

CONTENTS**Research Article**

1. MD. HARUN-OR-RASHID, MD. AKHTARUZZAMAN SARKAR, NIRMAL KUMAR DUTT, ASHIS KUMAR SAHA AND MOHAMMAD TOFAZZAL HOSSAIN HOWLADER, First record of citrus leaf roller *Archips machlopi* (Meyrick) on sweet orange in Bangladesh 871
2. ALESSANDRO LAMPO AND HOU TONG SUN, Acceptance of insects as food: an exploratory study of young consumers in Macau 875
3. A A SAFEENA MAJEED, N SRINIVASA, K RAJASHEKHARAPPA, C CHINNAMADEGOWDA AND H P RAKESH, Genetic diversity of major polyphagous spider mite species across host plants and spatial distribution 882
4. RASHMI JOSHI, NEETA GAUR AND SUDHA MATHPAL, Biochemical mechanism of insecticide resistance in *Spodoptera litura* (F) populations from Uttarakhand 892
5. P LOGESHKUMAR, R NALINI, A JOSEPHRAJKUMAR, P CHANDRAMANI, M L MINI, R DURAI SINGH, M MURUGAN AND K SURESH, Competitive regulation of dominant exotic whiteflies on coconut palms as influenced by biotic and abiotic factors 898
6. MAHAJAN RENUKA S AND BHAMARE V K, Residual toxicity of insecticides to egg parasitoids of *Spodoptera frugiperda* (J E Smith) 903
7. K ELAKKIYA, M MURUGAN, S V KRISHNAMAORTHY, N SENTHIL AND D VIJAYALAKSHMI, Field resistance to cyantraniliprole in *Plutella xylostella* 908
8. GRACE MARIN, SUBRAMANIAN ARIVOLI AND SAMUEL TENNYSON, Effect of micronutrient supplemented mulberry leaves on larvae of silk worm *Bombyx mori* 914
9. SUNIL SUNIL, NARESH M MESHARAM AND PRIYANKA THAKUR, Two new records of leafhoppers of the genus *Opsi* Fieber from India 921
10. PRIYA YADAV, SIMRAN ARORA, CHANDRA KANT SINGH AND R K SETH, Differential apyrene sperm activation elicited by various regions of male reproductive system of *Spodoptera litura* (F.) 927
11. V CHINNA BABU NAIK, SUBBIREDDY K B, V S NAGRARE AND M V VENUGOPALAN, Insecticide spray regimes to manage *Helicoverpa armigera* (Hubner) and their impact on natural enemies in cotton under high density planting system 932
12. MOHAN KUMAR GUPTA, ARUP KUMAR SARMA AND SHOBHA DUTTA DEKA, Effect of temperature on biology of *Brevicoryne brassicae* L and *Myzus persicae* Sulzer of cabbage 940
13. D K SHARMA, M S ALAM, MANPREET KAUR SAINI AND SUREKHA BHATIA, Evaluation of some botanicals, thermal treatment and packing materials against pulse beetle *Callosobruchus chinensis* L in chickpea 945

Research Communication

14. MONA M A ALI, MOHAMED ELSHEHABY, MOHAMED A A ABDEL-RAHMAN AND ABDELBASET M A ABDELREHEEM, Resistance in certain cantaloupe *Cucumis melo* L. cultivars to some sap sucking pests in Egypt 951

