Xiao-bing, LUO Sheng, LI Qing-shan, XU Mo, LI Qiang

**Developing a risk assessment system for gas tunnel disasters in China**

1763-1775 Amir Hossein JAFARZADEH-HAGHIGHI, Jusop SHAMSHUDDIN, Jol HAMDAN, Norhazlin ZAINUDDIN

**Preservation of organic matter in soils of a climo-biosequence in the Main Range of Peninsular Malaysia**

1776-1790 JI Qin, YANG Tai-bao, HE Yi, QIN Yan, DONG Jun, HU Fan-sheng

**A simple method to extract glacier length based on Digital Elevation Model and glacier boundaries for simple basin type glacier**

1791-1800 Nazzareno DIODATO, Gianni BELLOCCHI, Francesco FIORILLO, Gerardo VENTAFRIDDA

**Case study for investigating groundwater and the future of mountain spring discharges in Southern Italy**

1801-1813 Malihe ERFANI, Abdolrassoul SALMANMAHINY, Afshin DANEHKAR, Vahid ETEMAD

**Modeling of forest soil and litter health using disturbance and landscape heterogeneity indicators in northern Iran**

1814-1826 GUO Wei-wei, WANG Xin-jie, KANG Xin-gang, ZHANG Qing, MENG Jing-hui, ZHANG Meng-tao, JI Lei

**Structure and regeneration dynamics of three forest types at different succession stages of spruce – fir mixed forest in Changbai Mountain, northeastern China**

1827-1838 ZHAO Guang-shuai, SHI Pei-li

**Sources of uncertainty in exploring rangeland phenology: A case study in an alpine meadow on the central Tibetan Plateau**

1839-1851 GU Li, GONG Zhi-wen, LI Wei-zhong

**Spatial patterns and storage composition of woody debris in a natural secondary forest dominated by *Pinus tabulaeformis* on Loess Plateau, China**

1852-1862 LIAO Jun-tao, YE Hui, HUANG Ting-fa, PENG Gui-hong

**Seasonal waterbird population changes in Lashihai Lake in northwest Yunnan, China**

1863-1872 Kwangchol KIM, WANG Ming-cheng, Sailesh RANJITKAR, LIU Su-hong, XU Jian-chu, Robert J. ZOMER

**Using leaf area index (LAI) to assess vegetation response to drought in Yunnan province of China**

1873-1888 CHEN Tian-tian, PENG Li, LIU Shao-quan, WANG Qiang

**Land cover change in different altitudes of Guizhou-Guangxi karst mountain area, China: patterns and drivers**

1889-1902 RAN Fei, CHANG Rui-ying, YANG Yang, ZHU Wan-ze, LUO Ji, WANG Gen-xu

**Allometric equations of select tree species of the Tibetan Plateau, China**

1903-1918 HUO Miao, ZHOU Jia-wen, YANG Xing-guo, ZHOU Hong-wei

**Effects of a flexible net barrier on the dynamic behaviours and interception of debris flows in mountainous areas**

1919-1937 RAHMAN Md. Shahinoor, AHMED Bayes, DI Liping

**Landslide initiation and runout susceptibility modeling in the context of hill cutting and rapid urbanization: a combined approach of weights of evidence and spatial multi-criteria**

1938-1950 GUO Chen-wen, HUANG Yi-dan, YAO Ling-kan, ALRADI Helal

**Size and spatial distribution of landslides induced by the 2015 Gorkha earthquake in the Bhote Koshi river watershed**

1951-1960 WANG Fei, CHEN Xiao-qing, CHEN Jian-gang

**Experimental study on the energy dissipation characteristics of debris flow deceleration baffles**

1961-1968 George P MALANSON

**Mixed signals in trends of variance in high-elevation tree ring chronologies**

1969-1984 Finu SHRESTHA, GAO Xiao, Narendra Raj KHANAL, Sudan Bikash MAHARJAN, Rajendra Bahadur SHRESTHA, WU Li-zong, Pradeep Kumar MOOL, Samjwal Ratna BAJRACHARYA

