



References

- Adams, D.C., Rohlf, F.J. and Slice, D.E. 2004. Geometric morphometrics: Ten years of progress following the 'revolution'. *Italian Journal of Zoology*. 71: 5-16.
- Adis, J., Sperber, C.F., Brede, E., Capello, S., Franceschini, M.C. and Hill, M. 2008. Morphometric differences in the grasshopper, *Cornops aquaticum* (Bruner, 1906) from South America and South Africa. *Journal of Orthoptera Research*. 17(2): 141-147. <https://doi.org/10.1665/1082-6467-17.2.141>
- Ahnesjo, J. and Forsman, A. 2003. Correlated evolution of colour pattern and body size in polymorphic Pygmy grasshoppers, *Tetrix undulata*. *Journal of Evolutionary Biology*. 16 (6): 1308–1318.
- Akhtar, M.H. and Usmani, M.K. 2014a. Taxonomic studies on the grasshopper fauna (Orthoptera: Acrididae) recorded from paddy fields in Uttar Pradesh, India. *Journal of the Bombay Natural History Society*. 111(3): 180-192.
- Akhtar, M.H., Nayeem, M.R. and Usmani, M.K. 2014b. Abundance, distribution and taxonomic studies on Hemiacridinae (Acrididae: Acridoidea: Orthoptera) in Uttar Pradesh, India. *Journal of Global Biosciences*. 3(6): 910-918.
- Akhtar, M.H., Usmani, M.K., Nayeem, M.R. and Kumar, H. 2012. Species diversity and abundance of grasshopper fauna (Orthoptera) in rice ecosystem. *Annals of Biological Research*. 3(5): 2190-2193.
- Akman, O. and Whitman, D. 2008. Analysis of body size and fecundity in a grasshopper. *Journal of Orthoptera Research*. 17(2): 249-257. <https://doi.org/10.1665/1082-6467-17.2.249>
- Ali, S. 1982. Effect of temperature and humidity on the development and fertility-fecundity of *Acrida exaltata* (Walker). *Proceedings of the Indian Academy of Sciences Animal Sciences*. 91(3): 267-273.
- Ananthaselvi, R., Suresh, P., Janarthanan, S., Karthikeyan, K.A.M. and Vijayakumar, I. 2009. Acridid (Orthoptera) fauna of agricultural ecosystem in some southern districts of Tamil Nadu, India. *Journal of Threatened Taxa*. 1(9): 491-492.

- Andersen, A.N., Lowe, L.M. and Rentz, D.C.F. 2000. The grasshopper (Orthoptera: Acridoidea, Eumastacoidea and Tettigonioidea) fauna of Kakadu National Park in the Australian seasonal tropics: biogeography, habitat associations and functional groups. *Australian Journal of Zoology*. 48(4): 431-442.
- Andersen, A.N., Ludwig, J.A., Lowe, L.M. and Rentz, D.C.F. 2001. Grasshoppers biodiversity and bioindicators in Australian tropical savannas. *Austral Ecology*. 26 (3): 213-222.
- Andrewartha, H.G. and Birch, L.C. 1954. The distribution and abundance of animals (No. Edn 1). University of Chicago press.
- Anten, N.P.R., Miyazawa, K., Hikosaka, K., Nagashima, H. and Hirose, T. 1998. Leaf nitrogen distribution in relation to leaf age and photon flux density in dominant and subordinate plants in dense stands of a dicotyledonous herb. *Oecologia*. 113(3): 314-324.
- Antonatos, S., Emmanouel, N., Fantinou, A., Tsagkarakis, A., Anagnostopoulos, A. and Ntampakis, D. 2014. Seasonal population fluctuation and spatial distribution of Orthoptera in two grassland areas of Attica – Greece. *Journal of Natural History*. 48(11-12): 661-674. DOI: 10.1080/00222933.2013.839844
- Arya, M.K., Joshi, P.C. and Vinod, P.B. 2015. Species composition, abundance, density and diversity of grasshoppers (Insecta: Orthoptera) in a protected forest ecosystem in the Western Himalayas. *International Journal of Fauna and Biological Studies*. 2(5): 42-46.
- Avise, J.C. 2004. Molecular markers, natural history and evolution. 2nd edn. Sinauer Associates, Sunderland, MA.
- Avise, J.C. 2009. Phylogeography: retrospect and prospect. *Journal of Biogeography*. 36: 3–15.
- Aytekin, M.A., Terzo, M., Rasmont, P. and Çağatay, N. 2007. Landmark based geometric morphometric analysis of wing shape in *Sibirico bombus* Vogt (Hymenoptera: Apidae: *Bombus Latreille*)". *Annales de la Société Entomologique de France (n.s.)*. 43(1): 95–102.
- Azim, M.N. and Reshi, S.A. 2008. Observations on the seasonal variations in population of three species of grasshoppers (Orthoptera: Acrididae) of Kashmir Himalaya. *Punjab University Journal of Zoology*. 23 (1-2): 19-25.
- Bai, M., McCullough, E., Song, K-Q., Liu, W-G. and Yang, X-K. 2011. Evolutionary constraints in hind wing shape in Chinese dung beetles (Coleoptera: Scarabaeinae). *Plos One*. 6(6): e21600.

- Bai, Y., Dong, J., Guan, D., Xie, J. and Xu, S. 2016. Geographic variation in wing size and shape of the grasshopper *Trilophidia annulata* (Orthoptera: Oedipodidae): morphological trait variations follow an ecogeographical rule. *Scientific Reports*. 6: 32680.
- Balakrishnan, S., Srinivasan, M. and Mohanraj, J. 2014. Diversity of some insect fauna in different coastal habitats of Tamil Nadu, southeast coast of India. *Journal of Asia-Pacific Biodiversity*. 408-414.
- Bamidele, A.O. and Muse, W.A. 2012. A Morphometric study of the variegated grasshopper (linn.) (Orthoptera: Pyrgomorphidae) from parts of Southern Nigeria. *Ife Journal of Science*. 14(1): 61-73.
- Bamidele, A.O. and Muse, W.A. 2014. Geographical variation of the Pyrgomorphid grasshopper, *Zonocerus variegatus* L. (Orthoptera: Pyrgomorphidae) in southern Nigeria. *Journal of Entomology and Zoology Studies*. 2(2): 72-75.
- Barcebal, G.M., Coronel, K.H.I, Torres, M.A.J. and Cesar, G.D. 2015. Variability in the shape of the mandibles of grasshopper (Orthoptera: Acrididae) from selected places in Mindanao, Philippines. *Advances in Environmental Biology*. 9(19): 123-126.
- Barrientos, L.L. 1988. Acoustic behaviour and taxonomy of Mexican Pterophylla:(Orthoptera: Tettigoniidae: Pseudophyllinae) P h.D. Thesis. University of Wales. Cardiff, U.K.
- Barrientos, L.L. 1998. Morphometric studies between allopatric populations of *Pterophylla beltrani* Bolivar and Bolivar and *P. robertsi* Hebard (Orthoptera: Tettigoniidae). *Journal of Orthoptera Research*. 51-59.
- Beasley, D.E., Bonisoli- Alquati, A., Welch, S.M., Møller, A.P. and Mousseau, T.A. 2012. Effects of parental radiation exposure on developmental instability in grasshoppers. *Journal of Evolutionary Biology*. 25(6): 1149-1162.
- Behura, S.K. 2006. Molecular marker systems in insects: current trends and future avenues. *Molecular ecology*. 15(11): 3087-3113.
- Belovsky, G.E. 1997. Optimal foraging and community structure: the allometry of herbivore food selection and competition. *Evolutionary Ecology*. 11: 641-672.
- Benitez, H.A., Parra, L.E., Sepulveda, E. and Sanzana, M.J. 2011. Geometric perspectives of sexual dimorphism in the wing shape of Lepidoptera: the case of *Synneuria* sp. (Lepidoptera: Geometridae). *Journal of Entomological Research Society*. 13(1): 53-60.

-
- Berggren, H., Tinnert, J. and Forsman, A. 2012. Spatial sorting may explain evolutionary dynamics of wing polymorphism in pygmy grasshoppers. *Journal of Evolutionary Biology*. 25(10): 2126-2138.
- Bernays, E.A. and Bright, K.L. 1993. Mechanisms of dietary mixing in grasshoppers: a review. *Comparative Biochemistry and Physiology Part A: Physiology*. 104(1): 125-131.
- Bernays, E.A. and Chapman, R.F. 1977. Deterrent chemicals as a basis of oligophagy in *Locusta migratoria* (L). *Ecological Entomology*. 2: 1-18
- Bernays, E.A. and Minkenbergh, O.P.J.M. 1997. Insect herbivores: different reasons for being a generalist. *Ecology*. 78: 1157–1169.
- Bethoux, O. and Nel, A. 2001. Venation pattern of Orthoptera. *Journal of Orthoptera Research*. 10: 195–198.
- Bethoux, O. and Nel, A. 2002. Venation pattern and revision of Orthoptera sensu nov and sister groups. Phylogeny of palaeozoic and mesozoic Orthoptera sensu nov. *Zootaxa*. 96: 1–88.
- Bhandari, B.S. 1999. Structural attributes and productivity potential of an alpine pasture of Garhwal Himalaya. *The Journal of Indian Botanical Society*. 78: 321-329.
- Bhowmik, H. K. 1993. On the biogeographical regions of India in relation to studies in the endemism of Acrididae fauna of India. *Records of the Zoological Survey of India*, Occ.131: 1-56.
- Bhusnar, A. 2015. Acridid (Orthoptera) diversity of agriculture ecosystem from Solapur district of Maharashtra, India. *Biolife*. 3(2): 46-468.
- Bolivar, I. 1902. Les Orthopteres de St. Joseph's College a Trichinopoly (Sudder Inde) 3 me. partie. *Annales de la Société Entomologique de France*. 70: 580-635.
- Bolivar, I. 1909. Nouvelies especes d' acridiens du Musee de Geneve. *Boln. Real. Soc. Espan, Hist. nat.* 9: 393-403.
- Bolivar, I. 1917-1918. Contribucion al concocimiento de la fauna Indica. *Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid*. 16: 278-412.
- Bouaichi, A. and Simpson, S.J. 2003. Density- dependent accumulation of phase characteristics in a natural population of the desert locust *Schistocerca gregaria*. *Physiological entomology*. 28(1): 25-31.

