**SUPPLEMENTARY INFORMATION**

**Chacón, I. A., Janzen, D. H., Hallwachs, W., Dapkey, T., Harvey, D. J., Grishin, N. V.** Six new cryptic species of *Xylodonta* Becker, 2014 (Notodontidae: Nystaleinae) from Costa Rica. *Tropical Lepidoptera Research* 27(1).

**Additional specimen information**:

***Xylodonta terrena*** (Schaus, 1892)

**Specimens examined:** 141 specimens (100 males, 41 females). Barcodes and morphology of the following specimens match those of the type specimen of *Xylodonta terrena*.

**Males:** 97-SRNP-761 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Circular 10.92714 -85.46683, 1185 m, 3 April 1997, gusaneros (USNM). 88-SRNP-514 (dissected, COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 27 July 1988, gusaneros (USNM). 97-SRNP-799 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 2 April 1997, gusaneros (USNM). 98-SRNP-15686 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 7 November 1998, Harry Ramírez (USNM). 98-SRNP-15608 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Arenales 10.92471 -85.46738, 550 m, 13 November 1998, Harry Ramírez (USNM). 00-SRNP-10258 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Circular 10.92714 -85.46683, 1185 m, 28 August 2000, Harry Ramírez (USNM). 00-SRNP-9627 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Derrumbe 10.92918 -85.46426, 1220 m, 13 July 2000, Harry Ramírez (USNM). 04-SRNP-35011 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Derrumbe 10.92918 -85.46426, 1220 m, 21 February 2004, Harry Ramírez (USNM). 95-SRNP-9000 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Góngora 10.88700 -85.47443, 570 m, 23 September 1995, Mariano Pereira (USNM). 98-SRNP-3818 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Derrumbe 10.92918 -85.46426, 1220 m, 26 October 1998, Mariano Pereira (USNM). 02-SRNP-9104 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Toma Agua 10.92847 -85.46680, 1140 m, 4 July 2002, Mariano Pereira (USNM). 09-SRNP-36096 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Derrumbe 10.92918 -85.46426, 1220 m, 4 July 2009, Manuel Pereira (USNM). 03-SRNP-3393 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Nayo 10.92446 -85.46953, 1090 m, 1 April 2003, Freddy Quesada (USNM). 07-SRNP-45487 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Quebrada Otilio 10.88996 -85.47966, 550 m, 10 August 2007, Dunia García (USNM). 00-SRNP-2437 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Del Oro, Quebrada Serrano 11.00025 -85.45614, 585 m, 3 April 2000, Lucía Ríos (USNM). 08-SRNP-21661 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Del Oro, Quebrada Trigal 11.02681 -85.49547, 290 m, 20 July 2008, Lucía Ríos (USNM). 06-SRNP-102621 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Estación Pitilla 10.98931 -85.42581, 675 m, 2 March 2006, R. Franco & F. Quesada (MNCR). 06-SRNP-102655 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Estación Pitilla 10.98931 -85.42581, 675 m, 2 March 2006, R. Franco & F. Quesada (MNCR). 06-SRNP-102656 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Estación Pitilla 10.98931 -85.42581, 675 m, 2 March 2006, S. Ríos & R. Franco (MNCR). 06-SRNP-102166 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Estación Pitilla 10.98931 -85.42581, 675 m, 1 March 2006, R. Franco & F. Quesada (MNCR). 08-SRNP-23928 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Del Oro, Puente Mena 11.04562 -85.45742, 280 m, 6 November 2002, Lucía Ríos (USNM). 06-SRNP-56288 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, Quebrada Tibio Perla 10.76261 -85.42979, 330 m, 23 June 2006, José Alberto Sánchez (USNM). 