

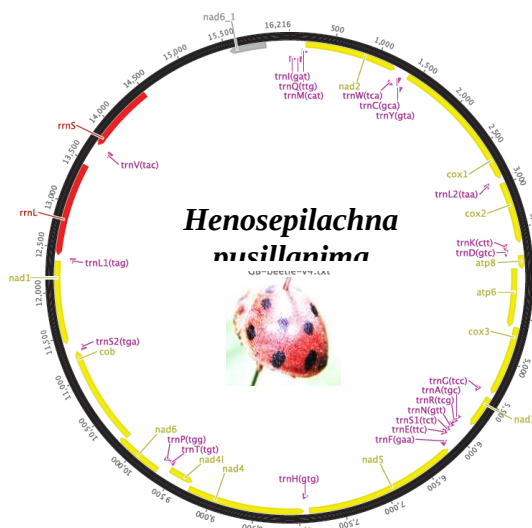
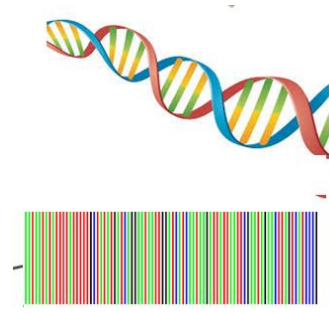
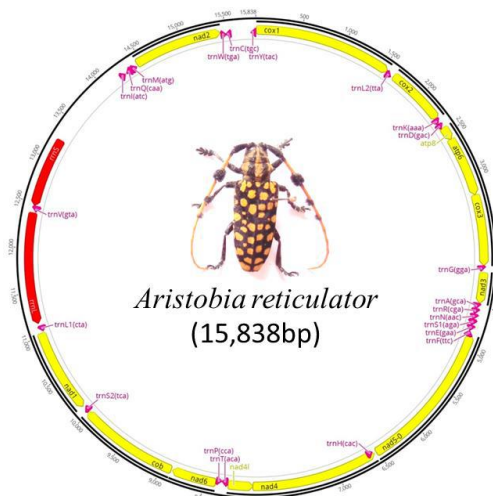
Insect DNA Barcode & Genomic Database

A Catalogue of DNA Barcodes, Genomes & Diagnostic Tools of Insect Pests, Beneficial Insects and Bio-control agents in Northeast India

Created by

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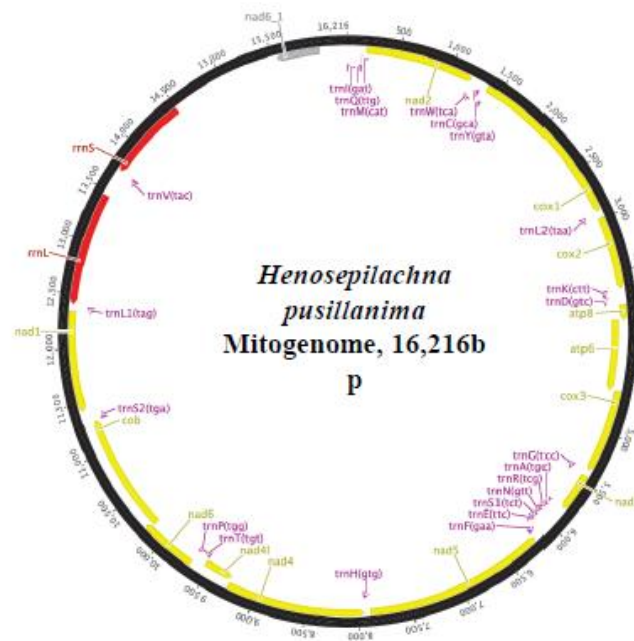
Behere G.T., Firake D.M. and Singh N.U. 2020. Insect DNA barcode & Genomic Database: A Catalogue of DNA Barcodes, genomes & diagnostic tools of Insect Pests, Beneficial Insects and Bio-control agents in Northeast India. <http://www.kiran.nic.in/>.

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Mitochondrial DNA

Mitochondrial DNA, 2016; 27(1): 291–292
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Complete mitochondrial genome

MITOCHONDRIAL DNA PART B
2019, VOL. 4, NO. 1, 1592–1593
<https://doi.org/10.1080/23802359.2019.1602004>

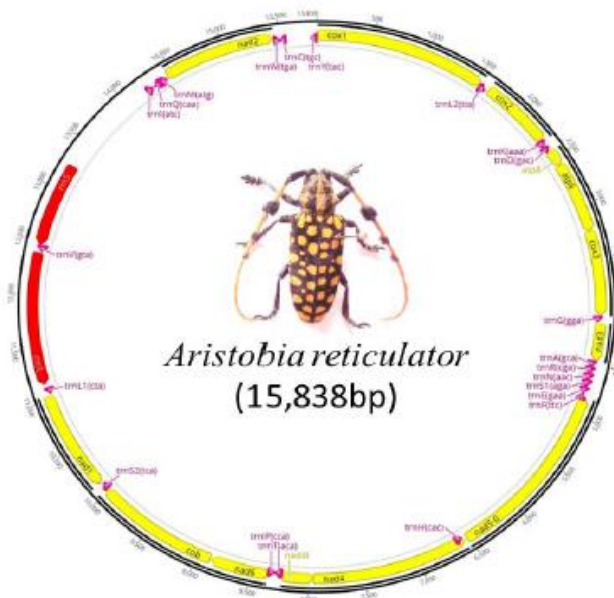


MITOGENOME ANNOUNCEMENT

OPEN ACCESS

Characterization of draft mitochondrial genome of guava trunk borer, *Aristobia reticulator* (Fabricius, 1781) (Coleoptera: Cerambycidae: Lamiinae) from India