15. ANKIREDDY JAWAHAR REDDY, D V SAI RAM KUMAR, CH SREENIVASA RAO, V PRASANNAKUMARI AND V ROJA, Efficacy of native, commercial *Bacillus thuringiensis* and fungal formulations against okra shoot and fruit borer 955
16. ANAMIKA KAR, DEBALINA MAJHI, KALYAN CHAKRABORTI AND DILIP MISHRA, Species complex of leaf roller infesting litchi (*Litchi chinensis* Sonn) in West Bengal with their seasonal incidence 959
17. RAMYA RAJAN AND R S M SHAMSUDEEN, First record of *Megaselia scalaris* (Diptera: Phoridae) as a parasitoid of *Thyas coronata* (Lepidoptera: Erebidae) 963
18. SANTHOSH GOUD, SUBASINI PATTNAIK, IPSITA BISWAL, JAYA KISHOR SETH, RUPENANGSHU KUMAR HAZRA AND BARSA BAISALINI PANDA, New record of a mosquito *Uranotaenia lowii* (Theobald, 1901) from India 966
19. D R BANKAR AND V K BHAMARE, Growth and development of fall army worm *Spodoptera frugiperda* on cereals 969
20. SEMIGGA WILBERFORCE AND SURAJIT KALITA, Efficacy of *Piper nigrum* and *Cuminum cyminum* seed powders against *Callosobruchus chinensis* L. 973
21. ARSHDEEP SINGH CHAHAL, RABINDER KAUR, P S SHERA, SUDHENDU SHARMA, ANKITA THAKUR, H K MANGAT AND A MOHANASUNDARAM, Diversity of natural enemies associated with lac insect *Kerria lacca* (Kerr) in Punjab 977
22. VINEETHA V, MANI CHELLAPPAN AND BERIN PATHROSE, A rapid and easy bioassay method for stingless bees *Tetragonula travancorica* Shanas and Faseeh 980
23. S B RATHOD, V U SONALKAR, D B UNDIRWADE, P N MANE AND R B GHORADE, Efficacy of insecticide based seed treatments with neem seed extract sprays against sorghum shoot fly *Atherigona soccata* in sorghum 984
24. P DIVYA, S DHURUA, P SEETHARAMU, M S V CHALAM AND S GOVINDARAO, Efficacy of certain insecticides against sucking pests and phyllody in sesamum 987
25. N T DILEEP KUMAR AND K MURALI MOHAN, Bionomics of fall army worm *Spodoptera frugiperda* (J E Smith) on maize 991
26. SHALINI PANDEY AND RAM SINGH, Biology of leaf eating caterpillar *Trilocho varians* (Walker) on *Ficus microcarpa* 994
27. GURMEHAR KAUR GREWAL AND NEELAM JOSHI, Evaluation of adjuvants on growth and virulence of *Metarhizium rileyi* against *Spodoptera litura* (F) 997
28. C R SATPATHI, Biology and lifetable of whitebacked planthopper *Sogatella furcifera* (Horvath) on rice 1001
29. PUNAM N MADAVI, DEVENDRA KUMAR MEENA, RADHIKA WASU AND S K AHERKAR, Effect of magnetic field on *Corcyra cephalonica* eggs for parasitization by *Trichogramma chilonis* 1006
30. M AMUTHA AND R R RACHANA, A new host record for the invasive thrips *Thrips parvispinus* Karny from India 1009
31. DEVASHRAYEE VAIDIK M, D R PATEL AND P M SANKHLA, Efficacy of insecticides against pod borers of Indian bean 1012
32. AVINASH WAYAL, DHANRAJ UNDIRWADE, KHUSHAL JAWANJAL AND GAJANAN CHOPADE, Biorational management of *Spodoptera frugiperda* (J E Smith) on maize 1016
33. DEVASHRAYEE VAIDIK M AND D R PATEL, Population dynamics of major insect pests of Indian bean 1020
34. SHANKAR M, BALAZZII NAAIK R V T, SUMALINI K AND SHANKARAIAH M, Assessment of *Lecanicillium lecanii* (Zimmermen) against sucking pests in Bt cotton 1023
35. ARUN BAITHA, A K JAISWAL AND ANUJ KUMAR, Distributions pattern of protective silken discs weaved by larvae of sugarcane top shoot borer *Scirpophaga excerptalis* (Walker) 1026

