



Appendices

APPENDIX – I

Thiru. M. Radhakrishnan, B.Sc., (Hort.).
Assistant Director of Horticulture,
Government Botanical Garden,
Udhagamandalam,
The Nilgiris - 643 001.
Phone:0423 – 2442545.

CERTIFICATE

The plant specimens given by you for identification in Horticulture Department,
Government Botanical Garden, Udhagamandalam, The Nilgiris, are identified as:

1. *Blainvillea acmella*
2. *Ipomea pes tigridis*
3. *Croton bonplandianum*
4. *Euphorbia hitra*
5. *Ricinus Communis*
6. *Arachis hypogaea*
7. *Clitoria ternatea*
8. *Tephrosia purpurea*
9. *Ocimum tenuiflorum*
10. *Sida acuta*
11. *Boerhavia erecta*
12. *Oxalis comiculata*
13. *Phyllanthus niruri*
14. *Tribulus terrestris*
15. *Commelina diffusa*
16. *Cyperus rotundus*
17. *Aristida setacea*
18. *Brachiaria mutica*
19. *Cenchrus ciliaris*
20. *Chloris barbata*
21. *Cynodon dactylon*
22. *Dactyloctenium aegyptium*
23. *Digitaria sanguinalis*

Contd...

-2-

24. *Dinebra retroflexa*
25. *Oryza sativa*
26. *Panicum maximum*
27. *Pennisetum purpureum*
28. *Sorghum bicolor*
29. *Zea mays*
30. *Zaleya decandra*
31. *Achyranthes aspera*
32. *Alternanthera sessilis*
33. *Amaranthus viridis*
34. *Calotropis procera*
35. *Calotropis gigantea*
36. *Parthenium hysterophorus*
37. *Tridax procumbens*
38. *Wedelia chinensis*.



(Assistant Director of Horticult.,
Govt. Botanical Garden
Udhagamandalam-643001

TO
M. Suganya,
Department of Zoology,
Avinashilingam Institute for Home Science and Higher Education for Women,
Coimbatore.



APPENDIX – II

NCBI -GenBank accession number for *Trilophidia annulata*

Trilophidia annulata isolate Contig_BS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial

GenBank: OK037584.1
[FASTA](#) [Graphics](#)

[Go to:](#)

LOCUS OK037584 481 bp DNA linear INV 12-SEP-2021
 DEFINITION Trilophidia annulata isolate Contig_BS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial.
 ACCESSION OK037584
 VERSION OK037584.1
 KEYWORDS .
 SOURCE mitochondrion Trilophidia annulata
 ORGANISM [Trilophidia annulata](#)
 Eukaryota; Metazoa; Ecdysozoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Polyneoptera; Orthoptera; Caelifera; Acrididea; Acridomorpha; Acridoidea; Acrididae; Oedipodinae; Trilophidia.

REFERENCE 1 (bases 1 to 481)
 AUTHORS Suganya,M. and Manimegalai,K.
 TITLE Molecular identification and phylogenetic analysis of acridids
 JOURNAL Unpublished

REFERENCE 2 (bases 1 to 481)
 AUTHORS Suganya,M. and Manimegalai,K.
 TITLE Direct Submission
 JOURNAL Submitted (07-SEP-2021) Zoology, Avinashilingam Institute for Home Science and Higher Education for Women, Bharathi Park Dd, Near

FEATURES
 Location/Qualifiers
 source 1..481
 /organism="Trilophidia annulata"
 /organelle="mitochondrion"
 /mol_type="genomic DNA"
 /isolate="Contig_BS"
 /isolation_source="Grass land"
 /db_xref="taxon:215063"
 /country="India: tamilnadu"
 /collection_date="Dec-2019"
 /collected_by="Suganya Muthu"
 /PCR_primers="fwd_name: LCO, fwd_seq: gctcaacaatcataagatattgg, rev_name: HCO, rev_seq: taaacttcagggtgacccaaaaatca"
 gene <1..>481
 /gene="COX1"
 CDS <1..>481
 /gene="COX1"
 /codon_start=2
 /transl_table=5
 /product="cytochrome c oxidase subunit I"
 /protein_id="Q7Y62555.1"
 /translation="SMIGDDQIYNVITAHAFVMIFFMVPMIGGFGNWLPLMIGA PDMAFPRMNMFSFWLLPPSLILLSSSMVDSGAGTGWTVYPPLAGATAHGASVDLAI FSLHLGAVSSILGAVNFITTVINMRSESMTLQTPLFVNSVAITAILLLSLPLVLAGA "

