**Supplemental Appendix A**

**List of samples analyzed, specimen IDs, and GenBank accession numbers.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Taxon** | **Study** | **Specimen ID** | **GenBank accession nos.** | |
| **cyt *b*** | **S7** |
| *Babka gymnotrachelus* | Neilson and Stepien (2009) | AGT3 | — | FJ526933 |
| *B. gymnotrachelus* |  | AGT1 | — | FJ526931 |
| *Benthophilus stellatus* |  | ALC6 | FJ526780 | FJ526963 |
| *Be. mahmudbejovi* |  | AKK10 | FJ526779 | FJ526962 |
| *Be. granulosus* |  | AKK7 | FJ526778 | — |
| *Be. abdurahmanovi* |  | AKK5 | FJ526777 | FJ526960 |
| *Gobius bucchichi* |  | AQB6 | FJ526784 | — |
| *G. couchi* | Šanda and Kovačić (2009) | GC39 | FJ389196 | — |
| *G. couchi* |  | GC43 | FJ389195 | — |
| *G. fallax* | Neilson and Stepien (2009) | AQB8 | FJ526785 | FJ526968 |
| *G. niger* |  | AOD8 | FJ526782 | — |
| *G. niger* |  | AOD8 | FJ526782 | — |
| *G. niger* | Agorreta et al. (2013) | NMBE | KF415583 | — |
| *Mesogobius batrachocephalus* | Neilson and Stepien (2009) | AJE3 | FJ526755 | FJ526920 |
| *M. batrachocephalus* |  | AGV11 | FJ526754 | — |
| *M. batrachocephalus* |  | AGV10 | — | FJ526918 |
| *Neogobius caspius* |  | APT1 | — | FJ526921 |
| *N. caspius* |  | ALK6 | FJ526757 | — |
| *N. caspius* |  | APT1 | FJ526756 | — |
| *N. caspius* | Medvedev (2013) | Nc1 | KC886279 | — |
| *N. fluviatilis* |  | ANG11 | — | FJ526916 |
| *N. fluviatilis* |  | ANT5 | — | FJ526917 |
| *N. fluviatilis* |  | AGV7 | — | FJ526913 |
| *N. fluviatilis* |  | Nf1 | KC886273 | — |
| *N. fluviatilis* | Neilson and Stepien (2011) | 102 | GQ444437 | — |
| *N. fluviatilis* |  | 101 | GQ444436 | — |
| *N. fluviatilis* |  | 100 | GQ444435 | — |
| *N. melanostomus* |  | APC8 | — | FJ526912 |
| *N. melanostomus* | Medvedev (2013) | Nm6 | KF549989 | — |
| *N. melanostomus* |  | Nm8 | KF549988 | — |
| *N. melanostomus* |  | Nm3 | KC886278 | — |
| *N. melanostomus* | Mombaerts et al. (2014) | NSB3 | KJ654332 | — |
| *N. melanostomus* | Mendel et al. (2014) | N4 | — | KJ605174 |
| *N. pallasi* | Neilson and Stepien (2011) | 99 | GQ444434 | — |
| *N. pallasi* |  | 98 | GQ444433 | — |
| *N. pallasi* |  | 97 | GQ444432 | — |
| *P. cephalargoides* | Neilson and Stepien (2009) | ATW11 | FJ526794 | — |
| *P. cephalargoides* |  | AGT10 | — | FJ526939 |
| *P. cephalargoides* | Neilson and Stepien (2009) | ALC12 | FJ526758 | FJ526923 |
| *P. constructor* |  | ATWO6 | FJ526791 | FJ526975 |
| *P. constructor* |  | ATWO5 | FJ526790 | — |
| *P. cyrius* |  | ATWO3 | FJ526788 | FJ526972 |
| *P. cyrius* |  | ATWO4 | — | FJ526973 |
| *P. eurycephalus* |  | ALC9 | FJ526761 | FJ526926 |
| *P. eurycephalus* |  | ALC8 | FJ526760 | FJ526925 |
| *P. eurycephalus* |  | ALC7 | — | FJ526924 |
| *P. eurycephalus* | Medvedev et al. (2013) | Pe1 | KC886265 | — |
| *P. gorlap* | Neilson and Stepien (2009) | AKS4 | — | FJ526927 |
| *P. gorlap* | Medvedev et al. (2013) | Pg1 | KC886272 | — |
| *P. gorlap* |  | Pg2 | KC886271 | — |
| *P. gymnotrachelus* | Neilson and Stepien (2009) | Pgy2 | KC886268 | — |
| *P. gymnotrachelus* |  | Pgy1 | KC886267 | — |
| *P. gymnotrachelus* | Agorreta et al. (2013) | NMBE | KF415509 | — |
| *P. kessleri* | Neilson and Stepien (2009) | APT8 | FJ526770 | — |
| *P. kessleri* |  | ALC2 | — | FJ526934 |
| *P. kessleri* |  | APT7 | FJ526769 | FJ526935 |
| *P. kessleri* | Medvedev et al. (2013) | Pk2 | KC886260 | — |
| *P. platyrostris* | Neilson and Stepien (2009) | AGT9 | FJ526772 | FJ526938 |
| *P. platyrostris* |  | AGT7 | FJ526771 | FJ526937 |
| *P. ratan* |  | ATWO7 | FJ526792 | FJ526976 |
| *P. ratan* |  | NraALC3 | EU444671 | — |
| *P. ratan* |  | ATWO8 | FJ526793 | FJ526977 |
| *P. rhodioni* |  | ATWO2 | FJ526787 | FJ526971 |
| *P. rhodioni* |  | ATWO1 | FJ526786 | FJ526970 |
| *P. syrman* |  | AJE8 | FJ526775 | FJ526941 |
| *P. syrman* |  | AGV4 | FJ526774 | FJ526940 |
| *Proterorhinus. semilunaris* |  | AOC2 | — | FJ526948 |
| *Pro. semilunaris* |  | AQE1 | — | FJ526952 |
| *Pro. semilunaris* | Mombaerts et al. (2014) | PSB2 | KJ654334 | — |
| *Pro. semilunaris* |  | PSB1 | KJ654333 | — |
| *Zosterisessor ophiocephalus* | Neilson and Stepien (2009) | APT6 | — | FJ526907 |
| *Z. ophiocephalus* |  | AHL4 | — | FJ526905 |
| *Z. ophiocephalus* |  | AHL6 | — | FJ526906 |