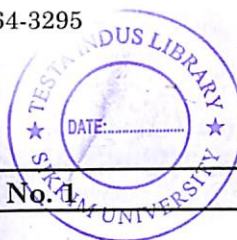


TROPICAL ECOLOGY

Volume 58, Number 1, 2017

INTERNATIONAL SOCIETY FOR TROPICAL ECOLOGY
Department of Botany, Banaras Hindu University, Varanasi



CONTENTS

- Arshad Ali & En-Rong Yan** – Relationships between biodiversity and carbon stocks in forest ecosystems: a systematic literature review 01
- R. P. Yadav, J. K. Bisht & J. C. Bhatt** – Biomass, carbon stock under different production systems in the mid hills of Indian Himalaya 15
- A. Thokchom & P. S. Yadava** – Biomass, carbon stock and sequestration potential of *Schizostachyum pergracile* bamboo forest of Manipur, north east India 23
- Niyati Naudiyal, Joachim Schmerbeck & Stefanie Gärtner** – What influences the plant community composition on Delhi ridge? The role played by *Prosopis juliflora* and anthropogenic disturbances 33
- Maria a. Minor, Sergey G. Ermilov, Alexander E. Anichkin** – Biodiversity of soil oribatid mites (Acari: Oribatida) in a tropical highland plateaux, Bi Doup–Nui Ba National Park, Southern Vietnam 45
- Daudi j. Msangameno, Narriman S. Jiddawi & Saleh A. Yahya** – An update on the status of mangrove forests in the western coast of Unguja Island, Tanzania: a rural vs peri-urban comparison 57
- Andrew m. Kittle, Anjali C. Watson & T. Saminda P. Fernando** – The ecology and behaviour of a protected area Sri Lankan leopard (*Panthera pardus kotiya*) population 71
- Flávia Carolina Simões-Gomes, Yrllan Ribeiro Sincurá & Ricardo Andrade Barata** – Diversity of phlebotomine sand flies (Diptera, Psychodidae) in Brazilian 'Campo rupestre' vegetation of the Espinhaço Range, Minas Gerais, Brazil 87
- Tran Van Do, Tamotsu Sato, Vo Dai Hai, Nguyen Toan Thang, Nguyen Trong Binh, Nguyen Huy Son, Dang Van Thuyet, Bui The Doi, Hoang Van Thang, Trieu Thai Hung, Tran Van Con, Osamu Kozan, Le Van Thanh, Ngo Van Cam** – Aboveground biomass and tree species diversity along altitudinal gradient in Central Highland, Vietnam 95
- S. K. S. Jamatia & P. S. Chaudhuri** – Earthworm community structure under tea plantations (*Camellia sinensis*) of Tripura (India) 105
- Abolghasem Khaleghizadeh & Shahrul Anuar** – Factors Affecting Nest-site Selection of the White-Bellied Sea Eagle *Haliaeetus leucogaster* (Gmelin, 1788) in Coastal Rainforests, Peninsular Malaysia 115
- Denys Uzcátegui, Jorge Luis Ávila Núñez, Miguel E. Alonso-Amelot** – Rapid adaptation of Neotropical *Oncopeltus semilimbatus* (Hemiptera; Lygaeidae) to *Gomphocarpus fruticosus*, (Apocynaceae, Asclepiadoideae), an introduced African host, in the northern Andes, Venezuela 127
- G. Areendran, Krishna Raj, Sraboni Mazumdar & Ankita Sharma** – Land use and land cover change analysis for Kosi River wildlife corridor in Terai Arc Landscape of Northern India: Implications for future management 139