**Decadal glacial lake changes in the Koshi basin, central Himalaya, from 1977 to 2010, derived from Landsat satellite images**

1985-1994 HUANG You-you, HAN Han, TANG Chuan, LIU Shou-jiang

**Plant community composition and interspecific relationships among dominant species on a post-seismic landslide in Hongchun Gully, China**

1995-2002 DAI Wen-Kui, AMBOKA Grace Mercy, KADIORI Edwin Luguba, WANG Qing-Feng, YANG Chun-Feng

**Phenotypic plasticity of floral traits and pollination adaption in an alpine plant *Pedicularis siphonantha* D. Don when transplanted from higher to lower elevation in Eastern Himalaya**

2003-2012 SHEN Song-tao, ZHANG Shu-jie, FAN Min, WANG Qing

**Classification of plant functional types based on the nutrition traits: a case study on alpine meadow community in the Zoigê Plateau**

2013-2027 Chaman GUL, KANG Shi-chang, Badar GHOURI, Mateul HAQ, Sher MUHAMMAD, Shaikat ALI

**Using Landsat images to monitor changes in the snow-covered area of selected glaciers in northern Pakistan**

2028-2041 XIA Lu, SONG Xiao-yu, FU Na, MENG Chun-fang, LI Huai-you, LI Yao-lin

**Impacts of precipitation variation and soil and water conservation measures on runoff and sediment yield in the Loess Plateau Gully Region, China**

2042-2052 YANG Ping-ping, ZHANG Hui-lan, MA Chao

**Effects of simulated submerged and rigid vegetation and grain roughness on hydraulic resistance to simulated overland flow**

2053-2063 Bahram CHOUBIN, Karim SOLAIMANI, Mahmoud HABIBNEJAD ROSHAN, Arash MALEKIAN

**Watershed classification by remote sensing indices: A fuzzy c-means clustering approach**

2064-2081 Joseph K. W. HILL

**Supporting farmer-managed irrigation systems in the Shigar valley, Karakorum: Role of the government and Aga Khan Rural Support Programme**

2082-2096 YANG Pei-feng, HE Ran, HOU Hai-bo

**Distribution of primary school based on spatial network comprehensive model in low-income mountainous cities: a case study in Wanyuan, China**

2097-2105 LI Jun, GUO Xiao-jun, ZHAO Ling-ling

**High-efficiency calculation method for watershed rainfall-runoff routing using one-dimensional dynamic wave equations**

2106-2121 ZHAO Wei-hua, FROST J. D., HUANG Run-qiu, YAN Ming, JIN Long-de

**Distribution and quantitative zonation of unloading cracks at a proposed large hydropower station dam Site**

2122-2133 ZHU Lei, HUANG Run-qiu, YAN Ming, CHEN Guo-qing

**Geological analysis of gravitational rock slope deformation: a case from Nujiang River, China**

2134-2135 Erratum to: <https://doi.org/10.1007/s11629-017-4609-3>

2136 Erratum to: <https://doi.org/10.1007/s11629-017-4633-3>

2137-2149 HUANG Tao, DING Ming-tao, SHE Tao, TIAN Shu-jun, YANG Jiang-tao

**Numerical simulation of a high-speed landslide in Chenjiaba, Beichuan, China**

2150-2167 Meheebub SAHANA, Haroon SAJJAD

**Evaluating effectiveness of frequency ratio, fuzzy logic and logistic regression models in assessing landslide susceptibility: a case from Rudraprayag district, India**

2168-2181 LIU Wei, HE Si-ming

**Simulation of two-phase debris flow scouring bridge pier**

2182-2199 P Mayte S. JIMÉNEZ-NORIEGA, Teresa TERRAZAS, Lauro LÓPEZ-MATA, Arturo SÁNCHEZ-GONZÁLEZ, Heike VIBRANS

**Anatomical variation of five plant species along an elevation gradient in Mexico City basin within the Trans-Mexican Volcanic Belt, Mexico**

