Additional file Figure S4
LSU alignment (766 nt)

Variable sites: 225
Parsimony informative characters: 162

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BEGIN DATA;
dimensions ntax=22 nchar=766;
format missing=?
interleave=yes datatype=DNA gap=-;

matrix
Az4_1          GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Pr_1           GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Butricularis   GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Cur1           GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
It_IG38        GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
IW_1           GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Mx_K28         GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
NY_1           GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
It_IG39        GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Poblonga       GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCAT--------
Fr_K2          GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
It_IG42        GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Idn2           GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
CJ1_1          GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCAT--AATTTG
Cr_1           GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Pdidermoides   GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATT-AATTTG
CJA3           GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Prigidum       GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
C1             GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCAT--AATTTG
UFF1           GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Ppolycephalum  GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG
Diridis        GAGTAACTATGACTCTCTTAAGGTAGCCAAATGCCTCGTCATTTAATTTG

Az4_1          TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Pr_1           TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Butricularis   TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Cur1           TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
It_IG38        TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
IW_1           TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Mx_K28         TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
NY_1           TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
It_IG39        TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Poblonga       --ACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Fr_K2          TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
It_IG42        TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Idn2           TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
CJ1_1          TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Cr_1           TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Pdidermoides   TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
CJA3           TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Prigidum       TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
C1             TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
UFF1           TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Ppolycephalum  TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
Diridis        TGACGCGCATGAATGGATTAATGAGATTCCCACTGTCCCTACCTACTATC
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Az4_1           TAGCGAAACCACAGTCAAGGGAACGGTCTTGACACAATTTGCGGGGAAAG
Pr_1            TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
Butricularis    TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
Cur1            TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
It_IG38         TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
IW_1            TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
Mx_K28          TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
NY_1            TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
It_IG39         TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
Poblonga        TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
Fr_K2           TAGCGAAACCGCAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
It_IG42         TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
Idn2            TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
CJ1_1           TAGCGAAACCACAGTCAAGGGAACGGGCTTGACACAATTAGCAGGGAAAG
Cr_1            TAGCGAAACCACAGTCAAGGGAACGGGCTTGACACAATTAGCGGGGAAAG
Pdidermoides    TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
CJA3            TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
Prigidum        TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
C1              TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
UFF1            TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
Ppolycephalum   TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG
Diridis         TAGCGAAACCACAGCCAAGGGAACGGGCTTGGCACAATTAGCGGGGAAAG

Az4_1           AAGACCCTGTTGAGCTTGACTCTAGGCATAGACGCGAGGTGATTCTAAAG
Pr_1            AAGACCCTGTTGAGCTTGACTCTAGGCACAGACGCGAGGTGATTCTAAAG
Butricularis    AAGACCCTGTTGAGCTTGACTCTAGGCATAGAAGCGAGGTGATTCTAAAG
Cur1            AAGACCCTGTTGAGCTTGACTCTAGGCACAGACGCGAGGTGATTCTAAAG
It_IG38         AAGACCCTGTTGAGCTTGACTCCAGGCATAGAAGCGAGGTGATTCTAAAG
IW_1            AAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAAAG
Mx_K28          AAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAAAG
NY_1            AAGACCCTGTTGAGCTTGACTCTAGGCACAGAAGCGAGGTGATTCTAAAG
It_IG39         AAGACCCTGTTGAGCTTGACTCTAGGCATAGACGCGAGGTGATTCTAAAG
Poblonga        AAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAAAG
Fr_K2           AAGACCCTGTTGAGCTTGACTCTAGGCATAGACGCGAGGTGATTCTAAAG
It_IG42         AAGACCCTGTTGAGCTTGACTCTAGGCATAGAAGCGAGGTGATTCTAAAG
Idn2            AAGACCCTGTTGAGCTTGACTCTAGGCATAGACGCGAGGTGATTCTAAAG
CJ1_1           AAGACCCTGTTGAGCTTGACTCTAGGCATAGACGCGAGGTGATTCTAAAG
Cr_1            AAGACCCTCTTAATCTTGACTCTAGGCATAGACGCCAGGTGATTCTAAAG
Pdidermoides    AAGACCCTGTTGAGCTTGAGTCTAGGCATAGACGCGAGGTGATTCTAAAG
CJA3            AAGACCCTGTTGAGCTTGACTCTAGGCACAGACGCGAGGTGATTCTAAAG
Prigidum        AAGACCCTGTTGAGCTTGACTCTAGGCATAGACGCGAGGTGATTCTAAAG
C1              AAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAAAG
UFF1            AAGACCCTGTTGAGCTTGACTCTAGGCATAGAAGCGAGGTGATTCTAAAG
Ppolycephalum   AAGACCCTGTTGAGCTTGACTCTAGGCATAGACGCGAGGTGATTCTAAAG
Diridis         AAGACCCTGTTGAGCTTGACTCTAGGCACAAACGCGAGGTGATTCTAAAG

