**Table S1.** Table of all sequences used in this study of the *Marasmius haematocephalus* complex, including GenBank numbers for nrITS, nrLSU and *TEF1* and Herbarium numbers of the Australian collections. Species in **bold** are new collections and /or sequences produced in this study and those in red are holotypes. Not determined = n/d.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SPECIES** | **COLLECTION#** | **GENBANK # nrITS** | **GENBANK # nrLSU** | **LOCATION** | **FUNGARIUM #** | **GENBANK # *TEF1*** |
| *M. asiaticus* | TYS478 | FJ431239 |  | Malaysia |  |  |
| *M. auranticapitatus* | JO226 | ON502671 |  | Brazil |  |  |
| *M. auranticapitatus* | MC4554 (type) | ON502670 |  | Brazil |  |  |
| *M. auranticapitatus* | JO276 |  |  |  |  | ON553952 |
| *M. auranticapitatus* | JO282 |  |  |  |  | ON553953 |
| ***M. campaniformis* *sp. nov*.(holotype)** | F2019029 | OQ073538 | OQ073543 | QLD, Aust. | BRI AQ1007372 MEL2469586 | PV151757 |
| ***M. campaniformis sp. nov.*** | F2020019 | PQ618866 | PQ618826 | QLD, Aust. | BRI AQ1017487 | PV151733 |
| ***M. campaniformis sp. nov.*** | F2021090 | PQ618868 | PQ618827 | QLD, Aust. | BRI AQ1034086 | PV151731 |
| ***M. campaniformis sp. nov.*** | F2022046 | PQ618867 | PQ618855 | QLD, Aust. | BRI AQ1041084 | PV151744 |
| ***M. campaniformis sp. nov.*** | F2024001 | PQ618864 | PQ618840 | QLD, Aust. | BRI AQ1045954 | PV151749 |
| ***M. campaniformis sp. nov.*** | F2024006 | PQ618869 | PQ618828 | QLD, Aust. | BRI AQ1045958 | PV151750 |
| ***M. campaniformis sp. nov.*** | F2024011 | PQ618865 | PQ618841 | QLD, Aust. | BRI AQ1045963 | PV151753 |
| ***M. campaniformis sp. nov.*** | FG0036 | PQ618870 | n/d | QLD, Aust. | BRI AQ1004887 | n/d |
| *M. castanocephalus* | JO523 (type) | ON502678 |  | Brazil |  | ON553955 |
| *M. coasiaticus* | JO323 | ON502680 | ON502747 | Brazil |  | PP026139 |
| *M. coasiaticus* | JO339 (type) | ON502681 | ON502748 | Brazil |  | PP026140 |
| *M. haematocephalus* | JO533 (type) | ON502673 | ON502729 | Brazil | Sao Paulo |  |
| *M. haematocephalus* | RLC\_285\_iNat\_101672226 | OQ871706 |  | Ecuador |  |  |
| “*M. haematocephalus”* | FCATAS3374 | PP622172 |  | Hainan, Chi. |  |  |
| “*M. haematocephalus”* | JES142 | KX148987 |  | Mad. | SFSU |  |
| “*M. haematocephalus”* | NW1466 | MW426466 |  | Thai | CMU |  |
| “*M. haematocephalus”* | NW1465 | MW426465 |  | Thai | CMU |  |
| “*M. haematocephalus”* | NW1431 | MW426456 |  | Thai | CMU |  |
| “*M. haematocephalus”* | FCATAS3351 | PP622171 |  | Hainan, Chi. |  |  |
| “*M. haematocephalus”* | TYS523 | FJ431248 |  | Malaysia | KLU, SFSU |  |
| “*M. haematocephalus”* | NW1441 | MW426460 |  | Thai | CMU |  |
| “*M. haematocephalus”* | BBS-CTR Ph3 | OR364151 |  | South Africa |  |  |
| “*M. haematocephalus”* | Buyck00-1820 | KX1489776 |  | Mad. | SFSU |  |
| “*M. haematocephalus”* | JES193 | KX1489985 |  | Mad. | SFSU |  |
| “*M. haematocephalus”* | JES202 | KX1489986 |  | Mad. | SFSU |  |
| “*M. haematocephalus”* | JES110 | KX1489984 |  | Mad. | SFSU |  |
| “*M. haematocephalus”* | FLAS-F71947 | OR664059 |  | Florida, USA |  |  |