06-SRNP-56290 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, Quebrada Tibio Perla 10.76261 -85.42979, 330 m, 23 June 2006, José Alberto Sánchez (USNM). 04-SRNP-33271 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, Vado Agria 10.75876 -85.37543, 560 m, 2 July 2004, José Alberto Sánchez (USNM). 08-SRNP-4277 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 560 m, 14 August 2008, Gloria Sihezar (USNM). 00-SRNP-1899 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Corredor 10.87868 -85.38963, 620 m, 12 July 2000, Gloria Sihezar (USNM). 06-SRNP-4506 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Río Areno 10.91407 -85.38174, 460 m, 8 July 2006, Gloria Sihezar (USNM). 00-SRNP-1061 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Carmona 10.87621 -85.38632, 670 m, 9 April 2000, Freddy Quesada (USNM). 00-SRNP-1501 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Carmona 10.87621 -85.38632, 670 m, 1 May 2000, Carolina Cano (USNM). 08-SRNP-4346 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Tajo Angeles 10.86472 -85.41531, 540 m, 17 August 2008, Elda Araya (USNM). 07-SRNP-2607 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 560 m, 1 July 2007, Elda Araya (USNM). 07-SRNP-2441 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Puente Palma 10.9163 -85.37869, 460 m, 24 June 2007, Elda Araya (USNM). 00-SRNP-1288 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Corrales Viejos 10.89974 -85.38085, 495 m, 21 April 2000, Freddy Quesada (USNM). 06-SRNP-3743 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 9 June 2006, Gloria Sihezar (USNM). 07-SRNP-2337 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Potrero Argentina 10.89021 -85.38803, 520 m, 18 June 2007, Osvaldo Espinoza (USNM). 07-SRNP-2339 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Potrero Argentina 10.89021 -85.38803, 520 m, 23 June 2007, Osvaldo Espinoza (USNM). 09-SRNP-103597 (COI Barcoded), Costa Rica, Prov. Alajuela, Sector Rincón Rain, Albergue Oscar, Manta Trocha 10.86623 -85.32693, 719 m, 26 March 2009, H. Cambronero & F. Quesada (MNCR). 12-SRNP-103036 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Santa María, Mirador Santa María 10.76631 -85.30099, 920 m, 26 May 2012, S. Ríos & R. Franco (MNCR). 10-SRNP-108755 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pailas, Manta Mona 10.79235 -85.34891, 1055 m, 6 December 2010, F. Quesada & H. Cambronero (MNCR). 06-SRNP-106362 (COI Barcoded), Costa Rica, Prov. Guanacaste, Hotel Borinquen, Canopy Tours 10.81262 -85.40248, 700 m, 25 October 2006, H. Cambronero & F. Quesada (MNCR). 07-SRNP-110542 (COI Barcoded), Costa Rica, Prov. Alajuela, Sector Rincón Rain, Estación Caribe (melina) 10.89560 -85.29558, 391 m, 17 January 2008, F. Quesada & R. Franco. INB0003935277 (dissected, COI Barcoded), Costa Rica, Prov. Cartago, Jiménez, Pejibaye, Estación Biológica Copal 9.783407 -83.751929, 1040 m, 3 April 2005, José Antonio Azofeifa (MNCR). INB0004173425 (COI Barcoded), Costa Rica, Prov. Guanacaste, Bagaces, Fortuna, Estación Cabro Muco, Represa del ICE 10.716779 -85.154263, 1050 m, 10 October 2008, José Antonio Azofeifa (MNCR). INB0003739798 (COI Barcoded), Costa Rica, Prov. Guanacaste, Bagaces, Fortuna, Estación Cabro Muco 10.718333 -85.144722, 1100 m, 27 June 2003, José Daniel Gutiérrez (MNCR). INB0004190075 (COI Barcoded), Costa Rica, Prov. Alajuela, San Carlos, San Miguel de la Tigra 10.356771 -84.625705, 715 m, 8 September 2008, Robert Rojas (MNCR). INB0004184252 (COI Barcoded), Costa Rica, Prov. Cartago, La Unión, El Tanque 9.890327 -83.975923, 1650 m, 1 December 2008, Marcos Moraga (MNCR). INB0004217720 (COI Barcoded), Costa Rica, Prov. Alajuela, Upala, Cerro La Carmela 10.710154 -84.997541, 1033 m, José Antonio Azofeifa (MNCR). INB0004160690 (COI Barcoded), Costa Rica, Prov. Cartago, La Unión, Campo Escuela Istarú 9.890548 -83.970908, 1750 m, 16 August 2008, Robert Rojas (MNCR). INBIOCRI001375633 (COI Barcoded), Costa Rica, Prov. Puntarenas, Sector Monteverde, Reserva Bosque Eterno de los Niños, Sendero El Camino 10.298428 -84.792543, 1520 m, Norman Obando (MNCR). INBIOCRI002040769 (COI Barcoded), Costa Rica, Prov. Cartago, Turrialba, Monumento Nacional Guayabo 9.973978 -83.694935, 1000 m, 1 September 1994, Gilberto Fonseca (MNCR). INBIOCRI000222114 (COI Barcoded), Costa Rica, Prov. Guanacaste, Tilarán, Río San Lorenzo, Tierras Morenas 10.610458 -84.994965, 1050 m, 1 April 1991, Celso Alvarado (MNCR). INBIOCRI001166226 (COI Barcoded), Costa Rica, Prov. Puntarenas, Buenos Aires, Estación Altamira, 1 Km S del Cerro Biolley 9.032986 -83.010886, 1340 m, 1 November 1993, Roberto Delgado (MNCR). INB0004205917 (COI Barcoded), Costa Rica, Prov. Alajuela, Guatuso, P.N. V. Tenorio, Laguna La Carmela, Finca Juan Jarquín, 10.705362 -85.010713, 700-800 m, 26 March 2009, J. A. Azofeifa (MNCR). INBIOCRI001619563 (COI Barcoded), Costa Rica, Prov. Puntarenas, Buenos Aires, Estación Altamira, 1 Km S del Cerro Biolley 9.032986 -83.010886, 1340 m, 15 September 1993, Roberto Delgado (MNCR).

**Females:** 03-SRNP-3889 (COI barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Casa Fran 10.93663 -85.46685, 1140 m, 14 May 2003, Freddy Quesada (USNM). 95-SRNP-876 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 15 May 1995, gusaneros (USNM). 95-SRNP-877 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 14 May 1995, gusaneros (USNM). 95-SRNP-879 (dissected, COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 14 May 1995, gusaneros (MNCR). 98-SRNP-3946 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 7 November 1998, Mariano Pereira (USNM). 06-SRNP-35506 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 7 July 2006, Manuel Pereira (Charles Mitter, University of Maryland, TOL). 04-SRNP-46977 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Góngora Bananal 10.88919 -85.47609, 600 m, 19 July 2004, Harry Ramírez (USNM). 04-SRNP-48310 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Góngora Bananal 10.88919 -85.47609, 600 m, 12 September 2004, Harry Ramírez (USNM). 04-SRNP-49048 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Góngora Bananal 10.88919 -85.47609, 600 m, 14 October 2004, Harry Ramírez (USNM). 04-SRNP-45763 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Góngora cerca del Río 10.88295 -85.47446, 510 m, 23 June 2004, Manuel Pereira (USNM). 00-SRNP-9628 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Derrumbe 10.92918 -85.46426, 1220 m, 15 July 2000, Harry Ramírez (USNM). 06-SRNP-56289 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, Quebrada Tibio Perla 10.76261 -85.42979, 330 m, 23 June 2006, José Alberto Sánchez (USNM). 07-SRNP-58051 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, Vado Agria 10.75876 -85.37543, 560 m, 24 July 2007, José Alberto Sánchez (USNM). 04-SRNP-33270 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, Vado Agria 10.75876 -85.37543, 560 m, 30 July 2004, José Alberto Sánchez (USNM). 05-SRNP-58405 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, Quebrada Tibio Perla 10.76261 -85.42979, 330 m, 7 August 2005, José Alberto Sánchez (USNM). 89-SRNP-86 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 560 m, 5 June 1989, gusaneros (USNM). 07-SRNP-2607 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 560 m, 5 June 1989, Elda Araya (USNM). 04-SRNP-3260 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Potrero Argentina 10.89021 -85.38803, 520 m, 29 July 2004, Osvaldo Espinoza (USNM). 