-
- Braker, H.E. 1989. Evolution and ecology of oviposition on host plants by acridoid grasshoppers. *Biological Journal of the Linnean Society*. 38(4): 389-406.
- Branson, D.H. 2006. Life history responses of *Ageneotettix deorum* (Scudder) (Orthoptera: Acrididae) to host availability and population density. *Journal of Kansas Entomological Society*. 79: 146-155.
- Branson, D.H., Joern, A. and Sword, G.A. 2006. Sustainable management of insect herbivores in grassland ecosystems: new perspectives in grasshopper control. *Bioscience*. 56(9): 743–755.
- Bronwyn, A.E. 2013. Culturally and Economically Significant Insects in the Blouberg Region, Limpopo Province, South Africa. Dissertation, University of Limpopo, South Africa. <http://hdl.handle.net/10386/1002>.
- Brook, B.W. and Bradshaw, C.J.A. 2006. Strength of evidence for density dependence in abundance time series of 1198 species. *Ecology*. 87: 1445–1451.
- Bughio, B.A., Sultana, R., Rahoo, A.M., Baloch, N. and Ali, S. 2019. Studies on the epiphallus and spermatheca in some species of the genus *Acrotylus* (Acridoidea: Orthoptera) from Pakistan. *Plant Protection*. 03(01): 29-34. DOI: 10.33804/pp.003.01.0105
- Burns, J.M., Janzen, D.H., Hajibabaei, M., Hallwachs, W. and Hebert, P.D.N. 2007. DNA barcodes of closely related (but morphologically and ecologically distinct) species of skipper butterflies (Hesperiidae) can differ by only one to three nucleotides. *Journal of the Lepidopterists Society*. 61: 138–153.
- Buschini, M.L.T. and Woiski, T.D. 2008. Alpha-beta diversity in trap-nesting wasps (Hymenoptera: Acu-leata) in Southern Brazil. *Acta Zoologica*. 89(4): 351-358.
- Butlin, R.K., Walton, C., Monk, K.A. and Bridle, J.R. 1998. Biogeography of Sulawesi grasshopper, genus *Chitaura*, using DNA sequence data. *Biogeography and Geological Evolution of SE Asia*. 355-359.
- Cameron, S.L. 2014. Insect mitochondrial genomics: implications for evolution and phylogeny. *Annual Review of Entomology*. 59: 95–117.
- Capinera, J.L. 1987. Population ecology of rangeland grasshoppers. Integrated pest management on rangeland. Westview Press, Boulder, Colorado. 162-182.
- Capinera, J.L., Scherer, C.W. and Simkins, J.B. 1997. Habitat associations of grasshoppers at the Macarthur agro-ecology research center, Lake placid, Florida. *Florida Entomologist*. 80(2): 253-261.

- Chandra, K. and Gupta, S.K. 2013. Endemic Orthoptera (Insecta) of India. *Prommali*. 1: 17–44.
- Chandra, K., Gupta, S.K. and Shishodia, M.S. 2007. A Check list of Orthoptera of Madhya Pradesh and Chhattisgarh. *Zoos' Print Journal*. 22(5): 2683-2687. [Review]
- Chandrabose, M. and Nair, N.C. 1987. Flora of Coimbatore.
- Chandrabose. M. and Nair, N.C. 1988. Flora of Coimbatore.
- Chapco, W., Kuperus, W.R. and Litzenberger, G. 1999. Molecular phylogeny of melanopline grasshoppers (Orthoptera: Acrididae): The genus *Melanoplus*. *Annals of the Entomological Society of America*. 92(5): 617-623. DOI: 10.1093/aesa/92.5.617
- Chapman, R.F. 1990. Feeding. In: Chapman, R.F. and Joern, A., Eds., Biology of grasshoppers. A Wiley-Interscience Publication, New Jersey. 40-103.
- Chapman, R.F. and Bernays, E.A. 1977. The chemical resistance of plants to insect attack. *Sci. Varia. Pune. Acad. Sci.* 41.
- Chappell, M.A. and Whitman, D.W. 1990. Grasshopper thermoregulation. In R.F. Chapman and A. Joern (eds) biology of grasshopper. John Wiley and Sons, New York. 143-172.
- Chesson, P., Pacala, S. and Neuhauser, C. 2001. Environmental niches and ecosystem functioning. *Functional consequences of Biodiversity*. 213-245.
- Chinnaraj, P., Gunasekaran, C., Rajkumar, V., Amita Paul, C., Dharmaraj, J., Kaviya, B.2018. Comparative assessment of heavy metals accumulation and soil arthropods diversity in organic and conventional agricultural farms. *Scholars Academic Journal of Biosciences (SAJB)*. 6(7): 537-542.
- Chitra, N., Soundararajan, R.P. and Gunathilagaraj, K. 2000. Orthoptera in rice fields of Coimbatore. *Zoos' Print Journal*. 15(8): 309-311.
- Cisneiros, R.A., de Almeida, A.V., de Melo, G.R. and da Camara, C.A.G. 2012. Morphometric variations in the grasshopper, *Chromacris speciosa* from two localities of pernambuco in Northeastern Brazil. *Journal of Insect Science*. 12:79. insectscience.org/12.79
- Claridge, M.F., Hollander, D.J. and Morgan, J.C. 1983. Variation within and between populations of the brown plant hopper *Nilaparvata lugens* (Stal). *Entomologia experimentalis et applicata*. 35: 221-226.

- Claridge, M.F., Hollander, J.D. and Morgan, J.C. 1985. Variation in courtship signals and hybridization between geographically definable populations of the rice brown plant hopper, *Nilaparvata lugens* (Stål). *Biological Journal of the Linnean Society*. 24(1): 35-49.
- Colombo, P., Cigliano, M.M., Sequeira, A.S., Lange, C.E., Vilardi, J.C. and Confalonieri, V.A. 2005. Phylogenetic relationships in *Dichroplus* Stal (Orthoptera: Acrididae: Melanoplinae) inferred from molecular and morphological data: testing karyotype diversification. *Cladistics*. 21: 375–389.
- Das, M., Ganguly, A. and Haldar, P. 2010. Nutrient analysis of grasshopper manure for soil fertility enhancement. *American-Eurasian Journal of Agricultural and Environmental Sciences*. 7(6): 671-675.
- Das, M., Ganguly, A. and Halder, P. 2012. Annual biomass production of two acridids (Orthoptera: Acrididae) as alternative food for poultry. *Spanish Journal of Agricultural Research*. 10: 671-680.
- Das, S.K., Chakraborti, U., Mukhopadhyay, D., Chakraborty, K. and Mitra, B. 2018. A story of the hundred years on the exploration (1915- 2016) of Orthopteran faunal diversity in and around Chilika Lake, Odisha. *The Pharma Innovation Journal*. 7(7): 705-710.
- De Wysiecki, M.L., Arturi, M., Torrusio, S. and Cigliano, M.M. 2011. Influence of weather variables and plant communities on grasshopper density in the Southern Pampas, Argentina. *Journal of Insect Science*. 11(109): 1-14. insectscience.org/11.109
- Deepa, A.A., Gunasekaran, C., Christy, K.I., Shobana, G. and Lena, M. 2012. Abundance of arthropod diversity in grassland ecosystem in different places of Avalanche area (Ooty) Western Ghats, Tamil Nadu, South India. *International Journal of Recent Scientific Research*. 3(2): 1001 – 1003.
- Demayo, C.G., Harun, S.A. and Torres, M.A.J. 2011. Procrustes analysis of wing shape divergence among sibling species of *Neurothemis* dragonflies. *Australian Journal of Basic and Applied Sciences*. 5(6): 748-759.
- Dempster, J.P. 1963. The population dynamics of grasshoppers and locusts. *Biological Reviews*. 38: 490-529.
- Deng, J., Yu, F., Zhang, T.X., Hu, H.Y., Zhu, C.D., Wu, S.A. and Zhang, Y.Z. 2012. DNA barcoding of six *Ceroplastes* species (Hemiptera: Coccoidea: Coccidae) from China. *Molecular Ecology Resources*. 12(5): 791–796. <http://dx.doi.org/10.1111/j.1755-0998.2012.03152.x>

- Dey, A. and Hazra, A. K. 2003. Diversity and distribution of grasshopper fauna of greater Kolkata with notes on their ecology. *Memoirs of the Zoological Survey of India*. 19(3): 1-118.
- Dharbal, M.S., Udapi, D., Jayashree, H., SachidanandaMurthy, K.L. and Channaveerappa, H. 2015. Observation of body size in different geographical population of grasshopper *Neorthacris Acuticeps Acuticeps* (Bolivar). *International Journal of Pure and Applied Zoology*. 3(4): 354-357.
- Dian-feng, L., Zi-mei, D., Da-yu, Z., Yan-ze, G., Pei-jun, G., Rui-hua, H., Guo-fang, J. 2008. molecular phylogeny of the higher category of Acrididae (Orthoptera: Acridoidea). *Zoological Research*. 29(6): 585–591. DOI : 10.3724/SP.J.1141.2008.06585
- Didham, R.K., Ghazoul, J., Stork, N.E. and Davis, A.J. 1996. Insects in fragmented forests: a functional approach. *Trends in Ecology and Evolution*. 11: 255e60.
- Divya, D. and Senthilkumar, N. 2017. Record of grasshopper fauna (Orthoptera) in forest campus, Coimbatore, Tamil Nadu, India. *Current Biotica*. 10(4): 296-301.
- Dobigny, G., Baylac, M. and Denys, C. 2002. Geometric morphometrics, neural networks and diagnosis of sibling *Taterillus* species (Rodentia: Gerbillinae). *Biological Journal of the Linnean Society*. 77(3): 319-327.
- Dolan, R.W., Moore, M.E. and Stephens, J.D. 2011. Documenting effects of urbanization on flora using herbarium records. *Journal of Ecology*. 99(4): 1055–1062.
- Dong, L., Shi, J., Zhang, X., Zhang, Y., Li, X. and Yin, H. 2015. Molecular phylogenetic analysis of Acridoidea (Orthoptera: Caelifera) based on mitochondrial cytochrome oxidase subunit sequences. *Zootaxa*. 4018(3): 411–425. <http://dx.doi.org/10.11646/zootaxa.4018.3.5>
- Dujardin, J.P., Le Pont, F. and Baylac, M. 2003. Geographic versus interspecific differentiation of sand flies: A landmark data analysis. *Bulletin of Entomological Research*. 93: 87–90.
- Dwivedi, B. and Gadagkar, S.R. 2009. The impact of sequence parameter values on phylogenetic accuracy. *Biology and Medicine*. 1(3): 50-62.
- Eades, D.C., Otte, D., Cigliano, M.M. and Braun, H. 2016. Orthoptera species file. Version 5.0/5.0. <http://Orthoptera.Species File.org> [Date accessed: 4 June 2016].
- Evans, E.W. 1988. Grasshopper (Insecta: Orthoptera: Acrididae) assemblages of tallgrass prairie: influences of fire frequency, topography, and vegetation. *Canadian journal of Zoology*. 66(7): 1495-1501.