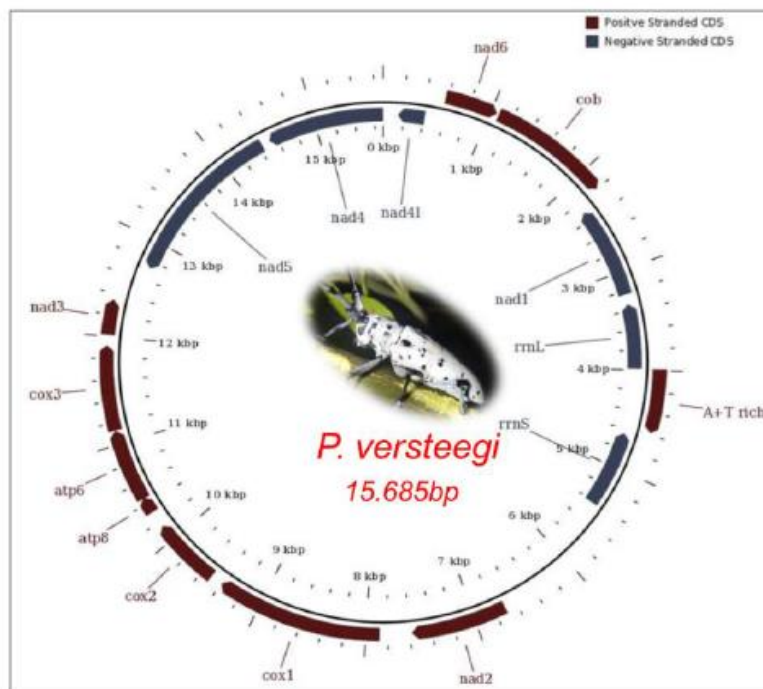
G. T. Behere^a , W. T. Tay^b, D. M. Firake^a, D. Kunz^b, P. S. Burange^c and V. V. Ramamurthy^d



Aristobia reticulator
(Guava Trunk Borer or Litchi Trunk Borer)

NCBI Accession No: MK423971

Draft mitochondrial genomes, Citrus Trunk borer (*Pseudonemophas species complex*)



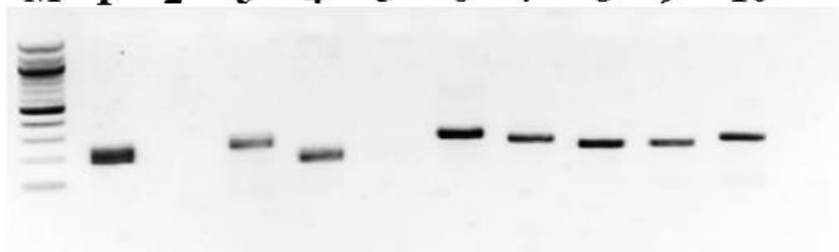
- Pests of Citrus and unique to NE Region
- Size of the assembled mitogenome was **15,685bp** long
- **13** protein coding genes
- **22** Transfer RNA (tRNA) gene
- **2** Ribosomal RNA (rRNA) gene
- **1** Control region (A+T rich region)
- No gene re-arrangement when compared to other cerambycid beetles

Circular plot of mitogenome of Citrus Trunk Borer having size of 15,685 bp and comprising of 13 protein coding genes. The gene orientation of mitochondrial genome is indicated in the circos plot: positive stranded are shown by maroon color bars and negative strand CDS are shown by other colors.

PCR based molecular tool for rapid and reliable identification of fruit flies



M 1 2 3 4 5 6 7 8 9 10



Total **11 fruit fly species** were found feeding on fruits and vegetables in Meghalaya

- Significant morphological similarities in between species of fruit flies (*Bactrocera* sp)
- Characterized microsatellite loci (boms3a)
- Identification is based on sequence length polymorphism
- Robustness of the tool has been validated on many specimens of individual species

Species specific molecular markers for identification of *Henosepilachna* species

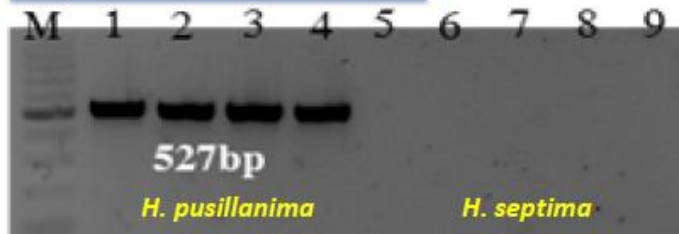


Henosepilachna species

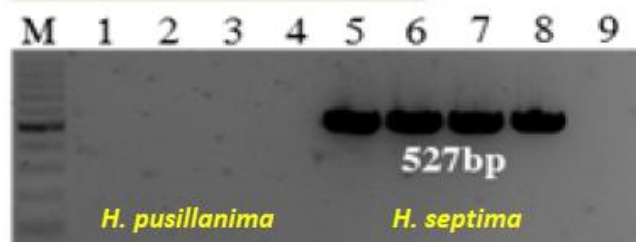
Cytochrome Oxidase I gene (1531bp)