04-SRNP-3261 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Potrero Argentina 10.89021 -85.38803, 520 m, 30 July 2004, Osvaldo Espinoza (USNM). 03-SRNP-8351 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Puente Palma 10.9163 -85.37869, 460 m, 29 September 2003, Elda Araya (USNM). 99-SRNP-12316 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Corredor 10.87868 -85.38963, 620 m, 26 July 1999, Freddy Quesada (USNM). 04-SRNP-2238 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Corredor 10.87868 -85.38963, 620 m, 5 July 2004, Elda Araya (USNM). 05-SRNP-2302 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Palo Alto 10.88186 -85.38221, 570 m, 14 May 2005, Elda Araya (USNM). 99-SRNP-5701 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Vivero 10.86739 -85.38744, 730 m, 25 June 1999, Carolina Cano (USNM). 08-SRNP-36372 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Nayo 10.92446 -85.46953, 1090 m, 19 September 2008, Dunia García (USNM). 06-SRNP-56291 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, Quebrada Tibio Perla 10.76261 -85.42979, 330 m, 25 June 2006, José Alberto Sánchez (USNM). 07-SRNP-56764 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, Vado Agria 10.75876 -85.37543, 560 m, 22 May 2007, José Alberto Sánchez (USNM). 08-SRNP-104569 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Mundo Nuevo, La Perla (Tajo) 10.76734 -85.43014, 394 m, 5 June 2008, R. Franco & H. Cambronero (MNCR). 07-SRNP-109719 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Del Oro, Sendero Manta 10.99689 -85.45679, 610 m, 7 November 2007, H. Cambronero & R. Franco (MNCR). 12-SRNP-104302 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Santa María, Mirador Santa María 10.76631 -85.30099, 920 m, 18 July 2012, R. Franco & H. Cambronero (MNCR). INB0003433996 (COI Barcoded), Costa Rica, Prov. Cartago, El Guarco, El Guarco , Macizo de la Muerte , Sector de la Esperanza 9.686771 -83.877749, 2600 m, 1 February 2002, Roberto Delgado (MNCR). INB0003708385 (COI Barcoded), Costa Rica, Prov. Guanacaste, Bagaces, Estación Cabro Muco 10.718333 -85.144722, 1100 m, 26 March 2003, José Daniel Gutiérrez (MNCR). INBIOCRI000280409 (COI Barcoded), Costa Rica, Prov. Puntarenas, Sector Monteverde, Reserva Bosque Eterno de los Niños, Sendero El Camino 10.298428 -84.792543, 1520 m, 1 December 1990, Norman Obando (MNCR). INBIOCRI002447744 (COI Barcoded), Costa Rica, Prov. Alajuela, San Ramón, Sector Colonia Palmareña 10.232227 -84.553306, 760 m, 1 August 1996, Gerardo Carballo (MNCR). INBIOCRI001839928 (COI Barcoded), Costa Rica, Prov. Cartago, Turrialba, Tayutic, Grano de Oro, Chirripó 9,818356 -83.459163, 1120 m, 1 October 1993, Priscilla Campos (MNCR). INBIOCRI002109639 (COI Barcoded), Costa Rica, Prov. Alajuela, San Ramón, R. B. San Ramón 10.215926 -84.587977, 900 m, 21 October 1994, Gerardo Carballo (MNCR). INB0004041820 (COI Barcoded), Costa Rica, Prov. Puntarenas, Coto Brus, Zona Prot Las Tablas, Cotoncito 8.943001 -82.787356, 1450 m, 10 September 2006, Roger González (MNCR). INB0003982767 (COI Barcoded), Costa Rica, Prov. Puntarenas, Buenos Aires, Estación Altamira, Sendero Los Gigantes 9.036111 -83.022222, 1400 m, 1 November 2005, R. Delgado (MNCR). INBIOCRI000809815 (COI Barcoded), Costa Rica, Prov. Cartago, Turrialba, Tayutic, Grano de Oro, Chirripó 9.818356 -83.459163, 1120 m, 1 October 1992, Priscilla Campos (MNCR). INB0004117689 (COI Barcoded, dissected), Costa Rica, Prov. Limón, Rancho 3 9.825566 -83.163612, 800 m, 3 November 2007, Marcos Moraga (MNCR). INBIOCRI001968052 (COI Barcoded), Costa Rica, Prov. Guanacaste, Est. Las Pailas, P.N. Rincón de la Vieja 10.776784 -85.351913, 800 m, 19 June-1 July 1993, D. G. García (MNCR).

