

Supplementary file 1. List of specimens examined morphologically.

***Madascincus ankodabensis*.** — Fianarantsoa province: MNHN 1930-332 (holotype of *Scelotes ankodabensis* Angel, 1930), “Ankodabé”, coll. by Decary. ZSM 229/2003 (FG/MV 2002-630), Ranomafana National Park (“bernhardi site”), coll. by Rabemananjara & Bora in 2003. ZSM 236/2003 (FG/MV 2002-625), Ambohitsara (E Ranomafana), coll. by Glaw, Puente, Raharivololoniaina, Thomas & Vieites in 2003. ZSM 353/2006, ZSM 354/2006 (ZCMV 2879, 3061), Ranomafana, Ambatolahy river, 915 m a.s.l., 21°14.632'S, 47°25.573'E, coll. by Vences, Bora, Rajeriarison, Razafindrabe, Weldon, Verneau, du Preez and local collectors in 2006. ZSM 355/2006 (ZCMV 2907), Ranomafana, Ranomafanakely, 1134 m a.s.l., 21°14.921'S, 47°22.307'E, coll. by Vences, Rajeriarison, Chiari, Balian in 2006. ZSM 356/2006 (ZCMV 2961), Ranomafana, Imaloka, 1020 m a.s.l., 21°14.527'S, 47°27.909'E, coll. by local collectors in 2006. Toliara province: MNHN 1901-222, Fort Dauphin, coll. by Alluaud. ZSM 115/2004, Andohahela, (Camp 2); ca. 600 m a.s.l., coll. by Glaw, Puente, Thomas & Randrianiaina. ZSM 395/2005 (FGZC 2323), Manantantely, ca. 20–100 m a.s.l., 24°59'S, 46°55'E, coll. by Bora, Glaw, Vences in 2005.

***Madascincus arenicola*.** — Antsiranana Province: ZSM 1565/2008 (FGZC 1703, holotype), “Baie des Sakalava (ca. 5 km SE Ramena), 12°16'34" S, 49°23'24" E”, 25 m a.s.l., coll. in 2008 by Megson. ZSM 1564/2008 (FGZC 1922, paratype), Ampombofofo region (Frontier base camp), 12°05'53" S, 49°19'49" E, 28 m a.s.l., coll. June 2006 by Megson; ZSM 2076/2007 (FGZC 1031, paratype), UADBA uncatalogued (FGZC 1029, 1030, paratypes), Baie des Dunes (E Ramena), 12°14'43" S, 49°22'53" E, 14 m a.s.l., collected on 23 February 2007 by Bora, Enting, Glaw, Knoll, and Köhler; ZSM 1566–1569/2008 (FGZC 1743, 1744, 1767, 1797, paratypes), Baie des Sakalava (ca. 5 km SE Ramena), 12°16'34" S, 49°23'24" E, 25 m a.s.l., coll. 2008 by Megson. All localities within Antsiranana Province, northern Madagascar.

***Madascincus igneocaudatus*.** — Toliara province: MNHN 0000-1450 (lectotype), MNHN 1867-0062, 2008-0389 to 0391 (paralectotypes, formerly MNHN 1540A to D), Toliara; MNHN 1980-1203 to -1213, Saraondrey, Tsihombe region, 10 km NE Benonoka, coll. by Domergue and Razafy; MNHN 1980-1214 Benonoka, 10 km NW Faux Cap, coll. by Domergue and Razafy; MNHN 1980-1215 Analamisaka, 30 km N Cap Ste Marie, coll. by Domergue; MNHN 1980-1216 Aujiso, 20 km E Faux Cap, coll. by Domergue; MNHN 1990-1598, -1599 Ihotry (South-West), coll. by Domergue; ZSM 1602/2010 (ZCMV 13012), Ifaty Mangily Reserve (23° 07' 22.05''S, 43°36'34.02''E), coll. by Crottini; ZCMV 12819, Ifaty, dry forest (23°07'35''S, 43°38'02''E), coll. by Miralles and Ratsoavina; ZCMV 12826, Sakabera, mouth of the Fiherenana river (23°18'11''S, 43°39'31''E), coll. by Miralles and Ratsoavina; ZSM 1600/2010 (ZCMV 12888) Anakao, coastal dunes (23°39'19''S, 43°39'00''E), coll. by Miralles and Ratsoavina; ZSM 1601/2010 (ZCMV 12897) Faux-Cap, coastal dunes (25°34'07''S, 45°31'52''E), coll. by Miralles and Ratsoavina. ZFMK 59791, Kirindy, coll. by Glaw (sp. “vitreus” phenotype).