| “*M. haematocephalus”* | FLAS-F69451 | OR518607 |  | Florida, USA |  |  |
| “*M. haematocephalus”* | MES3743 | ON383389 |  | Florida, USA |  |  |
| “*M. haematocephalus”* | AKD200-2014 | MF189048 |  | India |  |  |
| “*M. haematocephalus”* | PYKM110 | OP415535 |  | India |  |  |
| “*M. haematocephalus”* | AKD201-2014 | MF189050 |  | India |  |  |
| “*M. haematocephalus”* | HATFD14-61 | KU752322 |  | India |  |  |
| “*M. haematocephalus”* | CUH-AM121 | KX154214 |  | India |  |  |
| “*M. haematocephalus”* | CAL1518 | MF189047 |  | India |  |  |
| “*M. haematocephalus”* | NW1436 | MW426462 |  | Thai | CMU |  |
| “*M. haematocephalus”* | NW1395 | MW426442 |  | Thai | CMU |  |
| *“ M. haematocephalus f. haematocephalus”* | TYS277 | EU935530 |  | Thai | CMU, SFSU |  |
| *“ M. haematocephalus f. haematocephalus”* | NW296 | EU935526 |  | Thai | CMU, SFSU |  |
| *“ M. haematocephalus f. haematocephalus”* | NW428 | EU935528 |  | Thai | CMU, SFSU |  |
| *“ M. haematocephalus f. haematocephalus”* | NW434 | EU935529 |  | Thai | CMU, SFSU |  |
| *“ M. haematocephalus f. haematocephalus”* | NW409 | EU935527 |  | Thai | CMU, SFSU |  |
| *“M. haematocephalus f. atrobrunneus”* | NW117 | EU935525 |  | Thai | CMU, SFSU |  |
| *“ M. haematocephalus f. violaceus”* | NW339 | EU935532 |  | Thai | CMU, SFSU |  |
| *“ M. haematocephalus f. violaceus”* | NW193 | EU935531 |  | Thai | CMU, SFSU |  |
| *“ M. haematocephalus f. violaceus”* | NW413 | EU935533 |  | Thai | CMU, SFSU |  |
| *“M. haematocephalus var. atroviolaceus”* | AF81 | MW281776 |  | India |  |  |
| *“M. haematocephalus var. atroviolaceus”* | AKD06-2011 | MF189049 |  | India |  |  |
| “*M. haematocephalus f. robustus”* | NW330 | EU935537 |  | Thai. | CMU, SFSU |  |
| “*M. haematocephalus f. robustus”* | NW433 | EU935536 |  | Thai. | CMU, SFSU |  |
| “*M. haematocephalus f. leucocephalus”* | NW310 | EU935534 |  | Thai. | CMU, SFSU |  |
| “*M. haematocephalus f. variabilis”* | NW430 | EU935535 |  | Thai. | CMU, SFSU |  |
| ***M. pervagatus sp. nov.* (holotype)** | F2022059 | PQ618876 | PQ618830 | QLD, Aust. | BRI AQ1043697 | PV151737 |
| ***M. pervagatus sp. nov.*** | OAM32 | PQ618877 | PQ618863 | QLD, Aust. | ENVT. | PV151713 |
| ***M. pervagatus sp. nov.*** | BGM210175 | PQ618875 | PQ618831 | QLD, Aust. | BRI AQ1034090 | PV151728 |
| ***M. pervagatus sp. nov.*** | BGM210181 | PQ618878 | PQ618832 | QLD, Aust. | BRI AQ1041070 | PV151738 |
| ***M. porphyrocephalus sp. nov.* (holotype)** | F2021046 | PQ618882 | PQ618852 | QLD, Aust. | BRI AQ1034084 | PV151740 |
| ***M. porphyrocephalus sp. nov.*** | F2019036 | OQ073536 | OQ073539 | QLD, Aust. | BRI AQ1007378 | PV151763 |
| ***M. porphyrocephalus sp. nov.*** | F2020021 | n/d | PQ618834 | QLD, Aust. | BRI AQ1017489 | n/d |
| ***M. porphyrocephalus sp. nov.*** | F2021070 | PQ618879 | PQ618833 | QLD, Aust. | BRI AQ1041085 | PV151730 |
| ***M. porphyrocephalus sp. nov.*** | SMF2320 | n/d | n/d | QLD, Aust | MEL2297133 | PV151759 |
| ***M. porphyrocephalus sp. nov.*** | BGM210178 | PQ618880 | PQ618838 | QLD, Aust. | BRI AQ1041069 | n/d |
