Supplementary Table 1. Voucher numbers, localities and GenBank accession numbers for genetic samples. EBG and ELI field numbers are from specimens collected by Eli Greenbaum; NP = National Park.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Species | Field number | Catalog Number | Locality | cyt b | ND4 | c-mos | RAG1 |
| *Amblyodipsas dimidiata* | CMRK 311 | — | Tanzania | DQ486346 | DQ486322 | DQ486170 | — |
| *Bothrolycus ater* | IPMB J285 | IRSNB 16298 | Gabon: Moudouma | AY612041 | FJ404347 | AY611950 | — |
| *Gonionotophis brussauxi* | IPMB J288 | IRSNB 16266 | Gabon: Ogooué-Lolo Province: Offoué-  Onoy Department: Mount Iboundji | AY612043 | FJ404358 | AY611952 | — |
| *Lycophidion capense* | CMRK 275 | — | Botswana | DQ486344 | DQ486320 | DQ486168 | — |
| *Bothrophthalmus lineatus* | — | — | Uganda | AF471090 | — | AF471129 | — |
| *Lycodonomorphus inornatus* 1 | CMRK 489 | — | South Africa: Grahamstown | HQ207121 | HQ207163 | HQ207084 | — |
| *Lycodonomorphus inornatus* 2 | MBUR 1701 | — | South Africa: Haenertsburg  District | HQ207134 | HQ207176 | HQ207093 | — |
| Lycodonomorphus laevissimus | — | PEM R5630 | South Africa: Grahamstown District | DQ486338 | DQ486314 | DQ486162 | — |
| *Lycodonomorphus rufulus* 1 | CMRK 236 | — | South Africa: Hole in the Wall | HQ207111 | HQ207153 | HQ207076 | — |
| *Lycodonomorphus rufulus* 2 | CMRK 478 | — | South Africa: Sterkfontein Dam | HQ207118 | HQ207160 | HQ207081 | — |
| *Lycodonomorphus rufulus* 3 | — | PEM R8042 | South Africa: Eastern Cape Province: Port Elizabeth | FJ404299 | FJ404374 | FJ404276 | — |
| Lycodonomorphus whytii | “Peter Gravlund” | — | — | FJ404300 | FJ404375 | FJ387201 | — |
| *Boaedon upembae* 1 | ELI 205 | UTEP 21002 | DRC: Katanga Province: Kyolo | KM519700 | KM519681 | KM519734 | KM519719 |
| *Boaedon upembae* 2 | ELI 208 | UTEP 21003 | DRC: Katanga Province: Kyolo | KM519699 | KM519680 | KM519733 | KM519718 |
| *Boaedon capensis* 1 | — | PEM R15002 | Mozambique: Lacerdonia, Zambezi Delta | AY612077 | FJ404362 | AY611986 | — |
| *Boaedon capensis* 2 | — | PEM R5645 | Tanzania: Mikumi NP | HQ207109 | HQ207151 | HQ207074 | — |
| *Boaedon capensis* 3 | — | PEM R5647 | Zimbabwe: Bvumba | DQ486339 | DQ486315 | DQ486163 | — |
| *Boaedon capensis* 4 | — | PEM R5646 | Zimbabwe: Nyanga | HQ207110 | HQ207152 | HQ207075 | — |
| *Boaedon virgatus* | IPMB J290 | MRAC 2001-102-R-7 | Gabon: Ngounié Province: Ogoulou Department: Diyanga | AY612008 | FJ404369 | AY611917 | — |
| *Boaedon lineatus* | — | PEM R5337 | Cameroon | FJ404303 | — | FJ404269 | — |
| *Boaedon fuliginosus* 1 | MSA1 | — | South Africa: Springbok | HQ207141 | HQ207183 | HQ207100 | — |
| *Boaedon fuliginosus* 2 | — | — | Captive born | FJ404304 | FJ404368 | FJ387206 | — |
| *Boaedon fuliginosus* 3 | S4 | No voucher | South Africa: Springbok | HQ207145 | HQ207187 | HQ207103 | — |
| *Boaedon fuliginosus* 4 | Tb 29 | PEM R19894 | Angola: Saurimo District | HQ207146 | HQ207186 | HQ207104 | — |
| *Boaedon fuliginosus* 5 | CMRK 251 | — | Botswana: Kasane | HQ207113 | HQ207155 | HQ207078 | — |
| *Boaedon fuliginosus* 6 | CMRK 474 | — | South Africa: Springbok District | HQ207117 | HQ207159 | — | — |
| *Boaedon fuliginosus* 7 | CMRK 490 | — | South Africa: Grahamstown | HQ207122 | HQ207164 | HQ207085 | — |
| *Boaedon fuliginosus* 8 | CMRK 480 | — | Zimbabwe: Harare | HQ207119 | HQ207161 | HQ207082 | — |
| *Boaedon fuliginosus* 9 | TM 84376 | — | South Africa: Barbeton District | HQ207126 | HQ207168 | — | — |
