Table S1. Location information of *Digitaria exilis* and its related species used in this study

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Accessions no | | Code | | Longitude | Latitude | Specie name | Institution Name | Country |
| CM03391 | | D\_exi\_Togo\_1 | | 00.34E | 09.58N | *D. exilis* | IRD | Togo |
| CM03434 | | D\_exi\_Togo\_2 | | 01.01E | 07.37N | *D. exilis* | IRD | Togo |
| CM03436 | | D\_exi\_Togo\_3 | | 00.56E | 07.29N | *D. exilis* | IRD | Togo |
| CM04489 | | D\_exi\_Benin\_1 | | 00.47E | 10.24N | *D. exilis* | IRD | Benin |
| CM04491 | | D\_exi\_Benin\_2 | | 01.07E | 10.21N | *D. exilis* | IRD | Benin |
| CM05736 | | D\_exi\_Mali\_1 | | 07.11W | 13.53N | *D. exilis* | IRD | Mali |
| CM05747 | | D\_exi\_Mali\_2 | | 11.28W | 13.40N | *D. exilis* | IRD | Mali |
| CM05798 | | D\_exi\_Mali\_3 | | 07.25W | 11.06N | *D. exilis* | IRD | Mali |
| CM05843 | | D\_exi\_Mali\_4 | | 03.37W | 14.08N | *D. exilis* | IRD | Mali |
| CM05848 | | D\_exi\_Mali\_5 | | 03.46W | 13.30N | *D. exilis* | IRD | Mali |
| CM06506 | | D\_exi\_Burkina\_Faso\_1 | | 03.49W | 12.47N | *D. exilis* | IRD | Burkina Faso |
| CM07229 | | D\_exi\_Guinea\_1 | | 09.12W | 11.27N | *D. exilis* | IRD | Guinea |
| CM07278 | | D\_exi\_Guinea\_2 | | 11.59W | 11.43N | *D. exilis* | IRD | Guinea |
| CM07294 | | D\_exi\_Guinea\_3 | | 12.24W | 11.24N | *D. exilis* | IRD | Guinea |
| CM07312 | | D\_exi\_Guinea\_4 | | 13.19W | 11.06N | *D. exilis* | IRD | Guinea |
| CM07357 | | D\_exi\_Guinea\_5 | | 08.50W | 08.43N | *D. exilis* | IRD | Guinea |
| CM07896 | | D\_exi\_Burkina\_Faso\_2 | | 05.07W | 10.56N | *D. exilis* | IRD | Burkina Faso |
| CM07900 | | D\_exi\_Burkina\_Faso\_3 | | 04.55W | 11.11N | *D. exilis* | IRD | Burkina Faso |
| CM07902 | | D\_exi\_Burkina\_Faso\_4 | | 04.37W | 11.11N | *D. exilis* | IRD | Burkina Faso |
| CM07908 | | D\_exi\_Burkina\_Faso\_5 | | 04.20W | 11.08N | *D. exilis* | IRD | Burkina Faso |
| CM12203 | | D\_exi\_Niger\_1 | | Unknown | Unknown | *D. exilis* | IRD | Niger |
| CM12212 | | D\_exi\_Niger\_2 | | Unknown | Unknown | *D. exilis* | IRD | Niger |
| CM12215 | | D\_exi\_Niger\_3 | | Unknown | Unknown | *D. exilis* | IRD | Niger |
| CM12233 | | D\_exi\_Niger\_4 | | Unknown | Unknown | *D. exilis* | IRD | Niger |
| G03\_03\_F\_A01 | | D\_exi\_Senegal\_1 | | 14.24203W | 13.61845N | *D. exilis* | ISRA | Senegal |
| G12\_08\_F\_A01 | | D\_exi\_Senegal\_2 | | 14.24203W | 13.61845N | *D. exilis* | ISRA | Senegal |
| I06\_11\_F\_A01 | | D\_exi\_Senegal\_3 | | 15.48218W | 12.6953N | *D. exilis* | ISRA | Senegal |
| I07\_07\_F\_A01 | | D\_exi\_Senegal\_4 | | 16.09671W | 12.4643N | *D. exilis* | ISRA | Senegal |
| Tishi3 | | D\_exi\_Nigeria\_1 | | 9.72E | 9.23N | *D. exilis* | NCRI | Nigeria |
| Dampep1 | | D\_ibu\_Nigeria\_1 | | 9.44E | 9.43N | *D. iburua* | NCRI | Nigeria |
| Gotip1 | | D\_ibu\_Nigeria\_2 | | 9.48E | 9.35N | *D. iburua* | NCRI | Nigeria |
| Jarab1 | | D\_ibu\_Nigeria\_3 | | 9.72E | 9.23N | *D. iburua* | NCRI | Nigeria |
| Nibang2 | | D\_ibu\_Nigeria\_4 | | 9.48E | 9.23N | *D. iburua* | NCRI | Nigeria |
| Sunpiya1 | | D\_ibu\_Nigeria\_5 | | 9.14E | 9.48N | *D. iburua* | NCRI | Nigeria |
| 284 | | D\_lon\_Senegal\_1 | | 16.59637W | 13.06604N | *D. longiflora* | ISRA | Senegal |
| 346 | | D\_lon\_Senegal\_2 | | 16.73037W | 12.93417N | *D. longiflora* | ISRA | Senegal |
| 361 | | D\_lon\_Senegal\_3 | | 16.73037W | 12.93417N | *D. longiflora* | ISRA | Senegal |
| 387 | | D\_lon\_Senegal\_4 | | 16.73037W | 12.93414N | *D. longiflora* | ISRA | Senegal |
| 393 | | D\_lon\_Senegal\_5 | | 16.73037W | 12.93414N | *D. longiflora* | ISRA | Senegal |
| 415 | | D\_lon\_Senegal\_6 | | 16.28845W | 12.54855N | *D. longiflora* | ISRA | Senegal |
| 418 | | D\_lon\_Senegal\_7 | | 16.28845W | 12.54855N | *D. longiflora* | ISRA | Senegal |
| 430 | | D\_lon\_Senegal\_8 | | 16.28882W | 12.54972N | *D .longiflora* | ISRA | Senegal |
| 535 | | D\_lon\_Senegal\_9 | | 16.72701W | 12.37095N | *D. longiflora* | ISRA | Senegal |
| 545 | | D\_lon\_Senegal\_10 | | 16.72701W | 12.37095N | *D. longiflora* | ISRA | Senegal |
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