GBHPF1 and GBHPR1



GBHSF1 and GBHSR1



- Designed primers at highly conserved region of COI gene
- These species specific markers are highly specific to respective species
- Markers validated on 10 individual of each species collected from Meghalaya (Tura and Umiam), Assam (Kamrup) and Kalyani (West Bengal)

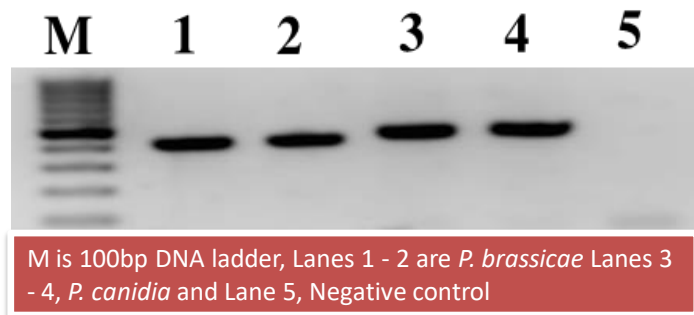
PCR based molecular tool for identification *Pieris* species



Pieris brassicae

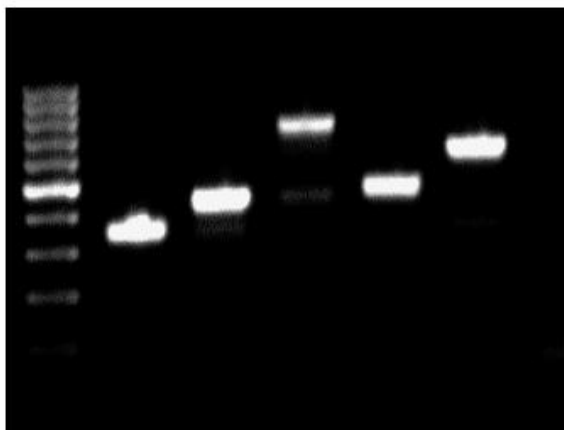


Pieris canidia



- Significant morphological similarities in between species of cabbage white butterfly (*Pieris* species)
- Sequenced length polymorphism at ITS 1 region
- Stage independent PCR based molecular developed for reliable and rapid identification

PCR based molecular tool for identification of five species of Syrphid fly



S. macrogaster; *E. viridaureus*, *M. confrator*, *M. orientale* and *E. cerealis*

- Syrphid flies are taxonomically difficult for identification
- Significant sequence length polymorphism were detected in five species of syrphid flies at ITS 1 region
- PCR based molecular tool developed for reliable and rapid identification

A Catalogue of DNA Barcodes of Insect Pests, Beneficial Insects and Bio-control agents in Northeast India

SN	Insect and spider species	Order	Family	NCBI Accession Number
1	<i>Pharsalia subgemma</i> (Thomson)	Coleoptera	Cerambycidae	MK689212
2	<i>Batocera lineolata</i> Chevrolat	Coleoptera	Cerambycidae	MK689189
3	<i>Sthenias grisator</i> (Fabricius)	Coleoptera	Cerambycidae	MK689216
4	<i>Arthrotus flavocincta</i>	Coleoptera	Chrysomellidae	MF140486
5	<i>Penthimia</i> spp.	Coleoptera	Cerambycidae	MK862267
6	<i>Stromatium barbatum</i> (Fabricius)	Coleoptera	Cerambycidae	MK689217
7	<i>Xylorhiza adusta</i> (Wiedemann)	Coleoptera	Cerambycidae	MK689218
8	<i>Epepeotes uncinatus</i> Gahan	Coleoptera	Cerambycidae	MK689194
9	<i>Apomecyna cretacea</i> (Hope)	Coleoptera	Cerambycidae	MK689186
10	<i>Glenea pulchra</i> Aurivillius	Coleoptera	Cerambycidae	MK689198
11	<i>Arhopalus fesus</i> (Mulsant)	Coleoptera	Cerambycidae	MK689187

12	<i>Macrochenus guerinii</i> (White)	Coleoptera	Cerambycidae	MK689201
13	<i>Aeolesthes sarta</i> (Solsky)	Coleoptera	Cerambycidae	MK689184
14	<i>Oxyopes</i> spp.	Araneae	Oxyopidae	MH395845
15	<i>Oxyopes</i> spp.	Araneae	Oxyopidae	MH395845
16	<i>Psylliodes</i> sp.1	Coleoptera	Chrysomellidae	MF140508
17	<i>Niphona hookeri</i> Gahan	Coleoptera	Cerambycidae	MK689208
18	<i>Chlorophorus strobilicola</i> Champion	Coleoptera	Cerambycidae	MK689191
19	<i>Nupserha dubia</i> Gahan	Coleoptera	Cerambycidae	MK689211
20	<i>Ancyloprotus biggibosus</i>	Coleoptera	Cerambycidae	MK704501
21	<i>Morimus inaequalis</i> Waterhouse	Coleoptera	Cerambycidae	MK689206
22	<i>Melanauster beryllinus</i> (Hope)	Coleoptera	Cerambycidae	MK689202
23	<i>Eunidia lateralis</i> Gahan	Coleoptera	Cerambycidae	MK689196
24	<i>Imantocera penicilleta</i> (Hope)	Coleoptera	Cerambycidae	MK689200
25	<i>Chlorophorus annularis</i> (Fabricius)	Coleoptera	Cerambycidae	MK689190

