

scapes. *A. grandidieri* is the only *Anochetus* in Madagascar with these soil nesting modifications. The subterranean habitat of this species may allow it to survive in a wide range of habitats in Madagascar from desert to woodland to montane forest. Out of 453 collecting events, *A. grandidieri* was most often recorded in sifted litter (97 collection records), rotten logs (96), and Malaise traps (155).

CO1. Shallow intraspecific (average within species sequence divergence of 2.72, SE = 0.048) and deep interspecific divergences (9.4% SE = 0.05) between *A. grandidieri* and the other species. Small and large castes had identical DNA barcodes. (Figs 9, 16).

Diagnostic barcoding loci. *A. grandidieri*: T-273, T-282, T-306, A-312, (shared with one population of *A. goodmani*), A-312, T-333, A-483, T-528 (all 3rd base pair positions).

Specimens examined for *Anochetus grandidieri*: Specimens from 456 separate collection events from the following 140 localities were examined. MADAGASCAR: Province **Antsiranana**: Sakalava Beach ; Montagne des Français, 7.2 km 142° SE Antsiranana ; Antsiranana II Pref: Antsahampano S.-Pref Montagne d'Ambre. Site MD2; Parc National Montagne d'Ambre, 3.6 km 235° SW Joffreville; Réserve Spéciale de l'Ankarana, 13.6 km 192° SSW Anivorano Nord; Forêt d'Ampondrabe, 26.3 km 10° NNE Daraina; Forêt d'Antsahabé, 11.4 km 275° W Daraina; Forêt de Binara, 7.5 km 230° SW Daraina; Forêt de Binara, 9.1 km 233° SW Daraina; Nosy Be, Lokobe Forest; Forêt Ambato, 26.6 km 33° Ambanja; Ambondrobo, 41.1 km 175° Vohemar; Ampasindava, Forêt d'Ambilanivy, 3.9 km 181° S Ambalihà; R.S. Manongarivo, 10.8 km 229° SW Antanambao; R.S. Manongarivo, 12.8 km 228° SW Antanambao; R.S. Manongarivo, 14.5 km 220° SW Antanambao; Forêt d'Anabohazo, 21.6 km 247° WSW Maromandia; Parc National de Marojejy, Manantenina River, 27.6 km 35° NE Andapa, 9.6 km 327° NNW Manantenina; Parc National de Marojejy, Manantenina River, 28.0 km 38° NE Andapa, 8.2 km 333° NNW Manantenina; Parc National Marojejy; Marojejy R.N.I. #12; Forêt Ambanitaza, 26.1 km 347° Antalaha; 9.2 km WSW Befingotra, Rés. Anjanaharibe-Sud; 6.5 km SSW Befingotra, Rés. Anjanaharibe-Sud; 17 km W Andapa, Res. d' Anjanaharibe-Sud; 5 km SW Antalaha; 14 km W Cap Est, Ambato; Fotodriana, Cap Masoala. Province **Mahajanga**: Mahavavy River, 6.2 km 145° SE Mitsinjo; Réserve d'Ankoririka, 10.6 km 13° NE de Tsaramandroso; Ampijoroa National Park, 160 km N Maevatanana, Mahajanga Prov., deciduous forest; Parc National de Namoroka, 17.8 km 329° WNW Vilanandro; Parc National de Namoroka, 16.9 km 317° NW Vilanandro; Parc National de Namoroka, 9.8 km 300° WNW Vilanandro; Réserve Spéciale de Bemarivo, 23.8 km 223° SW Besalamby; Parc National Tsingy de Bemaraha, 10.6 km ESE 123° Antsalova; Forêt de Tsimembo, 8.7 km 336° NNW Soatana; Parc National Tsingy de Bemaraha, 2.5 km 62° ENE Bekopaka, Ankidrodroa River; Parc National Tsingy de Bemaraha, 3.4 km 93° E Bekopaka, Tombeau Vazimba; Province **Toamasina**: Montagne d'Anjanaharibe, 19.5 km 27° NNE Ambinanitelô; Montagne d'Anjanaharibe, 18.0 km 21° NNE Ambinanitelô; Montagne d'Akirindro 7.6 km 341° NNW Ambinanitelô; 19 km ESE Maroantsetra; 6.9 km NE Ambanizana, Ambohitritondroina; Ambanizana, Parc National Masoala; 5.3 km SSE Ambanizana, Andranobe; 6.3 km S Ambanizana, Andranobe; 1 km W Andampibe, Cap Masoala; Parc National Mananara-Nord, 7.1 km 261° Antanambe; Forêt d'Analava Mandrisy, 5.9 km 195° Antanambe; Res. Ambodiriana, 4.8 km 306° Manompana, along Manompana River; Ile Sainte Marie, Forêt Ambohidena, 22.8 km 44° Ambodifotatra; Ile Sainte Marie, Forêt Kalalao, 9.9 km 34° Ambodifotatra; Parcelle E3