ORIGIN
 1 atcaataatt ggagatgac aaattataa tgtaattatt acggcacacg catttggtat
 61 aattttcttt atagttatac caattataat tggaggattt ggaaattgat tagttccatt
 121 aataattgga gcaccagata tagcctttcc cgaataaat aacataagat ttgattatt
 181 accaccatca ttaatcctcc tcctatcatc ctcaatagtt gatagcggag ccggtacagg
 241 atgaacagtt taccctccat tagcaggagc tattgctcat ggaggagcat cagtagattt
 301 agctattttt tccttgatt tagcaggtgt ttcttccatt ctaggagcag ttaattttat
 361 tacaacagta ataatatac gatcagaag aataacttta gatcaaacac cattatttt
 421 ttgatctggt gcaattacag caattttatt actgttatct ttacctgtat tagcaggagc
 481 t
 //

APPENDIX – III

NCBI -GenBank accession number for *Aulacobothrus luteipes*

Aulacobothrus luteipes isolate CONTIG_AS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial

GenBank: OK037583.1
[FASTA](#) [Graphics](#)

Go to:

LOCUS OK037583 555 bp DNA linear INV 12-SEP-2021
 DEFINITION Aulacobothrus luteipes isolate CONTIG_AS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial.
 ACCESSION OK037583
 VERSION OK037583.1
 KEYWORDS .
 SOURCE mitochondrion Aulacobothrus luteipes
 ORGANISM [Aulacobothrus luteipes](#)
 Eukaryota; Metazoa; Ecdysozoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Polyneoptera; Orthoptera; Caelifera; Acrididea; Acridomorpha; Acridoidea; Acrididae; Gomphocerinae; Aulacobothrus.
 REFERENCE 1 (bases 1 to 555)
 AUTHORS Suganya,M. and Manimegalai,K.
 TITLE Molecular identification and phylogenetic analysis of acridids
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 555)
 AUTHORS Suganya,M. and Manimegalai,K.
 TITLE Direct Submission
 JOURNAL Submitted (07-SEP-2021) Zoology, Avinashilingam Institute for Home Science and Higher Education for Women, Bharathi Park Dd, Near Forest College Campus, Saibaba Colony, Coimbatore, Tamil Nadu 641043, India
 COMMENT ##Assembly-Data-START##
 Sequencing Technology :: Sanger dideoxy sequencing
 ##Assembly-Data-END##
 FEATURES
 source Location/Qualifiers
 1..555
 /organism="Aulacobothrus luteipes"
 /organelle="mitochondrion"
 /mol_type="genomic DNA"
 /isolate="CONTIG_AS"
 /isolation_source="Grass land"
 /db_xref="taxon:648562"
 /country="India: tamilnadu"
 /collection_date="Dec-2019"
 /collected_by="Suganya Muthu"
 /PCR_primers="fwd_name: LCO, fwd_seq: gctcaacaatcataaagatattgg, rev_name: HCO, rev_seq: taaacttcagggtgacaaaaaatca"
 gene <1..>555
 /gene="COX1"
 CDS <1..>555
 /gene="COX1"
 /codon_start=2
 /transl_table=5
 /product="cytochrome c oxidase subunit I"
 /protein_id="QZY62554.1"
 /translation="TLYFLFGAWAGMVGTSMSMIIRAELGQPGSLIGDDQIYNVIITA HAFVMIFFMVMPIIMIGGFNWL VPLMIGAPDMAFPRMNMFSWLL PPSLTLITSSMV DMGAGTGWTVYPLAGIAHGGGSVDLAI FSLHLGAVSSILGAVNFITAINMRSESM TLDQTPLFVWSVAITALLLLLSLPV"
 ORIGIN
 1 aactctatac ttcttattg gagcatgagc aggaatagta ggaacatcaa taagtataat
 61 tattcgagct gaacttgac aaccaggatc ttaattgga gatgatcaaa tctataatgt
 121 aattattaca gcacatgcat ttgtaatgat ttttttata gtaataccta ttataattgg
 181 gggatttggg aattgactcg ttcccttaat aattgggtgca ccagatatag catttccacg
 241 aataaataat atgagatttt gattattacc accatatta acacttttaa ttacttcttc
 301 tatagtgtac ataggggagc gcacaggatg aacagtttac ccacctctag caggagctat
 361 tgcacacgga ggaggatccg ttgatctagc tattttctcc cttcatttag cgggtgtatc
 421 ctctattcta ggagcagtaa actttattac tacagcaatt aatatacgt ctgaaagtat
 481 aacctagat caaacacat tatttctcg atcagttgct attacagcat tattgttact
 541 ttatcacta cctgt
 //