26	<i>Exocentrus alboguttatus</i> Fisher	Coleoptera	Cerambycidae	MK689195
27	<i>Thylactus simulans</i> Gahan	Coleoptera	Cerambycidae	MK704503
28	<i>Aristobia reticulator</i>	Coleoptera	Cerambycidae	MK689188
29	<i>Pseudonemophas versteegi</i>	Coleoptera	Cerambycidae	MK689213
30	<i>Apomecyna saltator</i> (Fabricius)	Coleoptera	Cerambycidae	MK689185
31	<i>Monochamus bimaculatus</i> Gahan	Coleoptera	Cerambycidae	MK689204
32	<i>Moechotypa delicatula</i>	Coleoptera	Cerambycidae	MK704502
33	<i>Acalolepta</i> spp.	Coleoptera	Cerambycidae	MK704500
34	<i>Acalolepta</i> spp.	Coleoptera	Cerambycidae	MK689182
35	<i>Monochamus</i> spp.	Coleoptera	Cerambycidae	MK689203
36	<i>Acalolepta</i> spp.	Coleoptera	Cerambycidae	MK689183
37	<i>Pharsalia</i> spp.	Coleoptera	Cerambycidae	MK689209
38	<i>Niphona</i> spp.	Coleoptera	Cerambycidae	MK689210
39	<i>Linda</i> spp.	Coleoptera	Cerambycidae	MK689199

40	<i>Neoplocaederus</i> spp.	Coleoptera	Cerambycidae	MK689207
41	<i>Dorysthenes</i> spp.	Coleoptera	Cerambycidae	MK689193
42	<i>Pterolophia</i> spp.	Coleoptera	Cerambycidae	MK689214
43	<i>Rondibilis</i> spp.	Coleoptera	Cerambycidae	MK689215
44	<i>Monochamus</i> spp.	Coleoptera	Cerambycidae	MK689205
45	<i>Dihammus</i> spp.	Coleoptera	Cerambycidae	MK689192
46	<i>Exocentrus</i> spp.	Coleoptera	Cerambycidae	MK689197
47	<i>Aeolesthus</i> spp.	Coleoptera	Cerambycidae	MK733236
48	<i>Dorysthenes</i> spp.	Coleoptera	Cerambycidae	MK733238
49	<i>Macrotoma</i> spp.	Coleoptera	Cerambycidae	MK733237
50	<i>Olenecamptus bilobus</i> (Fabricius)	Coleoptera	Cerambycidae	MK733239
51	<i>Xystrocera globosa</i> (Oliver)	Coleoptera	Cerambycidae	MK733240
52	<i>Xylotrupes siamensis</i>	Coleoptera	Scarabaeidae	KF494189
53	<i>Megalocaria dilatata</i>	Coleoptera	Coccinellidae	KT693129

54	<i>Megalocaria dilatata</i>	Coleoptera	Coccinellidae	KT693130
55	<i>Cheilomenes sexmaculata</i>	Coleoptera	Coccinellidae	KT693131
56	<i>Cheilomenes sexmaculata</i>	Coleoptera	Coccinellidae	KT693132
57	<i>Coccinella transversalis</i>	Coleoptera	Coccinellidae	KT693133
58	<i>Coccinella transversalis</i>	Coleoptera	Coccinellidae	KT693134
59	<i>Coccinella transversalis</i>	Coleoptera	Coccinellidae	KT693135
60	<i>Henosepilachna septima</i>	Coleoptera	Coccinellidae	KT693136
61	<i>Henosepilachna septima</i>	Coleoptera	Coccinellidae	KT693137
62	<i>Henosepilachna septima</i>	Coleoptera	Coccinellidae	KT693138
63	<i>Micraspis</i> sp.	Coleoptera	Coccinellidae	KT693139
64	<i>Micraspis</i> sp.	Coleoptera	Coccinellidae	KT693140
65	<i>Micraspis</i> sp.	Coleoptera	Coccinellidae	KT693141
66	<i>Micraspis</i> sp.	Coleoptera	Coccinellidae	KT693142
67	<i>Myloccerus blandu</i>	Coleoptera	Curculionidae	KR868760

68	<i>Luperomorpha</i> spp.	Coleoptera	Chrysomellidae	MF140520
69	<i>Psylliodes</i> sp2	Coleoptera	Chrysomellidae	MF140512
70	<i>Henosepilachna vigintioctopunctata</i>	Coleoptera	Coccinellidae	MF140482
71	<i>Epicauta</i> spp.	Coleoptera	Meloidae	MF155637
72	<i>Mylabris</i> spp.	Coleoptera	Meloidae	MF155639
73	<i>Anomala grandis</i>	Coleoptera	Scarabaeidae	KX351378
74	<i>Leucopholis lepidophora</i>	Coleoptera	Scarabaeidae	KX351390
75	<i>Xylotrupes siamensis</i>	Coleoptera	Scarabaeidae	KX351407
76	<i>Monolepta quadriguttata</i>	Coleoptera	Chrysomellidae	KX351393
77	<i>Phyllotreta striolata</i>	Coleoptera	Chrysomelidae	KT175603
78	<i>Monolepta quadriguttata</i>	Coleoptera	Chrysomelidae	KT175583
79	<i>Menochilus sexmaculatus</i>	Coleoptera	Coccinellidae	MF140498
80	<i>Hippodamia variegata</i>	Coleoptera	Coccinellidae	MF140499
81	<i>Cryptogonus bimaculatus</i>	Coleoptera	Coccinellidae	MF140507

