

Vol. 16 No. 1 (2006) (2006.6.25)

巻頭言

丁子哲治：乾燥地からの便りをどう読み解くか

原著論文

繩田浩志：乾燥熱帯沿岸域の食生活 スーダン東部、紅海沿岸ベジヤ族の事例から : Beja, Coastal zones of the arid tropics, Food habit, Red sea, Sea products...1-18

韓 文軍・濱村邦夫・藤山英保・北村義信：異なる塩処理が塩生植物 *Salicornia bigelovii* の無機成分に及ぼす影響: Halophyte, Inorganic elements, *Salicornia bigelovii*, Salt clearance plants, Salt containing forage...19-24

Katsuyoshi SHIMIZU, Weidong CAO, Naoto ISHIKAWA: Comparison of Ecophysiological Characteristics between Two Types of *Salicornia* Plants in Japan Examined under Salt Treatment: Halophyte, *Salicornia europaea*, *Salicornia herbacea*, Saltwort, Salt tolerance...25-30

濱野裕之・小島紀徳・河原崎里子・高橋伸英・田原聖隆・田内裕之・江頭靖幸・齊藤昌宏・安部征雄・山田興一：乾燥地における焼成ボーキサイトの土壤改良材としての利用 : Arid land, Calcined bauxite, Carbon dioxide, *Casuarina obesa*, Soil conditioner...31-38

石山 俊：サハラ南縁地域の家庭における改良力マド 実際の使用条件下での有効性について : Deforestation, Fuel woods consumption, Improved cooking stove, Sahel-Soudan zone, Three stones stove...39-51

沙漠学会より重要なお知らせ...52

資料・報告

Tsuyoshi MATSUMOTO, Toshinori KOJIMA: Simulations of Salt Accumulation at Soil Surface under Different Annual Precipitation Amounts in Arid Leonora Area, Western Australia: Arid land, Afforestation, Carbon sequestration, Numerical simulation, Salt concentration...53-60

おあしす【学会報告／会員のページ】...pp.15

書評

甲斐憲次：吉野正敏著「歴史に気候を読む」...119-120

お知らせ...121

投稿規程・執筆要領...123-128

おあしす【学会報告／会員のページ】...pp.9

Vol. 16 No. 3 (2006) (2006.12.25)

巻頭言

安部征雄：学会誌編集に関する課題とお願い

原著論文

柴田卓弥・尾崎益雄・窪田壮邦：乾燥地・半乾燥地における排水処理装置の開発と生物化学的処理特性 : Efficient water use, Wastewater treatment, Water environment, Bio-film process, Reuse... 129-137

Maik VESTE, Thomas LITTMANN: Dewfall and Its Geo-ecological Implication for Biological Surface Crusts in Desert Sand Dunes -North-western Negev, Israel: Dew, Fog, Desert microclimate, Lichens, Cyanobacterial crusts, Nizzana...139-147

Fahmi BEN FREDI, Terence P.N. TALORETE, Yukuo ABE, Masuo OZAKI, Hiroko ISODA: Evaluation of a Domestic Wastewater Treatment System for Arid and Semiarid Lands by In Vitro Bioassays: Coolgardie wastewater treatment, In vitro bioassays, E-screen, DNA fragmentation, LDH assay, Stress response...149-156

小特集：沙漠工学分科会

Keith SMETTEM, Gabriela PRACILIO: Mapping Soil Properties for Catchment Scale Hydrologic Models using High Resolution Gamma Radiometrics...157-159

Y. YAZAWA, D. MATSUEDA, T. YAMAGUCHI, R.J. GILKES, M.T.F. WONG: Key Role of Organic Matter in Sustaining Fertility in Highly Weathered Soils...161-165

Toshinori KOJIMA, Hiroyuki HAMANO, Yukuo ABE, Hiroyuki TANOUCHI, Yasuyuki EGASHIRA, Masahiro SAITO, John LAW, Nobuhide TAKAHASHI, Koichi YAMADA: Basic Data of Research Project on Large Scale Afforestation of Arid Land for Carbon Fixation near Leonora in Western Australia...167-174

書評

平田昌弘：池谷和信著「現代の牧畜民 乾燥地域の暮らし」... 175-176

おあしす【学会報告／会員のページ】...pp.8

Vol. 16 No. 2 (2006) (2006.9.25)

巻頭言

真木太一：日本沙漠学会第4代会長の就任に当たって

展望論文

Siegmar-W. BRECKLE: Deserts and Biodiversity -Is it area- or resource-related?: Aridity, Diversity-index, Lifeform, Spatial scale, Water availability, Water budget...61-74

原著論文

西牧隆壯・堀田朋樹・下條哲成・高橋 悟：モロッコにおける伝統的水利施設ハッターラの灌漑システム - 圃場レベルでの水の有効利用 - : Khettara, Drip irrigation, Furrow irrigation, Water saving, On-farm reservoir...75-83

Yoshiaki ISHII, Keiji SAKAMOTO, Lin-he WANG, Ken YOSHIKAWA: Seasonal Changes in Pigment Composition of *Sabina vulgaris* Needles in the Mu Us Sandy Land of Northern China: Environmental stress, Evergreen, Excess light, Pigments, Semi-arid...85-93

小特集

乾燥地農学分科会：小特集 乾燥地農学分科会講演会...95-96

渡邊紹裕・星川圭介：黄河流域の大型灌区の農業用水利用...97-101

田辺輝行：JBICはNGOとの連携をどう進めるか - 中国を題材にして - ...103-107

佐野 拓・植本正明・藤沢和二郎・角張嘉孝：砂漠化対策と地球温暖化対策をどう連携させるか...109-115

質疑応答...117-118

Vol. 16 No. 4 (2007) (2007.3.25)

巻頭言

石山 隆：新疆ウイグル雑感

展望論文

齊藤忠臣・井上光弘：中国黄土高原における水食とその対策 : Loess plateau, Yellow river, Water erosion, Erosion countermeasures... 171-187

原著論文

田 少奮・高垣修司・山川修治・加藤央之：黄砂飛来の時空間構造に関する気候学的研究 : Kosa, Spatial patterns, Long-term fluctuations, Wavelet analysis, Cluster analysis...189-198

Waleed ABOU EL HASSAN, Yoshinobu KITAMURA, Hossein DEHGHANISANJ, Koji INOSAKO, Katsuyuki SHIMIZU: Effect of Drainage Water Reuse on Irrigation Efficiencies and Soil Salinity for Wheat and Maize under Different Subsurface Drainage Levels: Drainage water reuse,

Subsurface drainage, Irrigation efficiency, Soil salinity, Nile Delta...

199-211

柴田卓弥・尾崎益雄・窪田壮邦：乾燥地・半乾燥地における排水再利用による水環境整備：Wastewater treatment, Reuse, Irrigation, Toilet system...213-233

Hossein DEHGHANISANJ, Hisao ANYOJI, Hamid RIAHI, Waleed ABOU EL HASSAN: Effect of Emitter Characteristics and Irrigation Schemes on Emitter Clogging under Saline Water Use: Drip irrigation, Saline water, Emitter, Irrigation scheme...225-233
おあしそ【学会報告/会員のページ】...pp.13

Vol. 17 No. 1 (2007) (2007.6.25)

巻頭言

高橋 悟：沙漠緑化研究 17 年目

原著論文

川田清和・浦野忠朗・李 吉宰・鞠子 茂・中村 徹：モンゴル国 Kherlen Bayan-Ulaan における過放牧環境下の植物群落の種組成と地上部現存量の変動：*Artemisia adamsii*, *Artemisia frigida*, SDR₃, v'-value, Precipitation...1-10

Katsuhiro SHIONO, Yukuo ABE, Hiroyuki TANOUCHI, Hajime UTSUGI, Nobuhide TAKAHASHI, Hiroyuki HAMANO, Toshinori KOJIMA, Koichi YAMADA: Growth and Survival of Arid Land Forestation Species (*Acacia aneura*, *Eucalyptus camaldulensis* and *E. salubris*) with Hardpan Blasting: Compacted soil, Growth analysis, Interspecific difference, Water harvesting system, Western Australia...11-22