APPENDIX – IV

NCBI -GenBank accession number for *Oedaleus abruptus*

Oedaleus abruptus isolate CONTIG_ES cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial

GenBank: OK037586.1
[FASTA](#) [Graphics](#)

Go to:

LOCUS OK037586 554 bp DNA linear INV 12-SEP-2021
 DEFINITION Oedaleus abruptus isolate CONTIG_ES cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial.
 ACCESSION OK037586
 VERSION OK037586.1
 KEYWORDS .
 SOURCE mitochondrion Oedaleus abruptus
 ORGANISM [Oedaleus abruptus](#)
 Eukaryota; Metazoa; Ecdysozoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Polyneoptera; Orthoptera; Caelifera; Acrididea; Acridomorpha; Acridoidea; Acrididae; Oedipodinae; Oedaleus.
 REFERENCE 1 (bases 1 to 554)
 AUTHORS Suganya,M. and Manimegalai,K.
 TITLE Molecular identification and phylogenetic analysis of acridids
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 554)
 AUTHORS Suganya,M. and Manimegalai,K.
 TITLE Direct Submission
 JOURNAL Submitted (07-SEP-2021) Zoology, Avinashilingam Institute for Home Science and Higher Education for Women, Bharathi Park Dd, Near Forest College Campus, Saibaba Colony, Coimbatore, Tamil Nadu 641043, India
 COMMENT ##Assembly-Data-START##
 Sequencing Technology :: Sanger dideoxy sequencing
 ##Assembly-Data-END##
 FEATURES
 source Location/Qualifiers
 1..554
 /organism="Oedaleus abruptus"
 /organelle="mitochondrion"
 /mol_type="genomic DNA"
 /isolate="CONTIG_ES"
 /isolation_source="Grass land"
 /db_xref="taxon:701474"
 /country="India: tamilnadu"
 /collection_date="Dec-2019"
 /collected_by="Suganya Muthu"
 /PCR_primers="fwd_name: LCO, fwd_seq: gctcaacaaatcataaaatattgg, rev_name: HCO, rev_seq: taaacttcagggtgacccaaaaaatca"
 gene <1..>554
 /gene="COX1"
 CDS <1..>554
 /gene="COX1"
 /codon_start=2
 /transl_table=5
 /product="cytochrome c oxidase subunit I"
 /protein_id="QZY62557.1"
 /translation="TLYFMFGAWAGMVGTSMSMIIRAELGQPGSMIGDDQIYNVIITA HAFVMIFFMVMPIMIGGFGNLWVPLMIGAPDMAFPRMNNMSFWLLPPSLTLLILSSLV ENGVGTGWTVYPPPLASVIAHSGASVDMIAIFSLHLGAGISSILGAINFITTAINMRPNM TLEQTPLFVWSVAITALLLLSLP"
 ORIGIN
 1 caccttatac tttatattg gagcatgagc aggaatagta ggaacatcaa taagaataat
 61 tattcgagca gaactaggac aaccaggatc aataattgga gatgatcaaa tctataacgt
 121 aattattaca gcacatgcat ttgtaataat tttctttata gttataccaa ttataattgg
 181 aggatattgga aactgattag ttccattaat aattggagca ccagatagtag cattccccag
 241 aataaataac ataagatttt gattattacc accatcatta acactcttaa ttctatcctc
 301 tttagtagaa aatggagtag gaacaggatg aacagtttat ccaccattag caagagttag
 361 tgcacacaga ggagcatcgc tagatatagc aatttttca ttacacctag caggattttc
 421 atcaattctt ggagcaatta acttcattac aacagcaatc aatatacgac caaataatat
 481 aactcttgaa caaacaccgt tatttgatg atcagtagca attacagcat tacttctatt
 541 gctatctcta ccag
 //