***Madascincus melanopleura*.** — Toamasina province: BM 1946.8.21.34 (holotype), “Anzahamaru”. ZSM 221/2003, 223/2003, 224/2003 (FG/MV 2002-3078, 2002-3131, 2002-3130), Fierenana, coll. by Vences and collaborators in 2003; ZSM 525/2001, Andasibe, coll. by Vences and Vieites in 2001; ZSM 2-4/2005 (ZCMV 2232-2234), ZSM 14-28/2005 (ZCMV 2258, 2260, 2262-2269, 2271, 2273, 2274, 2279, 2280), ZSM 38/2005, ZSM 42/2005, Andasibe (pitfall), 939 m a.s.l., coll. by Dolch (Mitsinjo) in 2005. ZSM 333-

335/2004 (FGZC 630-632), likely Andasibe (?). MNHN 1980-1195, -1196, 1983-882-885, Station forestière Périnet (= Andasibe).

***Madascincus minutus*.** — Antsiranana province: ZSM 398-401/2005 (ZCMV 2163, 2164, 2166, 2167), Nosy Mangabe, 50–100 m a.s.l., 15°30'S, 49°46'E, coll. by Glaw, Vences and Randrianiana in 2005. ZSM 402/2005 (ZCMV 2027), Marojejy, "Camp Simpona", 1326 m a.s.l., 14°26.199'S, 49°44.601'E, coll. by Glaw, Vences and Randrianiana in 2005. ZSM 2221/2007 (FGZC 1370), Montagne d'Ambre, coll. by Glaw, Bora, Enting, Köhler and Knoll in 2007. Toamasina province: ZSM 207/2006 (ZCMV 2481), An'Ala (forest camp), 889 m a.s.l., 18.91926°S, 48.48796°E, coll. by Vieites, Vences, Rabemananjara, Bora, Weldon and Patton in 2006.

***Madascincus mouroundavae*.** — Antsiranana province: MNHN 1893-218 (lectotype of *Scelotes Bellyi* Mocquard, 1894), "Montagne d'Ambre", coll. by Allaud & Belly. MNHN 1893-219, -220 (paralectotypes of *Scelotes Bellyi* Mocquard, 1894), Montagne d'Ambre, coll. by Allaud & Belly. Toliara province (?): MNHN 1895-211 (holotype of *Gongylus mouroundavae*, Grandidier, 1872), "Morondava" (possibly an erroneous locality), coll. by Grandidier. Toamasina province: ZSM 6/2005, 12/2005, 13/2005, 31/2005 (ZCMV 2239, 2253, 2254, 2289), Andasibe (pitfall), 939 m. a.s.l., 18°56.169'S, 48°24.734'E, coll. by Dolch (Mitsinjo) in 2005.