- Gabriela Correia Araujo Da Cruz, José Antonio Pimenta, Eloísa De Souza Carvalho, Daniel Caratti, Ana Paula Pavanelli, Ana Verginia L. Messetti & Edmilson Bianchini** – The population dynamics of *Astronium graveolens* Jacq. differ between topographically distinct areas in South Brazil 151
- Satish Kumar Sinha, R. Vijendra Rao & M. S. Deepak** – Influence of climate on the total vessel lumen area in annual rings of teak (*Tectona grandis* L.f.) from Western Ghats of Central Karnataka, India 167
- M. R. Che Salmah, A. Z. Siregar, A. Abu Hassan & Z. Nasution** – Dynamics of aquatic organisms in a rice field ecosystem: effects of seasons and cultivation phases on abundance and predator-prey interactions 177
- Sylvain Boisson, William Ortmans, Justine Maréchal, Marie Majerus, Grégory Mahy & Arnaud Monty** – No copper required for germination of an endangered endemic species from the Katangan Copperbelt (Katanga, DR Congo): *Diplolophium marthozianum* 193
- Partha Pratim Bhattacharjee & D. C. Ray** – Effect of season on the development of Rice hispa, *Dicladispa armigera* in Barak Valley of Assam 199
- Estevao Alves-Silva, Alexandra Bächtold & Kleber Del-Claro** – Florivorous caterpillars act as ecosystem engineers and provide a cool microhabitat for thrips in *Peixotoa tomentosa* (Malpighiaceae) 205
- Uma Shankar, D. P. Abrol, Debjyoti Chatterjee & S. E. H. Rizvi** – Diversity of native bees on *Parkinsonia aculeata* L. in Jammu region of North-West Himalaya 211

CONTENTS

- M. Gxasheka, Solomon T. Beyene, N. L. Mlisa & M. Lesoli** – Farmers' perceptions of vegetation change, rangeland condition and degradation in three communal grasslands of South Africa 217
- Unique N. Keke, Francis O. Arimoro, Yohanna I. Auta & Adesola V. Ayanwale** – Temporal and spatial variability in macroinvertebrate community structure in relation to environmental variables in Gbako River, Niger State, Nigeria 229
- Geeta Joshi, S. S. Phartyal & Arunkumar, A. N.** – Non-deep physiological dormancy, desiccation and low-temperature sensitivity in seeds of *Garcinia gummi-gutta* (Clusiaceae): A tropical evergreen recalcitrant species 241
- Roksana Majewska, Aimimuliani Adam, Normawaty Mohammad-Noor, Peter Convey, Mario De Stefano, David J. Marshall** – Spatio-temporal variation in phytoplankton communities along a salinity and pH gradient in a tropical estuary (Brunei, Borneo, South East Asia) 251
- S. M. Maqsood Javed, Mithun Raj & Sunil Kumar** – Predicting Potential Habitat Suitability for an Endemic Gecko *Calodactylodes aureus* and its Conservation Implications in India 271
- Youqing Chen, Siming Wang, Zhixing Lu & Wei Zhang** – Ant community dynamics in lac insect agroecosystems: conservation benefits of a facultative association between ants and lac insects 283
- Ravi Ramalingam & Priyadarsanan Dharma Rajan** – Effects of various urban land-uses on the epigeic beetle communities in Bangalore city, India 295
- Hitendra Padalia, Kamal Pandey & R. A. Arumugam** – Development of a web-enabled spectral data archival, visualisation and analysis architecture for tropical phytodiversity inventory 307
- S. Jeyakumar, N. Ayyappan, S. Muthuramkumar & K. Rajarathinam** – Impacts of selective logging on diversity, species composition and biomass of residual lowland dipterocarp forest in central Western Ghats, India 315
- Huiqing Han & Yuxiang Dong** – Assessing and mapping of multiple ecosystem services in Guizhou Province, China 331
- Gaylad K. Muchayi, Edson Gandiwa & Never Muboko** – Composition and structure of woody vegetation in an urban environment in northern Zimbabwe 347
- Swapna Mahanand, Mukunda Dev Behera & Partha Sarathi Roy** – Plant dispersal profile of Indian tropical sub-continent on the basis of species commonality 357
- Michael J. Reyes, Philip E. Van Beynen & Mark R. Hafen** – An experimental study of the utility of adventitious roots for determining the hydroperiod in isolated wetlands 369
- Kadiri Serge Bobo, Towa Olivier William Kamgaing, Chia Bonito Ntumwel, Djafsia Kagalang, Nghoueda Jean Paulin Kengne, Fodjou Florence Mariam Aghomo & Mekongo Laurent Serge Ndengue** – Large and medium sized mammal species association with habitat type in Southeast Cameroon 379