APPENDIX – V

NCBI -GenBank accession number for *Dittopternis venusta***Dittopternis venusta isolate IS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial**

GenBank: OK039226.1

[FASTA](#) [Graphics](#)Go to:

LOCUS OK039226 521 bp DNA linear INV 12-SEP-2021

DEFINITION Dittopternis venusta isolate IS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial.

ACCESSION OK039226

VERSION OK039226.1

KEYWORDS .

SOURCE mitochondrion Dittopternis venusta

ORGANISM [Dittopternis venusta](#)

Eukaryota; Metazoa; Ecdysozoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Polyneoptera; Orthoptera; Caelifera; Acrididea; Acridomorpha; Acridoidea; Acrididae; Oedipodinae; Dittopternis.

REFERENCE 1 (bases 1 to 521)

AUTHORS suganya,M. and manimegalai,K.

TITLE Molecular identification and phylogenetic analysis of acridids

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 521)

AUTHORS suganya,M. and manimegalai,K.

TITLE Direct Submission

JOURNAL Submitted (07-SEP-2021) Zoology, Avinashilingam Institute for Home Science and Higher Education for Women, Bharathi Park Dd, Near Forest College Campus, Saibaba Colony, Coimbatore, Tamil Nadu 641043, India

COMMENT ##Assembly-Data-START##

Sequencing Technology :: Sanger dideoxy sequencing

##Assembly-Data-END##

FEATURES Location/Qualifiers

source

1..521
/organism="Dittopternis venusta"
/organelle="mitochondrion"
/mol_type="genomic DNA"
/isolate="IS"
/isolation_source="grassland"
/db_xref="taxon:645696"
/note="PCR_primers=fwd_name: LC01490, rev_name: HCO2198"[gene](#)

<1..>521

/gene="COX1"

[CDS](#)

<1..>521

/gene="COX1"

/codon_start=3

/transl_table=5

/product="cytochrome c oxidase subunit I"

/protein_id="QZY62578.1"

/translation="DDQIYNVVITAHAFIMIFFMVMPIMIGGFGNNLVLPMIGAPDMA
FPRMNMFSFWMLPPSLTLLILSSMIDGGAGTGWTVPYPLAGAIHGGASVDLAIIFSLH
LAGISSILGAVNFITAINMRSNSMTLDQTPLFVWSVAITALLLLLSLPVLAGAITML
LTDRLNNTSFFDP"

ORIGIN

1 gagatgatca aatctataat gtagttatca cagcacatgc atttattata attttcttta
61 tagtaataacc aattataatt ggaggatttg gaaattgact tgtaccacta ataattggag
121 caccagatat agcattccca cgaataaaca atataagatt ttgaatgta ccaccatcat
181 taacactcct tattttatcc tcaataattg atggaggagc agggacagga tgaacagtat
241 acccaccact agcaggagct attgcacacg gagggtgcatc agtagatccta gcaatttttt
301 caatacattt agcaggaatt tcatcaattc taggagcagt taattttatt acaacagcaa
361 ttaatatagc atcaaacaga ataaccttag accaaacacc actatttgtt tgcacagttg
421 caattacagc attattatta ttactttcac ttccagtatt agctggagct attactatac
481 tattaactga ccgaaactta aatagtcacat tctttgacct a