***Madascincus nanus* complex.** — Toamasina province: ZSM 1/2005 (ZCMV 2219, specimen referred under the name *Madascincus* sp. "baeus" by Glaw & Vences 2007) Andasibe (pitfall), 939 m, 18°56.169'S, 48°24.734'E, coll. by Dolch (Mitsinjo) in 2005. Mahajanga Province: MRSN R1803 (holotype of *Amphiglossus nanus* Andreone & Greer, 2002), "Anjanaharibe-Sud Massif, Analabe Valley, Campsite W1, Befandriana Fivondronana, Mahajanga Faritany (Mahajanga Province)", 14846'S, 49827'E, 1000 m a.s.l., coll. by Andreone, Randriamahazo and Randrianirina in 1996; MRSN R1806 (paratype of *Amphiglossus nanus* Andreone & Greer, 2002), from the type locality (14846'S, 49826'E, 1250 m a.s.l.); Diégo Suarez province: R1870 (paratype of *Amphiglossus nanus* Andreone & Greer, 2002), Masoala Forest, Campsite 3 (Andasin'I Gouvernera), Antalaha Fivondronana, Antsiranana Faritany, 15818.55'S, 5080.22' E, coll. by Andreone and Randrianirina in 1998. Unknown exact locality: BM 1946.8.21.23 (87.12.22.10, type of *Scelotes macrolepis* Boulenger, 1888), "Madagascar" (no exact type locality), coll. by Baron.

***Madascincus polleni*.** — Mahajanga province: SMF 16027 (lectotype of *Scelotes intermedius* Boettger, 1913), NW Madagascar, "Majunga", coll. by Voeltzkow in 1897. ZSM 522/2001 (MV 2001-313), Ankarafantsika (Ampijoroa), coll. by Vences, Vieites, Garcia, Raherisoa and Rasoamamonjinirina in 2001; ZSM 523–524/2001, Ankarafantsika, coll. by Vences, Vieites, Garcia, Raherisoa and Rasoamamonjinirina in 2001. Toliara province: MNHN 1895-210 (holotype of *Gongylus polleni* Grandidier, 1869), "Morondava", coll. by Grandidier; MNHN 1980-1201, coll. by Domergue; MNHN 1984-168, Beroboka MNHN 1984-169, Tuléar; MNHN 1905-132, plain of the Fiherena, coll. 1869 by Geay. ZSM 1595-1599/2010 (n=5), (ZCMV 12723, 12755, 12914, 12915, 12916) Kirindy reserve (20°04'40.0''S, 44°41'30.1''E), coll. by Miralles, Rakotoarison and Rakotondramanana.

***Madascincus miafina* sp. nov.** — See informations provided for the type specimens.

***Madascincus pyrurus* sp. nov.** — See informations provided for the type specimens.

Madascincus stumpffi. — Antsiranana province: ZSM 2162/2007 (FGZC 1228), Forêt d'Ambre, ca. 4 km WSW Sakaramy, 470 m a.s.l., coll. by Bora, Glaw and Köhler in 2007; ZSM 1559/2008 (MgF 061), Montagne des Français, ca. 1.8 km SW Andavakoera ("trapsite 1"), 200 m a.s.l., coll. by Randriamalala in 2006; ZSM 1558/2008 (FGZC 3124), Forêt d'Ambre, ca. 5 km SW Sakaramy (trapsite), 479 m a.s.l., coll. by D'Cruze in 2008; ZSM 1560–1561/2008 (FGZC 1772, 1823), Montagne des Français (pitfalls), coll. by native collectors in 2008; ZSM 0041/2005 (FGZC 2785), 0032/2005 (ZCMV 2031), 0033/2005 (ZCMV 2032), 0040/2005 (FGZC 2784), 0405/2005 (ZCMV 2034), 0404/2005 (ZCMV 2033), 0043/2005 (FGZC 2787), Marojejy, "Camp Mantella" (14°26.260'S, 49°46.533'E), 481 m a.s.l., coll. by Glaw, Vences and Radrianiaina in 2005. SMF 16019 (holotype of *Gongylus stumpffi* Boettger, 1882 and lectotype of *Scelotes astrolabi boettgeri* Angel, 1941), "Nossibé", coll. by Reuter and Stumpff in 1881; MNHN 1884-587, Nossi-Bé, coll. by Deyrolles. ZSM 206/2003 (FG/MV 2002-2268), 5 km from Antanambao, close to Maevatanana, road to Manongarivo, coll., by Glaw, Randrianiaina, and Vences in 2003. Toamasina province: MNHN 1980-1200, Mananara, coll. by Peyrieras in 1963.