82	<i>Harmonia dimidiata</i>	Coleoptera	Coccinellidae	MF140483
83	<i>Micraspis</i> spp.	Coleoptera	Coccinellidae	MF140503
84	<i>Micraspis</i> spp.	Coleoptera	Coccinellidae	MH198031
85	<i>Propylea japonica</i>	Coleoptera	Coccinellidae	MF140502
86	<i>Cryptogonus quadriguttatus</i>	Coleoptera	Coccinellidae	MF140493
87	<i>Oenopia kirbyi</i>	Coleoptera	Coccinellidae	MF140516
88	<i>Oenopia kirbyi</i>	Coleoptera	Coccinellidae	MH198028
89	<i>Scymnus posticalis</i>	Coleoptera	Coccinellidae	MF140494
90	<i>Oenopia sexareata</i>	Coleoptera	Coccinellidae	MF140521
91	<i>Oenopia sexareata</i>	Coleoptera	Coccinellidae	MH198027
92	<i>Coccinella transversalis</i>	Coleoptera	Coccinellidae	MF140496
93	<i>Coccinella septumpunctata</i>	Coleoptera	Coccinellidae	MF140506
94	<i>Coccinella septumpunctata</i>	Coleoptera	Coccinellidae	MH395851
95	<i>Cryptogonus</i> spp.	Coleoptera	Coccinellidae	KX351386

96	<i>Coelophora</i> spp.	Coleoptera	Coccinellidae	KX351384
97	<i>Oenopia</i> spp.	Coleoptera	Coccinellidae	KX351399
98	<i>Micraspis</i> spp.	Coleoptera	Coccinellidae	KT175601
99	<i>Micraspis confrator</i>	Coleoptera	Coccinellidae	KT175606
100	<i>Oenopia</i> spp.	Coleoptera	Coccinellidae	KT175581
101	<i>Coccinella transversalis</i>	Coleoptera	Coccinellidae	KT175577
102	<i>Coccinella septumpunctata</i>	Coleoptera	Coccinellidae	KT175578
103	<i>Micraspis</i> spp.	Coleoptera	Coccinellidae	KX351392
104	<i>Henosepilachna pusillanima</i>	Coleoptera	Coccinellidae	MH395853
105	<i>Henosepilachna pusillanima</i>	Coleoptera	Coccinellidae	MH198032
106	<i>Henosepilachna pusillanima</i>	Coleoptera	Coccinellidae	MH395854
107	<i>Henosepilachna</i> spp.	Coleoptera	Coccinellidae	MH395851
108	<i>Aulacophora lewisii</i>	Coleoptera	Chrysomilidae	MH198035
109	<i>Paridea</i> spp.	Coleoptera	Chrysomilidae	MH198026

110	<i>Prionocerus</i> spp.	Coleoptera	Cleroidea	MF155638
111	<i>Sphaerophoria macrogaster</i>	Diptera	Syrphidae	KT175599
112	<i>Melanostoma orientale</i>	Diptera	Syrphidae	KT175592
113	<i>Episyrphus viridaureus</i>	Diptera	Syrphidae	KT175585
114	<i>Eristalia cerealis</i>	Diptera	Syrphidae	KT175588
115	<i>Tachinidae</i> sp1	Diptera.	Tachinidae	KT175593
116	<i>Tachinidae</i> sp2	Diptera.	Tachinidae	KT175602
117	<i>Episyrphus balteatus</i>	Diptera	Syrphidae	MF140500
118	<i>Melanostoma</i> spp.	Diptera	Syrphidae	MF155640
119	<i>Sphaerophoria macrogaster</i>	Diptera	Syrphidae	MF140522
120	<i>Bactrocera zonata</i>	Diptera	Tephritidae	KT151121
121	<i>Bactrocera scutellaris</i>	Diptera	Tephritidae	KT151118
122	<i>Bactrocera</i> sp2	Diptera	Tephritidae	KT151123
123	<i>Bactrocera scutellaris</i>	Diptera	Tephritidae	KT151118

124	<i>Bactrocera</i> sp2	Diptera	Tephritidae	KT151123
125	Tachinidae sp1	Diptera	Tachinidae	KT175593
126	Tachinidae sp2	Diptera	Tachinidae	KT175602
127	<i>Bactrocera dorsalis</i>	Diptera	Tephritidae	KT151116
128	<i>Allactoneura</i> spp.	Diptera	Mycetophilidae	KT175590
129	<i>Bactrocera tuberculata</i>	Diptera	Tephritidae	KT151120
130	<i>Bactrocera cucurbitae</i>	Diptera	Tephritidae	KT151115
131	<i>Bactrocera cucurbitae</i>	Diptera	Tephritidae	MH198034
132	<i>Bactrocera tau</i>	Diptera	Tephritidae	KT151119
133	<i>Bactrocera tau</i>	Diptera	Tephritidae	MH198034
134	<i>Bactrocera</i> sp.1	Diptera	Tephritidae	KT151122
135	<i>Episyrphus balteatus</i>	Diptera	Syrphidae	MF140500
136	<i>Melanostoma</i> spp.	Diptera	Syrphidae	MF155640
137	<i>Liomyza sativae</i>	Diptera	Agromyzidae	