**Other specimens examined but not barcoded:** **Males:** INBIOCRI002374606 Costa Rica, Prov. Puntarenas, Coto Brus, Estación Pittier, Sendero La Escuadra, 1.1 Km E. de la Estación 9.021123 -82.952699, 1600-1700 m, 12-20 May 1996, M. Moraga (MNCR). INBIOCRI001619164 Costa Rica, Prov. Puntarenas, Buenos Aires, Estación Altamira 9.032987 -83.010887, 1340 m, 15 September-14 October 1993, R. Delgado (MNCR). INB0004217796 Costa Rica, Prov. Alajuela, Guatuso, P.N. V. Tenorio, Laguna La Carmela, Finca Juan Jarquín 10.705362 -85.010713, 700-800 m, 28-30 May 2009, J. A. Azofeifa, E. Méndez (MNCR). INB0003772791 Costa Rica, Prov. Guanacaste, Bagaces, Macizo Miravalles, Estación Cabro Muco 10.718333 -85.144722, 1100 m, 23 - 28 September 2003, B. Hernández (MNCR). Male: INB0003548272 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, 29 July 1987, D.H. Janzen & W. Hallwachs (MNCR). INB0003548270 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, 13-26 June 1987, D.H. Janzen & W. Hallwachs (MNCR). INB0003548269 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, 13-26 Jun 1987, D.H. Janzen & W. Hallwachs (MNCR). INB0003548261 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, July 1988, D.H. Janzen & W. Hallwachs (MNCR). INB0003548260 Costa Rica, Prov. Guanacaste, Estación Mengo, 1100 m, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, July 1988, D.H. Janzen & W. Hallwachs (MNCR). INBIOCRI001079007 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao, 10.930083 -85.470423, 1100 m, June 1988, D.H. Janzen & W. Hallwachs (MNCR). INBIOCRI001079006 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, June 1988, D.H. Janzen & W. Hallwachs (MNCR). INBIOCRI000858669 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, May 1992, D.H. Janzen & W. Hallwachs (MNCR). INBIOCRI000879096 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, May 1992, D.H. Janzen & W. Hallwachs (MNCR). INBIOCRI001078998 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, 10 February 1988, D.H. Janzen & W. Hallwachs (MNCR). INBIOCRI001078997 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, June 1988, D.H. Janzen & W. Hallwachs (MNCR). INB0003008931 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.992465 -85.470651, 1100 m, 13-26 June 1987, D.H. Janzen & W. Hallwachs (MNCR). INB0003008935 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, March 1988, D.H. Janzen & W. Hallwachs (MNCR). INB0003008929 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, March 1988, D.H. Janzen & W. Hallwachs (MNCR). INB0003008927 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, March 1988, D.H. Janzen & W. Hallwachs (MNCR). INB0003008932 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, June 1988, D.H. Janzen & W. Hallwachs (MNCR). INB0003008928 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, July 1987, D.H. Janzen & W. Hallwachs (MNCR). INB0003010652 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.928272 -85.471332, 1100 m, July 1987, D.H. Janzen & W. Hallwachs (MNCR). INB0003010651 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, 29 July 1987, D.H. Janzen & W. Hallwachs (MNCR). INB0003010650 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, 29 July 1987, D.H. Janzen & W. Hallwachs (MNCR). INBIOCRI000147041 Costa Rica, Prov. Guanacaste, Estación