- Evans, E.W., Rogers, R.A. and Opfermann, D.J. 1983. Sampling grasshoppers (Orthoptera: Acrididae) on burned and unburned tall grass prairie: night trapping vs. sweeping. *Environmental Entomology*. 12(5): 1449-1454.
- Fay, J.C. and Wu, C.I. 2003. Sequence divergence, functional constraint, and selection in protein evolution. *Annual review of genomics and human genetics*. 4(1): 213-235.
- Felsenstein, J. 1985. Confidence limits on phylogenies: An approach using the bootstrap. *Evolution*. 39: 783-791.
- Felsenstein, J. 2001. Taking variation of evolutionary rates between sites in account in inferring phylogenies. *Journal of Molecular Evolution*. 53: 447-455.
- Feng, X.J., Gao, S., Dong, W.W. and Jiang, G.F. 2016. Geographical variation in size and density-dependent polyphenism among populations of the bamboo locust *Ceracris kiangsu*. *Academia Journal of Agricultural Research*. 4(9):561-571.
- Field, C. 1983. Allocating leaf nitrogen for the maximization of carbon gain: leaf age as a control on the allocation program. *Oecologia*. 56(2): 341-347.
- Filin, I. and Ovadia, O. 2007. Individual size variation and population stability in a seasonal environment: a discrete-time model and its calibration using grasshoppers. *The American Naturalist*. 170(5): 719-733.
- Flook, P.K., Klee, S. and Rowell, C.H.F. 1999. Combined molecular phylogenetic analysis of the Orthoptera (Arthropoda, Insecta) and implications for their higher systematics. *Systematic Biology*. 48(2): 233-253. <http://www.jstor.org/stable/2585353>
- Folmer, O., Black, M., Hoeh, W., Lutz, R. and Vrijenhoek, R. 1994. DNA primers for amplification of mitochondrial cytochrome c oxidase subunit I from diverse metazoan invertebrates. *Molecular Marine Biology and Biotechnology*. 3: 294-299.
- Gage, S.H. and Mukerj, M.K. 1977. A Perspective of grasshopper population distribution in saskatchewan and interrelationship with weather. *Environmental Entomology*. 6(3): 469- 479.
- Gaikwad, S.M., Koli, Y.J., Raut, G.A., and Bhawane, G.P. 2018. Diversity of Short-Horned Grasshoppers (Orthoptera: Caelifera) from Forested Region of Kolhapur District, Maharashtra, India of Northern Western Ghats. *International Journal of Bioengineering and Life Sciences*. 12(10): 358-367.
- Gaines, S.B. 1991. Body-size and wing-length variation among selected (Orthoptera: Acrididae) from Nebraska's Sandhills Grasslands *Transactions of the Nebraska Academy of Sciences*. 18: 67-72.

- Gamble, J.S. and Fischer, C.E.C. 1915-1936. The Flora of Presidency of Madras. Vols. 1–3. Adlard and Son Ltd, London.
- Gangwere, S. K. 1972. Host findings and feeding behaviour in the orthopteroids, especially as modified by food availability. *Rev. Univ. Madrid*. 21: 107-158.
- Gangwere, S.K. 1991. Food habits and feeding behavior of locusts and grasshoppers. Department of Biology Sciences, Wayne State University, Detroit, 56 p.
- Gardiner, T., Pye, M., Field, R. and Hill, J. 2002. The influence of sward height and vegetation composition in determining the habitat preferences of three Chorthippus species (Orthoptera: Acrididae) in Chelmsford, Essex, UK. *Journal of Orthoptera Research*. 11: 207-213.
- Ghosh, A. 1996. Insect biodiversity in India. *Oriental Ins*. 30: 1-10.
- Ghosh, A.K. and Sengupta, S. 1982. Insect collection, preservation and study (Handbook). *Zoological Survey of India Publication*. 65.
- Gillon, Y. 1983. The invertebrates of the grass layer. In: Bouliere F. (ed), Ecosystems of the World 13: Tropical Savannas. Elsevier, Amsterdam, The Netherlands. 289–311.
- Gómez, G., Jaramillo, L. and Correa, M.M. 2013. Wing geometric morphometrics and molecular assessment of members in the Albitarsis Complex from Colombia. *Molecular Ecology Resources*. 13(6): 1082-1092.
- Gotham, S. and Song, H. 2013. Non-swarming grasshoppers exhibit density-dependent phenotypic plasticity reminiscent of swarming locusts. *Journal of Insect Physiology*. 59(11): 1151-1159.
- Grauvogel-Stamm, L., Nel, A. and Marchal-Papier, F. 2000. Nouveaux Orthoptères (Ensifera, Insecta) du Trias des Vosges (France). *Acta Geologica Hispanica*. 35(1–2): 5–18.
- Gray, L.J., Sword, G.A., Anstey, M.L., Clissold, F.J. and Simpson, S.J. 2009. Behavioural phase polyphenism in the Australian plague locust (*Chortoicetes terminifera*). *Biology Letters*. 5(3): 306-309.
- Green, A.J. 2000. The scaling and selection of sexually dimorphic characters: an example using the Marbled Teal. *Journal of Avian Biology*. 31(3): 345-350.
- Grzywacz, B. and Tatsuta, H. 2017. Phylogenetic relationship of Japanese Podismini species (Orthoptera: Acrididae: Melanoplinae) inferred from a partial sequence of cytochrome c oxidase subunit I gene. *Journal of Orthoptera Research*. 26(1): 11–19. <https://doi.org/10.3897/jor.26.14547>

-
- Gu, J., Jiang, B., Wang, H., Wei, T., Lin, L., Huang, Y. and Huang, J. 2020. Phylogeny and species delimitation of the genus *Longgenacris* and *Fruhstorferiola viridifemorata* species group (Orthoptera: Acrididae: Melanoplinae) based on molecular evidence. *Plos one*. 15(8): e0237882.
- Guang-Hua, W., Juan, B.Y.Z., Rui, Z., Xiu-Xiu, Z., Qian-Yun, L. and Sheng-Quan, X. 2015. Geometric morphometric analysis of wing shape variation in five *Oxya* spp. Grasshoppers. *Chinese Journal of Applied Entomology*. 52(2): 356-362. DOI: 10.7679/j.issn.20951353.2015.039.
- Guler, Y., Aytekin, A.M. and Çagatay, N. 2006. Systematical studies on Anthidiini (Hymenoptera: Megachilidae): a geometric morphometric approach. *Acta Entomologica Sinica*. 49(3): 474-483.
- Guo, Z.W., Li, H.C. and Gan, Y.L. 2006. Grasshopper (Orthoptera: Acrididae) biodiversity and grassland ecosystems. *Insect Science*. 13(3): 221-227.
- Gupta, S.K. and Chandra, K. 2016. Diversity of Orthoptera (Insecta) fauna from Gomerda wildlife sanctuary, Chhattisgarh, India. *Journal of Threatened taxa*. 8 (14): 9653-9662.
- Gupta, S.K. and Chandra, K. 2017. Diversity of Orthoptera (Insecta) fauna of Achanakmar Wildlife Sanctuary, Bilaspur, Chhattisgarh, India. *Journal of Asia-Pacific Biodiversity*.10: 91-103.
- Guralnick, R. and Hill, A. 2009. Biodiversity informatics: automated approaches for documenting global biodiversity patterns and processes. *Bioinformatics*. 25(4): 421–428. <http://dx.doi.org/10.1093/bioinformatics/btn659>
- Guzman, N.V. and Confalonieri, V.A. 2010. The evolution of South American populations of *Trimerotropis pallidipennis* (Oedipodinae: Acrididae) revisited: dispersion routes and origin of chromosomal inversion clines. *Journal of Orthoptera research*. 19: 253–260.
- Haldar, P., Bhandari, K.P. and Nath, S. 1995. Observation on food preferences of an Indian grasshopper *Acrida exaltata* (Walker) (Orthoptera: Acrididae: Acridinae). *Journal of Orthoptera research*. 4: 57-59.
- Haldar, P., Das, A. and Gupta, R.K. 1999. A laboratory based study on farming of an Indian grasshopper *Oxya fuscovittata* (Marschal) (Orthoptera: Acrididae). *Journal of Orthoptera research*. 8: 93-97.

-
- Hammer, O., Harper, D.A.T. and Ryan, P.D. 2001. PAST: Paleontological statistics software Package for Education and Data Analysis. *Palaeontologia Electronica*. 4(1): 1-9.
- Hassall, C., Thompson, D.J., French, G.C. and Harvey, I.F. 2007. Historical changes in the phenology of British Odonata are related to climate. *Global Change Biology*. 13: 933–941.
- Hawlitsek, O., Moriniere, J., Lehmann, G.U.C., Lehmann, A.W., Kropf, M., Dunz, A., Glaw, F., Detcharoen, M., Schmidt, S., Hausmann, A., Szucsich, N.U., Caetano-wyler, S.A. and szprunar, G.H. 2016. DNA barcoding of crickets, katydids and grasshoppers (Orthoptera) from Central Europe with focus on Austria, Germany and Switzerland. *Molecular Ecology Resources*. 1-17. DOI: 10.1111/1755-0998.12638
- Hebert, P.D., Stoeckle, M.Y., Zemplak, T.S. and Francis, C.M., 2004. Identification of birds through DNA barcodes. *PLoS Biology*. 2(10): e312.
- Hebert, P.D.N., Cywinska, A., Ball, S.L. and de Waard, J.R. 2003. ‘Biological identifications through DNA barcodes’. *Proceedings of the Royal Society B: Biological Sciences*. 270(1512): 313–321. doi: 10.1098/rspb.2002.2218.
- Henry, A.N., Chithra, V. and Balakrishnan, N.P. 1989. Flora of Tamil Nadu, India, Series-I, Analysis. Vol. 3. Botanical Survey of India, Southern Circle, Coimbatore.
- Henry, A.N., Kumari, G.R. and Chithra V. 1987. Flora of Tamil Nadu, India. Series 1: Analysis. Vol. 2. Botanical Survey of India, Coimbatore.
- Holuša, J., Kočárek, P., Vlk, R. ad Marhoul, P. 2013. Annotated checklist of the grasshoppers and crickets (Orthoptera) of the Czech Republic. *Zootaxa*. 3616(5): 437-460.
- Huang, J.H., Zhang, A.B., Mao, S.L. and Huang, Y. 2013. DNA barcoding and species boundary delimitation of selected species of Chinese Acridoidea (Orthoptera: Caelifera). *Plos One*. 8(12): e82400. <https://doi.org/10.1371/journal.pone.0082400>
- Huang, Y., Guillermo, O., Marie, S., Amy, D. and Anthony, Z. 2000. Phylogenetic relationships of North American field crickets inferred from mitochondrial DNA data. *Molecular Phylogenetics and Evolution*. 17: 48–57.
- Huo, G., Jiang, G., Sun, Z., Liu, D., Zhang, Y. and Lu, L. 2007. Phylogenetic reconstruction of the family Acrypteridae (Orthoptera: Acridoidea) based on mitochondrial cytochrome b gene. *Journal of Genetics and Genomics*. 34(4): 294-306. www.jgenetgenomics.org

