**Table S4.** GenBank accession numbers of the sequences used in phylogeny reconstruction and species delimitation retrieved from NCBI

|  |  |  |  |
| --- | --- | --- | --- |
| Species | *COI* | *16S* | *H3* |
| *Phestilla subodiosa* HKBU\_1(SCSMBC030983) | ON142393 | ON142395 | ON156353 |
| *Phestilla subodiosa* HKBU\_2(SCSMBC030984) | ON142394 | ON142396 | ON156354 |
| *Abronica abronia* | KY128917 | KY128712 | KY128504 |
| *Catriona columbiana* | KY128906 | KY128698 | KY128493 |
| *Catriona gymnota* | KY128907 | KY128699 | KY128494 |
| *Diaphoreolis flavovulta* | KY128947 | KY128742 | KY128535 |
| *Diaphoreolis lagunae* | KY128955 | KY128748 | KY128542 |
| *Diaphoreolis viridis* | KY129027 | KY128818 | KY128613 |
| *Eubranchus tricolor* | KY129032 | KY128823 | KY128618 |
| *Fiona pinnata* | KY129047 | KY128838 | KY128486 |
| *Phestilla chaetopterana* | MF458314 | MF458308 | MF458310 |
| *Phestilla fuscostriata* | MN065806 | MN065808 | MN065810 |
| *Phestilla goniophaga* | MW158914 | MW158917 | MW158920 |
| *Phestilla lugubris* | KY129075 | KY128866 | KY128660 |
| *Phestilla melanobrachia* | KY129076 | KY128867 | KY128661 |
| *Phestilla minor* | DQ417304 | DQ417256 | - |
| *Phestilla poritophages* | KY128968 | KY128759 | KY128554 |
| *Phestilla sibogae* | DQ417287 | DQ417241 | - |
| *Phestilla subodiosa* Hong Kong Aquarium | MN255477 | MN255475 | MN255482 |
| *Phestilla subodiosa\_*Steinhart Aquarium | KY129074 | KY128865 | KY128659 |
| *Phestilla subodiosa\_*Jeju island, South Korea | MG878397 | MG878396 | - |
| *Phestilla viei* | MN239112 | MN257606 | MN257608 |
| *Rubramoena amoena* | KY128904 | KY128696 | KY128491 |
| *Rubramoena rubescens* | KY128916 | KY128710 | KY128503 |
| *Tenellia adspersa* | KY129085 | KY128876 | KY128668 |
| *Tergipes tergipes* | KY129087 | KY128878 | KY128670 |
| *Tergiposacca longicerata* | KY129086 | KY128877 | KY128669 |
| *Trinchesia foliata* | KY128912 | KY128704 | KY128499 |
| *Trinchesia lenkae* | KY129093 | KY128884 | KY128676 |
| *Trinchesia ornata**~~Phestilla~~Trinchesia sibogae* | KY128967KY128975 | KY128758KY128767 | KY128553KY128562 |
| *Trinchesia speciosa* | KY128996 | KY128788 | KY128583 |
| *Trinchesia morrowae* | MK587927 | MK587941 | MK587911 |
| *Trinchesia cuanensis* | MK587922 | MK587935 | MK587906 |
| *Trinchesia diljuvia* | MK587917 | MK587934 | MK587903 |
| *Trinchesia caerulea* | MK587928 | MK587932 | MK587899 |
| *Zelentia ﻿fulgens* | KY128951 | KY128746 | KY128539 |
| *﻿Zelentia ninel* | KY952178 | ﻿MH614967 | MH614979 |
| *﻿Zelentia willowsi* | MH614986 | MH614978 | MH614998 |
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