| ***M. porphyrocephalus sp. nov.*** | F2021006 | PQ618881 | PQ618853 | QLD, Aust. | BRI AQ1021681 | PV151741 |
| ***M. porphyrocephalus sp. nov.*** | QMS2024-1-13-009 | n/d | PQ618837 | QLD, Aust. | BRI AQ1045965 | PV151754 |
| ***M. porphyrocephalus sp. nov.*** | F2024008 | PQ618883 | PQ618851 | QLD, Aust. | BRI AQ1045960 | PV151752 |
| ***M. porphyrocephalus sp. nov.*** | JR001 | n/d | PQ618835 | QLD, Aust. | BRI:AQ1052603 | n/d |
| ***M. purpureospadiceus sp. nov.* (holotype)** | F2021001 | PQ618872 | PQ618862 | QLD, Aust. | BRI AQ1021678 | PV151739 |
| ***M. purpureospadiceus sp. nov.*** | F2022005 | PQ618871 | PQ618839 | QLD, Aust. | BRI AQ1034087 | PV151720 |
| *M. recreigardneri* | JO438 | ON502682 |  | Brazil |  | PP026072 |
| *M. recreigardneri* | JO491 | ON502683 |  | Brazil |  | PP026073 |
| *M. roseus* (holotype) | JO352 | ON502678 | ON502745 | Brazil |  | ON553954 |
| *M. rubicundus* | JO464 | ON501659 | ON502728 | Brazil |  | ON553948 |
| *M. rubicundus* | JO295 | ON502660 |  | Brazil |  | ON553950 |
| *M. rubicundus* | JO228 | ON502659 |  | Brazil |  | ON553949 |
| ***M. vinaceus sp. nov.* (holotype)** | F2019031 | OQ073537 | OQ073542 | QLD, Aust. | BRI AQ1007374 MEL2469588 | PV151757 |
| ***M. vinaceus* sp. nov.** | F2021069 | PQ618873 | PQ618829 | QLD, Aust. | BRI AQ1034085 | PV151729 |
| ***M. wianwian sp. nov.* (holotype)** | F2022048 | PQ618898 | PQ618857 | QLD, Aust. | BRI AQ1041081 | PV151742 |
| ***M. wianwian sp. nov.*** | F2022025 | PQ618897 | PQ618860 | NSW, Aust. | BRI AQ1034089 | PV151732 |
| ***M. wianwian sp. nov.*** | F2022012 | PQ618896 | PQ618859 | NSW, Aust. | BRI AQ1034088 | n/d |
| ***M. wunga* *sp. nov.* (holotype)** | F2024009 | PQ618889 | PQ618848 | QLD, Aust. | BRI AQ1045961 | n/d |
| ***M. wunga sp. nov.*** | F2014148 | PQ618887 | n/d | QLD, Aust. | BRI AQ1001910 | n/d |
| ***M. wunga sp. nov.*** | FG040 | PQ618887 | n/d | QLD, Aust. | BRI AQ1001910 | n/d |
| ***M. wunga sp. nov.*** | Peuchmarin#1 | PV016896 | n/d | QLD, Aust | BRI AQ1019380 | n/d |
| ***M. wunga sp. nov.*** | F2022041 | PQ618892 | PQ618861 | QLD, Aust. | BRI AQ1041091 | PV151745 |
| ***M. wunga sp. nov.*** | F2024007 | PQ618884 | PQ618843 | QLD, Aust. | BRI AQ1045959 | PV151751 |
| ***M. wunga sp. nov.*** | F2024004 | PQ618893 | PQ618844 | QLD, Aust. | BRI AQ1045956 | n/d |
| ***M. wunga sp. nov.*** | F2024005 | PQ618888 | PQ618850 | QLD, Aust. | BRI AQ1045957 | n/d |
| ***M. wunga sp. nov.*** | QMS2023-03-25 | PQ618899 | PQ618849 | QLD, Aust. | BRI AQ1040807 | PV151755 |
| ***M. wunga sp. nov.*** | QMS2024-4-20-005 | PQ618894 | PQ618846 | QLD, Aust. | BRI AQ1048074 | n/d |
| ***M. wunga sp. nov.*** | F2019017 | OQ073534 | OQ073540 | QLD, Aust. | BRI AQ1007367 MEL2469581 | PV151760 |
| ***M. wunga sp. nov.*** | F2019018 | OQ073535 | OQ073541 | QLD, Aust. | BRI AQ1007368 MEL2469582 | PV151762 |
| ***M. wunga sp. nov.*** | F2024014 | PQ618895 | PQ618845 | NSW, Aust. | BRI AQ1046796 | PV151756 |
| ***Marasmius* sp. ‘clay pink bells’** | F2023010 | PQ618874 | PQ618858 | QLD, Aust. | BRI AQ1040786 | PV151746 |