138	<i>Bactrocera celifera</i>	Diptera	Tephritidae	MH395848
139	<i>Spaniocelyphus falcatus</i>	Diptera	Celyphidae	MH395860
140	<i>Spaniocelyphus falcatus</i>	Diptera	Celyphidae	MH395861
141	<i>Bactrocera latifrons</i>	Diptera	Tephritidae	MF140511
142	<i>Allactoneura</i> spp.	Diptera	Mycetophilidae	KT175590
143	<i>Eurydema dominolus</i>	Hemiptera	Pentatomidae	KT175600
144	<i>Nezara viridula</i>	Hemiptera	Pentatomidae	KX351397
145	<i>Cletus rubidiventris</i>	Hemiptera	Coreidae	KX351382
146	<i>Andrallus spinidens</i>	Hemiptera	Pentatomidae	KX351377
147	<i>Cletus pugnator</i>	Hemiptera	Coreidae	MF140480
148	<i>Geocoris ochropterus</i>	Hemiptera	Geocoridae	MF140497
149	<i>Lygaeus militaris</i>	Hemiptera	Lygaeidae	MF140485
150	<i>Nysius caledoniae</i>	Hemiptera	Lygaeidae	MF140484
151	<i>Helopeltis cinchonae</i>	Hemiptera	Miridae	MF140517

152	<i>Eocanthecona furcellata</i>	Hemiptera	Pentatomidae	MF140504
153	<i>Eysarcoris montivagus</i>	Hemiptera	Pentatomidae	MF140501
154	<i>Nesidiocoris tenuis</i>	Hemiptera	Miridae	MF140518
155	<i>Leptoglossus gonagra</i>	Hemiptera	Coreidae	MH395857
156	<i>Malcus</i> spp.	Hemiptera	Malcidae	MH395858
157	<i>Myzus persicae</i>	Hemipetra	Aphididae	KT175584
158	<i>Cletus rubidiventris</i>	Hemiptera	Coreidae	KX351382
159	<i>Leptocorisa vericornis</i>	Hemiptera	Alydidae	KX351389
160	<i>Eurydema dominulus</i>	Hemiptera	Pentatomidae	KT175600
161	<i>Menida versicolor</i>	Hemiptera	Pentatomidae	KX351408
162	<i>Rhopalosiphum maidis</i>	Hemiptera	Aphididae	KX351405
163	<i>Bothrogonia tibetana</i>	Hemiptera	Cicadellidae	KX351379
164	<i>Nephotettix nigropictus</i>	Hemiptera	Cicadellidae	KX351394
165	<i>Nephotettix virescens</i>	Hemiptera	Cicadellidae	KX351396

166	<i>Rhopalosiphum padi</i>	Hemiptera	Aphididae	KX351406
167	<i>Nilaparvata lugens</i>	Hemiptera	Cicadellidae	KX351398
168	<i>Nezara viridula</i>	Hemiptera	Pentatomidae	MF140510
169	<i>Cletus pugnator</i>	Hemiptera	Coreidae	MF140480
170	<i>Diostrombus</i> sp.nr. <i>carnosa</i>	Hemiptera	Derbidae	KX351387
171	<i>Kolla paulula</i>	Hemiptera	Cicadellidae	MF140523
172	<i>Leptocentrus</i> spp.	Hemiptera	Membracidae	MF140489
173	<i>Lygaeus militaris</i>	Hemiptera	Lygaeidae	MF140485
174	<i>Aulacophora foveicollis</i>	Hemiptera	Lygaeidae	MF140495
175	<i>Macrosiphum euphorbiae</i>	Hemiptera	Aphididae	MF140509
176	<i>Borthogonia addita</i>	Hemiptera	Cicadellidae	MF140485
177	<i>Nysius caledoniae</i>	Hemiptera	Lygaeidae	MF140484
178	<i>Helopeltis cinchonae</i>	Hemiptera	Miridae	MF140517
179	<i>Myzus persicae</i>	Hemiptera	Aphididae	MF140519

180	<i>Aphis gossypii</i>	Hemiptera	Aphididae	MF140505
181	<i>Eocanthecona furcellata</i>	Hemiptera	Pentatomidae	MF140504
182	<i>Diostrombus carnosus</i>	Hemiptera	Derbidae	KX351387
183	<i>Eysarcoris montivagus</i>	Hemiptera	Pentatomidae	MF140501
184	<i>Penthima compacta</i>	Hemiptera	Cicadellidae	MF140515
185	<i>Rhapalosiphum rufiabdominale</i>	Hemiptera	Aphididae	MF140490
186	<i>Trialerodes vaporariorum</i>	Hemiptera	Aleyrodidae	MF140513
187	<i>Coridus</i> spp.	Hemiptera	Dinidoridae	MH395852
188	<i>Leptoglossus gonagra</i>	Hemiptera	Coreidae	MH395857
189	<i>Bothrogonia tibetana</i>	Hemiptera	Cicadellidae	MHZ198033
190	<i>Paralimnellus cingulatus</i> (Dlabola)	Hemiptera	Cicadellidae	MK862291
191	<i>Exitianus nanus</i> (Distant)	Hemiptera	Cicadellidae	MK862290
192	<i>Hishimonus acuminatus</i> Viraktamath-Murthy	Hemiptera	Cicadellidae	MK862289
193	<i>Mimotettix</i> spp.	Hemiptera	Cicadellidae	MK862288