SUBSCRIBED



- A. Thokchom & P. S. Yadava – Biomass and carbon stock along an altitudinal gradient in the forest of Manipur, Northeast India 389
- Anup Kumar Das, Lal Bihari Singha & Mohammed Latif Khan – Community structure and species diversity of *Pinus merkusii* Jungh. & de Vriese forest along an altitudinal gradient in Eastern Himalaya, Arunachal Pradesh, India 397
- Biplab Baboo, R. Sagar, S. S. Bargali & Hariom Verma – Tree species composition, regeneration and diversity of an Indian dry tropical forest protected area 409
- Valère K. Salako, Thierry H. Houéhanou, Kowiyou Yessoufou, Achille E. Assogbadjo, Akpovi Akoègninou & Romain L. Glèlè Kakaï – Patterns of elephant utilization of *Borassus aethiopum* Mart. and its stand structure in the Pendjari National Park, Benin, West Africa 425
- Pankaj Panwar, Sanjeev Chauhan, Rajesh Kaushal, Dipty K. Das, Ajit, Gurveen Arora, Om Prakesh Chaturvedi, Amit Kumar Jain, Sumit Chaturvedi & Salil Tewari – Carbon sequestration potential of poplar-based agroforestry using the CO2FIX model in the Indo-Gangetic Region of India 439
- K. M. Aarif, K. Shanij, T. C. Rubio, P. C. Rajeevan & M. Polakowski – Population trend of wintering terns at a stop-over site in Central Asian Flyway with special reference to the decline of Sandwich Tern 449

CONTENTS

<i>Review Paper</i>	Page No.
Pratiksha Patnaik, Tasneem Abbasi & S. A. Abbasi – <i>Prosopis (Prosopis juliflora)</i> : blessing and bane	455
 <i>Research Papers</i>	
Mohamed Amar Naqqiuddin, Muna A. Omar Abdel Kader, Norsalwani Muhamad Nor, Norhafizah Osman, Shamarina Shohaimi, Shahrizim Zulkifly, Hishamuddin Omar & Ahmad Ismail – Comparison of phytoplankton diversity and succession between two small man-made lakes in Serdang, Selangor	485
Julien Kouadio N'dri, Serge Demeango Zon, Jérôme Ebagnérin Tondoh & Jan Lagerlöf – Changes in mite richness and diversity along a gradient of land-use intensity from mid-west Ivory Coast	497
Akram Ahmed, J. M. S. Tomar, H. Mehta, R. Kaushal, Dibyendu Deb, O. P. Chaturvedi & P. K. Mishra – Throughfall, stemflow and interception loss in <i>Grewia optiva</i> and <i>Morus alba</i> in north west Himalayas	507
Surrya Khanam, Muhammad Mushtaq, Amjad Rashid Kayani, Muhammad Sajid Nadeem & Mirza Azhar Beg – Small mammal community composition and abundance in rural human habitations of Pothwar, Pakistan	515
Subhajit Das, Dipnarayan Ganguly, Tapan Kumar Jana, Tarun Kumar De – Microbial activity determining soil CO ₂ emission in the Sundarban mangrove forest, India	525
K. Anil & N. Parthasarathy – Flower traits of plant species and floral resource users in tropical dry evergreen forest on Coromandel Coast of India	539
H. S. Suresh, D. M. Bhat, N. H. Ravindranath & R. Sukumar – Carbon stocks and sequestration potential of Indian Mangroves	547
Isau Huamantupa-Chuquimaco, Miguel A. Luza-Victorio, Reynaldo Linares-Palomino & Efrain Molleapaza-Arispe – Woody plant diversity in the seasonally dry tropical forests of the Urubamba valley, a threatened biodiversity hotspot in southern Peru	555
Pooja Arora & Smita Chaudhry – Dependency of rate of soil respiration on soil parameters and climatic factors in different tree plantations at Kurukshetra, India	573
Tafadzwa P. Nyazika, Patience Zisadza-Gandiwa, Admire Chanyadura, Never Muboko & Edson Gandiwa – Influence of fire frequency on woody vegetation structure and composition in Lake Chivero Recreational Park, northern Zimbabwe	583
P. Vivek & N. Parthasarathy – Patterns of tree-liana interactions: distribution and host preference of lianas in a tropical dry evergreen forest in India	591
S. Yilmaz, A. Ayvaz & U. Azizoglu – Diversity and distribution of cry genes in native <i>Bacillus thuringiensis</i> strains isolated from wild ecological areas of East-Mediterranean region of Turkey	605
Rahul Bhadouria, Rishikesh Singh, Pratap Srivastava, Sachchidanand Tripathi & A. S. Raghubanshi – Interactive effect of water and nutrient on survival and growth of tree seedlings of four dry tropical tree species under grass competition	611
Jamie D. Hoover, Sunil Kumar, Shelley A- James Stephen J. Leisz & Melinda LAITURI – Modeling Hotspots of Plant Diversity in New Guinea	623
Edgar G. Leija-Loredo & Numa P. Pavón – The northernmost tropical rain forest of the Americas: Endangered by agriculture expansion	641
Ademir Sérgio Ferreira De Araújo, Sandra Mara Barbosa Rocha, Vilma Maria Dos Santos, Rajeev Pratap Singh, Radomir Schmidt & Kate M. Scow – Abundance of ammonia-oxidizing organisms across a gradient of preserved Brazilian Cerrado	653