//

APPENDIX – VI

NCBI -GenBank accession number for *Oxya fuscovittata*

Oxya fuscovittata isolate Contig_FS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial

GenBank: OK037587.1
[FASTA](#) [Graphics](#)

[Go to](#)

LOCUS OK037587 572 bp DNA linear INV 12-SEP-2021
DEFINITION Oxya fuscovittata isolate Contig_FS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial.
ACCESSION OK037587
VERSION OK037587.1
KEYWORDS .
SOURCE mitochondrion Oxya fuscovittata
ORGANISM [Oxya fuscovittata](#)
Eukaryota; Metazoa; Ecdysozoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Polyneoptera; Orthoptera; Caelifera; Acrididea; Acridomorpha; Acridoidea; Acrididae; Oxyinae; Oxya.
REFERENCE 1 (bases 1 to 572)
AUTHORS Suganya,M. and Manimegalai,K.
TITLE Molecular identification and phylogenetic analysis of acridids
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 572)
AUTHORS Suganya,M. and Manimegalai,K.
TITLE Direct Submission
JOURNAL Submitted (07-SEP-2021) Zoology, Avinashilingam Institute for Home Science and Higher Education for Women, Bharathi Park Dd, Near Forest College Campus, Saibaba Colony, Coimbatore, Tamil Nadu 641043, India
COMMENT ##Assembly-Data-START##
Sequencing Technology :: Sanger dideoxy sequencing
##Assembly-Data-END##
FEATURES Location/Qualifiers
source 1..572
/organism="Oxya fuscovittata"
/organelle="mitochondrion"
/mol_type="genomic DNA"
/isolate="Contig_FS"
/isolation_source="Grass land"
/db_xref="taxon:640703"
/country="India: tamilnadu"
/collection_date="Dec-2019"
/collected_by="Suganya Muthu"
/PCR_primers="fwd_name: LCO, fwd_seq: gctcaacaatcataaagatattgg, rev_name: HCO, rev_seq: taaacttcagggtgaccaaataatca"
gene <1..>572
/gene="COX1"
CDS <1..>572
/gene="COX1"
/codon_start=1
/transl_table=5
/product="cytochrome c oxidase subunit I"
/protein_id="QZY62558.1"
/translation="DDQIYNVITAHAFVMIFFMVMPIMIGGFNWLVLPMIGAPDMAFPRMNNMSFWLLPPLSLTLLIMSSMVDNGAGTGWTVYPLLAGAIAHGGSSVDLAIIFSLHLAGVSSILGAVNFITTAINMRSESMTLDQTPLFVNSVAITALLLLSLPVLGAIITMLLTDRNLNTSFFDPAGGGDPILYQHLFWFFG"
ORIGIN
1 gatgatcaaa tttataatgt aattattaca gcacacgcat ttgtataat tttttcata
61 gttataccaa ttataattgg tggatttggg aattgattag ttccattaat aattggagca
121 ccagacatag catttcacg aataaataat ataagatttt gattattacc accatcttta
181 acacttctta ttatctctc tatagtagat aatggagctg ggacaggatg gacagtttac
241 cccccactag caggagctat gcacacgga ggatcttcag tagatctagc cattttttca
301 ctctcatctg ctgggttttc atcaattctt ggagcagtaa attttattac aacagcaatt
361 aatatacgat cagaagaat aacacttgat caaacacat tatttgttg atcagtagct
421 attacagctc ttttattatt attatcatta ccagtttag ctggagctat tacaatatta
481 ttaacagacc gaaacctaaa tacatcattc ttgacctg cagggtgagg tgaccaat
541 ttatatcaac acctattctg attttttgg ca
//