小特集

沙漠工学分科会：小特集 沙漠工学分科会第 21 回講演会...23-24
北中真人・坪井達史・西牧隆壯：JICA のネリカ (NERICA) 普及支援事業について...25-28

島田沢彦・箭内多聞・豊田裕道・田島 淳・高橋新平：衛星画像データを活用した乾燥地緑化ポテンシャルの評価...29-32

高橋 悟・北中真人・西牧隆壯・高橋新平・渡邊文雄：アフリカの水利用から見たネリカ普及の可能性...33-38

質疑応答...39-42

おあしす【学会報告／会員のページ】...pp.16

Vol. 17 No. 2 (2007) (2007.9.25)

巻頭言

豊田裕道：沙漠研究と文理融合

原著論文

道格通・天谷孝夫・敖特根・敖特根巴雅尔・劉 德福・朝倫巴根・金花・渡辺紹裕：内モンゴルオルドス市ウーシン旗における経年の植生変化に関する検討：GIS analysis, Grassland classification system, Inner Mongolia, Interannual variability of vegetation, Sustainable grassland utilization...43-54

道格通・天谷孝夫・敖特根・敖特根巴雅尔・李暢游・邢旗・金花・渡辺紹裕：内モンゴルオルドス市ウーシン旗における牧畜経営の実態分析と放牧地の持続的な利用と管理への検討：Family ranch, Grassland, Grazing system, Inner Mongolia, Sustainable management of grazing land...55-67

小特集

秋季シンポジウム実行委員会：乾燥地域の環境と農業 アジアの乾燥地域の農業、その環境と生活を考える ...69-70

平田昌弘：モンゴル中央部における宿营地の季節移動システム－モンゴル系牧畜民の定住化はあり得るのか？...71-76

島田沢彦・関山絢子・横濱道成・布和敖斯・玉木浩二：リモートセンシング画像を用いたモンゴル草地における植被率と土壤水分量の推定手法開発...77-80

石山 隆・斎藤尚広・伊東明彦・阿布都沙拉木 加拉力丁：衛星データによるタクラマカン沙漠北縁のオアシスの土地被覆変動...81-86

布和敖斯尔・繩田浩志・長澤良太・佐藤廉也・山中克典・ZHANG Wenhui・HOU Qingchun：リモートセンシング地表面パラメーターを用いた中国黄土高原『退耕還林(草)』緑化プロジェクトの生態効果の検証...87-91

油津雄夫：ホルチン沙地の緑化と北海道の森林造成...93-96

質疑応答...97-98

書評

山本太平：乾燥地研究センター監修、恒川篤史編「乾燥地科学研究シリーズ 1, 21 世紀の乾燥地科学 人と自然の持続性」...99

おあしす【学会報告／会員のページ】...pp.8

Vol. 17 No. 3 (2007) (2007.12.25)

巻頭言

山本太平：乾燥地研究を回顧する

展望論文

Jiarong GAO, Takayoshi NISHIO, Nobumasa ICHIZEN, Maik VESTE, Siegmar-Walter BRECKLE: Desertification and Rehabilitation in China -An Overview-: Dust storms, Ecological engineering, Karst, Loess, Phytomelioration...101-112

原著論文

Jining ZHANG, Kazuaki NAGASAWA, Sohzoh SUZUKI, Taku NISHIMURA, Makoto KATO: Development of Subsurface Irrigation Technology by Utilizing Ceramic Pitcher - Effect of Pressure on Soil Moisture Movement inside Ceramic Pitcher -: Ceramic pitcher, Finite elements simulation, HYDRUS-2D, Soil moisture movement, Subsurface irrigation...113-121

資料・報告

平田昌弘・Aibibula YIMAMU・Tursunay REYIM・安 沙舟・朱 進忠・花田正明・岡本明治・大久保正彦・風戸真理・本江昭夫：中国新疆ウイグル自治区昌吉市阿什里合薩克族郷における定住化政策と牧畜形態の変遷：Crop cultivation, Income increase, Sedentariness, Transhumance, Vegetation regression...123-132

小特集

乾燥地農学分科会：小特集 乾燥地農学分科会講演会...133-134

三上正男：ミクロの黄砂からマクロの地球を理解する...135-139

上原有恒・焉季 誠・神谷康雄：モンゴルにおける自立支援型黄砂発生源対策調査の実施手法...141-146

真木太一：沙漠の美しさ／脅威...147-152

質疑応答...153-154

書評

長島秀樹：三上正男著「ここまでわかった「黄砂」の正体 ミクロのダストから地球が見える」...155

おあしす【学会報告／会員のページ】...pp.13

Vol. 17 No. 4 (2008) (2008.3.25)

巻頭言

加藤 誠：学会活動としてのプロジェクト研究会創設の御願い

原著論文

高橋伸英・藤原 尚・小林 敦・福長 博・岩崎 博・小島紀徳・山田 興一：*Eucalyptus camaldulensis* の生育限界水分条件：Arid land afforestation, Critical moisture condition, *Eucalyptus camaldulensis*, Water balance, Water potential at zero turgor...157-165

A. KASIMU, L. HU, T. ISHIYAMA, R. TATEISHI: Desertification Monitoring in Region of Ebinur Lake in XinJiang Based on MODIS and NOAA Satellite Data and GIS: Desertification monitoring, Ebinur lake, GIS, MODIS, NOAA...167-175

小特集

秋季シンポジウム実行委員会：沙漠と工学...177-178

志水勝好：塩生植物とその利用...179-183

安養寺久男・安田 裕：灌漑における節水に向けて...185-188

川上 敏：緑化技術 草炭を利用する沙漠地における緑化技術の紹介...189-192

高橋 悟・鈴木伸治・渡邊文雄・北中真人・西牧隆壯：乾燥地域農業への雨水利用技術 「取って」「溜めて」「使う」技術 ...193-197

訂正記事...198

投稿規程・執筆要領...199-204

おあしす【学会報告／会員のページ】...pp.13

Vol. 18 No. 1 (2008) (2008.6.25)

巻頭言

真木太一：日本沙漠学会第4代会長の第2期就任に当たって

原著論文

- 高橋伸英・上村豪幸・北原弘道・新井親夫・福長博・田原聖隆・
小島紀徳・進藤勇治・山田興一：西オーストラリア乾燥地の土壤化学性と植生の関係...*Acacia aneura*, Arid region, Nutrient concentration, Soil chemical property, Western Australia...1-9
Kazuaki NAGASAWA, Jining ZHANG Taku NISHIMURA, Hirotaka SAITO, Makoto KATO: Impact of Pressure Heads Applied to Buried Porous Bottles on Water Supply Characteristics for Subsurface Irrigation: Air entry pressure, Evaporation, Finite difference model, Unsaturated flow ...11-20

資料・報告

- 篠田 裕・佐々木理・矢沢勇樹・松本 剛・小島紀徳：豪州乾燥地土壤での草炭混入による保水効果：Arid land, Peat, Soil, Volumetric water content, Water retention ability...21-27

小特集：日本沙漠学会2007年度秋季シンポジウム「沙漠と工学」

秋季シンポジウム実行委員会：沙漠と工学...29-30

長坂 研：風力発電技術の乾燥地への応用...31-33

田島 淳・中山夏希・鈴木伸治・渡邊文雄・関山哲雄・高橋 悟：
空気中からの取水技術の開発...35-38

黒川浩助：沙漠と太陽光発電技術...39-42

書評

吉野正敏：漆原和子ら著「図説 世界の地域問題」...43

真木太一：吉野正敏著「世界の風・日本の風」...44

おあしす【学会報告／会員のページ】...pp.12

Vol. 18 No. 2 (2008) (2008.9.25)

巻頭言

相馬秀廣：文理融合の原点に立ち帰ろう

原著論文

- 大西暁生・森杉雅史・石 峰・井村秀文・渡邊紹裕・福嶽義宏：黄河流域の農業用水効率性に関する研究：Agricultural water use efficiency, Stochastic Frontier Analysis (SFA), Yellow river basin...45-55

平田昌弘：発酵乳系列群からクリーム分離系列群への発達史論～シリアの半農半牧民の事例から～：Ancestry, Milk cultural sphere, Milk processing series, Western Asia...57-65