Az4_1           GTGTAGCATAGGTGGGAGGGCCCAGCCCGATCCTGAAATACCACCACTTT
Pr_1            GTGTAGCATAGGTGGGAGGGCCCAGCCCGACCTTGAAATACCACCACTTT
Butricularis    GTGTAGCATAGGTGGGAGGGTCCAGCCCGACAATGAAATACCACCACTTT
Cur1            GTGTAGCATAGGTGGGAGGGCCCAGCCCGACCTTGAAATACCACCACTTT
It_IG38         GTGTAGCATAGGTGGGAGAACCCAGTTCGACCTTGAAATACCACCACTTT
IW_1            GTGTAGCATAGGTGGGAGGGCCCAGCCCGTCCATGAAATACCACCACTTT
Mx_K28          GTGTAGCATAGGTGGGAGGGCCCAGCCCGTCCATGAAATACCACCACTTT
NY_1            GTGTAGCATAGGTGGGAGGGCCCAGCC-GTCCATGAAATACCACCACTTT
It_IG39         GTGTAGCATAGGTGGGAGGGCCTAGCCCGACCTTGAAATACCACCACTTT
Poblonga        GTGTAGCATAGGTGGGAGGGCCCAGCCCGACCTTGAAATACCACCACTTT
Fr_K2           GTGTAGCATAGGTGGGAGGGCCCAGCCCGATCCTGAAATACCACCACTTT
It_IG42         GTGTAGCATAGGTGGGAGGGCACAGCCCGACCTTGAAATACCACCACTTT
Idn2            GTGTAGCATAGGTGGGAGGGCCCAGCCCGATCCTGAAATACCACCACTTT
CJ1_1           GTGTAGCATAGGTGGGAGGGCCCAGCCCGATCCTGAAATACCACCACTTT
Cr_1            GTGTAGCATAGGTGGGAGGGCCCAGCCCGATCCTGAAATACCACCACTTT
Pdidermoides    GTGTAGCATAGGTGGGAGGGCCCGATCC----CTGAAATACCACCACTTT
CJA3            GTGTAGCATAGGTGGGAGGGCCCAGCCCGACCTTGAAATACCACCACTTT
Prigidum        GTGTAGCATAGGTGGGAGGGCCCCGCCCGTCCATGAAATACCACCACTTT
C1              GTGTAGCATAGGTGGGAGGGCACAGCCCGACCTTGAAATACCACCACTTT
UFF1            GTGTAGCATAGGTGGGAGAGCACAGCTCGCCAATGAAATACCACCACTTT
Ppolycephalum   GTGTAGCATAGGTGGGAGGGCCCAGCCCGTCAATGAAATACCACCACTTT
Diridis         GTGTAGCATAGGTGGGAG-GCCTGGCCCGACCTTGAAATACCACCACTTT
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Az4_1           CGACATCGCTTTGCTAATGCTGTAACGAATGAACGACCCC-CCTTCT-GA
Pr_1            CGACATCGCTTTGCTAATGCTGTAACGAACGAACGGCCCCTCGGTGTCCC
Butricularis    CGACATCGCTTTGCTAATGCTGTAACGAACGAACGGAACCGCGTCCCTCT
Cur1            CGACATCGCTTTGCTAATGCTGTAACGAACGAACGGCCCCTCGGTGTCCC
It_IG38         CGACATTGCTTTGCTAATGCTGTAACGAATGAACGGCCCC-CGGCACCCT
IW_1            CGACTTTGCTTTGCTAATGCTGTAACGAACGAACGACACCCAAGGGGCTT
Mx_K28          CGGCATTGCTTTGCTAATGCTGTAACGAACGAACGACACCCAAGGGGCTT
NY_1            CGACATTGCTTTGCTAATGCTGTAACGAACGAACGACACCCAAGGG-CTT
It_IG39         CGACATTGCTTTGCCAATGCTGTAACGAATGAACGGCCCCTCGGTACTCG
Poblonga        AGACATTGCTTTGCTAATGCTGTAACGAATGAACGGCCCCCTGATATCCT
Fr_K2           CGACATCGCTTTGCTAATGCTGTAACGAATGAACGATCCCCCGTTCCAGA
It_IG42         CGACATTGCTTTGCTAACGCTGTAACGAATGAACGGCCCCCTAGTCTCCC
Idn2            CGACATCGCTTTGCTAATGCTGTAACGAATGAACGATCCCCCGTTCCAGA
CJ1_1           CGACATCGCTTTGCTAATGCTGTAACGAATGAACGACCCC-CCTTCT-GA
Cr_1            CGACATCGCTTTGCTAATGCTGTAACGAATGAACGACCCC-CGTTCT-GA
Pdidermoides    CGACATCGCTTTGCTAATGCTGTAACGAATGAACGACCCCTCGTCCT-GA
CJA3            CGACATCGCTTTGCTAATGCTGTAACGAACGAACGACCCCTCGGTGTCCC
Prigidum        CGACATCGCTTTGCTAATGCTGTAACGAACGAACGGAACCGCGTCCCTCT
C1              CGACATTGCTTTGCTAATGCTGTAACGAACAAACGGCCCCCTGGTTCCCC
UFF1            CGATATTGCTTTGCTAATGCTGTAACGAACGAACGCAACCGCGTCCCTCT
Ppolycephalum   CGACATCGCTTTGCTAATGCTGTAACGAACGAACGGAACCGCGTCCCTCT
Diridis         CGACATTGCCTTGCTAATGCTGTAATAAGTAAACGACCCCCCTTCGTGTC