36. SUBASH SINGH AND P S SARAO, Field evaluation of biopesticides against rice insect pests under organic farming	1030
37. SOUMYA K, A KRISHNAMOORTHY AND M G VENKATESHA, Evaluation of IPM modules against <i>Diaphania caesalis</i> (Walker) in jack fruit	1035
38. ARUP KUMAR SARMA, HIMASHREE GOSWAMI, JAYANTA KALITA, P K SARMA AND LAYANMOY BARTHAKUR, Occurrence of fall army worm <i>Spodoptera frugiperda</i> (J E Smith) in Assam	1039
39. SUKHPREET KAUR BRAR AND H S BHULLAR, Assessment of yield losses due to sucking pests in Bt cotton	1043
40. E PRIYADHARSHINI, N MUTHUKRISHNAN, B VINOTHKUMAR, N SATHIAH AND K PRABAKAR, Toxicity of imidacloprid 17.8%SL and triflumezopyrim 10%SC to rice brown planthopper <i>Nilaparvata lugens</i>	1047
41. R. SURYA RAJ, N MUTHUKRISHNAN, B VINOTH KUMAR, N SATHIAH AND K PRABAKAR, Toxicity of thiamethoxam 25WG and sulfoxaflor 21.8SC to rice white backed planthopper <i>Sogatella furcifera</i> (Horvath)	1050
42. ANIL KUMAR, GAGAN DEEP, RAVINDER NATH AND AMANPREET SINGH SRAN, Effects of date of transplanting on the incidence of rice leaf folder <i>Cnaphalocrocis medinalis</i> (Guenée) and its population dynamics	1054
43. ROZY RASOOL AND GHULAM MOHAMMAD LONE, Seasonal incidence of striped flea beetle <i>Phyllotreta striolata</i> F on cruciferous crops in north Kashmir	1057
44. P ANANDHI AND V AMBETHGAR, Evaluation of some ecofriendly IPM approaches in sorghum	1061
45. D SRINIVASA REDDY, Ecology of mango nut weevil <i>Sternochaetus mangiferae</i> (F.) and efficacy of insecticides	1066
46. MANDEEP PATHANIA, JASREET KAUR AND BEANT SINGH, Efficacy of neem based formulations against wheat aphids under semi-arid irrigated conditions in south-west Punjab	1069
47. AIJAZ AHMAD QURESHI, NISAR AHMAD PARAY, RIZWAN MUTHADIR KHANDI, SOBIYA SYEED AND RAIS AHMAD GANAI, Diversity of Odonata of district Pulwama of Kashmir	1073
48. RAJWINDER KAUR, MANMEET BRAR BHULLAR, D R SHARMA, P K ARORA AND B V C MAHAJAN, Rind scarring caused by biotic and abiotic factors influences kinnow fruit quality	1077
49. RIZWANA KHURSHID, SAJAD A GANIE, PARVEENA BANO, M A PARAY, ZUL-NURAN HAIFA AND TAHIR R DAR, Efficacy of mineral oils against San Jose scale and European red mite on apple	1081
50. K SIDDHARTHA, C CHINNIHAH, M SHANTHI, C RAJAMANICKAM AND M L MINI, Influence of trichomes on the incidence of two spotted spider mite <i>Tetranychus urticae</i> on brinjal	1084
Review	
51. C M KALLESHWARASWAMY, Potential invasive termites in India and importance of integrative taxonomy	1088
52. R SUNDARARAJ, R RAJA RISHI AND K N MANJULA, Emerging phytoplasma diseases in forestry and the role of determining the insect vectors for the management of the diseases	1105
53. VIJAYANANDRAJ SELVARAJ, V SURYANARAYANA, V VENKATARAVANAPPA, G P RAO AND BIKASH MANDAL, Diagnosis of phytoplasma associated with the sandalwood spike disease	1115
54. SUMAN LAKHANPAUL, VIBHUTI SINGH, SACHIN KUMAR, AMRITA SINGH, PRATIMA VERMA AND SHUBHANGI KALLA, Molecular mechanism underlying symptom development in phytoplasma associated diseases - the key players and their role	1127
55. K PRABHA, K S GIRISH AND K V PRASAD, Phytoplasmas, the fast spreading vector borne pathogens of flower crops: Indian scenario	1137
56. VINAYAKA HEGDE, MERIN BABU AND A JOSEPHRAJKUMAR, Global scenario on phytoplasmal diseases in palms	1150

57. C A VIRAKTAMATH, In search of insect vectors of phytoplasmas with a note on vectors of *Xylella fastidiosa* 1165
58. A INDHU, J LAZAR, S PRASAD AND K ANUPAMA, Pollinators in tropical ecosystems of Southern India with emphasis on the native pollinators *Apis cerana indica* and *Tetragonula iridipennis* 1187
59. ROZY RASOOL AND SUDESHNA THAKUR, Mobility and degradation of pesticides in soil-risk to groundwater contamination 1200
- Opinion**
60. YOSHITAKA KAMIMURA, CHIKKABIDARE M KARTHIK AND CHICKNAYAKANAHALLI M KALLESHWARASWAMY, Time to restart: study of the Dermaptera of the Indian subcontinent 1213

Indian Journal of Entomology is now open access and its website is indianentomology.org which has all details required for a Journal's website. The journal is online at indianjournals.com. It is listed in Clarivate Analytics/ Web of Science Masterlist, and UGC and NAAS. The papers published in this journal are selectively abstracted/ indexed in Zoological Record; CAB Abstracts, CAB International, Wallingford, U.K; also CrossRef, Agricola, Google Scholar, CNKI Scholar, ICI, Indian Science, and Indian Citation Index. Also indexed in Electronic Magazine library, Max Planck Institute for Bildungsforschung, Berlin; and EBSCOhost global library database, USA. It is UGC approved. Each paper bears a doi number to facilitate online identity and access. The journal articles are also subjected to JATS Conversion from 2019 onwards.