小特集

乾燥地農学分科会：小特集 乾燥地農学分科会講演会...67-68

藤山英保：...乾燥地での継続的実践教育 鳥取大学の取り組み ...69-72

武田絆一：電気のない村に電灯をともす学生活動 秋田県立大学ヒマラヤプロジェクト活動の紹介 ...73-76

天谷孝夫：学生と取り組む内モンゴルの砂漠化対策に関する研究活動...77-80

おあしす【学会報告／会員のページ】...pp.11

Vol. 18 No. 3 (2008) (2008.12.25)

巻頭言

片倉もとこ：総合的アプローチを！

原著論文

北中真人・堀田朋樹・西牧隆壯・鈴木伸治・島田沢彦・高橋 悟：ネ

リカ普及にむけた半乾燥地における“連結ため池灌漑システム”的適用可能性 エチオピアにおける灌漑水収支シミュレーションによる検証 ...NERICA, Reservoir, Supplemental irrigation, Semi-arid area, Water-harvesting...81-89

Mohamed A.M. ABD ELBASIT, Hisao ANYOJI, Hiroshi YASUDA, Tadaomi SAITO: Simulation of Hillslope Interrill Sediment Generation Using Two Modeling Approaches and Simulated Rainfall Experimental Data: Empirical models, Interrill erosion, Physically-based model, Rainfall simulator...91-102

小特集

沙漠工学分科会：小特集 沙漠工学分科会第22回講演会...103-104

大沼洋康・湖東 朗：シリア国における水資源の現状と節水灌漑技術 ...105-108

イスラ海提 阿不力孜・張 希明・雪合来提・田島 淳・高橋 悟：
中国新疆の沙漠化状況とその抑制方法について...109-113

鈴木伸治：東北タイにおける土壤の荒廃と修復...115-120

おあしす【学会報告／会員のページ】...pp.8

Vol. 18 No. 4 (2009) (2009.3.25)

巻頭言

篠田 裕：財務担当所感 - 日本沙漠学会創立20周年、財政健全化の道のり -

原著論文

Takuro SHOJI, Yuichi ISHIKAWA, Kiwamu SHIBA, Jun KUMAMARU, Shin HIDAKA, Satoshi MATSUMOTO: The Short Term Effects of Wheat Bran and Ripping Application on Saline Soil in Western Australia: Electric conductivity, Exchangeable sodium percentage, Enzyme activity, Soil fertility, Soil salinity...121-134

鳥日樂瑪・清水克之・北村義信・Solomon HABTU・長澤良太・Zanbin Li・Peng Li・喜多威知郎：中国・洛惠渠灌区における農地の塩類化とその対策の効果に関する考察：Arid land, Groundwater, Irrigation agriculture, Salt accumulation, Water logging...135-142

伊東明彦・石山 隆・西尾文彦・阿布都沙拉木 加拉力丁：タクラマカン沙漠北縁の塩類集積土壤の分布：Aksu oasis, NDXI, Saline deposit, Satellite remote sensing...143-157

小特集

秋季シンポジウム実行委員会：北アフリカ限界乾燥地における調査研究...159-160

中村 徹・磯田博子・Abderrazak SMAOUI・川田清和：北アフリカの森林帯概説～垂直分布と水平分布～...161-165

東 照雄・末屋早紀・Mokhtar ZARROUK・菅沼秀樹・磯田博子：チュニジアのオリーブ栽培における土壤中の金属元素量とオリーブオイル中のフェノール性化合物量...167-170

入江光輝・安部征雄・磯田博子：チュニジアの水資源とその循環利用...171-175

繁森英幸・磯田博子：未開拓生物資源由来の機能性物質の探索...177-181

山田パリーダ・韓 峻奎・磯田博子：オリーブ由来ポリフェノール成分の抗がん・抗アレルギー活性解析...183-187

川田清和・Abdelfattah EL OMRI・磯田博子：北アフリカ資源植物のデータベース化...189-192

おあしす【学会報告／会員のページ】...pp.12

Vol. 19 No. 1 (2009) (2009.6.25)

Special issue: Proceedings of Desert Technology IX

Detailed Table of Contents..i-v

Editorial...vii-viii

Welcome Address..ix

Refereed Papers (Oral Presentation)

Key Note Speech

Mary SEELY, Patrik KLINTENBERG, Johannes HENSCHEL: Learning from the Desert: Appropriate management, Communication platform, Variable environment...1-3

Session 1: Desert Energy

Keiko SATO, S. SINHA, Birendra KUMAR, T. KOJIMA: Self Cooling Mechanism in Photovoltaic Cells and Its Impact on Heat Island Effect from Very Large Scale PV Systems in Deserts: Climate change, Energy from desert, Heat island effect, Self cooling, VLSPV...5-8

Mitsuteru IRIE, Ryoji OKAWARA, Yukuo ABE: Feasibility of Wild Grass Exploitation for Bio Fuel Production: CO₂ emission, Ethanol production, Grass land, Satellite image analysis...9-12

Rajan JAYAPRAKASH, Karthiappan PERUMAL, Sanjay KUMAR, Syed MUMTAZUDDIN: Increasing Energy Efficiency of Inorganic Salt Gradient Solar Pond in Thar Desert by Inclusion of Complementary Support System: Complementary solar pond (CSP), Efficiency, Energy, Solar thermal, Storage...13-16

Shilpa CHOUDHARY, Sridhar KUMAR, Sangeeta SINHA, Sanjay KUMAR: Temperature Stabilization and Value Addition in Solar Drying of Arid Area Horticulture Products with Phase Change Materials and High Heat Capacity Materials: Arid horticulture, Latent heat storage system, Phase change material, Solar drying...17-20

Majdi HAZAMI, Sami KOOLI, Mariem LAZZAR, Abdel hamid FARHAT, Ali BELGHITH: New Solar Energy System to Provide Domestic Hot Water in Rural Housing in Tunisia: A low cost solar storage collector, Domestic hot water, Rural zone...21-24

Session 2: Stress Biology and Desert Agriculture

Hajime UTSUGI, Satoko KAWARASAKI, Shin-ichi AIKAWA, Hiroyuki TANOUCHI, Nobuhide TAKAHASHI, Hiroyuki HAMANO, Toshinori KOJIMA, Koichi YAMADA: *E. camaldulensis* Optimal Planting Density in Desert Western Australia in View of Its Photosynthetic Properties: *Eucalyptus camaldulensis*, Planting density, Photosynthesis, Photosynthetic efficiency, Semi-arid land...25-28

Sawahiko SHIMADA, Hideki YOKOYAMA, Hiromichi TOYODA, Ayako SEKIYAMA, Buhe AOSIER, Michinari YOKOHAMA: GIS Analysis of Grazing Selection by Goats in Tov Province, Mongolia: Goat, GPS, Grazing selection, Mongolia, NDVI...29-32

Katsuhiko KUROSAWA, Toshinori KOJIMA, Shigeru KATO, Hideki SUGANUMA, Satoko KAWARASAKI, Hiroyuki HAMANO, Shin-ichi AIKAWA, Hajime UTSUGI, Hiroyuki TANOUCHI, Masahiro SAITO, Adrienne KINNEAR, Koichi YAMADA: Relation between Growth of Planted Trees and Soil Chemical Properties in Afforestation Sites of Semi-arid Land, WA: Afforestation, Height growth, Soil chemical properties, Wheat belt...33-36

Yuanjie ZHAO, Xuncheng XIA: Application of *Tamarix* Cone Age Layer in Studying on Environmental Change of Arid Zone: Arid zone, Environmental change, *Tamarix* cone...37-39

Yasuyuki EGASHIRA, Yoshinori HATASA, Keisuke NISHIDA, Korekazu UEYAMA: Estimation of Climate Change Effects on Arid Land Afforestation Technologies for CO₂ Sequestration: Arid land afforestation, Carbon sequestration, Global climate change...41-43

Caroline KING, Boshra SALEM: Comparison of Biophysical Changes Affecting Oasis Ecosystems Using Remote Sensing Data and Published Local Environmental Assessments: Arid environments,