Az4_1           AGCCC-GCAAGGGTGGAAGCTGGGTAAGGTCATATTCTGGCGTCGTCCTC
Pr_1            GCTCG--AAAGGGCGGGCGCCGGGTAAGGTCACATTCTAGCGCTTTCCCG
Butricularis    CGTCG--AAAGGCGGGGGAAGGGATAGGCCCAAATTCTAGCGCTTTCCGC
Cur1            GCTCG--AAAGGGCGGGCGCCGGGTAAGGTCACATTCTAGCGCTTTCCCG
It_IG38         AGTCG--CAAGATTAG--GACCGGTAAGGTCATATTCTGGCGCTTTCCGA
IW_1            -----------TACGCACCTAGGGTAAG-TCATATTCTAGCGTTTTCCAG
Mx_K28          -----------TACGCACCTAGGGTAAG-TCATATTCTAGCGTTTTCCAG
NY_1            -----------TACGCACCTAGGGTAAG-TCATATTCTAGCGTTTTCCAG
It_IG39         GCTCG--AAAGGGTCGTTGCTGGGTAAGGTCATATTCTGGCGATTTCCGA
Poblonga        GCTCG--GAAGGGTGGGTATTGGGTAAGGTCATATTCTAGTGCTTTCCGA
Fr_K2           GGTCC-GCAAGGGCTGAAGTCGGGTAAGATCATATTCTGGCGTCTTCCAC
It_IG42         GACCG--AAAGAA-AGGTACTGGGTAAGGTCATTTTCTAGCATTTTCCGT
Idn2            GGTCC-GCAAGGGCTGAAGTCGGGTAAGATCATATTCTGGCGTCTTCCAC
CJ1_1           AGCCC-GCAAGGGTGGAAGCTGGGTAAGGTCATATTCTGGCGTCGTCCTC
Cr_1            AGCC--GCAAGG-TGGAAGCTCGGTAAGGTCATATTCTGGCGTCGTCCTC
Pdidermoides    AGCTC-GCAAGAGTGGAAGTCGGGTAAGGTCAGATTCTGGTGTCCTCCAT
CJA3            GCTCG--AAAGGGCGGGCGCCGGGTAAGGTCACATTCTAGCGCTTTCCCG
Prigidum        CGTCG--CAAGATGGGGGAAGGGATAGGCCCAAATTCTAGCGCTTTCCAC
C1              GTCCG--CAAGGGCGGGTGCCGGGTAAGGTCATATTCTAGCGTTTTCCGG
UFF1            CGTCG--AAAGACGGGGGAAGGGATAGGCGCAAATTCTAGCGCTTTCCGC
Ppolycephalum   CACCGTAAAAGGTGGGGGAAGGGATAGGCCCAAATTCTAGCGCTTTCCGC
Diridis         GGCCTTCACGGGTCGGCTGTTGGGTACGGTCATGTTCTGGCGTTTTCCCT