194	<i>Goniagnathus guttulinervis</i> (Kirschbaum)	Hemiptera	Cicadellidae	MK862287
195	<i>Nephotettix virescens</i> (Distant)	Hemiptera	Cicadellidae	MK862285
196	<i>Scaphoideus assamensis</i> Distant	Hemiptera	Cicadellidae	MK862286
197	<i>Drabescus</i> spp.	Hemiptera	Cicadellidae	MK862284
198	<i>Nephotettix nigropictus</i> (Stal)	Hemiptera	Cicadellidae	MK862283
199	<i>Chiasmus niger</i> Singh-Pruthi	Hemiptera	Cicadellidae	MK862282
200	<i>Psamottetix emarginatus</i> Singh	Hemiptera	Cicadellidae	MK862281
201	<i>Goniagnathus punctifer</i> (Walker)	Hemiptera	Cicadellidae	MK862279
202	<i>Stirellus</i> spp.	Hemiptera	Cicadellidae	MK862278
203	<i>Hecalus arcuatus</i> (Motschulsky)	Hemiptera	Cicadellidae	MK862277
204	<i>Hishimonus phycitis</i> (Distant)	Hemiptera	Cicadellidae	MK862280
205	<i>Mukaria splendida</i> Distant	Hemiptera	Cicadellidae	MK862276
206	<i>Pseudosubhimalus bicolor</i> (Pruthi)	Hemiptera	Cicadellidae	MK862274
207	<i>Scaphoideus sculptus</i> Viraktamath	Hemiptera	Cicadellidae	MK862275

208	<i>Scaphoideuss abourrensis</i> Rao and Ramakrishnan	Hemiptera	Cicadellidae	MK862273
209	<i>Scaphoideus assamensis</i> Distant	Hemiptera	Cicadellidae	MK862272
210	<i>Paramesodes</i> spp.	Hemiptera	Cicadellidae	MK862270
211	<i>Phlogotettix indicus</i> Rao	Hemiptera	Cicadellidae	MK862271
212	<i>Drabescus</i> spp.	Hemiptera	Cicadellidae	MK862268
213	<i>Stirellus</i> spp.	Hemiptera	Cicadellidae	MK862269
214	<i>Malcus</i> spp.	Heteroptera	Malcidae	MH395858
215	<i>Hyposoter</i> spp.	Hymenoptera	Ichneumonidae	KT175586
216	<i>Diaeretiella rapae</i>	Hymenoptera	Braconidae	KT175594
217	<i>Cotessia glomeratus</i>	Hymenoptera	Braconidae	KT175595
218	<i>Cotessia</i> spp.	Hymenoptera	Braconidae	KT175607
219	<i>Ephedrus nacheri</i>	Hymenoptera	Braconidae	MF140514
220	<i>Apanteles</i> spp.	Hymenoptera	Braconidae	MH395849
221	<i>Brachymeria femorata</i>	Hymenoptera	Chalcididae	KX175580

222	<i>Diaeretiella rapae</i>	Hymenoptera	Braconidae	KT175594
223	<i>Ephedrus nacheri</i>	Hymenoptera	Braconidae	MF140514
224	<i>Apanteles</i> spp.	Hymenoptera	Braconidae	MH395849
225	<i>Arge xanthogaster</i>	Hymenoptera	Argidae	JX532103
226	<i>Lepidotrigona arcifera</i>	Hymenoptera	Apidae	MH347232.
227	<i>Lepidotrigona arcifera</i>	Hymenoptera	Apidae	MH347233
228	<i>Lepidotrigona arcifera</i>	Hymenoptera	Apidae	MH347234
229	<i>Lepidotrigona arcifera</i>	Hymenoptera	Apidae	MH347235
230	<i>Lepidotrigona arcifera</i>	Hymenoptera	Apidae	MH347236
231	<i>Tetragonula</i> sp. 1	Hymenoptera	Apidae	MH347237
232	<i>Tetragonula</i> sp. 1	Hymenoptera	Apidae	MH347238
233	<i>Tetragonula</i> sp. 2	Hymenoptera	Apidae	MH347239
234	<i>Spodoptera litura</i>	Lepidoptera	Noctuidae	MF140491
235	<i>Leucinodes orbonalis</i>	Lepidoptera	Crambidae	MF140481

236	<i>Spilarctia</i> sp. (b)	Lepidoptera	Erebidae	MH198024
237	<i>Tiracola plagiata</i>	Lepidoptera	Noctuidae	MH395863
238	<i>Spilarctia</i> sp (a)	Lepidoptera	Erebidae	MH395862
239	<i>Anadevidia peponis</i>	Lepidoptera	Noctuidae	MH198025
240	<i>Chrysodeixis eriosoma</i>	Lepidoptera	Noctuidae	MF140488
241	<i>Tuta absoluta</i>	Lepidoptera	Gelechiidae	KY923648
242	<i>Tiracola plagiata</i>	Lepidoptera	Noctuidae	MH395863
243	<i>Pieries canidia</i>	Lepidoptera	Pieridae	KT175605
244	<i>Pieries canidia</i>	Lepidoptera	Pieridae	KT175597
245	<i>Crocidolomia pavonana</i>	Lepidoptera	Crambidae	KT175582
246	<i>Spodoptera litura</i>	Lepidoptera	Noctuidae	KT175579
247	<i>Thysanoplusia orichalcae</i>	Lepidoptera	Noctuidae	KT175604
248	<i>Plutella xylostella</i>	Lepidoptera	Plutellidae	KT175591
249	<i>Plutella xylostella</i>	Lepidoptera	Plutellidae	JX532105