2200-2211 ZHANG Dong-liang, YANG Yun-peng, LAN Bo

**Peat humification- and  $\delta^{13}\text{C}_{\text{cellulose}}$ -recorded warm-season moisture variations during the past 500 years in the southern Altai Mountains within northern Xinjiang of China**

2212-2229 GAO Shu-hui, HE Rui-xia, JIN Hui-jun, HUANG Ya-dong, ZHANG Jian-ming, LUO Dong-liang

**Thermal recovery process of a backfilled open-pit in permafrost area at the Gulian strip coal mine in Northeast China**

2230-2245 KOSTADINOV Stanimir, DRAGIĆEVIĆ Slavoljub, STEFANOVIĆ Tomisav, NOVKOVIĆ Ivan, PETROVIĆ M. Ana

**Torrential flood prevention in the Kolubara river basin**

2246-2256 XU Dao-wei, LIU Jin-fu, Peter MARSHALL, HE Zhong-sheng, ZHENG Shi-qun

**Leaf litter decomposition dynamics in unmanaged *Phyllostachys pubescens* stands at high elevations in the Daiyun Mountain National Nature Reserve**

2257-2269 Halime MORADI, Farideh ATTAR, Jens OLDELAND

**Plant functional type approach for a functional interpretation of altitudinal vegetation zones in the Alborz Mts., Iran**

2270-2283 WANG Yan-xia, DING Kun, LI Mao-biao, ZHOU Ru-liang

**Spatial distribution modeling of temperature increase for the uplifted mountain terrains and its characteristics in Southwest China**

2284-2294 YANG Ruo-wen, WANG Hai, HU Jin-ming, CAO Jie, YANG Yu

- An improved temperature vegetation dryness index (iTVDI) and its applicability to drought monitoring**  
2295-2310 ZHANG Wei, KANG Shi-chang, SHEN Yong-ping, HE Jian-qiao, CHEN An-an
- Response of snow hydrological processes to a changing climate during 1961 to 2016 in the headwater of Irtysh River Basin, Chinese Altai Mountains**  
2311-2324 DENG Dong-ping, LI Liang, ZHAO Lian-heng
- Limit equilibrium method (LEM) of slope stability and calculation of comprehensive factor of safety with double strength-reduction technique**  
2325-2336 ZHANG Chong-lei, JIANG Guan-lu, SU Li-jun, ZHOU Gong-dan
- Effect of cement on the stabilization of loess**  
2337-2347 WANG Yun-sheng, HE Jian-xian, LUO Yong-hong
- Seismic response of the Lengzhuguan slope during Kangding Ms5.8 earthquake**  
2348-2358 HE Lin-lin, WANG Yuan-zhan, LI Shu-zhao, WANG Zhao-yang
- Practical method and application study for predicting cyclic accumulative deformations of the saturated soft clay**  
2359-2372 HUANG Tai, XI Jian-chao, GE Quan-sheng
- Livelihood differentiation between two villages in Yesanpo Tourism District in China**  
2373-2390 Gheorghe ROMANESCU, Chalov SERGEY, Cristian Constantin STOLERIU, Alin Miha-PINTILIE, Silvia Eleonora ANGILERI, GLINA BARTŁOMIEJ, Yulia KUZNETSOVA, Mariaelena CAMA, Michael MAERKER
- Geomorphologic map of the 1<sup>st</sup> Mutnaya River, Southeastern Kamchatka, Russia**  
2391-2405 BOJKO Oskar, KABALA Cezary, MENDYK Łukasz, MARKIEWICZ Maciej, PAGACZ-KOSTRZEWA Magdalena, GLINA Bartłomiej
- Labile and stabile soil organic carbon fractions in surface horizons of mountain soils – relationships with vegetation and altitude**  
2406-2419 CAO Wei, SHENG Yu, WU Ji-chun, LI Jing
- Spatial variability and its main controlling factors of the permafrost soil-moisture on the northern-slope of Bayan Har Mountains in Qinghai-Tibet Plateau**  
2420-2431 XIAO Yi, TANG Jia-liang, WANG Ming-kuang, ZHAI Long-bo, ZHANG Xi-feng
- Impacts of soil properties on phosphorus adsorption and fractions in purple soils**  
2432-2447 DAS Pulakesh, BEHERA Mukunda Dev, MURTHY Manchiraju Sri Ramachandra
- Forest fragmentation and human population varies logarithmically along elevation gradient in Hindu Kush Himalaya - utility of geospatial tools and free data set**  
2448-2457 Wojciech PUSZ, Anna BATURO-CIEŚNIEWSKA, Paweł ZAGOŹDŹON, Rafał OGÓREK
- Mycobiota of the disused ore mine of Marcinków in Śnieżnik Masiff (western Poland)**  
2458-2570 GAO Tan-guang, KANG Shi-chang, ZHANG Ting-jun, YANG Da-qing, SHANG Jian-guo, QIN Xiang
- Stream temperature dynamics in Nam Co basin, southern Tibetan Plateau**  
2471-2483 YANG Yong, CHEN Ren-sheng, SONG Yao-xuan, LIU Jun-feng, HAN Chun-tan, LIU Zhang-wen
- New methods for calculating bare soil land surface temperature over mountainous terrain**  
2484-2497 ZHAO Ji-xia, DAI Fu-qiang, HE Shou-jia, ZHANG Qing, LIU Gang-cai
- Spatiotemporal variation of soil organic carbon in the cultivated soil layer of dry land in the South-Western Yunnan Plateau, China**