Az4_1           GATCGCATGACGAGTCGGCTACCCTGGGATAGTACTTCNAATCCGTAATT
Pr_1            ACTCGTACGGTGGCCTGGCCCCTCCGGGTGAGTACCTCGTGACCACAAAC
Butricularis    GCTCGCATGACGGATCGGCTCCTCTGGGTGAGTACTGTGGGACCGCGAGT
Cur1            ACTCGTACGGTGGCCTGGCCCCTCCGGGTGAGTACCTCGTGACCACAAAC
It_IG38         GTCCAAATGATAGGTCGGACCCCCTAGGTGAGTACTTCGGAACCGCAAAT
IW_1            GCACGTACGATGGTCAAACCCCTCTGGGTGAGTACCTCGAGACCACAAAC
Mx_K28          GCACGTACGATGGTCAAACCCCTCTGGGTGAGTACCTCGAGACCACAAAC
NY_1            GCACGT-CGATGGGTCAAACCCTCTGGGTGAGTACCTCGAGACCACAAAC
It_IG39         GCTCACATGGTGGGTCGGACCCTCTGGGTGAGTACTTCGGGACCACAAAC
Poblonga        GCTCGTATGATGGCTTGGGCTCTCTGGGATAGTACTTTGGGACCGCAAAC
Fr_K2           GGTTGCATGATGGGTTAGCTAACCTAGGATAGTACTTCGGATCCACGAGA
It_IG42         GT-CATACGGCGGCTTGGCCCCTCTGGGTGAGTACTTTGGGACCACAAAC
Idn2            GGTTGCATGATGGGTTAGCTAACCTAGGATAGTACTTCGGATCCACGAGA
CJ1_1           GATCGCATGACGAGTCGGCTACCCTGGGATAGTACTTCGAATCCGTAATT
Cr_1            GATCGTACGACGGGTTGGCTACCCTGGGATAGTACTTCGAATCCGCAATT
Pdidermoides    AATCGTACGATTGGTTGGCTAACCTAGGATAGTACTTCGAGTCCGTGAGC
CJA3            ACTCGTACGGTGGCCTGGCCCCTCCGGGTGAGTACCTCGTGACCACAAAC
Prigidum        GCTCTCATGATGTGGCGGCTCCCCTGGGTGAGTACCGCGAGACCGTACGC
C1              GTTCACACGATGGCTTGGCTCCTCTGGGTGAGTACTCTGGGACCACAAAC
UFF1            GCCCGCATGACGGATTGGCTCCCCTGGGTGAGTACTGCGAGACCGTAAGT
Ppolycephalum   GCTCATACGACGAGTTGGCTCCCCTGGGTGAGTACCGTGGAACCACGAGC
Diridis         GCTGGTATGATGGCGTGGCTACCTCGGAGAAGTACCCTGAGGCCGCAATC
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Az4_1           CGGGCTTCCGGGTCT-GGAGAGCGCTGTGTTTGGGGGAACTAGGTGTGA-
Pr_1            TGGGCCTCCGGGTCT-GGTGCGTGTCGTTCTCGGGGGAACCGGAGACGG-
Butricularis    CGGGCTTCCGAGTCT-GGCGAGTGCTGCTTCTGCGGGAACCAGGGACGG-
Cur1            TGGGCCTCCGGGTCT-GGTGCGTGTCGTTCTCGGGGGAACCGGAGACGG-
It_IG38         TGGGCTTCCGGGTCT-GATGCGCGTCGATTTTGGGGGAACTAGGGATGA-
IW_1            TGGGCTTCCGGGTCT-GGTGCGTGTTGCTCTTGGGGGAACTGGAGGTCG-
Mx_K28          TGGGCTTCCGGGTCT-GGTGCGTGTTGCTCTTGGGGGAACTGGAGGTCG-
NY_1            TGGGCTTCCGGGTCTTGGTGCGTGTTGCTCTTGGGG-AACTGGAGGTCG-
It_IG39         TGGGCTTCCGGGTCT-GGTGCGTGTTGATTCTGGGGGAACCAGAGACGG-
Poblonga        TGGGCTTCCGGGTTC-GGTGCGTGTTGTTTCTGAGGGAACCAGAGATCGC
Fr_K2           CGGGCTTCCGGGTCT-GGCGAATGTTGCGTTCGGGGGAACTAGGCGTGA-
It_IG42         TGGGCTTCCGGGTCT-GGTGCGTGCTGCTCCTGGGGGAACTAGGGATGG-
Idn2            CGGGCTTCCGGGTCT-GGCGAGTGTTGCGTTCGGGGGAACTAGGCGTGA-
CJ1_1           CGGGCTTCCGGGTCT-GGAGAGCGCTGTGTTTGGGGGAACTAGGTGTGA-
Cr_1            CGGGCTTCCGGGTCT-GGAGCGCGCTGTGTTTGGGGGAACCAGGTGTGA-
Pdidermoides    TGGGCTTCCGGGTCT-GGCAAGCGTTGTGCTTGGGGGAACTAGGCGTNA-
CJA3            TGGGCCTCCGGGTCT-GGTGCGTGTCGTTCTCGGGGGAACCGGAGACGG-
Prigidum        TGAGCTTCCGAGCCC-GGTAAACGCTGTCCTCGTGGGAACCAGAGACGG-
C1              TGGGCCTCCGGGTTC-GGTGCGTGCTGCTTCTGGGGGAACCAGGGATGG-
UFF1            TGGGCTTCCGAGTCC-GGCGCGCGTTGTTCTTGCGGGAACCAGGGACGGG
Ppolycephalum   TGGGCTTCCGAGTCC-GGCGAGTGCTGTTTCCGCGGGAACCAGAGACGG-
Diridis         CAGGCTTTCGGGCTC-GGTGAGCGCTGTTCTCGGGGGAACCGGGGGTTCG