Cultivation, Landcover change, NDVI, Oasis...45-48

Mingyuan DU, Hongwu CHEN, Jiaqiang LEI, Xinwen XU, Shengyu LI, Qing HE: Observation of Effects of Tree Planting on Local Climate in the Central Part of the Taklimakan Desert, China: Local climate, Taklimakan desert, Temperature inversion, Tree planting...49-52

Nobuhide TAKAHASHI, Yasuyuki EGASHIRA, Shin-ichi AIKAWA, Toshinori KOJIMA: Woody Biomass Production by Utilizing Coppice of *Eucalyptus camaldulensis* in an Arid Area in Western Australia: Arid region, Coppicing, *Eucalyptus camaldulensis*, Western Australia...53-56

Session 3: Soil and Water Technologies Combating Desertification, Remote Sensing and GIS

Hiromu OKAZAWA, Hiromichi TOYODA, Shinji SUZUKI, Sawahiko SHIMADA, Ryuzo NISHIMAKI: Long-term-discharge Analysis Using the EPA Method for the Tana River in Kenya: Basin, Discharge, Long-term-trend analysis, Precipitation, River...57-60

Suguru KOYANAGI, Hironori TABUCHI, Hiroyuki HAMANO, Hideki SUGANUMA, Katsuhiko KUROSAWA, Toshinori KOJIMA: Runoff Model Development and Validation for Afforestation in Arid Land of Western Australia: Afforestation, DEM, Mesh size, Runoff, Simulation..61-64

Tadaomi SATO, Hiroshi YASUDA, Khumbulani DHAVU, Takayuki KAWAI, Mohamed A.M. ABD ELBASIT, Atsushi TSUNEKAWA, Shiqing LI: Relationships between Soil, Topography and Tree Growth in a Water Harvesting System in the Loess Plateau, China: Fish-scale-pit, Loess plateau, Topography, Tree growth, Water harvesting ..65-68

Yohannes GELETA, Chali EDESSA, Kozo INADA, Yoshiaki OTSUBO, Shinji SUZUKI, Hiromichi TOYODA: Conveyance and Drainage System in Spate Irrigation -A case of Boro Dodota Spate Irrigation-: Central Ethiopia, Flood, Silt sedimentation, Spate irrigation, Watershed analysis...69-72

Dalel OUCHEFANI, Hanen DHAOU, Saâdi ABDELJAOUED, Eric DELAITRE, Yann CALLOT: Radiometric Indices for Monitoring Soil Surfaces in South Tunisia: Brightness index, Color index, Normalized vegetation index, Satellite image...73-76

Session 4: Desert Human and Social Sciences Societies

Makoto KITANAKA, Ryuzo NISHIMAKI, Tatsushi TSUBOI, Shinji SUZUKI, Satoru TAKAHASHI: Poverty Alleviation through NERICA Introduction into Semiarid Sub-Saharan Africa: NERICA, Semiarid area, Sub-Saharan Africa, Uganda...77-80

Qian ZHANG, Wenjun LI: Hierarchical Framework for Rangeland Management -A Case Study in Inner Mongolia-: Equilibrium ecosystem, Hierarchical framework, Inner Mongolia, Non-equilibrium ecosystem, Rangeland management...81-84

Monty C. DOZIER, Bruce LESIKAR, Jim CATHEY, Justin MECELL, John SMITH, Barron RECTOR, Bryan DAVIS, Billy KNIFFEN: What's Old is New Again -Harvesting the Rain in Texas-: Rain, Rainwater harvesting, Water conservation...85-88

Session 5: Biotechnology

Rie UCHIDA, Junkyu HAN, Hiroko ISODA: Effect of Capsaicin on the Tight Junctional Permeability of the Human Intestinal Cells: Capsaicin, Claudin-1, Occludin, Tight junction (TJ), Transepithelial electrical resistance (TER)...89-92

Imen QUESLATI, Faouzia M. HADDADA, Issam NOUAIRI, Maria Z. TSIMIDOU, Mokhtar ZARROUK: Changes in the Biochemical Composition of the Tataouine Virgin Olive Oils During Thermal Oxidation: Antioxidant, Frying, Oxidation, Virgin olive oil...93-96

Marcos A. NEVES, Isao KOBAYASHI, Mitsutoshi NAKAJIMA: Development of Microchannel Emulsification Technology for Monodispersed

Soybean and Olive Oil-in-Water Emulsions: Microchannel emulsification, Monodisperse droplets, Olive oil, Soybean oil... 97-100

Refereed Papers (Poster Presentation)

Session 1: Desert Energy

Hilal A. BHAT, Seemin RUBAB, S.H. BALKHI, Sanjay KUMAR: Computation of Space Heating Energy Requirements and Comparative Analysis of Three Cold Desert Region of Jammu and Kashmir (India) -A Case Study for Solar System Designs:- Heating degree days, Heating load, Space heating energy, Variable base temperature...101-104

Masakazu ITO, Yuki HAMANO, Kosuke KUROKAWA: Solar Resource Potentials of a Very Large Scale PV System in Sahara Desert: Desert, Remote sensing, Satellite image, VLS-PV...105-108

Session 2: Stress Biology and Desert Agriculture

Xuncheng XIA, Yuanjie ZHAO, Qihui Ji: Recovering and Rebuilding Ecological System of Lower Reaches of Tarim River and Lop Nur Region in Xinjiang: Ecological system, Lop Nur, Recovering, Way... 109-112

Nagwa ELNISHY, Hanane ABICHOU, Mohamed LABIADH, Samy ZALAT: A Promising Vegetation Type to Sustain Development in Drylands: *Avicennia marina*, Biodiversity, Dryland development and economic values, Dune fixation...113-116

Abdelfatteh EL OMRI, Junkyu HAN, Ron HASHIZUME, Manef BEN ABDRABBAH, Hiroko ISODA: Anti-Neuronal Stress Effect of Tunisian *Rosmarinus officinalis* Extract: Acetylcholine, Neurite outgrowth, *Rosmarinus officinalis*, Stress recovery...117-120

Baby PALLAVI, Hirotaka SAITO, Makoto KATO: Estimating Depth of Influence of GPR Ground Wave in Lysimeter Experiment: Depth of influence, Dielectric constant, Ground penetrating radar (GPR), Ground wave...121-124

Hideki SUGANUMA, Masahiro SAITO, Hiroyuki TANOUCHI, Hajime UTSUGI, Yukuo ABE, Toshinori KOJIMA, Koichi YAMADA: Baseline and Stand Structural Attributes Changes in Arid Woodland Vegetation: Basal area, Biomass, Canopy cover, Leaf area index, Stand growth... 125-128

Hiroaki MOCHIZUKI, Prakash Kumar GAUTAM, Sangeeta SINHA, Sanjay KUMAR: Increasing Fertilizer and Pesticide Use Efficiency by Nanotechnology in Desert Afforestation, Arid Agriculture: Desert afforestation, Earthen pot system, Fertilizer use efficiency, Nanofertilizer...129-132

Yukako MONDA, Naoko MIKI, Ken YOSHIKAWA: Potential of Photosynthetic Characteristics in Polymorphic Leaves of *Populus euphratica* Olivier: Photosynthetic characteristic, Polymorphism, *Populus euphratica* Olivier...133-136

Yoshihiro YAMADA, Yasuto YAMAGUCHI, Jamsran UNDARMAA, Muneto HIROBE, Ken YOSHIKAWA: Environmental Factors Controlling Leaf Emergence in *Caragana microphylla*, a Deciduous Shrub of the Mongolian Steppe: *Caragana*, Phenology, Pulse-response, Unpredictable rain, Steppe...137-140

Toshinori KOJIMA, Kosuke INABA, Suguru KOYANAGI, Hideki SUGANUMA, Katuhiko KUROSAWA, Satoko KAWARASAKI, Hiroyuki TANOUCHI, Richard HARPER, Koichi YAMADA, Hiroyuki HAMANO: Improvement Effect of Semi-Arid Land Afforestation on Soil Environment: Afforestation, Carbon fixation, Groundwater, Salinization...141-144