APPENDIX – VII

NCBI -GenBank accession number for *Trilophidia annulata***Phlaeoba infumata isolate CONTIG_GS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial**

GenBank: OK037588.1

[FASTA](#) [Graphics](#)[Go to](#)

```

LOCUS       OK037588                504 bp    DNA     linear   INV 12-SEP-2021
DEFINITION  Phlaeoba infumata isolate CONTIG_GS cytochrome c oxidase subunit I
             (COX1) gene, partial cds; mitochondrial.
ACCESSION   OK037588
VERSION     OK037588.1
KEYWORDS    .
SOURCE      mitochondrion Phlaeoba infumata
  ORGANISM  Phlaeoba infumata
             Eukaryota; Metazoa; Ecdysozoa; Arthropoda; Hexapoda; Insecta;
             Pterygota; Neoptera; Polyneoptera; Orthoptera; Caelifera;
             Acrididea; Acridomorpha; Acridoidea; Acrididae; Gomphocerinae;
             Phlaeoba.
REFERENCE   1 (bases 1 to 504)
  AUTHORS   Suganya,M. and Manimegalai,K.
  TITLE     Molecular identification and phylogenetic analysis of acridids
  JOURNAL   Unpublished
REFERENCE   2 (bases 1 to 504)
  AUTHORS   Suganya,M. and Manimegalai,K.
  TITLE     Direct Submission
  JOURNAL   Submitted (07-SEP-2021) Zoology, Avinashilingam Institute for Home
             Science and Higher Education for Women, Bharathi Park Dd, Near
             Forest College Campus, Saibaba Colony, Coimbatore, Tamil Nadu
             641043, India
COMMENT     ##Assembly-Data-START##
             Sequencing Technology :: Sanger dideoxy sequencing
             ##Assembly-Data-END##
FEATURES             Location/Qualifiers
   source             1..504
                     /organism="Phlaeoba infumata"
                     /organelle="mitochondrion"
                     /mol_type="genomic DNA"
                     /isolate="CONTIG_GS"
                     /isolation_source="Grass land"
                     /db_xref="taxon:227572"
                     /country="India: tamilnadu"
                     /collection_date="Dec-2019"
                     /collected_by="Suganya Muthu"
                     /PCR_primers="fwd_name: LCO, fwd_seq:
                     gctcaacaatcataaagatattgg, rev_name: HCO, rev_seq:
                     taaacttcagggtgacccaaaaaatca"
   gene               <1..>504
                     /gene="COX1"
   CDS                <1..>504
                     /gene="COX1"
                     /codon_start=1
                     /transl_table=5
                     /product="cytochrome c oxidase subunit I"
                     /protein_id="QZY62559.1"
                     /translation="WSGMVGTSMMSMIRAELGQPGSMIGDDQIYNVITAHAFVMIFF
                     MVMPIMIGGFGNWLVPLMIGAPDMAFPRMNMNSFWLLPPLTLTSSMVDMGAGTGW
                     TVYPPLAGAIAHGGASVDLAIIFSLHLAGVSSILGAVNFITTAIINMRSESMTFDQTPLF
                     WSVVAITA"
ORIGIN
1  tgatctggaa tagtagaac atcaataaga ataattattc gtgcgaact tggtaacct
61  ggatcaataa ttggagatga tcaaatctat aatgtaatta ttacagcaca tgcatttcta
121  ataattttct ttatagtatt accaattata attggtggat ttggaattg actagtacca
181  ttaataattg gagcaccaga tatagcattc cctcgaataa ataatatgag attctgacta
241  ttaccaccat cactaacctt tctacttaca tcttcaatag ttgatatagg tgcaggtaca
301  ggttgaactg tatacccacc actagctggt gctattgccc acggaggagc atctgtagat
361  ttaccatctt tttcacttca tttagctggt gtttcatcaa tctaggtgc agtaaatatt
421  attacaacag caattaatat acggtcagaa agaataacat ttgatcaaac accattattt
481  gtatgatcag ttgctatcac agca
//