Short Communications

- C. Ankalaiah T. Mastan & M. Sridhar Reddy** – Observations on re-sprouting as regeneration strategy in *Pterocarpus santalinus* (Red sanders) – an endemic tree in dry deciduous forests of Sri Lankamalla wild life sanctuary, southern Eastern Ghats 663
- Roland Kirschner, Rosa V. Villarreal S. & Juan A. Bernal Vega** – First record of association of gall midges (Cecidomyiidae, Diptera) with a slime mold (*Fuligo candida*, Myxomycetes) in the tropics 667
- Ana Carolina Srbek-Araujo, Cristina Jaques Da Cunha & James Joseph Roper** – Post-dispersal seed predation by Atlantic Forest squirrels monitoring lowland tapir latrines 673



CONTENTS

	Page No.
<i>Research Paper</i>	
Two principal precipitation regimes in Himalayas and their influence on tree distribution—Surender Pratap Singh, Ripu Daman Singh, Surabhi Gumber & Sparsh Bhatt	679
Marked reproductive plasticity in response to contrasting fire regimes in a neotropical palm—Linton Lee Arneaud, Aidan D. Farrell & Michael P. Oatham	693
Root exudates reduce electrical conductivity and water potential of rhizospheres and facilitate non-halophytes to survive in dry land saline soils—C. B. Pandey, Praveen Kumar & S. K. Chaudhari	705
Modelling photosynthetic rates of Indian red mangroves (<i>Rhizophora mucronata</i> Poir.) to climatic factors—Tanumi Kumar, T. V. R. Murthy, Prabakaran Chellamani, Vanitha Krishnan, T. Thangaradjou & R. Mani Murali	717
An investigation on rattan taxonomic diversity in four selected forest reserves of northern Peninsular Malaysia—Wan Nur Fasiah Zarifah Binti Wan Rozali, Kazi Mohammad Masum, Amirrudin Bin Ahmad, Rahmad Zakaria, Asyraf Mansor & Ahmad Sofiman Othman	731
Study on foraging response of Trichogrammatids governed by volatile cues—Udai Pratap Singh, Surabhi Singh, Rajendra Kumar & Archana Kumar	741
Estimating bat abundance and diversity in a modified tropical environment in central Ghana—Evans E. Nkrumah, Bismark A. Opoku, Ebenezer K. Badu, Emmanuel Danquah, Marco Tschapka & Samuel K. Oppong	751
Ecosystem productivity and its response to environmental variable of moist Indian sal forest—Taibanganba Watham, S. P. S. Kushwaha, N. R. Patel, V. K. Dadhwal & A. Senthil Kumar	761
Variations in fine root growth during age chronosequence of moist tropical forest following shifting cultivation in Mizoram, northeast India—Dipendra Singha & S. K. Tripathi	769
Annual seasonality and diversity patterns of the plant community in a fog oasis ecosystem in the city of Lima—Jose L. Rolando, Juan D. Del Castillo, Diego Padilla, Zulema Quinteros & Edgar Sánchez	781
The traits of frugivores and diaspores are corrected with the number of fruits eaten in the Cerrado gallery forest—Adriano Antonio Brito Darosci, José Carlos Motta-Junior & E. Cássia Beatriz Rodrigues Munhoz	793
Effect of N application on emergence and growth of weeds associated with rice—Vartika Singh, Hema Singh & A. S. Raghubanshi	807
<i>Short Communication</i>	
Spatial and temporal variation of black cotton soil organic carbon in Guinean forest zone in West Africa—Cedric A. Goussanou, Sabin Guendehou & Brice Sinsin	823
Host preferences, spatial distribution and interaction of oxpeckers with wild ungulates in and around southern Gonarezhou National Park, Zimbabwe—Tawanda Tarakini, Sophie Sithole, Beaven Utete, Victor K. Muposhi, Daphine Madhlamoto & Edson Gandiwa	833