Mengo, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, November 1989, R. Blanco & C. Chaves (MNCR). INBIOCRI002183707 Costa Rica, Prov. Guanacaste, Estación Cacao, SW side Volcán Cacao 10.930083 -85.470423, 1100 m, 8-18 February 1995, R.Villalobos (MNCR). INB0003126125 Costa Rica, Prov. Alajuela, Upala, P.N. Volcán Tenorio, Alberge Heliconias, Sendero Heliconias 10.712528 -85.04089 700 m, 12-30 January 2001, G. Rodríguez (MNCR). INB0003403269 Costa Rica, Prov. Alajuela, Upala, P.N. Vol. Tenorio, Estación Heliconias 10.722946 -85.032692, 700 m, 8-14 December 2001, G. Rodríguez (MNCR). INBIOCRI000676251 Costa Rica, Prov. Guanacaste, Estación Pitilla, 9 km S. Sta. Cecilia 10.992609 -85.429477, 700 m, March 1991, C. Moraga (MNCR). INBIOCRI000191745 Costa Rica, Prov. Guanacaste, Estación Pitilla, 9 km S Sta. Cecilia 10.992609 -85.429477, 700 m, March 1990, P. Ríos, C. Moraga & R. Blanco (MNCR). INB0003008924 Costa Rica, Prov. Guanacaste, Estación Pitilla, 9 km S Sta. Cecilia 10.992609 -85.429477, 700 m, July 1988, Espinoza & Chaves (MNCR). INBIOCRI002113180 Costa Rica, Prov. Guanacaste, La Campana, Sector Las Nubes, 10.941058 -85.434785, 900 m, Setember 1994. P. Ríos (MNCR). INBIOCRI000678492 Costa Rica, Prov. Alajuela, Finca San Gabriel, 2 km suroeste Dos Ríos 10.889645 -85.398931, 600 m, May 1990, II curso Parataxónomos (MNCR). INBIOCRI000602780 Costa Rica, Prov. Alajuela. Fca. San Gabriel, 2 km suroeste Dos Ríos 10.889645 -85.398931, 600 m, May 1990, II curso Parataxónomos (MNCR). INB0003008933 Costa Rica, Prov. Alajuela. Fca. San Gabriel, 15Km E. Quebrada Grande 10.886026 -85.400757, 600 m, 8 Feb 1983, D.H. Janzen and W. Hallwachs (MNCR). INB0003008934 Costa Rica, Prov. Alajuela. Fca. San Gabriel, 16 km ENE Queb. Grande 10.875173 -85.400711, 650 m, 11-15 June 1986, I. Gauld & J. Thompson (MNCR). INB0003008926 Costa Rica, Prov. Guanacaste. 4 km. E. Casetilla Rincón Nat. Pk. 10.767938 -85.288796, 700 m, 14 Februrary 1983, DH Janzen & W. Hallwachs (MNCR). INBIOCRI002596415 Costa Rica, Prov. Puntarenas, Est. Pittier, 4.2 Km SO. del Cerro Gemelo 9.025664 -82.962695, 1670 m, 28-30 November 1997. M. Moraga (MNCR). INBIOCRI002436532 (dissected), Costa Rica, Prov. Puntarenas, Est. Pittier 9.025664 -82.962695, 1670 m, 4-23 January 1996. E. Navarro (MNCR). INBIOCRI002195738 Costa Rica, Prov. Puntarenas, Est. Pittier, PILA-ACLA 9.025664 -82.962695, 1660 m, 23 January-2 Februrary 1995. F. Alvarado (MNCR). INBIOCRI001619549 Costa Rica, Prov. Puntarenas, Buenos Aires, Est. Altamira 9.032987 -83.010887, 1340 m, 15 September-14 October 1993. R. Delgado (MNCR). INBIOCRI001166229 Costa Rica, Prov. Puntarenas, Buenos Aires, Sector Altamira 9.032987 -83.010887, 1340 m, November 1993. R. Delgado (MNCR). INBIOCRI001166225 Costa Rica, Prov. Puntarenas, Buenos Aires, Sector Altamira 9.032987 -83.010887, 1340 m, November 1993. R. Delgado (MNCR). INBIOCRI001619176 Costa Rica, Prov. Puntarenas, Buenos Aires, Sector Altamira 9.032987 -83.010887, 1340 m, 15 September-14 October 1993. R. Delgado (MNCR). INBIOCRI000964635 Costa Rica, Prov. Cartago, Quebrada Segunda, P. N. Tapantí 9.76258 -83.786505, 1250 m, Set 1992, G. Mora (MNCR). INBIOCRI001968046 (dissected), Costa Rica, Prov. Guanacaste, Est. Las Pailas, P.N. Rincón de la Vieja 10.776784 -85.351913, 800 m, 19 Jun-1 Jul 1993, D. García (MNCR).