```

APPENDIX – VIII

NCBI -GenBank accession number for *Acrotylus patruelis***Acrotylus patruelis isolate CONTIG_DS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial**

GenBank: OK037585.1

[FASTA](#) [Graphics](#)[Go to](#)

```

LOCUS       OK037585                580 bp    DNA     linear   INV 12-SEP-2021
DEFINITION  Acrotylus patruelis isolate CONTIG_DS cytochrome c oxidase subunit
            I (COX1) gene, partial cds; mitochondrial.
ACCESSION   OK037585
VERSION     OK037585.1
KEYWORDS    .
SOURCE      mitochondrion Acrotylus patruelis
  ORGANISM  Acrotylus patruelis
            Eukaryota; Metazoa; Ecdysozoa; Arthropoda; Hexapoda; Insecta;
            Pterygota; Neoptera; Polyneoptera; Orthoptera; Caelifera;
            Acrididea; Acridomorpha; Acridoidea; Acrididae; Oedipodinae;
            Acrotylus.
REFERENCE   1 (bases 1 to 580)
  AUTHORS   Suganya,M. and Manimegalai,K.
  TITLE     Molecular identification and phylogenetic analysis of acridids
  JOURNAL   Unpublished
REFERENCE   2 (bases 1 to 580)
  AUTHORS   Suganya,M. and Manimegalai,K.
  TITLE     Direct Submission
  JOURNAL   Submitted (07-SEP-2021) Zoology, Avinashilingam Institute for Home
            Science and Higher Education for Women, Bharathi Park Dd, Near
            Forest College Campus, Saibaba Colony, Coimbatore, Tamil Nadu
            641043, India
COMMENT     ##Assembly-Data-START##
            Sequencing Technology :: Sanger dideoxy sequencing
            ##Assembly-Data-END##
FEATURES             Location/Qualifiers
     source           1..580
                     /organism="Acrotylus patruelis"
                     /organelle="mitochondrion"
                     /mol_type="genomic DNA"
                     /isolate="CONTIG_DS"
                     /isolation_source="Grass land"
                     /db_xref="taxon:433445"
                     /country="India: tamilnadu"
                     /collection_date="Dec-2019"
                     /collected_by="Suganya Muthu"
                     /PCR_primers="fwd_name: LCO, fwd_seq:
                     gctcaacaaatcataaagatattgg, rev_name: HCO, rev_seq:
                     taaacttcagggtgaccaaataatca"
     gene             1..580
                     /gene="COX1"
     CDS              1..580
                     /gene="COX1"
                     /codon_start=3
                     /transl_table=5
                     /product="cytochrome c oxidase subunit I"
                     /protein_id="QZY62556.1"
                     /translation="NHKDIGTLYFMFGANAGMVGTSMSMIIRAE LGQPSMIGDDQIY
                     NVIITAHAFVMIFMVMPIIMIGGFNWLVLPMIGAPDMAFPRMNMNSFWLLPPLSLTL
                     LLSSMVDGAGTGWTVYPLAGAIHGGASVDLAI FSLHLAGVSSILGAVNFITTAIIN
                     MRSDSMTMDQTPLFVWSVAITALLLLLSLPVLA"
ORIGIN
1 caaatcataa ggatattggt accttatatt ttatatttgg agcatgagca ggaatagtgg
61 gaacatcaat aagaataatt attcgtcag aattaggaca accaggatct ataattggag
121 atgaccaaatttataatgtt attattacag cccacgcatt cgttataatt ttcttcattg
181 ttatacctat tataattgga ggattcggaa attgacttgt accattaata attggagcac
241 cagatatagc attcccacga ataaataata taagattctg acttttacca ccatcactga
301 cccttcttct tctttcctct atagtgata gaggagctgg tacaggatga acagtttacc
361 ccccactagc tggagctatt gctcaggag gagcatcctg agatctagcc attttttcac
421 tccacctagc aggtgtatca tcaattctag gacagtgtaa tttcattaca actgcaatta
481 atatacgcac agatagaata acaatagacc aaaccctttt attgtatga tcagtagcaa
541 ttacagcttt actattatta ttatcattac cagtctctgc
//