2498-2510 CAVALLI Marco, CREMA Stefano, TREVISANI Sebastiano, MARCHI Lorenzo

**GIS tools for preliminary debris-flow assessment at regional scale**

2511-2526 ALANÍS-ANAYA Rocío Marisol, LEGORRETA-PAULÍN Gabriel, MAS Jean François, GRANADOS-RAMÍREZ Guadalupe Rebeca

**Susceptibility to gravitational processes due to land cover change in the Río Chiquito-Barranca del Muerto subbasin (Pico De Orizaba Volcano, México)**

2527-2539 Yunseon CHOE, Michael A. SCHUETT, Kyu-Won SIM

**An analysis of first-time and repeat visitors to Korean national parks from 2007 and 2013**

2540-2554 ZHANG Bai-lin, JIANG Guang-hui, CAI Wei-min, SUN Pi-ling, ZHANG Feng-rong

**Productive functional evolution of rural settlements: analysis of livelihood strategy and land use transition in eastern China**

2555-2567 ZHANG Yu-ling, ZHANG Jie, ZHANG Hong-ou, ZHANG Ruo-yang, WANG Yang, GUO Yong-rui, WEI Zong-cai

**Residents' environmental conservation behaviour in the mountain tourism destinations in China: Case studies of Jiuzhaigou and Mount Qingcheng**

2568-2580 LIU Ju, FU Bin, WANG Yu-kuan, LU Ya-feng, XU Pei

**Agricultural opportunity costs assessment based on planting suitability: a case study in a mountain county in southwest China**

2581-2588 MENG Lu-bo, LI Tian-bin, CAI Guo-jun

**Temperature effects on the mechanical properties of slates in triaxial compression test**

2589-2602 CHEN Tie-lin, ZHOU Cheng, LIU En-long, DAI Feng, LIU Jiao

**Analysis on velocity distribution and displacement along the profile of a slope using both empirical and analytical methods**

2603-2619 LEI Xiao-qin, YANG Zong-ji, HE Si-ming, LIU En-long, WONG Henry, LI Xin-po

**Hydro-mechanical analysis of rainfall-induced fines migration process within unsaturated soils**

2620-2630 CHEN Shi-hai, HU Shuai-wei, ZHANG Zi-hua, WU Jian

**Propagation characteristics of vibration waves induced in surrounding rock by tunneling blasting**

**Annual Information Collections**

2631-2652 **Acknowledgement to the Reviewers in 2017**

2653-2666 **General Table of Contents (Vol. 14, 2017)**

2667-2684 **Author Index (Vol. 14, 2017)**

<http://jms.imde.ac.cn>

E-mail: [jms@imde.ac.cn](mailto:jms@imde.ac.cn)

Tel: 028-85252044