Kotaro TAKARADA, Machito MIHARA: Enhancing Plant Residue Composting using *Bacillus* sp. in Semi-Arid Regions: *Bacillus* sp., Carbon dioxide, Compost, Methane, Plant residue...145-148

Mingyuan DU, Seichiro YONEMURA, Hiroyuki DEN, Zhibao SHEN, Yanbo SHEN: Relationship between the Climate Change and Dust Storm

Occurrence in China: Climate change, Dust storm, Regional division, Temperature increase...149-152

Afwa THAMEUR, Elkadri LEFI, Ali FERCHICHI: Comparative Response of Barley Cultivars and Varieties to Deficit Irrigation in a Mediterranean Environment: Barley, Green leaf number, Leaf area, Plant height, Water deficit...153-156

Anissa BOUBAYA, Mohamed BEN SALAH, Nidhal MARZOUGUI, Ali FERCHICHI: Pomological Characterization of the Mulberry Tree (*Morus* spp.) in the South of Tunisia: Morphological characters, Mulberry variability, South of Tunisia...157-159

Khouloud BACHAR, Mansour HADDAD, Ali FERCHICHI: Characterization of a Leguminous Plant (Green pea: *Pisum sativum* L.) and It's Impact in the Improvement of Soil's Fertility in an Arid Area in the Centre of Tunisia: Fertility, Green pea, Haddej Bouhedma, Soil...161-164

Farah BEN SALEM, Mohamed TARHOUNI, Azaiez OULED BELGACEM, Mohamed NEFFATI: Natural Vegetation Cover Dynamic under Climatic Drought and Human Disturbance in the Matmata Mountains, Southern Tunisia: Climatic drought, Desertification, Human disturbance, Plant density, Vegetation cover...165-167

Mohamed CHNITER, Serya MAALI, Mohamed HAMMADI, Touhami KHORCHANI, Harab HARAB, Riadh KRIT, Mohamed BEN HAMOUDA, Gley KHALDI, Raymond NOWAK: Effects of Dam Age, Litter Size and Gender on Birth Weight of D'man lamb -Consequence on Lamb Mortality:- Birth weight, D'man sheep, Lamb mortality...169-172

Elhem MANSOUR, Mansour HADDAD, Ali FERCHICHI: Valorization of Grapevines (*Vitis vinifera* L.) Cultivated in a Coastal Oasis: Chemical characterization, Oasis, Pomological characters, *Vitis vinifera* L.... 173-176

Hela BEN AHMED, Arafet MANAA, Ezzeddine ZID: Effect of Salicylic Acid on the Growth and Mineral Nutrition in Salt Stressed Wheat Plants: Growth, Nutrition, Salicylic acid, Salt stress, Wheat...177-180

Rim JAOUADI, Hanen MTAOUA, Mohamed BEN SALAH, Ali FERCHICHI: Pomological Characterization and Mineral Study of Fruit of Some Local and Introduced Varieties of Olive-tree (*Olea europaea* L.) Cultivated in South of Tunisia: Characterization, Fruit, Mineral, *Olea europaea*, Pomological...181-184

Elkadri LEFI, Josep CIFRE, Javier GULIAS, Hipolito MEDRANO: Drought and Defoliation Effects on Recovery of Two Mediterranean *Medicago* Shrubs: Growth, *Medicago* shrubs, Mediterranean climate...185-188

Leila LAARAYEDH, Rim LAMARI, Mokhtar ELBEKEY, Ali FERCHICHI: Mineral Analysis of Some Local Cultivars of Melon (*Cucumis melo* L.): *Cucumis melo* L., Cultivar, Melon, Mineral elements...189-192

Mabrouka ABID, Mansour HADDAD, Ali FERCHICHI: Effect of Magnesium Sulphate on First Stadium of Development of Lucerne (*Medicago sativa*) Cultivated in Gabes Oasis: Development, Germination, Lucerne, Magnesium sulphate, Production...193-195

Manel BOUDABOUS, Abessalem MRABET, Ali FERCHICHI: Mineral Characterization of Some Tunisian Apple Cultivars: Apple cultivars, Mineral composition, Tunisia...197-200

Mohsen CHAMMEM, Tim WCHER, Mohsen JARRAY, Yves HINGRAT, Rachid DHAOUI, Youssef TOUITI, Touhami KHORCHANI: Animal Diversity in the Southern Desert-Environment of Tunisia and Latest Knowledge of Most Important Species: Animal diversity, Desert, Dorcas gazelle, Houbara bustard, Slender-horned gazelle...201-204

Mokhtar ELBEKKAY, Layla LAARAYEDH, Rim LAMARI, Hamadi HAMZA, Ali FERCHICHI: Characterization of Several Local Cultivars of Watermelon Collected from Arid Region in Tunisia: Arid lands, Biodiversity, Quality, Watermelon...205-208