```

APPENDIX – IX

NCBI -GenBank accession number for *Morphacris fasciata*

Morphacris fasciata isolate CONTIG_JS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial

GenBank: OK037590.1
[FASTA](#) [Graphics](#)

[Go to:](#)

LOCUS OK037590 577 bp DNA linear INV 12-SEP-2021
 DEFINITION Morphacris fasciata isolate CONTIG_JS cytochrome c oxidase subunit I (COX1) gene, partial cds; mitochondrial.
 ACCESSION OK037590
 VERSION OK037590.1
 KEYWORDS .
 SOURCE mitochondrion Morphacris fasciata
 ORGANISM [Morphacris fasciata](#)
 Eukaryota; Metazoa; Ecdysozoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Polyneoptera; Orthoptera; Caelifera; Acrididea; Acridomorpha; Acridoidea; Acrididae; Oedipodinae; Morphacris.
 REFERENCE 1 (bases 1 to 577)
 AUTHORS Suganya,M. and Manimegalai,K.
 TITLE Molecular identification and phylogenetic analysis of acridids
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 577)
 AUTHORS Suganya,M. and Manimegalai,K.
 TITLE Direct Submission
 JOURNAL Submitted (07-SEP-2021) Zoology, Avinashilingam Institute for Home Science and Higher Education for Women, Bharathi Park Dd, Near Forest College Campus, Saibaba Colony, Coimbatore, Tamil Nadu 641043, India
 COMMENT ##Assembly-Data-START##
 Sequencing Technology :: Sanger dideoxy sequencing
 ##Assembly-Data-END##
 FEATURES
 source Location/Qualifiers
 1..577
 /organism="Morphacris fasciata"
 /organelle="mitochondrion"
 /mol_type="genomic DNA"
 /isolate="CONTIG_JS"
 /isolation_source="Grass land"
 /db_xref="taxon:243009"
 /country="India: tamilnadu"
 /collection_date="Dec-2019"
 /collected_by="Suganya Muthu"
 /PCR_primers="fwd_name: LCO, fwd_seq: gctcaacaaatcataaagatattgg, rev_name: HCO, rev_seq: taaacttcagggtgaccccccaatca"
 gene <1..>577
 /gene="COX1"
 CDS <1..>577
 /gene="COX1"
 /codon_start=1
 /transl_table=5
 /product="cytochrome c oxidase subunit I"
 /protein_id="Q7Y62561.1"
 /translation="LGQPGSMIGDDQIYNVIITAHAFVMIFFMVMPIMIGGFNWLVP LMIGAPDMAFPRMNMMSFWLLPSSLTLLSSMVNNGAGTGWTVPPLASVIAHSGAS VDLAIFSLHLAGISSILGAINFITTAINMRSNNMTLDQAPLFWNSVAITALLLLSLP VLAGAITMLLDRNLNLSFFDPAGGGDPILYS"
 ORIGIN
 1 ttaggacaac caggatcaat aattggagat gaccaaactc ataatgtaat tattacagcc
 61 catgcatttg ttataatttt ctttatagtt ataccaatta taattggagg atttggaaat
 121 tggctagtag cattaataat tggagcacca gacatagcat tccccgaaat aaataatata
 181 agattttgat tattaccccc atcattaaca cttttacttt tatcctcaat ggtaataat
 241 ggggctggtg caggctggac agtatacca cactagcca gagttattgc acatagaggg
 301 gcatctgtag atctagccat tttctcttta catttagcag gtatttcac aattctagga
 361 gcaatcaatt ttattacaac agcaattaat atacgatcaa ataacataac atttagatcaa
 421 gcacccttat ttgtttgac agttgcaatt acagctcttt tattactact atcattacct
 481 gttctagcag gagcaattac tatactatta accgaccgaa atcctaaatc atcattcttt
 541 gaccctgctg gaggaggaga cccaattctt tattcaa
 //