***Xylodonta* *markvanputteni*** Chacón, **new species**

**Specimens examined:** 98 specimens (58 males, 40 females).

Type specimens: **HOLOTYPE MALE:** 09-SRNP-31078 (COI Barcoded), Costa Rica, Área de Conservación Guanacaste, Prov. Guanacaste, Sector Pitilla, Sendero Bernales 10.98350 -85.42117, 660 m, 30 April 2009, Petrona Ríos (USNM).

**PARATYPES:** 53 males, 39 females.

**Males:** 95-SRNP-564 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 13 March 1995, gusaneros (USNM). 94-SRNP-9721 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Góngora 10.88700 -85.47443, 570 m, 19 November 1994, gusaneros (USNM). 01-SRNP-6915 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Arenales 10.92471 -85.46738, 1080 m, 18 July 2001, Harry Ramírez (USNM). 05-SRNP-35362 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Derrumbe 10.92918 -85.46426, 1220 m, 19 June 2005, Manuel Pereira (USNM). 06-SRNP-47969 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Pajarito 10.88989 -85.47427, 600 m, 24 November 2006, Harry Ramírez (USNM). 06-SRNP-47970 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Pajarito 10.88989 -85.47427, 600 m, 25 November 2006, Harry Ramírez (USNM). 04-SRNP-34675 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 9 September 2004, Petrona Ríos (USNM). 06-SRNP-31947 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 10 June 2006, Calixto Moraga (USNM). 06-SRNP-32564 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 21 July 2006, Petrona Ríos (USNM). 07-SRNP-101245 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Estación Pitilla 10.98931 -85.42581, 675 m, 17 Februrary 2007, S. Ríos & F. Quesada (MNCR). 05-SRNP-31600 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Memos 10.98171 -85.42785, 740 m, 15 May 2005, Manuel Ríos (USNM). 09-SRNP-31220 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Bernales 10.98350 -85.42117, 660 m, 2 May 2009, Petrona Ríos (USNM). 10-SRNP-30115 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 6 February 2010, Manuel Ríos (USNM). 11-SRNP-31452 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 23 June 2011, Manuel Ríos (USNM). 11-SRNP-31929 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 31 July 2011, Manuel Ríos (USNM). 07-SRNP-101906 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Estación Pitilla 10.98931 -85.42581, 675 m, 17 March 2007, R. Franco & F. Quesada (MNCR). 07-SRNP-32181 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Laguna 10.9888 -85.42336, 640 m, 25 May 2007, Manuel Ríos (USNM). 11-SRNP-30842 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Naciente 10.98705 -85.42816, 700 m, 26 April 2011, Manuel Ríos (USNM). 11-SRNP-31481 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Orosilito 10.98332 -85.43623, 900 m, 23 June 2011, Manuel Ríos (USNM). 06-SRNP-7666 (dissected, COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Puente Palma 10.9163 -85.37869, 460 m, 9 October 2006, Anabelle Córdoba (MNCR). 01-SRNP-22946 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Vado Río Cucaracho 10.8702 -85.39153, 640 m, 21 December 2001, Osvaldo Espinoza (USNM). 04-SRNP-60205 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Cementerio Viejo 10.88111 -85.38889, 570 m, 7 November 2004, Elda Araya (USNM). 04-SRNP-3485 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 5 August 2004, Osvaldo Espinoza (USNM). 04-SRNP-4950 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 20 October 2004, Anabelle Córdoba (USNM). 04-SRNP-60625 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 27 November 2004, Gloria Sihezar (USNM). 05-SRNP-6059 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 18 October 2005, Carolina Cano (USNM). 08-SRNP-1545 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 18 April 2008, Gloria Sihezar (AMNH). 