- Husemann, M., Guzman, N., Canley, P., Cigliano, M.M. and Confalonieri, V. 2013. Biogeography of *Trimerotropis pallidipennis* (Acrididae: Oedipodinae): deep divergence across the Americas. *Journal of biogeography*. 40: 261–273.
- Hussain, M., Akbar, R., Malik, M.F., Kazam, S.N. and Zainab, T. 2017. Diversity, distribution and seasonal variations of grasshopper populations in Sialkot, Punjab, Pakistan. *Pure and Applied Biology*. 6(4): 1372-1381.
- Ismail, I.M. and ELawad, A.A. 2015. Phytosociological Analysis and species diversity of herbaceous layer in Rashad and Alabassia Localities, South Kordofan State, Sudan. *Jordan Journal of Biological Sciences*. 8(2):151 – 157.
- Ito, G. 2015. A systematic study of the grasshopper tribe Podismini in Japan (Orthoptera: Acrididae). *Insecta Matsumurana*. 71: 1-119.
- Jakhrani, M.A. and Sultana. R. 2018. Morphometric variations in *Hieroglyphus oryzivorus* (Hemiacridinae: Acrididae: Orthoptera). *Journal of Entomology and Zoology Studies*. 6(2): 967-969.
- Jalali, S., Ojha, R. and Venkatesan, T. 2015. DNA Barcoding for identification of agriculturally important insects. Chakravarthy, A. K. (ed.), New Horizons in Insect Science: Towards sustainable pest management. 13-23. https://doi.org/10.1007/978-81-322-2089-3_2
- Jana, G., Misra, K.K. and Bhattacharya, T. 2006. Diversity of some insect fauna in industrial and non-industrial areas of West Bengal, India. *Journal of Insect Conservation*. 10: 249-260.
- Janzen, D.H., Hajibabaei, M., Burns, J.M., Hallwachs, W., Remigio, E. and Hebert, P.D.N. 2005. Wedding biodiversity inventory of a large and complex Lepidoptera fauna with DNA barcoding. *Philosophical Transactions of Royal Society B: Biological Sciences*. 360(1462): 1835–1845. <http://dx.doi.org/10.1098/rstb.2005.1715>
- Jayashree, H. and Channaveerappa, H. 2016. Phylogenetic relationship of six species of Pyrgomorphidae (Orthoptera: Caelifera: Acridomorpha) as revealed by RAPD-PCR analysis. *International Journal of Current Research*. 8(02): 26020-26026.
- Joern, A. 2004. Variation in grasshopper (Acrididae) densities in response to fire frequency and bison grazing in tall grass prairie. *Environmental Entomology*. 33(6): 1617-1625.
- Joern, A. and Gaines, S.B. 1990. Population dynamics and regulation in grasshoppers. In: Chapman RF, Joern A, eds. Biology of grasshoppers, Wiley Press. 415–482.

- Johnson, D.L. and Worobec, A. 1988. Spatial and temporal computer analysis of insects and weather: grasshoppers and rainfall in Alberta. *Memoirs of the Entomological Society of Canada*. 120(146): 33-48. doi:10.4039/entm120146033-1
- Jonas, J.L. and Joern, A. 2007. Grasshopper (Orthoptera: Acrididae) communities respond to Wre, bison grazing and weather in North American tall grass prairie: a long-term study. *Oecologia*. 153: 699–711. DOI 10.1007/s00442-007-0761-8
- Jonas, J.L., Wolessensky, W. and Joern, A. 2015. Weather affects grasshopper population dynamics in continental grassland over annual and decadal periods. *Rangeland Ecology and Management*. 68(1): 29–39.
- Joshi, P.C., Lockwood, J.A., Vashishth, N. and Singh, A. 1999. Grasshopper (Orthoptera: Acridoidea) community dynamics in a moist deciduous forest in India. *Journal of Orthopteran Research*. 8: 17–23.
- Julka, J.M., Tandon, S.K., Halder, P. and Shishodia, M.S. 1982. Ecological observations on grasshoppers (Orthoptera: Acridoidea) at Solan, Himachal Pradesh, India. *Oriental Insect*. 63: 63-75.
- Kafatos, F.C., Efstratiadis, A., Forget, B.G. and Weissman, S.M. 1977. Molecular evolution of human and rabbit beta-globin mRNAs. *Proceedings of the National Academy of Sciences*. 74(12): 5618-5622.
- Kandibane, M., Raguraman, S., Ganapathy, D.N. and Gunathilagaraj, K. 2004. Orthopteran diversity in irrigated rice ecosystem in Madurai, Tamil Nadu. *Zoos' Print Journal*. 19(10): 1663-1664.
- Kang, L. 1995. Grasshopper-plant interactions under different grazing intensities in Inner Mongolia. *Acta Ecologica Sinica*. 15: 1-11.
- Kang, L. 1997. Changes of grasshopper communities in response to livestock grazing in grasslands. Grassland Ecosystem Research V. Science Press, Beijing, PP. 43-61.
- Kariuki, P.K. Toroitich, F., Ongamo, G., Nduko, J.M., Owino, E. and Ori, A.K. 2019. Diversity and abundance of grasshopper and locust species in Nakuru County, Kenya. *Asian Journal of Conservation Biology*. 8(2): 102-109.
- Karpakakunjaram, V., KoIatkar, M.D. and Muralirangan, M.C. 2002. Effects of abiotic factors on the population of an acridid grasshopper, *Diabolo-catantops pinguis* (Orthoptera: Acrididae) at two sites in southern India: a three-year study. *Journal of Orthoptera Research*. 11(1): 55-62.

- Kati, V., Zografou, K., Tzirkalli, E., Chitos, T. and Willemse, L. 2012. Butterfly and grasshopper diversity patterns in humid Mediterranean grasslands: the roles of disturbance and environmental factors. *Journal of Insect Conservation*. 16: 807–818. DOI 10.1007/s10841-012-9467-2
- Kekeunou, S., Anyeng, M.V., Konyal, E., Bapfubusa, B. and Bilong, C.F.B. 2014. Morphology, development and reproduction of *Zonocerus variegatus* (L.) (Pyrgomorphidae) feeding on *Vernonia amygdalina* (Asteraceae) and *Manihot esculenta* (Euphorbiaceae) in the Laboratory. *Pakistan Journal of Zoology*. 46(6): 1529-1536.
- Kemp, W.P., Harvey, S.J. and O'Neill, K.M. 1990a. Patterns of vegetation and grasshopper community composition. *Oecologica*. 83: 299–308.
- Kemp, W.P., Harvey, S.J. and O'Neill, K.M. 1990b. Habitat and insect biology revisited: The search for patterns. *American Entomologist*. 36(1): 44-49.
- Kenyeres, Z. and Cservenka, J. 2014. Effects of Climate change and various grassland management practices on grasshopper (Orthoptera) assemblages. *Advances in Ecology*. 601813: 1-10. <http://dx.doi.org/10.1155/2014/601813>
- Khan, Z., Ikhtiar, Z., Sadiq, A., Rahman, W., Rahman, H., Ali, I., Mehmood, S.A., Alam, A., and Khan, F. 2022. Diversity of grasshopper in the piedmont of mount Elum, Buner. *Pure and Applied Biology*. 11(1): 217-225. <http://dx.doi.org/10.19045/bspab.2022.110023>
- Kimura, M. 1980. A simple method for estimating evolutionary rate of base substitutions through comparative studies of nucleotide sequences. *Journal of Molecular Evolution*. 16: 111-120.
- Kindler, E., Arlettaz, R. and Heckel, G. 2012. Deep phylogeographic divergence and cytonuclear discordance in the grasshopper *Oedaleus decorus*. *Molecular Phylogenetics and Evolution*. 65: 695–704. <http://dx.doi.org/10.1016/j.ympev.2012.07.025>
- Kirby, W.F. 1914. The fauna of British India including Ceylon and Burma. (Orthoptera) volume I. Taylor and Francis, London. PP: 276.
- Kisfali, M., Solymos, P., Nagy, A., Horvath, I.A.R.O. and Sramko, G. 2017. A morphometric and molecular study of the genus *Pseudopodisma* (Orthoptera: Acrididae). *Acta Zoologica Academiae Scientiarum Hungaricae*. 63(3): 293–307. DOI: 10.17109/AZH.63.3.293.2017

-
- Kiyoshi, T. and Hikida, T. 2012. Geographical variation in the wing morphology of the golden-ringed dragonfly *Anotogaster sieboldii* (Selys, 1854) (Odonata, Cordulegastridae) detected by landmark-based geometric morphometrics. *Bulletin of the National Museum of Nature and Science. Series A.* 38(2): 65-73.
- Kohler, G., Perner, J. and Schumacher, J. 1999. Grasshopper population dynamics and meteorological parameters - lessons from a case study. *Ecography.* 22: 205-212.
- Kohler, G., Samietz, J. and Schielzeth, H. 2017. Morphological and colour morph clines along an altitudinal gradient in the meadow grasshopper *Pseudochorthippus parallelus*. *Plos One.* 12(12): e0189815. <https://doi.org/10.1371/journal.pone.0189815>
- Kristin, A., Kanuch, P. and Sarossy, M. 2007. Distribution and ecology of *Ruspolia nitidula* (Scopoli 1786) and *Aiolopus thalassinus* (Fabricius 1781) (Orthoptera) in Slovakia. *na. Linzer Biologische Beitrage.* 451-461.
- Kumar, H. and Usmani, M.K. 2014. Taxonomic studies on Acrididae (Orthoptera: Acridoidea) from Rajasthan (India). *Journal of Entomology and Zoology Studies.* 2(3): 131-146.
- Kumar, H. and Usmani, M.K. 2015. A checklist of acrididae (Orthoptera: Acridoidea) from Haryana, India. *Acta Zoológica Mexicana (N. S.).* 31(2): 234-238.
- Kumar, H., Chandra, K., Ali, M., Saini, J. 2018b. On a collection of Acridoidea (Orthoptera) from Ladakh region of Jammu and Kashmir, India. *Records of the Zoological Survey of India.* 118(4):381-388. DOI: 10.26515/rzsi/v118/i4/2018/122411
- Kumar, K., Joshi, P.C. and Badoni, V. 2018a. Variation in population density and biomass of grasshoppers (Insecta: Orthoptera) in Nanda Devi biosphere reserve (NDBR), West Himalaya, India. *Journal of Environment and Biosciences.* 32(1): 125-135.
- Kuruwila, M.E., Mohan, S. and Jacob, S. 2019. Effect of seasonal variations in grasshopper diversity at selected high and low range areas. *International Journal of Advanced Scientific Research and Management.* 4(2): 239-242.
- Laiolo, P., Illera, J.C. and Obeso, J.R. 2013. Local climate determines intra- and interspecific variation in sexual size dimorphism in mountain grasshopper communities. *Journal of Evolutionary Biology.* 1-13. doi: 10.1111/jeb.12213
- Lal, M., Sultana, R. and Wagan, M.S. 2015. Biodiversity of Acrotylus (Acrididae: Orthoptera) with special reference to its host plants in Thar Desert, Sindh. *Sindh University Research Journal (Science Series).* 47(4): 793-796.