Az4_1           TGGCTGCGTCCTCTGCGGTCTTTATT--GGTACATAGTCA---GTAGCAG
Pr_1            TTGGGCCGCCCTCTGCGGGCTAAAAG--GGTACGTAAGCC-GTGTAGCAA
Butricularis    TCGAACTGTCCTCTGCGGGCTTCAAGCCGGTACGTAAT-GCGTGTAGCAG
Cur1            TTGGGCCGCCCTCTGCGGGCTAAAAG--GGTACGTAAGCC-GTGTAGCAA
It_IG38         TTGACCCGTCCTCTGGGACACT------GGTACATAA-GCCGTGTAGCAA
IW_1            TGCGACTGTCCTCTGCGGGCATTAAACTGGTACGTAATCC-GTGTAGCAG
Mx_K28          TGCGACTGTCCTCTGCGGGCATTAAACTGGTACGTAATCC-GTGTAGCAG
NY_1            TGCGACTGTCCTCTGCGGGCATTAAACTGGTACGTAATCC-GTGTAGCAG
It_IG39         CTGACTCGTCCTCTGGGGCAAAT-----GGTACATAA-GTCGTGTAGCAG
Poblonga        TTGGGCTGTCCTCTATGGGGTCAAGGATGGTACATAAAGTCGTGTAGCAG
Fr_K2           GAGC-TCATCCTCTGCAGCCAAAAT---GGTACATAGTCA---GTAGCAG
It_IG42         TTGGGTTGTCCTCTGTGGCAAAAATT--GGTACATAA-GCCGTGTAGCGG
Idn2            GAGC-TCATCCTCTGCAGCCAAAAT---GGTACATAGTCA---GTAGCAG
CJ1_1           TGGC-GCGTCCTCTGCGGTCTTTATT--GGTACATAGTCA---GTAGCAG
Cr_1            TAAC-ACGTCCTCTGCGGTCTTTATT--GGTACATAGTCA---GTAGCAG
Pdidermoides    TGACTG-GTCCTCTGCGGTTTAATATT-GGTACATAGTCA---GTAGCAG
CJA3            TTGGGCTGCCCTCTGCGGGCTAAAAG--GGTACGTAAGCCCGTGTAGCAA
Prigidum        TCGTCGTGTCCTCTGAGGGCTTCAAGTTGGTACGTAAG-CCGTGTAGCAG
C1              TTGGGCTGTCCTCTGTGGGCGAATATC-GGTATGTAA-GCCGTGTAGCAG
UFF1            TCGAACCGTCCTCTGTGGGCTTTAAATGGGTACGTAATTGCGTGTAGCAG
Ppolycephalum   TCTTCTCGGCCTCTGTGGGCTTCATGCCGGTACGTAATTGCGTGTAGCAG
Diridis         TTGTGCTGTCCTCTGGCCGGCGTAAAGGGGTATACAAGTC-GTGTAGCAA