Hanen MTAOUA, Rim JAOUADI, Ali FERCHICHI: Study of the Morphological

- Variability of the Fruits of Some Coastal Date Palm (*Phoenix dactylifera* L.) Cultivars in Tunisian Oases: Coastal cultivars, Date palm (*Phoenix dactylifera* L.), Morphological variability, PCA analysis...209-212
- Rim LAMARI, Leila LAARAYEDH, Mokhtar ELBEKKEY, Tebra TRIKI, Leila BENYAHIA, Ali FERCHICHI: Study of the Variability between Local Melon Cultivars in Tunisia -Based on the Content of Mineral Elements in Leaves-: Analysis of variance (ANOVA), Melon, Variability, Mineral elements in leaves (Na⁺, K⁺, P)...213-216
- Rim TWITI, Mansour HADDAD, Ali FERCHICHI: The Importance of Vegetables Crops in the Oases of Gabes: Biodiversity, Oases, Vegetable crops...217-219
- Sana GHAFFARI, Nejib HASNAOUI, Ali FERCHICHI: Tunisian South Cultivated Grapevine (*Vitis vinifera* L.) -Foliar Composition on Major Mineral Elements-: Cluster analysis, Genetic diversity, Leaves mineral nutrients, PCA plot, *Vitis vinifera* L....221-224
- Sihem TALBI, Elkadri LEFI, Hanen ENNEB, Ali FERCHICHI: Effect of Soil Water Deficit on Growth and Water Use Efficiency for Three Tunisian Pastoral Species (*Lotus creticus*, *Plantago albicans* and *Rhanterium suaveolens*): Arid land, Pastoral plants, Water stress, Water use efficiency...225-228
- Zeineb KHILA, Mansour HADDAD, Ali FERCHICHI: Physical Characterization of the Main Local Legume Seeds in Oasis of Chenini: Germination, Oasis, Seed, Specific purity, Vegetable farming ...229-232
- Session 3: Soil and Water Technologies Combating Desertification, Remote Sensing and GIS**
- Antoine KARAM, Lotfi KHIARI, Alfred JAOUICH: Influence of Tailing pH on the Sorption of Copper by Sulphide Mine Tailing: Acid mine drainage, Desorption, Liming...233-236
- Wang XUEQIN, Zhang YUANMING, Zhang WEIMIN, Xu XINWEN, Fu CHUNLI: Comparison of Erodibility on Four Types Biological Crusts in Gurbantunggut Desert from Wind Tunnel Experiments: Biological crusts, Dune surface stability; Gurbantunggut desert, Threshold wind velocity, Wind erosion rate...237-240
- Girma NEGUSSIE, Hussien AMAN, Kozo INADA, Shinji SUZUKI, Hiromichi TOYODA: Trials on Hydro Meteorological Analysis for Spate Irrigation Development in Oromia, Ethiopia: Hydro-meteorological data, Land use, Semi-arid region, Spate irrigation, Watershed... 241-244
- Kozo INADA, Girma LEMMA, Tetsuji OYA, Birhanu KEBEbew, Shinji SUZUKI, Satoru TAKAHASHI: Trial on Water Saving Irrigation Farming Technology in Semi-Arid Area of Ethiopia: Crop yield, Irrigation interval, Irrigation type, Soil moisture, Water use efficiency...245-248
- Raghuvanshi RAM, J.P. SHUKLA, E. PETERS, S. CHOUDHARY, K. PRASAD: Application of Geotextiles in Erosion Control -A Field Experiment-: Fiber, Geotextiles, Runoff, Soil erosion control...249-252
- Sanjay KUMAR, Asheshwar YADAV, Toshinori KOJIMA: Management of Salinity and Afforestation by IRS 1D LISS- III Data in North Bihar, India: Afforestation, Arid area, Bihar, Remote sensing, Salinity management...253-256
- Anissa GARA, Sawahiko SHIMADA, Hiromichi TOYODA, Hiromu OKAZAWA, Shinji SUZUKI, Ahmed GHRABI: Relationship between Vegetation and Topography for an Erosion Management in Ethiopia: Digital elevation model, Tabulation, Topographic characteristics, Vegetation distribution, Watershed...257-260
- Fahmi BEN FREDI, Mitsuteru IRIE, Junkyu HAN, Parida YAMADA, Atef LIMAM, Ahmed GHRABI, Hiroko ISODA: Environmental Risk Assessment of Water Resources in Arid and Semi-arid Lands Using Bioassays Systems: Estrogenic activity, Risk assessment, Stress response, Wastewater...261-264
- Jining ZHANG, Hirotaka SAITO, Makoto KATO: Study on Subsurface Irrigation Using Ceramic Pitcher on Tomato Cultivation in Greenhouse -Effect of Water Pressure inside Ceramic Pitcher on Soil Moisture and Tomato Growth-: Ceramic pitcher, HYDRUS-2D, Subsurface irrigation, Tomato, Water pressure...265-267
- Takayuki KAWAI, Hiroshi YASUDA, Tadaomi SAITO, Yasuyuki TADA: The Influence of Sediment Heterogeneity on Percolation in Sand Dune: Lamina structure, Sediment heterogeneity, Sand dune, Soil moisture... 269-272
- Lalita SIRIWATTANANON, Machito MIHARA, Takahiko NAKAMURA, Fumio WATANABE, Satoru TAKAHASHI, Masaharu KOMAMURA: Effects of Shearing Force in Surface Runoff on Nutrient Losses from Chemical and Organic Fertilizers: Fertilizers, Granular compost, Nutrient loss, Shearing force, Surface runoff...273-276
- Machito MIHARA, Kota SHOJI, Lalita SIRIWATTANANON: Rehabilitation of Salt Affected Soils with Chemical Geo-Textile in Northeast Thailand: Chemical geo-textile, Leaching, Salt accumulation...277-282
- Mohamed A.M. ABD ELBASIT, Tadaomi SAITO, Hiroshi YASUDA, Hisao ANYOJI: Using of Close Range Photogrammetry for Interrill Soil Erosion Quantification: Digital elevation model, Interrill soil erosion, Rainfall simulator...283-286
- Mohamed KEFL, Kunihiko YOSHINO, Khemaies ZAYANI, Hiroko ISODA: Estimation of Soil Loss by Using Combination of Erosion Model and GIS -Case of Study Watersheds in Tunisia-: GIS, Soil loss estimation, Tunisia, USLE...287-290
- N. SAHO, S. YOSHIZAKI, A. MOCHIZUKI: A Proposal of a New Supply System of Fresh Water for Afforestation of the Desert in the Middle East: Afforestation, Ballast water, Fresh water...291-294
- Shinji SUZUKI, Masku DERESSA, Fumio WATANABE, Kiyoshi SHIRATORI, Iwao MATSUMOTO, Berhanu S. JABESSA, Satoru TAKAHASHI: Meteorological and Soil Characteristics in the Central Ethiopia: Central Ethiopia, Infiltration, Micro meteorology, Soil water dynamics ...295-298
- Taichi MAKI, Kazuki URAYAMA, Shinichiro YAMASHITA, Kenji WAKIMIZU, Hisashi YOSHIKOSHI: Changes of Local Meteorological Environment in particular Air Temperature at Isahaya Bay Reclamation Area as a Naked Saline Flat Land: Air temperature, Bank, Isahaya bay, Meteorological environment, Reclamation.. 299-303
- Yoshiko KAWABATA, Tsendl Ayush MUNKHJARGAL, Kunio SHIRAISHI, Masahiro NAGAI, Yukio KATAYAMA: Water Pollution in the Rivers of Northern Central Mongolia Caused by Human Activity: Ammonium, Mongolia, River, Water pollution, Zinc...305-308
- Yuzo KOBAYASHI, Shoko YATO, Tomonori FUJIKAWA, Takahiko NAKAMURA, Machito MIHARA, Masaharu KOMAMURA: Study on Stable Mulching as Effective Water Saving Practice: Stable mulching, Sub Saharan Africa, TDR, Water saving...309-312
- B. ATTOUI, A. OULED BELGACEM: The Role of Remote Sensing in the Monitoring of Arid Ecosystems Dynamics -The Case of Bouhedma National Park-: Dynamics, Ecosystems, Remote sensing, SAVI, SBI ...313-317
- Bouajila ESSIFI, Mohamed OUESSAR, Mohamed Chedly RABIA: Mapping Long-Term Variability of Vegetation Greenness and Sand Dunes around Watering Points in the Rangelands of Dahar and El Ouard (Tunisia) during the Period 1975-2000 through Remote Sensing Data: Change detection, Desertification, Rangelands, Remote sensing, Watering points..319-322
- Cherifa FDHIL, Abdessatar HATIRA, Tahar GALLALI, Houcine TAAMALLAH:

- Water Management and Salinisation in Irrigated Areas -A Case Study of Sidi Sallem Oasis in the Southeast of Tunisia:- Drainage, Groundwater, Irrigation, Oasis, Soil salinity...323-326
- Raja DAKHLI, Houcine TAAMALLAH, Kamel NAGAZ, Ridha LAMOURI: Olive Mill Waste Water Valorisation in Agriculture -Effects on the Soil Proprieties and Barley Yield:- Barley, Olive mill wastewater, Seed yield, Soil, Valorisation...327-330
- Hanen DHIAOU, Dalel OUCHEFANI, Houcine TAAMALLAH, Gabriels DONALD, Mohamed OUESSAR: Drought Impact on the Olive-Trees in the Tunisian Jeffara: Arid areas, Drought indices, Olive trees... 331-334
- Ibtissem ENNEB, Houcine TAAMALLAH, Abdessatar HATIRA: Impact of Irrigation with Saline Water on Soil and Crop Yields -El Fjé Region Medenine-: Arid climate, Barley, Brackish water, Irrigation techniques, Soil salinity...335-338
- Mongi BEN ZAIED, Mohamed Osman ARNOUS, Mohamed Ahmed SIDI CHEIKH, Riadh ALIOUT, Rabah HADJ ALI, Yassine GAROUNI, Saleh SID, Francisco MUNTONI: The Use of Remote Sensing and GIS to Map Unstable Sand Dunes -A Case Study in the Oudia Area of Tunisia:- Desertification, Quick Bird, Remote sensing, Tozeur... 339-342
- M. ABICHOU, M. LABIADH, W. CORNELIS, D. GABRIELS, B. BEN ROUINA, H. TAAMALLAH, H. KHATTELI: The Olive Mills Waste Water (OMW) as an Organic Amendment for Controlling Wind Erosion in Southern Tunisia by Improving the Soil Surface Structure: Aggregates, Friction velocity, Olive mills waste water, Organic matter, Tunisia...343-346
- Takuro SHOJI, Yuichi ISHIKAWA, Jun KUMAMARU, Kiwamu SHIIBA, Toshinori KOJIMA, Satoshi MATSUMOTO, Shin HIDAKA: The Short Term Effects of Organic Matter and Ripping on Degraded Soil in Western Australia: Acid phosphomonoesterase activity, Available potassium, ECe, Ripping application, Wheat bran application... 347-350
- Session 4: Desert Human and Social Sciences Societies**
- Masku DERESSA, Kiyoshi SHIRATORI, Iwao MATSUMOTO, Berhanu S. JABESSA, Shinji SUZUKI, Yukimitsu KOBAYASHI, Satoru TAKAHASHI: Approaches of Agroforestry Management in the Central Ethiopia: Agroforestry, Ethiopia, Micro meteorology, Participatory approaches of farmers, Rift valley area...351-354
- Hanane ABICHOU, Mohamed LABIADH, Nagwa ELNWISHY: Tunisian Case of Desert Valorisation for Promoter Enduring Development of Competence: Arid and desert territories, Enduring development, Indicators, Saharan tourism...355-358
- Mohamed Amir BOUZAIDA, Luisa María FRUTOS MEJIAS: Dry Lands Development in Mediterranean Countries -Similarities between Tunisia and Spain:- Depopulation, Dry lands, Durability, Local development, Mediterranean countries...359-362
- Mohamed JAOUAD, Amor TBIB: Economical and Ecological Assessment for Sustainable Pastoral Land Development in Arid Tunisia: Breeders, Livestock, Menzel Habib, Observatory, Pasture area...363-365
- Session 5: Biotechnology**
- Junkyu HAN, Terence P.N. TALORETE, Parida YAMADA, Hiroko ISODA: Anti-Proliferative and Apoptotic Effects of Oleuropein and Hydroxytyrosol on Human Breast Cancer MCF-7 Cells: Apoptosis, Hydroxytyrosol, MCF-7 cells, Oleuropein...367-370
- Imen OUESLATI, Mokhtar GUERFEL, Hédia MANAI, Douja DAOUD, Jacinto SANCHEZ, Mokhtar ZARROUK: Derivatives of the UV Absorption Spectra, ECN Groups, and Phytosqualene Contents in Virgin Olive Oils from Varieties Grown in the Extreme Conditions of Tataouine Region (Southern Tunisia): ECN groups, Phytosqualene, UV derivative spectrophotometry, Virgin olive oil...371-374
- Kenichi KASHIWAGI, Hiroko ISODA, Junkyu HAN, Mitsuteru IRIE, Hiroshi NABETANI, Mitsutoshi NAKAJIMA: Advanced Processing of Useful Food Material for the Establishment of a Regional Development Model in Arid Areas: Bioassay screening system, Effective use of useful bio-resources, Efficient distribution, Food processing, Regional development...375-378
- M'hammed EHSINE, Mohamed Sadok BELKADHI, Mohammed CHAEIB: Bio-ecologic Observations on Rhinoceros Beetle *Oryctes agamemnon* (Burmeister 1847) on the Palm Dates Oasis of Rjim Maatoug in South-western Tunisia: Adult activity, Date palm, Larva, Manure, *Oryctes agamemnon*...379-382
- Rieko IIJIMA, Parida YAMADA, Junkyu HAN, Hideyuki SHIGEMORI, Hiroko ISODA: Anti-allergic Effect of Acteoside Derived from Arid Land Plant *Cistanche tubulosa*: β -hexosaminidase, Basophil cells, *Cistanche tubulosa*, Phenylethanoid glycosides...383-386
- Kyoko MATSUYAMA, Yusaku MIYAMAE, Yukiko SEKII, Junkyu HAN, Manef ABDERRABBA, Takahiro MORIO, Hideyuki SHIGEMORI, Hiroko ISODA: Effect of Mediterranean Medicinal Plant Extracts on Melanogenesis Regulation: B16 melanoma, Mediterranean medicinal plant, Melanogenesis...387-390
- おあしす【学会報告/会員のページ】...pp.14**
- Vol. 19 No. 2 (2009) (2009.9.25)**
- 巻頭言**
西牧隆壯：アフリカの農業・農村開発に向けて
- 原著論文**
Muhtar SADER・愛知正温・島田 清・加藤 誠：トルファン盆地における帶水層の季節地下水位変動とカレーズ暗渠内水位変動：Ground water level, Karez, Saturated and unsaturated consolidation analysis, Simulation...391-402
- 平田昌弘・岸川沙織・近藤昭彦・中山 勤・開発一郎・Batmunkh DAMDIN・本江昭夫：モンゴル高原中央部における植物の生育に影響を及ぼす自然環境の諸要因の分析：Mongolian plateau, Native plant, Plant growth, Soil temperature and moisture, Weather condition..403-411
- Shinya FUNAKAWA, Miwa KANETANI: Chemical Composition of Water from Different Origins in Kutch District, Western India: Geochemical factor, Human activities, Kutch, Soluble salts, Water quality...413-422
- 資料・報告**
平賀義彦・石川祐一・松本 智：軽量培土の乾燥地適用性：Available moisture, Anti-saline material, Coarse textured substrate, Roof-top greening, Time Domain Reflectometry (TDR)...423-431
- 小特集**
乾燥地農学分科会：小特集 乾燥地農学分科会講演会...433-434
永野正展：森林資源のエネルギー化による持続可能な地域経営へ
高知県における加温ハウス農業を事例として ...435-439
岡本拓司：科学技術と社会の間で起こること 明治の日本の経験から ...441-446
河村 愛：持続可能なバイオ燃料生産とプログラム型 CDM の可能性 ...447-451
- 書評**
平田昌弘：篠田雅人編著「乾燥地の自然」...453-454
- 投稿規程・執筆要領...455-460**
- おあしす【学会報告/会員のページ】...pp.7**

Vol. 19 No. 3 (2009) (2009.12.25)

巻頭言

吉川 賢：海辺のラクダ

展望論文

鷲尾惟子：ウイグル人に見る民間歌曲と地域的多様性への意識：Folk song, Local diversity, Music, Xinjiang (Xinjiang), Uyghur...461-473

原著論文

郝 愛民・原口智和・藤原洋一・渡邊紹裕・中野芳輔：中国科爾沁沙地における植林地の土壤水分環境の定量化：Compartment model, Plant coefficient, Poplar planting, Water consumption...475-482

Fang SHI, Parida YAMADA, Junkyu HAN, Yukuo ABE, Tamao HATTA, Mingyuan DU, Taichi MAKI, Hisashi YOSHIKOSHI, Kenji WAKIMIZU, Hiroko ISODA: Detection of Foot and Mouth Disease Virus in Yellow Sands Collected in Japan by Real Time Polymerase Chain Reaction (PCR) Analysis: Agarose gel electrophoresis, Foot and mouth disease virus, Real time PCR analysis, Yellow sands, 3Dpol amplification...483-490

Shin-ichi AIKAWA, Satoko KAWARASAKI, Hiroyuki HAMANO, Hideki SUGANUMA, Hajime UTSUGI, Masahiro SATO, Hiroyuki TANOUCHI, Toshinori KOJIMA: Verification of the Effect of Afforestation with *Eucalyptus camaldulensis* as a Countermeasure against Salinity of Abandoned Farmland in Western Australia: Afforestation, Environmental restoration, *Eucalyptus camaldulensis*, Sap flow, Water use ...491-499

小特集

沙漠工学分科会：小特集 沙漠工学分科会第23回講演会...501-502

Toshio HARA: Development of Water Absorbent Polymers Prepared from Biomass Wastes by Electron Beam-Irradiation...503-505

高橋新平・渡邊文雄・鈴木伸治・高橋 悟：西オーストラリア州における Salt grass (*Distichlis spicata*) の塩分対応性...507-511

質疑応答...513

おあしす【学会報告／会員のページ】...pp.8

Vol. 19 No. 4 (2010) (2010.3.25)

巻頭言

渡邊紹裕：沙漠の水田

展望論文

山田パリーダ・磯田博子・安部征雄：黄砂発生における微生物及びアレルゲン物質の輸送：Allergen, Microbiology, Yellow Sand...515-524

原著論文

関山絢子・島田沢彦・豊田裕道・横濱道成：可視・近赤外域分光反射特性を用いた土壤含水比推定：Pattern decomposition method, Remote sensing, Soil water content, Spectral reflectance, Visible and near infrared wavelength...525-535

石井智美：モンゴル遊牧民の食の変容 1 家庭の事例から：Dairy products, Flour, Food survey, Kumys, Mongolian nomads...537-543

鳥日凜瑪・北村義信・長澤良太・清水克之・喜多威知郎：中国・内モンゴル自治区バインタラ地域における沙漠化の変遷についての考察 衛星画像データの解析による：Desertification, Human activities, Land use policy, Livestock farming, Vegetation cover ratio ...545-555