-
- Lanave, C., Licciulli, F., De Robertis, M., Marolla, A. and Attimonelli, M. 2002. Update of AMmtDB: a database of multi-aligned Metazoa mitochondrial DNA sequences. *Nucleic Acids Research*. 30(1): 174-175.
- Larson, D.P., O'Neill, K.O. and Kemp, W.P. 1999. Evaluation of the accuracy of sweep sampling in determining grasshopper (Orthoptera, Acrididae) community composition. *Journal of Agricultural and Urban Entomology*. 16(3): 207-214.
- Latchininsky, A. and Gapparov, F.A. 1996. Consequences of the Aral sea's drying up on the regional locust situation. *Secheresse (France)* 7(2): 109-113.
- Latchininsky, A., Sword, G., Sergeev, M., Cigliano, M.M. and Lecoq, M. 2011. Locusts and grasshoppers: Be-haviour, Ecology, and Biogeography. *Psyche*. 1-4.
- Laurito, M., Almirón, W.R. and Ludueña-Almeida, F.F. 2015. Discrimination of four Culex (Culex) species from the Neotropics based on geometric morphometrics. *Zoomorphology*. 134(3): 447-455.
- Laws, A.N. and Belovsky, G.E. 2010. How Will Species Respond to Climate Change? Examining the Effects of Temperature and Population Density on an Herbivorous Insect. *Population Ecology*. 312 – 319.
- Lawton, J.H. 1983. Plant architecture and the diversity of phytophagous insects. *Annual Review of Entomology*. 28: 23–39.
- Leslie, F.M., Erika, H. and Hussamz, A. 2000. Application of landmark morphometrics to skulls representing the orders of living mammals. *Hystrix (n.s.)*. 11(1): 27–47.
- Li, B., Liu, Z. and Zheng, Z.M. 2011. Phylogeny and classification of the Catantopidae at the tribal level (Orthoptera, Acridoidea). In: Engel MS (Ed) contributions celebrating Kumar Krishna. *ZooKeys*. 148: 209–255. doi: 10.3897/zookeys.148.2081
- Li, L.Z. and Huang, Z.X. 2001. New progress in the research of cytochrome C oxidase. *Chinese Journal of Inorganic Chemistry*. 17(6): 761–774.
- Li, R., Wang, Y., Shu, X., Meng, L. and Li, B. 2020. Complete mitochondrial genomes of three Oxya grasshoppers (Orthoptera) and their implications for phylogenetic reconstruction. *Genomics*. 112: 289–296. <https://doi.org/10.1016/j.ygeno.2019.02.008>
- Litzenberger, G. and Chapco, W. 2001. Molecular phylogeny of selected Eurasian Podismine grasshoppers (Orthoptera: Acrididae). *Annals of the Entomological Society of America*. 94(4): 505-511.

-
- Lockwood, D.R. and Lockwood, J.A. 2008. Grasshopper population ecology: catastrophe, criticality and critique. *Ecology and Society*. 13(1): 34-51.
- Loreau, M., Naeem, S., Bengtsson, J., Grime, J.P., Hector, A., Hooper, D.U., Huston, M.A., Raffaelli, D., Schmid, B., Tilman, D. and Wardle, D.A. 2001. Biodiversity and ecosystem functioning: Current knowledge and future challenges. *Science's Compass*. 294: 804–808.
- Lunt, D.H., Zhang, D.X., Szymura, J.M. and Hewlitt, O.M. 1996. The insect cytochrome oxidase I gene: evolutionary patterns and conserved primers for phylogenetic studies. *Insect molecular biology*. 5(3): 153-165.
- Manimegalai, K., Arunachalam, M. and Udayakumari, R. 2009. Morphometric geometric study of wing shape in *Culex quinquefasciatus* Say (Diptera: Culicidae) from Tamil Nadu, India. *Journal of Threatened Taxa*. 1(5): 263–268.
- Marino-Perez, R. and Song, H. 2017. Phylogeny of the grasshopper family Pyrgomorphidae (Caelifera, Orthoptera) based on morphology. *Systematic Entomology*. 1-19. DOI: 10.1111/syen.12251
- Mariottini, Y., Scattolini, C.M., Cigliano, M.M. and Lange, C.E. 2015. Morphometric differentiation in a field population of *Dichroplus maculipennis* (Orthoptera: Acrididae: Melanoplinae) under outbreak and non-outbreak situations. *Journal of Orthoptera Research*. 24(2): 67-75.
- Matojo, N.D. and Hosea, K.M. 2013. Phylogenetic relationship of the longhorn grasshopper *Ruspolia differens* Serville (Orthoptera: Tettigoniidae) from Northwest Tanzania based on 18S ribosomal nuclear sequences. *Journal of Insects*. 1-5. <http://dx.doi.org/10.1155/2013/504285>
- Matthew, K.M. 1995. An excursion flora of central Tamilnadu, India. CRC Press.
- Matthew, K.M. 1999. The Flora of Palni Hills, South India, Parts 1-3, The Rapinat Herbarium, St. Joseph's College, Thiruchirapalli. Matthew, K.M. 1991. An Excursion flora of Central Tamil Nadu, India. Oxford and IBH Publishing Co., New Delhi.
- Matz, M.V. and Nielsen, R. 2005. A likelihood ratio test for species membership based on DNA sequence data. *Philosophical Transactions of Royal Society B: Biological Sciences*. 360(1462): 1969–1974. <http://dx.doi.org/10.1098/rstb.2005.1728>
- Mayya, S., Sreepada, K.S. and Hegde, M.J. 2005. Survey of short-horned grasshoppers (Acrididae) from Dakshina Kannada District, Karnataka. *Zoos' Print Journal*. 20(9): 1977-1979.

- Meeran, M., Fathima, S., Priya, S., Arivoli, S. and Tennyson, S. 2021. Assessment of insect diversity in paddy fields of Uthamapalayam, Theni district, Tamil Nadu, India. *Journal of wildlife and Biodiversity*. 5(2): 88-98.
- MeghaUrs T.S., D'souza, A., Shakuntala.V., Channaveerappa, H.2020. Morphometric geometry study on wings of grasshoppers: Reflect more evolutionary flexibility in hind wings. *International Journal of Pharmaceutical Sciences and Research*. 11(4):96-106.
- Meyer, C.K., Whiles, M.R. and Charlton, R.E. 2002. Life history, secondary production, and ecosystem significance of acridid grasshoppers in annually burned and unburned tallgrass prairie. *American Entomologist*. 48(1): 52-61.
- Miller, J.C. 1993. Insect natural history, multiple species interactions and biodiversity in ecosystem. *Biodiversity and Conservation*. 2: 233-241.
- Miller, R.H. and Onsager, J.A. 1991. Grasshopper (Orthoptera: Acrididae) and plant relationships under different grazing intensities. *Environmental Entomology*. 20: 807-814.
- Mitteroecker, P. and Gunz, P. 2009. Advances in geometric morphometrics. *Evolutionary Biology*. 36: 235–247.
- Miyata, T., Yasunaga, T. and Nishida, T. 1980. Nucleotide sequence divergence and functional constraint in mRNA evolution. *Proceedings of the National Academy of Sciences*. 77(12): 7328-7332.
- More, S.V. and Nikam, K.N. 2016. Studies on grasshoppers (Orthoptera) in Tilari forest, Chandgad, Kolhapur district of Maharashtra (India). *International Journal of Recent Scientific Research*. 7(3): 9457-9460.
- Morin, P.J. 1999. Community ecology. Blackwell Science, Malden, MA. 424 pages.
- Mugleston, J., Naegle, M., Song, H., Bybee, S.M., Ingle, S., Suvorov, A. and Whiting M.F. 2016. Reinventing the leaf: multiple origins of leaf-like wings in katydids (Orthoptera: Tettigoniidae). *Invertebrate Systematics*. 30: 335–352.
- Mugleston, J.D., Song, H. and Michael, F. 2013. Whiting. A century of paraphyly: A molecular phylogeny of katydids (Orthoptera: Tettigoniidae) supports multiple origins of leaf-like wings. *Molecular Phylogenetics and Evolution*. 69: 1120–1134. <http://dx.doi.org/10.1016/j.ympev.2013.07.014>
- Muhammedali, V.C., Akhilesh, V.P. and Sebastian, C.D. 2017. DNA barcoding for identification of *Conocephalus dorsalis* (Orthoptera: Tettigoniidae) from Northern Kerala using Cytochrome Oxidase Subunit I Gene. *International Research Journal of Biological Sciences*. 6(10): 8-10.