Tampolo; S.F. Tampolo, 10 km NNE Fenoarivo Atn.; Bridge at Onibi, NW of Mahavelona; Mahavelona (Foulpointe); 2.1 km 315° Mahavelona; Foulpointe; Reserve Betampona, Camp Vohitsivalana, 37.1 km 338° Toamasina; Reserve Betampona, Camp Rendrirendry 34.1 km 332° Toamasina; F.C. Sandranantitra; F.C. Didy; F.C. Andriantantely; P.N. Mantadia; Analamay; Forêt Ambatovy, 14.3 km 57° Moramanga; Torotorofotsy; Andasibe National Park, botanic garden near entrance, West of ANGAP office; Res. Analamazaotra, Parc National, Andasibe; **Fianarantsoa**: Forêt d'Atsirakambiaty, 7.6 km 285° WNW Itremo; Ranomafana Nat. Park, Miaranony Forest; Vohiparara broken bridge, Fianarantsoa Prov.; Parc National de Ranomafana, Sahamalaotra River, 6.6 km 310° NW Ranomafana; Parc Nationale Ranomafana: Talatakely; 3 km W Ranomafana, nr. Ifandiana; research cabin at Talatakely, Ranomafana National Park; radio tower, Ranomafana National Park, Fianarantsoa Prov.; Namorona River at footbridge, Ranomafana National Park; Ranomafana National Park, Tavolo tree; Belle Vue trail, Ranomafana National Park, Fianarantsoa Prov.; 7 km W Ranomafana; Vatoharanana; Parc National de Ranomafana, Vatoharanana River, 4.1 km 231° SW Ranomafana; P.N. Ranomafana, Vatoharanana-Ankovoka; 8 km E Kianjavato, Vatovavy Forest; 7.6 km 122° Kianjavato, Forêt Classée Vatovavy; 2 km W Andrambovato, along river Tatamaly; Forêt d'Ambalagoavy Nord, Ikongo, Ambatobome; 45 km S. Ambalavao; 45 km S Ambalavao; 43 km S Ambalavao, Rés. Andringitra; Parc National d'Isalo, Ambovo Springs, 29.3 km 4° N Ranohira; 8.0 km NE Ivohibe; 9.0 km NE Ivohibe; R.S. Ivohibe, 7.5 km ENE Ivohibe; Parc National d'Isalo, 9.1 km 354° N Ranohira; Forêt d'Analalava, 29.6 km 280° W Ranohira; Forêt de Vevembe, 66.6 km 293° Farafangana; Province **Toliara**: Réserve Spéciale d'Ambohijanahary, Forêt d'Ankazotsihitafotra, 34.6 km 314° NW Ambaravarana; Réserve Spéciale d'Ambohijanahary, Forêt d'Ankazotsihitafotra, 35.2 km 312° NW Ambaravarana; Vohibasia Forest, 59 km NE Sakaraha; southern Isoky-Vohimena Forest, 59 km NE Sakaraha; Forêt Classée d'Analavelona, 33.2 km 344° NNW Mahaboboka; Forêt Classée d'Analavelona, 29.2 km 343° NNW Mahaboboka; Forêt Classée d'Analavelona, 29.4 km 343° NNW Mahaboboka; Forêt de Tsingoriaky, 6.2 km 84° E Tsifota; Parc National de Zombitse, 19.8 km 84° E Sakaraha; Parc National de Zombitse, 17.7 km 98° E Sakaraha; 15 km E Sakaraha; Forêt de Mite, 20.7 km 29° WNW Tongobory; Sept Lacs; Beza-Mahafaly, 27 km E Betioky; Ehazoara Canyon, 26 km E Betioky; 70.7 km NNE Tolanaro, Mahermano Mt.; 11 km NW Enakara, Rés. Andohahela; 10 km NW Enakara, Rés. Andohahela; 6 km SSW Eminiminy; Parc National d'Andohahela, Col du Sedro, 3.8 km 113° ESE Mahamavo, 37.6 km 341° NNW Tolagnaro; Parc National d'Andohahela, Manampanihy River, 5.4 km 113° ESE Mahamavo, 36.7 km 343° NNW Tolagnaro; 2.7 km WNW 302° Ste. Luce; 9.2 km N Tolanaro, Ilapany Mt.; 29.5 km WNW Tolanaro, Vasiha Mt.; Parc National d'Andohahela, Forêt d'Ambohibory, 1.7 km 61° ENE Tsimelahy, 36.1 km 308° NW Tolagnaro; Mandena, 8.4 km NNE 30° Tolagnaro; Réserve Privé Berenty, Forêt de Bealoka, Mandraré River, 14.6 km 329° NNW Amboasary; Réserve Privé Berenty, Forêt de Malaza, Mandraré River, 8.6 km 314° NW Amboasary; Réserve Berenty; Forêt de Petriky, 12.5 km W 272° Tolagnaro; 4.4 km 148° SSE Lavanono; Réserve Spéciale de Cap Sainte Marie, 14.9 km 261° W Marovato; near road, Zombitse National Park, Tulear Prov.; near ANGAP office, Zombitse National Park, Tulear Prov.; Parcel I, Beza Mahafaly Reserve, near research station, Tulear Province; Tsimelahy - Parcel II, Andohahela National Park, transition forest, Tulear Province.