資料・報告

Yoshihisa ZAITSU, Hisashi KOBAYASHI, Shigeru TAKAGI: Agricultural Activity and Estimation of Resource Flow in Oasis in Mauritania: Mauritania, Oasis, Resource flow, Sustainability...557-568

小特集

乾燥地農学分科会：小特集 乾燥地農学分科会講演会...569-570

大賀圭治：激動する世界の食料需給...571-574

志和地弘信：アフリカにおける降雨変動リスクとイモ類生産...571-574

半澤和夫：ダンボ資源の利用と農業変化 ザンビア中央州C村の18年間 ...579-583

おあしす【学会報告／会員のページ】...pp.16

Vol. 20 No. 1 (2010) (2010.6.25)

巻頭言

尾崎益雄：沙漠の排水処理

展望総説

真木太一・青木正敏・礒田博子：黄砂の地球規模循環の解明とその影響対策：Air pollutant, Global Circulation, Proposal report of countermeasure, Science Council of Japan, Yellow Sand…1-13

原著論文

Yueru WU, Daisuke YASUTAKE, Weizhen WANG, Tetsuo KOBAYASHI: Soil and Water Salinization and Sodification in Fields Irrigated with Water from the Yellow River in a Semiarid Region: Evapotranspiration, Irrigation, Macropore flow, Salt-affected land, Yellow River…15-25
宇都木玄・菅沼秀樹・山ノ下（山田）麻木乃・田内裕之・相川真一・小島紀徳・森川 靖：*Eucalyptus camaldulensis* のアロメトリー関係—オーストラリア半乾燥地とベトナム熱帯モンスーンのデータを用いて—：Allometric equation, Australia, Biomass, *Eucalyptus camaldulensis*, Viet Nam…27-33

短報

安田 裕・齊藤忠臣・Khumbulani DHAVU・河合隆行・安養寺久男・Mohamed Abd Elbasit MOHAMED AHMED：極乾地エジプトの降水量時系列について：Akaike Information Criterion, Egypt, Precipitation, Period, Time series…35-40

小特集

秋季シンポジウム実行委員会：日本沙漠学会 2009 年度秋季シンポジウム…41-42
星野仏方・賽西雅拉図・佐藤 藍・中村修平：中国・内モンゴルにおける草原の沙漠化と綠化をめぐって…43-48
北川秀樹：中国の退耕還林政策の成果と課題—陝西省黃土丘陵を中心にして…49-54
高橋 悟・鈴木伸治・高橋新平・田島 淳・渡邊文雄：乾燥地の水利と綠化技術…55-61
山口達夫：中国・内モンゴルでの沙漠綠化活動の実践とその成果について…63-66
投稿規程…67-72
おあしす【学会報告／会員のページ】…pp.17

Vol. 20 No. 2 (2010) (2010.9.25)

巻頭言

井上光弘：「いい環境」をハイテクで

創立 20 周年記念特集：日本沙漠学会創立 20 周年記念式典記念講演

吉野正敏：日本人の沙漠認識・体験・研究の歴史…73-84

原著論文

石本雄大：半乾燥地域における生存戦略としての食料消費システム - サヘル地域における農牧民の実態調査分析をもとに - :Food consumption system, Food leveling, Livelihood unit, Sahel, Semiarid area…85-95

東野英昭・尾崎益雄・Mursan ANWAR：簡易バイオガスプラントによる開発途上国村落の生活環境整備 - インドネシア国、西ヌサセニガラ州での小規模家畜飼養農家の事例より - : Biogas, Developing countries, Environmental preservation, Livestock, Rural development…97-107

入江光輝・大川原良次・荒巻俊也・安部征雄：現地に自生する雑草を活用したオンラインバイオマス発電によるバイオ燃料生産の高効率化：Bio ethanol, CO₂ emission, Grass land, Biomass power generation…109-117

資料・報告

韓 文軍・濱村邦夫・小島紀徳・楊 劍・王育青・蘇 和：8 年および

15 年の禁牧がシリンゴル草原の植生および土壤養分の回復に及ぼす効果：Inner Mongolia, Plant biomass vegetation, Soil nutrient, Suspension of grazing…119-123

小特集

沙漠工学分科会：沙漠工学分科会第 24 回講演会…125-126
堀田朋樹・北中真人・鈴木伸治・渡邊文雄・高橋 悟：エチオピアにおける“連結ため池灌漑システム”的実証調査…127-131
稻田幸三：エチオピアにおけるウォーターハーベスティングと灌漑技術 - オロミア州中部半乾燥地帯を中心にして - …133-137
穂坂 賢・館 博・今井なぎさ・安藤達彦：新しい素材を活用した発酵調味料の開発 - エチオピアにおける一試み - …139-143
北中真人：サブサハラアフリカへのネリカの導入にかかる水利用からみた課題…145-146
質疑応答…147-148
おあしす【学会報告／会員のページ】…pp.10

Vol. 20 No. 3 (2010) (2010.12.25)

巻頭言

牛木久雄：変わりゆく世界と、沙漠研究そして日本沙漠学会

紙碑

吉野正敏：小堀 巍、初代日本沙漠学会会長の逝去を悼む…149-150

原著論文

北中真人・堀田朋樹・中村謙仁・鈴木伸治・西牧隆壯・高橋 悟：ウォーター・ハーベスティングの集水特性についてのエチオピアでの実証的検討 - ネリカ普及にむけた半乾燥地における“連結ため池灌漑システム”的適用可能性 (2) - : NERICA, Reservoir, Run-off rate, Semi-arid area, Water-harvesting…151-158
Yuchi ISHIKAWA, Takeshi ISHIKAWA, Takuro SHOJI, Ying JIANG, Shi-Quan NIU and Satoshi MATSUMOTO: Soil Salinity Properties under Halophyte Patches and the Possibility of Phytoremediation in the Huanghe River (Yellow River) Delta in P. R. China: Electrical conductivity, Halophytes, Suaeda salsa, Tamarix chinensis Lour…159-165

短報

Osamu HINOKIDANI, Jinbai HUNG, Hiroshi YASUDA, Yuki KAJIKAWA, Dhavu KHUMBULANI and Shiqing LI: Annual Water Balance of a Small Basin in the Northern Loess Plateau in Chin: Annual water balance, Liudaogou basin, Loess Plateau, Water resources…167-172

Osamu HINOKIDANI, Jinbai HUNG, Hiroshi YASUDA, Yuki KAJIKAWA, Dhavu KHUMBULANI and Shiqing LI: Study on Surface Runoff Characteristics of a Small Ephemeral Catchment in the Northern Loess Plateau, China: Liudaogou catchment, Loess Plateau, Rainfall intensity, Runoff generation, Runoff rate…173-177

書評

真木太一：吉野正敏著「地球温暖化時代の異常気象」…179-180

おあしす【学会報告／会員のページ】…pp.18

Vol. 20-4 (2011.3.25)

巻頭言

小島 紀徳：気候変動と「沙漠を森に」

創立 20 周年記念特集：日本沙漠学会創立 20 周年記念式典 記念講演

門村 浩：地球変動の中の乾燥地 - アフリカからの報告 - …181-188
原著論文
Abdelmoneim Abdelsalam MOHAMED, Reiji KIMURA and Masato SHINODA : Integrating Meteorological and MODIS Land Surface Temperature Data for Large-scale Moisture Availability Assessment in the Loess Plateau of China…189-199

短報

鈴木伸治・田島 淳・真田篤史・渡邊文雄・高橋 悟・関山哲雄：熱電対用小型データロガーを用いた地中熱流量および純放射量の測定とエチオピア国中央部での利用…201-206
小特集：沙漠工学分科会第24回講演会
概要…207-208
實野孝久：太陽熱を利用した減圧蒸溜法による海水淡水化装置…209-212

岩本 彰・滝川永一・宿谷数光・佐藤総成：コンゴ民主共和国の水資源と復興支援…213-217
高橋 悟・鈴木伸治・北中真人・西牧隆壯・渡邊文雄：水利用から見たアフリカ天水農業の改善と展開…219-226
質疑応答…227
おあしす [学会報告／会員のページ] …pp.10