-
- Mulkern, G.B. 1967. Food selection by grasshoppers. *Annual Review of Entomology*. 12: 59–78.
- Muralidharan, C.M. 2009. Dynamics of grasshopper community on a grassland ecosystem and influence of abiotic factors on population. *Ecology, Environment and Conservation Paper*. 15(02): 253-257.
- Muralirangan, M.C., Shrinivasan, C. and Suresh, P. 1992. Studies on shorthomed grasshoppers (Acridoidea) of Tamil Nadu Part 2. Hemiacridinae, Oxyinae, Coptacridinae, Tropicopolinae, Caloptinae, Eyprepocnemidinae, Catantopinae and Cyrtacanthacridinae. *Hexapoda*. 4(2): 149-166.
- Murdoch, W., Evans, F. and Peterson, C. 1972. Diversity and pattern in plants and insects. *Ecology*. 53:819–829.
- Murugan, K., Vadivalagan, C., Karthika, P., Panneerselvam, C., Paulpandi, M., Subramaniam, J., Wei, H., Alsalhi, M.S., Devanesan, S., Nicoletti, M. and Paramasivan, R. 2016. DNA barcoding and molecular evolution of mosquito vectors of medical and veterinary importance. *Parasitology Research*. 115(1): 107-121.
- Muschett, G., Umbers, K.D.L. and Herberstein, M.E. 2017. Within-season variability of fighting behaviour in an Australian alpine grasshopper. *Plos One*. 12(4): e0171697. <https://doi.org/10.1371/journal.pone.0171697>
- Nagy, Z.T., Backeljau, T., De Meyer, M. and Jordaens, K. 2013. DNA barcoding: a practical tool for fundamental and applied biodiversity research. *Zookeys*. 365 (411).
- Nair N.C. and Henry, A.N. 1983. Flora of Tamil Nadu, India. Series I: Analysis. Vol. 1. Botanical Survey of India, Coimbatore.
- Nai-Xin, W., Xia, F., Guo-Fang, J., Ning, F and Wen-Juan, X. 2008. Molecular phylogenetic analysis of five subfamilies of the Acrididae (Orthoptera: Acridoidea) based on the mitochondrial cytochrome b and cytochrome c oxidase subunit I gene sequences. *Acta Entomologica Sinica*. 51(11): 1187-1195.
- Nath, S., Rai, A., Bhattacharya, S. and Saha, A. 2010. The correlation of meteorological parameters with grasshopper populations in Darjeeling. *Journal of Asia-Pacific Entomology*. 13: 375–378. doi:10.1016/j.aspen.2010.05.001
- Nattier, R., Grandcolas, P., Pellens, R., Jourdan, H. and Couloux, A. 2013. Climate and soil type together explain the distribution of Microendemic species in a biodiversity hotspot. *Plos One*. 8(12): e80811. doi:10.1371/journal.pone.0080811

-
- Nayeem, M.R. and Usmani, M.K. 2012. Preliminary checklist of Acridoidea (Orthoptera) of Jharkhand, India. *Journal of Entomological Research*. 36(2): 161–163.
- Nazir, N., Mehmood, K., Ashfaq, M. and Rahim, J. 2014. Morphological and molecular identification of acridid grasshoppers (Acrididae: Orthoptera) from poonch division, Azad Jammu Kashmir, Pakistan. *Journal of Threatened Taxa*. 6(3): 5544-5552. <http://dx.doi.org/10.11609/JoTT.o3507.5544-52>
- Nei, M. and Kumar, S. 2000. Molecular evolution and phylogenetics. Oxford University Press, New York.
- Noguerales, V., Cordero, P.J. and Ortego, J. 2018. Integrating genomic and phenotypic data to evaluate alternative phylogenetic and species delimitation hypotheses in a recent evolutionary radiation of grasshoppers. *Molecular Ecology*. 27(5): 1229-1244. doi: 10.1111/mec.14504. Epub 2018 Mar 1. PMID: 29411440.
- Noguerales, V., Garcia-Navas, V. Cordero, P.J. and Ortego, J. 2016. The role of environment and core–margin effects on range-wide phenotypic variation in a montane grasshopper. *Journal of Evolutionary Biology*. 29: 2129–2142.
- Nufio, C.R., McGuire, C.R., Bowers, M.D. and Guralnick, R.P. 2010. Grasshopper community response to climatic change: variation along an elevational gradient. *Plos One*. 5(9): e12977. doi:10.1371/journal.pone.0012977
- O'Neill, K.M., Olson, B.E, Rolston, M.G., Wallander, R., Larson, D.P. and Seibert, C.E. 2003. Effects of livestock grazing on rangeland grasshopper (Orthoptera: Acrididae) abundance. *Agriculture, Ecosystems and Environment*. 97(1-3): 51-64.
- Oberholzer, I.G. and Hill, M.P. 2001. How safe is the grasshopper *Cornops aquaticum* for release on water Hyacinth in South Africa? *ACIAR Proceedings*. 102: 82-88.
- Olfert, O. and Weiss, R.M. 2006. Bioclimatic model of *Melanoplus sanguinipes* (Fabricius) (Orthoptera: Acrididae) populations in Canada and the potential impacts of climate change. *Journal of Orthoptera Research*. 15: 65–77.
- Ovadia, O. and Schmitz, O.J. 2002. Linking individuals with ecosystems: experimentally identifying the relevant organizational scale for predicting trophic abundances. *Proceedings of the National Academy of Sciences of the USA*. 99: 12927–12931.
- Ovadia, O. and Schmitz, O.J. 2004. Weather variation and trophic interaction strength: sorting the signal from the noise. *Oecologia*. 140(3): 398-406.
- Padmanabha, B. 2018. Comparative study on the morphometry and kinematics in different species of grasshoppers. *Paripex - Indian Journal of Research*. 7(4):177-178.

- Panda, N. and Khush, G.S. 1995. Host plant resistance to insects. CAB International, Wallingford. P.431.
- Pareek, A., Sharma, U.S., Lekha and Kalyan R. 2017. Species richness, density and diversity of acrididae in maize ecosystem in southern Rajasthan. *Journal of Entomology and Zoology Studies*. 5(2): 746-749.
- Parmenter, R.R., MacMahon, J.A. and Gilbert, C.A.B. 1991. Early successional patterns of arthropods recolonization on reclaimed Wyoming strip mines: The grasshoppers (Orthoptera: Acrididae) and allied faunas (Orthoptera: Gryllacrididae, Tettigoniidae). *Environmental Entomology*. 20: 135-142.
- Paulraj, M.G., Anbalagan, V. and Ignacimuthu, S. 2009. Distribution of grasshoppers (Insecta: Orthoptera) among different host plants and habitats in two districts of Tamil Nadu, India. *Journal of Threatened Taxa*. 1(4): 230-233.
- Perrin, N. 1998. On body size, and energy and fitness. *Functional Ecology*. 500-502.
- Peterson, G., Allen, C.R. and Holling, C.S. 1998. Biological resilience, biodiversity and Scale. *Ecosystems*. 1: 6-18.
- Petit, D., Picaud, F. and Ghadraoui, E.L. 2006. Géométrie morphologique des ailes des Acrididae (Orthoptera, Caelifera): sexe, stridulation, caractère. *Annales de la société entomologique de France*. 42(1): 63-73.
- Pfadt, R.E. and Lavigne, R.J. 1982. Food habits of grasshoppers inhabiting the Pawnee site. Agricultural Experiment Station, University of Wyoming.
- Picaud, F. and Petit, D.P. 2008. Body size, sexual dimorphism, and ecological succession in grasshoppers. *Journal of Orthoptera Research*. 17: 177-181.
- Pitafi, M.R., Sultana, R. and Wagan, M.S. 2016. Study on the effects of different host plants on development and growth rate of *Acrotylus humbertianus*. *Journal of Entomology and Zoology Studies*. 4(5): 928-932.
- Pitt, W.C. 1999. Effects of multiple vertebrate predators on grasshopper habitat selection: trade-offs due to predation risk, foraging, and thermoregulation. *Evolutionary Ecology*. 13: 499-515.
- Pocco, M.E., Minutolo, C., Dinghi, P.A., Lange, C.E., Confalonieri, V.A. and Cigliano, M.M. 2015. Species delimitation in the Andean grasshopper genus *Orotettix* Ronderos & Carbonell (Orthoptera: Melanoplinae): an integrative approach combining morphological, molecular and biogeographical data. *Zoological Journal of the Linnean Society*. 174(4): 733-759.

-
- Poniatowski, D., Beckmann, C., Löffler, F., Münsch, T., Samways, F.H.M.J. and Fartmann, T. 2020. Relative impacts of land-use and climate change on grasshopper range shifts have changed over time. *Global Ecology and Biogeography*. 29: 2190–2202. DOI: 10.1111/geb.13188
- Powell, L.R., Berg, A.A., Johnson, D.L. and Warland, J.S. 2007. Relationships of pest grasshopper populations in Alberta, Canada to soil moisture and climate variables. *Agricultural and Forest Meteorology*. 144: 73–84.
- Prabakar, D. 2015. An updated checklist of Insecta: Orthoptera of Tamil Nadu with new distributional records. *Biolife*. 3(1): 263-290.
- Price, P.W. 1997. *Insect Ecology*. 3rd edn. John Wiley and Sons, Inc, New York.
- Purvis, A. and Hector, A. 2000. Getting the measure of biodiversity. *Nature*. 405: 212–219.
- Rafi, U.M., Usmani, K.M., Akhtar., H.M., Nayeem, R. 2014. Population density, diversity and distributional pattern of grasshopper fauna (Acrididae: Acridoidea: Orthoptera) in Central and Eastern Uttar Pradesh, India. *Records of the Zoological Survey of India*. 114(Part-1): 165-176.
- Raghavender, B. and Vastrad, A.S. 2017. Changing scenario of short horned grasshopper diversity in agriculture and forest ecosystems in Dharwad. *Journal of Entomology and Zoology Studies*. 5(2): 268-272.
- Rajapandian, R. and, Natchiappan, S. 2020. Diversity and distribution records of Orthoptera (Insecta) in Nagarhole Tiger Reserve, Karnataka, India. *Proceedings of the Zoological Society*. 73(4): 362–379.
- Reddy, M.V. and Alfred, J.R.B. 1977. An inexpensive easily portable light trap for taxonomical and ecological studies on forest insects. 2nd Oriental Entomological Symposium. 48.
- Ren, Z., Ma, E., Guo, Y. and Zhong, Y. 2004. A molecular phylogeny of Oxya (Orthoptera: Acridoidea) in China inferred from partial cytochrome b gene sequences. *Molecular Phylogenetics and Evolution*. 33: 516–521. doi:10.1016/j.ympev.2004.06.003
- Ren, Z.M., Ma, E.B. and Guo, Y.P. 2002. The studies of the phylogeny of acridoidea based on mtDNA sequences. *Acta Genetica Sinica*. 29(4): 314-21.
- Riegert, P.W. 1972. Surveys of grasshopper abundance and forecasts of outbreaks. In International Study Conference on the Current and Future Problems of Acridology, London, 1970. Proceedings.