250	<i>Melanitis leda</i>	Lepidoptera	Nymphalidae	KX351391
251	<i>Cnaphalocrocis medinalis</i>	Lepidoptera	Crambidae	KX351383
252	<i>Parapoynx stagnalus</i>	Lepidoptera	Crambidae	KX351403
253	<i>Chilo partellus</i>	Lepidoptera	Crambidae	KX351380
254	<i>Chilo partellus</i>	Lepidoptera	Crambidae	KX351381
255	<i>Parnara ganga</i>	Lepidoptera	Hesperiidae	KX351404
256	<i>Orthetrum glaucum</i>	Odonata	Libellulidae	KX351401
257	<i>Crocothemis servilia</i>	Odonata	Libellulidae	KX351385
258	<i>Orthetrum pruinsum</i>	Odonata	Libellulidae	KX3511400
259	<i>Oxya hyla hyla</i>	Orthoptera	Acrididae	KX351402
260	<i>Atractomorpha burri</i>	Orthoptera	Pyrgomorphidae	MF140492
261	<i>Oxya hyla hyla</i>	Orthoptera	Acrididae	KX351402
262	<i>Atractomorpha burri</i>	Orthoptera	Pyrgomorphidae	MF140492
263	<i>Rhyacophila ngulpa</i>	Trichoptera	Rhyacophiloidea	KC119208

264	<i>Rhyacophila gelukpa</i>	Trichoptera	Rhyacophiloidea	KC119209
265	<i>Rhyacophila rongpa</i>	Trichoptera	Rhyacophiloidea	KC119210
266	<i>Phthorimaea operculella</i>	Lepidoptera	Gelechidae	MT516433
267	<i>Thysanoplusia orichalcea</i>	Lepidoptera	Geometridae	MT516438
268	<i>Tuta absoluta</i>	Lepidoptera	Gelechidae	MT541891
269	<i>Spodoptera litura</i>	Lepidoptera	Noctuidae	MT516439
270	<i>Helicoverpa armigera</i>	Lepidoptera	Noctuidae	MT516427
271	<i>Macrosiphum euphorbiae</i>	Hemiptera	Aphididae	MT516422
272	<i>Cletus punctulatus</i>	Hemiptera	Lygaeidae	MT516414
273	<i>Acanthocoris sordidus</i>	Hemiptera	Coreidae	MT516431
274	<i>Darthula hardwickii</i>	Hemiptera	Membracidae	MT516413
275	<i>Bagrada</i> sp.	Hemiptera	Pentatomidae	MT516416
276	<i>Cofana</i> sp.	Hemiptera	Cicadellidae	MT516430
277	<i>Epicauta</i> sp.	Coleoptera	Meloidae	MT516425

278	<i>Arthrotus flavocincta</i>	Coleoptera	Chrysomelidae	MT516419
279	<i>Monolepta quadriguttata</i>	Coleoptera	Chrysomelidae	MT516421
280	<i>Aulacophora foveicollis</i>	Coleoptera	Curculionidae	MT516424
281	<i>Myloccerus viridis</i>	Coleoptera	Curculionidae	MT516434
282	<i>Micraspis</i> sp.	Coleoptera	Coccinellidae	MT516418
283	<i>Coccinella septempunctata</i>	Coleoptera	Coccinellidae	MT516420
284	<i>Oenopia sexareata</i>	Coleoptera	Coccinellidae	MT516437
285	<i>Chelonus</i> sp.	Hymenoptera	Braconidae	MT516417
286	<i>Plecia nearctica</i>	Diptera	Pleciidae	MT516440
287	<i>Bibionidae</i> sp.	Diptera	Bibionidae	MT516432
288	<i>Episyrphus blateatus</i>	Diptera	Syrphidae	MT516428
289	<i>Sphaerophoria macrogaster</i>	Diptera	Syrphidae	MT516436
290	<i>Tipula</i> sp.	Diptera	Tipulidae	MT516435
291	<i>Dicranosepsis olfactoria</i>	Diptera	Sepsidae	MT516423

292	<i>Patchiella reaumuri</i>	Hemiptera	Aphididae	MT796073
293	<i>Helopeltis cinchonae</i>	Hemiptera	Miridae	MT775884
294	<i>Spodoptera frugiperda</i> (Host: Maize, Meghalaya)	Lepidoptera	Noctuidae	MN640599
295	<i>Spodoptera frugiperda</i> (Host: Ginger, Meghalaya)	Lepidoptera	Noctuidae	MN640598
296	<i>Chelonus formosanus</i>	Hymenoptera	Braconidae	MN640596
297	<i>Metopius rufus</i>	Hymenoptera	Ichneumonidae	MN640597
298	<i>Spodoptera frugiperda</i> (Sikkim)	Lepidoptera	Noctuidae	MT621018
299	<i>Spodoptera frugiperda</i> (Meghalaya)	Lepidoptera	Noctuidae	MN640599
300	<i>Spodoptera frugiperda</i> (Mizoram)	Lepidoptera	Noctuidae	MT881641
301	<i>Spodoptera frugiperda</i> (Manipur)	Lepidoptera	Noctuidae	MT881645
302	<i>Tuta absoluta</i> (Sikkim)	Lepidoptera	Gelechiidae	MT881642
303	<i>Tuta absoluta</i> (Manipur)	Lepidoptera	Gelechiidae	MT881644
304	<i>Thysanoplusia orichalcea</i>	Lepidoptera	Geometridae	MT516412

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