Az4_1           ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Pr_1            ACCATCTGTGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Butricularis    ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Cur1            ACCATCTGTGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
It_IG38         ACCATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
IW_1            ACACTCTGTGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Mx_K28          ACACTCTGTGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
NY_1            ACACTCTGTGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
It_IG39         ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Poblonga        ACTCTTTGTGTTAGGGAGTTTGGCTGGGGCGGAAAACTGCTACATGGCAA
Fr_K2           ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
It_IG42         ACCATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Idn2            GCTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAACCTACCACACGGCAA
CJ1_1           ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Cr_1            ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Pdidermoides    ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
CJA3            ACCATCTGTGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Prigidum        ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
C1              ACCATTTGTGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
UFF1            ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Ppolycephalum   ACTATCTATGTTGGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
Diridis         ACTATTTGTGTTAGGGAGTTTGGCTGGGGCGGAAAACTGCTACACGGCAA
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Az4_1           CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Pr_1            CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Butricularis    CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Cur1            CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_IG38         CGGCAGTCTCTTAAGGTTCACTCAGCGACGACAGAAACGCCGCGTAGAGC
IW_1            CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Mx_K28          CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
NY_1            CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_IG39         CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Poblonga        CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAAC-TCTCGTAGAGC
Fr_K2           CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
It_IG42         CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Idn2            CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
CJ1_1           CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Cr_1            CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Pdidermoides    CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
CJA3            CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Prigidum        CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
C1              CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
UFF1            CGGCAGTCTCCTAAGGTCCGCTCAGAGACGACAGAAACGTCTCGTAGAGC
Ppolycephalum   CGGCAGTCTCCTAAGGTCCACTCAGAGACGACAGAAACGTCTCGTAGAGC
Diridis         CGGCAGTCTCCTAAGGTTCACTCAGAGACGACAGAAACGTCTCGTAGAGC

Az4_1           ATAAAGGCAAAAGTGGGCTTAACTCACGTTTTCA-GTAGTAATGTGAAGC
Pr_1            ATAAAGGCAAAAGTGGGCTTANGTCGCATTTTCA-GTAGTAATGTGAAGC
Butricularis    ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCAAGTAGTAATGTGAAGC
Cur1            ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCA-GTAGTAATGTGAAGC
It_IG38         ATAAAGGCAAAAGTGAGCTTAACTTACATTTTCA-GTAGTAATGTGAAGC
IW_1            ATAAAGGCAAAAGTGGGCTTAACTCACGTTTTCA-GTAGTAATGTGAAGC
Mx_K28          ATAAAGGCAAAAGTGGGCTTAACTCACGTTTTCA-GTAGTAATGTGAAGC
NY_1            ATAAAGGCAAAAGTGGGCTTAACTCACGTTTTCA-GTAGTAATGTGAAGC
It_IG39         ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCA-GTAGTAATGTGAAGC
Poblonga        ATAAAGGCAAAAGTGGGCTTAACTCGCATTTT-A-GTAGTAATGTGAAGC
Fr_K2           ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCA-GTAGTAATGTGAAGC
It_IG42         ATAAAGGCAAAAGTGGGCTTAACTYRCATTTTCA-GTAGTAATGTGAAGC
Idn2            ATAAAGGCAAAAGTGGGCTTAACTCACGTTTTCA-GTAGTAATGTGAAGC
CJ1_1           ATAAAGGCAAAAGTGGGCTTAACTCACGTTTTCA-GTAGTAATGTGAAGC
Cr_1            ATAAAGGCAAAAGTGGGCTTAACTCACGTTTTCA-GTAGTAATGTGAAGC
Pdidermoides    ATAAAGGCAAAAGTGGGCTTAACTCACGTTTTCA-GTAGTAATGTGAAGC
CJA3            ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCA-GTAGTAATGTGAAGC
Prigidum        ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCA-GTAGTAATGTGAAGC
C1              ATAAAGGNAAAAGTGGGCTTAACTCGCATTTTCA-GTAGTAATGTGAAGC
UFF1            ATAAAGGCAAAAGCGGGCTTAACTCGCATTTTCA-GTAGTAATGTGAAGC
Ppolycephalum   ATAAAGGCAAAAGTGGGCTTAACTCGCATTTTCA-GTAGTAATGTGAAGC
Diridis         ATAAGGGCAAAAGTGAGCTTAACTCACATTTTCA-GTAGTAATGTGAAGC