-
- Riget, F.F., Bechshoft, T.G., Wiig, O. and Soone, C. 2008. Fluctuating asymmetry in metric traits; a practical example of calculating asymmetry, measurement error and repeatability. *Annual Zoologica Fennici*. 15: 32–38.
- Ritchie, M.E. and Olff, H. 1999. Spatial scaling laws yield a synthetic theory of biodiversity. *Nature (London)*. 400: 557–560.
- Rivera. J. and Currie, D.C. 2009. Identification of Nearctic black flies using DNA barcodes (Diptera: Simuliidae). *Molecular Ecology Resources*. 9(1): 224–236.
- Rohlf, F.J. 1990. Morphometrics. *Annal Review of Ecology and Systematics*. 21: 299–316.
- Rohlf, F.J. 2002. Geometric morphometrics and phylogeny. *Systematics Association Special Volume*. 64: 175-193.
- Rohlf, F.J. 2003. tpsRelw, relative warps analysis. 1.36 ed. Stony Brook, NY: Department of Ecology and Evolution, State University of New York at Stony Brook.
- Rosetti, N. and Remis, M.I. 2018. Spatial variation in body size and wing dimorphism correlates with environmental conditions in the grasshopper *Dichroplus vittatus* (Orthoptera: Acrididae). *Environmental Entomology*. 20(10): 1–8. doi: 10.1093/ee/nvy025
- Roth, V.L. and Mercer, J.M. 2000. Morphometrics in development and evolution. *American Zoologist*. 40: 801–810.
- Rouibah, M., Hamouda, A. and Badache, N. 2019. Geometric morphometrics study of wing shapes in the *Calliptamus barbarus* (Orthoptera: Acrididae). *Advances in Agricultural Science*. 7 (2): 22–32.
- Rouibah, M., López-López, A., Presa, J.J. and Doumandji, S. 2016. A molecular phylogenetic and phylogeographic study of two forms of *Calliptamus barbarus* (Costa 1836) (Orthoptera: Acrididae, Calliptaminae) from two regions of Algeria. *Annales de la Société entomologique de France (N.S.)*. 1-11. DOI: 10.1080/00379271.2016.1188329
- Saha, H.K. and Haldar, P. 2009. Acridids as indicators of disturbance in dry deciduous forest of West Bengal in India. *Biodiversity and Conservation*. 18: 2343-2350.
- Saha, H.K. and Haldar, P. 2013. Response of acridids diversity (Orthoptera: Acrididae) in different disturbed habitats across seasons on dry deciduous forest. *Caspian Journal of Applied Sciences Research*. 2(7): 26-35.
- Saiki, R.K., Gelfand, D.H., Stoffel, S., Scharf, S.J., Higuchi, R., Horn, G.T., Mullis, K.B. and Erlich, H.A., 1988. Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase. *Science*. 239: 487–491.

- Saitou, N. and Nei, M. 1987. The neighbor-joining method: a new method for reconstructing phylogenetic trees. *Molecular Biology and Evolution*. 4(4): 406-425.
- Samways, M.J. 1997. Conservation biology of Orthoptera. In: Gangwere, S.K., Muralirangan, M.C., Muralirangan, M. (Eds.), The bionomics of grasshoppers, katydids and their Kin. CAB International, Wallingford, Oxon, UK and New York. 481-496.
- Sanjayan, K.P. 1994. Relationship between grasshoppers and crops in an agroecosystem of Tamil Nadu, India. *Beitr. Ent.* 44(1): 231-241.
- Saussure, H. De. 1884. Prodromus Oedipodiorum, insectorum ex ordinae Orthopterorum. *Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*. 28(9): 1-254.
- Saussure, H. De. 1888. Addimenta ad Prodromum Oedipodiorum, Insectorum ex ordine Orthopterorum. *Mémoires de la Société de Physique et d'Histoire Naturelle de Genève*. 30(1): 1-180. <https://www.biodiversitylibrary.org/bibliography/13710>
- Schluter, D. and Ricklefs, R.E. 1993. Species diversity. An Introduction to the problem. Species diversity in ecological communities (ed. by R.E. Ricklefs & D. Schluter). 1-10. The University of Chicago Press, Chicago.
- Schultz, O., Hemp, C., Hemp, A. and Gele, W.W. 2007. Molecular phylogeny of the endemic East African flightless grasshoppers *Altiusambilla* Jago, *Usambilla* (Sjöstedt) and *Rhainopomma* Jago (Orthoptera: Acridoidea: Lentulidae). *Systematic Entomology*. 1-8. DOI: 10.1111/j.1365-3113.2007.00395.x
- Seino, R.A., Ghogomu, R.T., Manjeli, Y., Dongmo, T.I. and Chifon, R.N. 2013. A faunal survey of the Oedipodinae (Acrididae: Orthoptera) of the Menoua Division in Cameroon. *International Journal of Fauna and Biological Studies*. 1(1): 15-19.
- Sendaydiego, J.P., Torres, M.A.J. and Demayo, C.G. 2013. Describing wing geometry of *Aedes Aegypti* using landmark-based geometric morphometrics. *International Journal of Bioscience, Biochemistry and Bioinformatics*. 3(4): 379-382.
- Senguttuvan, K. and Kuttalam, S. 2018. Biodiversity of Arthropod fauna in Tamil Nadu cabbage ecosystems. *J.Res. Angrau*. 46(2): 1-14.
- Senthilkumar, N. 2010. Orthopteroids in Kaziranga National park, Assam, India. *Journal of Threatened Taxa*. 2(10): 1227-1231.
- Senthlikumar, N., Barthakur, N.D. and Borah, N.J. 2006. Orthopteran fauna of the Gibbon Wildlife Sanctuary, Assam. Fauna of protected areas, 29: *Zoos' Print Journal*. 21(8): 2347-2349.

- Sergeev, M.G. 1998. Conservation of orthopteran biological diversity relative to landscape change in temperate Eurasia. *Journal of Insect Conservation*. 2(3): 247-252. <https://doi.org/10.1023/A:1009620519058> .
- Sesarini, C. and Remis, M.I. 2008. Molecular and morphometric variation in chromosomally differentiated populations of the grasshopper *Sinipta dalmani* (Orthoptera: Acrididae). *Genetica*. 133: 295–306. DOI 10.1007/s10709-007-9213-y
- Shah, S.A.A., Suhail, A., Arshad, M., Tayyib, M., Asghar, M. and Naqvi, S.A.H. 2008. Comparative studies on the external morphology of three species of the genus *Acrotylus fieber*. (Orthoptera). *International Journal of Agriculture and Biology*. 10: 267–72.
- Shannon, C.E. and Wiener, W. 1949. The mathematical theory. University of Illinois press, Urbana. P.117.
- Sharma, N. 2017. Acridoidea (Orthoptera) diversity of Takhni-Rehmapur wildlife sanctuary, Punjab, India. *Munis Entomology and Zoology*. 12(2): 389-396.
- Sheldon, J.K. and Rogers, L.E. 1978. Grasshopper food habits within a shrub-steppe community. *Oecologia*. 32(1): 85-92.
- Shishodia, M.S. and Gupta, S.K. 2009. Check-list of Orthoptera of Himachal Pradesh. *Journal of Threatened Taxa*. 1(11): 569-572.
- Shishodia, M.S. and Hazra, A.K. 1985. Insecta: Orthoptera. *Records of the Zoological Survey of India*. 82 (1-4): 15-32.
- Shishodia, M.S., Chandra, K. and Gupta, S.K. 2010. An annotated checklist of Orthoptera (Insecta) from India. *Records in Zoological Survey of India*. 1-366.
- Shrinivasan, C. and Muralirangan, M.C. 1992. Studies on short-horned grasshoppers (Acridoidea) of Tamil Nadu Part-I: Acridinae, Truxalinae, Gomphocerinae and Locustinae. *Hexapoda*. 4(1): 13-26.
- Silva, F.R.J., Battirola, L.D., Lhano, M.G., Sousa, W.O. and Marques, M.I. 2014. Morphometry of *Cornops aquaticum* (Orthoptera: Acrididae: Leptysminae) in the Pantanal of Mato Grosso. *Brazilian Journal of Biology*. 74(3): 730-738.
- Silva. A.C.S., Nunes, L.A., Batista, W.L. and Lhano, M.G. 2018. Morphometric variation among males of *Orphulella punctata* (De Geer, 1773) (Acrididae: Gomphocerinae) from different biomes in Brazil. *Journal of Orthoptera Research*. 27(2): 163–171. <https://doi.org/10.3897/jor.27.21203>

- Simon, C., Frati, F., Beckenbach, A., Crespi, B., Liu, H. and Flook, P.K. 1994. Evolution, weighting and phylogenetic utility of mitochondrial gene sequences and a compilation of conserved PCR primers. *Annals of the Entomological Society of America*. 87: 651–701.
- Simpson, E.H. 1949. Measurement of diversity. *Nature*. 163: 688.
- Singh, N.P., Singh, D.K., Haajra, P.K. and Sharma, B.D. 2000. Flora of India (Introductory Vol., Part II) Botanical Survey of India, Kolkata.
- Sirin, D., Eren, O. and Çıplak, B. 2010. Grasshopper diversity and abundance in relation to elevation and vegetation from a snapshot in Mediterranean Anatolia: role of latitudinal position in altitudinal differences. *Journal of Natural History*. 44: 21-22. 1343-1363. DOI: 10.1080/00222930903528214.
- Skinner, K.M. and Child, R.D. 2000. Multivariate analysis of the factors influencing changes in Colorado grasshopper abundances. *Journal of Orthoptera Research*. 103-109.
- Soliman, M.M., Haggag, A.A. and El-Shazly, M.M. 2017. Assessment of grasshopper diversity along a pollution gradient in the Al-Tebbin region, South Cairo, Egypt. *Journal of Entomology and Zoology Studies*. 5(1): 298-306.
- Song, H. 2009. Species-specificity of male genitalia is characterized by shape, size, and complexity. *Insect Systematics and Evolution*. 40: 159 - 170.
- Song, H., Marino-Perez, R., Woller, D.A. and Cigliano, M.M. 2018. Evolution, diversification, and biogeography of grasshoppers (Orthoptera: Acrididae). *Insect Systematics and Diversity*. 2(4): 3; 1–25. doi: 10.1093/isd/ixy008
- Southwood, T.R., Brown, V.K. and Reader, P.M. 1979. The relationships of plant and insect diversities in succession. *Biological journal of the Linnean society*. 12(4): 327-348.
- Spungis, V. 2007. Fauna and ecology of grasshoppers (Orthoptera) in the coastal dune habitats in Ziemupe Nature Reserve, Latvia. *Latvijas entomologs*. 44: 58–68.
- Stal, C. 1873. Orthoptera nova descripsit. Ofvers K. Vetensk Akad. Forh., Stockh. 30(4): 39-53.
- Strong, D.R., Lawton, J.H. and Southwood, T.R.E. 1984. Insects on plants: community patterns and mechanisms. Harvard University Press, Cambridge, Mass.
- Subhasish, G., Parimalendu, H. and Dipak, K.M. 2014. Suitable food plants for mass rearing of the short-horn grasshopper *Oxya hyla hyla* (Orthoptera: Acrididae). *European Journal of Entomology*. 111(3): 448-452.