| *Boaedon fuliginosus* 10 | CMRK 244 | — | South Africa: Hole in the Wall | HQ207112 | HQ207154 | HQ207077 | — |
| *Boaedon fuliginosus* 11 | CMRK 324 | — | Tanzania: Arusha District | HQ207114 | HQ207156 | HQ207079 | — |
| *Boaedon fuliginosus* 12 | ELI 413 | UTEP 21004 | DRC: South Kivu Province: Buloli, ca. Katana | KM519702 | KM519683 | KM519736 | KM519721 |
| *Boaedon fuliginosus* 13 | EBG 1560 | UTEP 21005 | DRC: South Kivu Province: Uvira | KM519716 | KM519696 | KM519750 | KM519730 |
| *Boaedon fuliginosus* 14 | RCD 10570 | CAS 168909 | Tanzania: Tanga Region: Muheza District: East Usambara Mtns., Amani Police Station | AF471060 | FJ404365 | FJ404266 | — |
| *Boaedon fuliginosus* 15 | — | PEM R5639 | Rwanda: Butare District | HQ207105 | HQ207147 | HQ207071 | — |
| *Boaedon fuliginosus* 16 | LFU | — | Burundi | FJ404302 | FJ404364 | AF544686 | — |
| *Boaedon fuliginosus* 17 | — | PEM R5641 | Uganda: Bushenyi District | HQ207107 | HQ207149 | HQ207073 | — |
| *Boaedon fuliginosus* 18 | — | PEM R5635 | Rwanda: Nyagatare  District | HQ207106 | HQ207148 | HQ207072 | — |
| *Boaedon fuliginosus* 19 | CMRK 350 | — | Ethiopia: Keriyo Hamlet | HQ207115 | HQ207157 | HQ207080 | — |
| *Boaedon fuliginosus* 20 | USNM FS-246346 | USNM 576154 | Congo Brazzaville: Likouala Department: Impongui | — | KM519698 | KM519752 | KM519732 |
| *Boaedon fuliginosus* 21 | EBG 2387 | UTEP 21006 | DRC: Orientale Province: ca. Aboro | KM519711 | KM519692 | KM519745 | KM519726 |
| *Boaedon fuliginosus* 22 | EBG 2414 | UTEP 21007 | DRC: Orientale Province: Aboro | KM519712 | KM519693 | KM519746 | KM519727 |
| *Boaedon fuliginosus* 23 | ELI 211 | UTEP 21008 | DRC: Katanga Province: Kyolo | KM519701 | KM519682 | KM519735 | KM519720 |
| *Boaedon fuliginosus* 24 | ELI 3101 | UTEP 21009 | DRC: Orientale Province: Basayo | KM519707 | KM519688 | KM519741 | — |
| *Boaedon fuliginosus* 25 | ELI 3246 | UTEP 21010 | DRC: Orientale Province: Dinsolo | KM519708 | KM519689 | KM519742 | KM519725 |
| *Boaedon fuliginosus* 26 | ELI 3268 | UTEP 21011 | DRC: Orientale Province: Palangima | KM519709 | KM519690 | KM519743 | — |
| *Boaedon fuliginosus* 27 | ELI 3348 | UTEP 21012 | DRC: Orientale Province: Boda | KM519710 | KM519691 | KM519744 | — |
| *Boaedon olivaceus* 1 | ELI 2497 | UTEP 21000 | DRC: Equateur Province: Watsi Kengo | KM519705 | KM519686 | KM519739 | KM519724 |
| *Boaedon olivaceus* 2 | IPMB J289 | PEM R5337 | Gabon: Ogoué Maritime  Province: Rabi (Shell Gabon) | AY612044 | — | AY611953 | — |
| *Boaedon olivaceus* 3 | ELI 2225 | UTEP 20999 | DRC: Equateur Province: Npenda | KM519704 | KM519685 | KM519738 | KM519723 |
| *Boaedon olivaceus* 4 | EBG 2614 | UTEP 21001 | DRC: Orientale Province: Bazinga, ca. Epulu | KM519717 | KM519697 | KM519751 | KM519731 |
| *Boaedon radfordi* 1 | JVV 4340 | CAS 201634 | Uganda: Kabale District: Bwindi Impenetrable NP | KM519715 | — | KM519749 | KM519729 |
| *Boaedon radfordi* 2 | ELI 500 | UTEP 20997 | DRC: South Kivu Province: rd. between Elila River and Nyamibungu | KM519703 | KM519684 | KM519737 | KM519722 |
| *Boaedon radfordi* 3 | EBG 2422 | UTEP 20995 | DRC: Orientale Province: Lendu Plateau: Shatuma-Abis | KM519713 | KM519694 | KM519747 | KM519728 |
| *Boaedon radfordi* 4 | EBG 1288 | UTEP 20998 | DRC: South Kivu Province: Irangi | KM519714 | KM519695 | KM519748 | — |
| *Boaedon radfordi* 5 | ELI 2872 | No voucher | DRC: Orientale Province: road W of Lolwa | KM519706 | KM519687 | KM519740 | — |