Az4_1           AAGAAATTGAGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
Pr_1            AAGAAATTGAGGCTTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTG
Butricularis    AAGAAATTGCGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
Cur1            AAGAAATTGAGGCTTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTG
It_IG38         AAGAAATTGAGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
IW_1            AAGAAATTGCGGCTTAACGATCCTTAGCAGCGGGTGCCAGCCCATGCTTG
Mx_K28          AAGAAATTGCGGCTTAACGATCCTTAGCAGCGGGTGCCAGCCCAYGCTTG
NY_1            AAGAAATTGCGGCTTAACGATCCTTAGCAGCGGGTGCCAGCCCACGCTTG
It_IG39         AAGAAATTGAGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
Poblonga        AAGAAATTGAGGCTTAACGATCCTTAGCCGCGGGTGCCAGCCCACGCTTG
Fr_K2           GAGAAATTGCGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
It_IG42         AAGAAATTGMGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
Idn2            AAGAAATTGAGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
CJ1_1           AAGAAATTGAGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
Cr_1            AAGAAATTGAGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
Pdidermoides    AAGAAATTGAGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
CJA3            AAGAAATTGAGGCTTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTG
Prigidum        AAGAAATTGCGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
C1              AAGAAATTGAGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCT--
UFF1            AAGAAATTGCGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
Ppolycephalum   AAGAAATTGCGGCTTAACGATCCTTAGCGGCGGGTGCCAGCCCACGCTTG
Diridis         AAGAAATTGAGGCCTAACGATCCTTAACGGCGGGTGCCAGCCCACGTTTG
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Az4_1           AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Pr_1            AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Butricularis    AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Cur1            AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
It_IG38         AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
IW_1            AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Mx_K28          AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
NY_1            AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
It_IG39         AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Poblonga        AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Fr_K2           AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
It_IG42         AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Idn2            AGGTGAGAGAAAAGCTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
CJ1_1           AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Cr_1            AGGTGAGAGAAAAGTTACCACAGGGAT-ACTGGCTTGTGGCCGCCAAGCG
Pdidermoides    AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
CJA3            AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Prigidum        AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGACCGCCAAGCG
C1              ---------------------------AACTGGCTTGTGGCTGCCAAGCG
UFF1            AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Ppolycephalum   AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG
Diridis         AGGTGAGAGAAAAGTTACCACAGGGATAACTGGCTTGTGGCCGCCAAGCG

Az4_1           TTCATAGCGACGTGGC
Pr_1            TTCATAGCGACGTGGC
Butricularis    TTCATAGCGACGTGGC
Cur1            TTCATAGCGACGTGGC
It_IG38         TTCATAGCGACGTGGC
IW_1            TTCATAGCGACGTGGC
Mx_K28          TTCATAGCGACGTGGC
NY_1            TTCATAGCGACGTGGC
It_IG39         TTCATAGCGACGTGGC
Poblonga        TTCATAGCGACGTGGC
Fr_K2           TTCATAGCGACGTGGC
It_IG42         TTCATAGCGACGTGGC
Idn2            TTCATAGCGACGTGGC
CJ1_1           TTCATAGCGACGTGGC
Cr_1            TTCATAGCGACGTGGC
Pdidermoides    TTCATAGCGACGTGGC
CJA3            TTCATAGCGACGTGGC
Prigidum        TTCATAGCGACGTGGC
C1              TTCATAGCGACGTAGC
UFF1            TTCATAGCGACGTGGC
Ppolycephalum   TTCATAGCGACGTGGC
Diridis         TTCATAGCGACGTGGC
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