-
- Suganya, M. and Manimegalai, K. 2021a. Geographical and seasonal variation effects on diversity and abundance of acridids fauna (Orthoptera: Acrididae) from Coimbatore, T.N., India. *Ecology, Environment and Conservation*. 27: 114-122.
- Suganya, M. and Manimegalai, K. 2021b. Intraspecific morphometric variation among males of *Aulacobothrus luteipes* (Acrididae: Gomphocerinae) from two different geographical regions. *International Journal of Entomology Research*. 6(4): 180 – 185.
- Suganya, M. and Manimegalai, K. 2021c. Landmark-based Geometric Morphometric Analysis of Wing Shape of *Trilophidia annulata* (Orthoptera: Acrididae). *Journal of Huazhong University of Science and Technology*. 50(6): 1-13.
- Suganya, M., Gunasekaran, C. and Manimegalai, K. 2020. Species richness and diversity of grasshopper fauna in different habitats of Bharathiar University campus, Coimbatore, Tamil Nadu, India. *Biolife*. 8(1): 10-17.
- Szovenyi, G. 2002. Qualification of grassland habitats based on their Orthoptera assemblages in the Koszeg Mountains (W-Hungary). *Entomologia Experimentalis et Applicata*. 104: 159–163.
- Taberlet, P., Coissac, E., Pompanon, F., Brochmann, C. and Willerslev, E. 2012. Towards next-generation biodiversity assessment using DNA metabarcoding. *Molecular Ecology*. 21: 2045–2050.
- Tajamul, M. and Ahmad, S.T. 2016. Life history statistics and comparative morphometric assessment of rice grasshopper, *Oxya Japonica* (Orthoptera: Acrididae). *International Journal of Pure and Applied Zoology*. 4(1): 92-98.
- Tamura, K., Stecher, G., Peterson, D., Filipski, A. and Kumar, S. 2013. MEGA6: molecular evolutionary genetics analysis version 6.0. *Molecular Biology and Evolution*. p.mst197.
- Tandon, S.K. 1988. Distributional pattern of grasshopper of India: The distribution of Oxyinae (Orthoptera: Acridoidea: Acrididae) in Indian region. *Records of the Zoological Survey of India*. 85(1): 101-110.
- Tandon, S.K. and Hazra, A.K. 1998. Faunal diversity in India: Orthoptera ENVIS Centre, *Zoological Survey of India*. 183-188.
- Thakkar, B., Parmar, S. and Parikh, P. 2015. Study on di-versity of Orthoptera fauna in South Gujarat, India. *International Journal of pure and applied Zoology*. 3(4): 368-374.

-
- The Plant List. 2013. Version 1.1. The Plant List, a working list of all plant species. Version 1.1. (Accessed on 27 December 2018).
- Trewick, S.A. 2008. DNA Barcoding is not enough: mismatch of taxonomy and genealogy in New Zealand grasshoppers (Orthoptera: Acrididae). *Cladistics*. 24: 240–254. 10.1111/j.1096-0031.2007.00174.x
- Turchin, P. 2003. Complex population dynamics: a theoretical/empirical synthesis. Princeton University Press, Princeton, N.J: P.455.
- Tuzun, A. 2009. Significance of wing morphometry in distinguishing some of the Hymenoptera species. *African Journal of Biotechnology*. 8(14): 3353–3363.
- Usmani, M K., Nayeem, R. and Akhtar, H. 2012. Field observations on the incidence of grasshopper fauna (Orthoptera) as a pest of Paddy and pulses. *European Journal of Experimental Biology*. 2(5):1912-1917.
- Usmani, M.K. and Nayeem, M.R. 2012. Studies on taxonomy and distribution of Acridoidea (Orthoptera) of Bihar, India. *Journal of Threatened Taxa*. 4(13): 3190–3204.
- Usmani, M.K., Khan, M.I. and Kumar, H. 2010. Studies on Acridoidea (Orthoptera) of Western Uttar Pradesh. *Biosystematica*. 4(1): 39-58.
- Uvarov, B.P. 1921a. Records and descriptions of Indian Acrididae. *The Annals and Magazine of natural history, London*. 7(9): 480-S09.
- Uvarov, B.P. 1924a. The collection and study of Indian Orthoptera. *Rept. Proc. 5th ent. Mtg. Pusa*. 318-324.
- Uvarov, B.P. 1927a. Distributional records of Indian Acrididae. *Records of Indian Museum, Kolkata*. 29: 233-240.
- Uvarov, B.P. 1942a. New Acrididae from India and Burma. *The Annals and Magazine of natural history, London*. 9(11) (56): 587-607.
- Uvarov, B.P. 1966. Grasshoppers and locust. A hand book of general acridology. Cambridge University Press. 1:1-481.
- Valentini, A., Pompanon, F. and Taberlet, P. 2009. DNA barcoding for ecologists. *Trends in Ecology and Evolution*. 24(2): 110–117. [http:// dx.doi.org/10.1016/j.tree.2008.09.011](http://dx.doi.org/10.1016/j.tree.2008.09.011)
- Vastrad, A.S. 1994. Morphometric of life-forms f grassoppers (Acridoidea: Orthoptera). *Karnataka Journal of Agricultural Sciences*. 7(2): 174-177.

- Vedenina, V. and Mague, N. 2011. Speciation in gomphocerine grasshoppers: molecular phylogeny versus bioacoustics and courtship behavior. *Journal of Orthoptera Research*. 20(1): 109-125.
- Vidhya, K. and Gopinath, J.M. 2017. Impact of climatic change and food availability on diversity of grasshopper population in Amirdhi forest and its adjoining places. *International Journal of Multidisciplinary Research and Development*. 4(2): 99-102.
- Vijayababu, C., Pavaraj, M., Rajan, M.K. 2016. Diversity of insect fauna in sugarcane field at Managaseri village, Virudhunagar district. *PARIPEX - Indian Journal of Research*. 5(6): 185-188.
- Villegas, J., Feliciangeli, M.D. and Dujardin, J.P. 2002. Wing shape divergence between *Rhodnius prolixus* from Cojedes (Venezuela) and *Rhodnius robustus* from Mérida (Venezuela). *Infection, Genetics and Evolution*. 2: 121-128.
- Villemant, C., Simbolotti, G. and Kenis, M. 2007. Discrimination of Eubazus (Hymenoptera, Braconidae) sibling species using geometric morphometrics analysis of wing venation. *Systematic Entomology*. 32(4): 625–634.
- Waghmare, S., Waghmare, D. and Bhatnagar, P.S. 2013. Species Diversity of Short Horned Grasshopper (Orthoptera: Acrididae) in Selected Grasslands of Solapur District, Maharashtra, India. *Journal Biodiversity and Endangered Species*. 1:110. doi:10.4172/2332-2543.1000110.
- Wagner, D.L. and Van Driesche, R.G. 2010. Threats posed to rare or endangered insects by invasions of nonnative species. *Annual Review of Entomology*. 55: 547-568.
- Walton, C. and Butlin, R.K. 1997. A phylogeny for grasshoppers of the genus *Chitaura* (Orthoptera: Acrididae) from Sulawesi, Indonesia, based on mitochondrial DNA sequence data. *Biological Journal of the Linnean Society*. 62: 365-382.
- Wang, H., Jiang, B., Gu, J., Wei, T., Lin, L. and Huang Y. 2021. Molecular phylogeny and species delimitation of the genus *Tonkinacris* (Orthoptera, Acrididae, Melanoplinae) from China. *Plos One*. 16(4): e0249431. <https://doi.org/10.1371/journal.pone.0249431>
- Waters, C.M., Orgill, S.E., Melville, G.J., Toole, I.D. and Smith, W.J. 2016. Management of grazing intensity in the semi-arid rangelands of southern Australia: Effects on soil and biodiversity. *Land Degradation and Development*. 1-30. doi:10.1002/ldr.2602

- Weiss, N., Zucchi, H. and Hochkirch, A. 2013. The effects of grassland management and aspect on Orthoptera diversity and abundance: site conditions are as important as management. *Biodiversity and Conservation*. 22(10): 2167-2178.
- White, T.C.R. 1993. The inadequate environment: nitrogen and the abundance of animals. Springer, Berlin.
- Whitman, D.W. 2008. The significance of body size in the Orthoptera: a review. *Journal of Orthoptera Research*. 17: 117–134.
- Wilson, A.C., Cann, R.L., Carr, S.M., George, M., Jr Gyllensten, U.B., Helm-Bychowski, K., Higuchi, R.G., Palumbi, S.R., Prager, E.M., Sage, R.D. and Stoneking, M. 1985. Mitochondrial DNA and two perspectives on evolutionary genetics. *Biological Journal of the Linnean Society*. 26: 375–400.
- Wolstenholme, D.R. 1992. Animal mitochondrial DNA: structure and evolution. *International Review of Cytology*. 141: 173–216.
- Xia, X. 2013. DAMBE5: a comprehensive software package for data analysis in molecular biology and evolution. *Molecular Biology and Evolution*. 30(7): 1720-1728.
- Xia, X. and Lemey, P. 2009. Assessing substitution saturation with DAMBE. The phylogenetic handbook: a practical approach to DNA and protein phylogeny. 2: 615-630.
- Xia, X., Xie, Z., Salemi, M., Chen, L. and Wang, Y. 2003. An index of substitution saturation and its application. *Molecular Phylogenetics and Evolution*. 26(1): 1-7.
- Yachi, S. and Loreau, M. 1999. Biodiversity and ecosystem productivity in a fluctuating environment: the insurance hypothesis. *Proceedings of the National Academy of Sciences*. 96(4):1463-1468.
- Yadav, S., Stow, A.J., Harris, R.M.B. and Dudaniec, R.Y. 2018. Morphological variation tracks environmental gradients in an agricultural pest, *Phaulacridium vittatum* (Orthoptera: Acrididae). *Journal of Insect Science*. 18(6): 13; 1–10. doi: 10.1093/jisesa/iey121
- Yamagishi, M. and Tanaka, S. 2009. Overwintering biology and morphological characteristics of the migratory locust, *Locusta migratoria* after outbreaks on Iheya Island, Japan. *Applied Entomology and Zoology*. 44(1): 165–174. <http://odokon.org/>
- Zelditch, M.L., Swideriski, D.L., Sheets, H.D. and Fink, W.L. 2004. Geometric morphometrics for biologists: a primer. Elsevier Academic Press, London.

- Zhang, C. and Huang, Y. 2008. Complete mitochondrial genome of *Oxya chinensis* (Orthoptera, Acridoidea). *Acta Biochim Biophys Sin.* 40(1): 7-18. DOI: 10.1111/j.1745-7270.2008.00375.x
- Zhang, D., Han, H., Yin, H., Li, X., Yin, Z. and Yin, X. 2011. Molecular phylogeny of Pamphagidae (Acridoidea, Orthoptera) from China based on mitochondrial cytochrome oxidase II sequences. *Insect Science.* 18: 234–244. DOI 10.1111/j.1744-7917.2010.01359.x
- Zhao, L., Lin, L.L. and Zheng, Z.M. 2016. DNA barcoding reveals polymorphism in the Pygmy grasshopper *Tetrix bolivari* (Orthoptera, Tetrigidae). *ZooKeys.* 582: 111–120. doi: 10.3897/zookeys.582.6301