08-SRNP-1546 (dissected, COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 21 April 2008, H. Cambronero & F. Quesada (MNCR). 08-SRNP-100380 (dissected, COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Manta Cementerio 10.88351 -85.38964, 606 m, 2 May 2008, Gloria Sihezar (USNM). 99-SRNP-5843 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Quebrada San Francisco 10.87247 -85.37933, 690 m, 4 July 1999, Freddy Quesada (USNM). 04-SRNP-4364 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Carmona 10.87621 -85.38632, 670 m, 17 September 2004, Elda Araya (USNM). 99-SRNP-12315 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Corredor 10.87868 -85.38963, 620 m, 30 July 1999, Freddy Quesada (USNM). 02-SRNP-3271 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Corredor 10.87868 -85.38963, 620 m, 6 June 2002, Gloria Sihezar (USNM). 04-SRNP-2547 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Corredor 10.87868 -85.38963, 620 m, 26 June 2004, Osvaldo Espinoza (AMNH). 04-SRNP-4918 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Palo Alto 10.88186 -85.38221, 570 m, 24 October 2004, Elda Araya (1 pinned adult FLA). 04-SRNP-4860 (1 pinned adult FLA), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 25 October 2004, Gloria Sihezar (USNM). 08-SRNP-2276 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 28 May 2008, Elda Araya (USNM). 08-SRNP-2278 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 26 May 2008, Elda Araya (USNM). 08-SRNP-2280 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 27 May 2008, Elda Araya (USNM). 99-SRNP-5630 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Piñal 10.87161 -85.39333, 630 m, 30 June 1999, Freddy Quesada (USNM). 06-SRNP-3558 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Piñal 10.87161 -85.39333, 630 m, 28 May 2006, Freddy Quesada (USNM). 07-SRNP-1733 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Tajo Angeles 10.86472 -85.41531, 540 m, 7 May 2007, Anabelle Córdoba (USNM). 08-SRNP-4652 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Vado Río Cucaracho 10.8702 -85.39153, 640 m, 30 August 2008, Gloria Sihezar (USNM). 04-SRNP-60205 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 14 June 2004, Elda Araya (USNM). 06-SRNP-8980 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 28 November 2006, Carolina Cano (USNM). 08-SRNP-4686 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 6 September 2008, Gloria Sihezar (USNM). 09-SRNP-56409 (COI barcoded), Costa Rica, Prov. Guanacaste, Sector Santa María, Sendero Canal 10.76544 -85.28539, 799 m, 30 June 2006, Daniel M. Acuña (USNM). 08-SRNP-24549 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Del Oro, Sendero Puertas 11.01087 -85.48817, 400 m, 24 December 2008, Elieth Cantillano (USNM). 10-SRNP-115484 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Santa María, Estación Santa María 10.76461 -85.30321, 832 m, 11 May 2010, F. Quesada & S. Ríos (MNCR). 10-SRNP-115234 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Santa María, Estación Santa María 10.76461 -85.30321, 832 m, 11 April 2010, F. Quesada & S. Ríos (MNCR). 11-SRNP-101533 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Rincón Rain, Albergue Oscar, Tunel 10.86835 -85.32711, 708 m, 13 Februrary 2010, S. Ríos & F. Quesada (MNCR). 08-SRNP-108471 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Santa María, Manta Potrero 10.76213 -85.30354, 817 m, 28 November 2008, R. Franco & F. Quesada (MNCR). 10-SRNP-105362 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Santa María, Manta Potrero 10.76213 -85.30354, 817 m, 28 November 2008, R. Franco & F. Quesada (MNCR). INB0004224039 (COI Barcoded), Costa Rica, Prov. Alajuela. San Ramón, Est. Biol. Villa Blanca 10.201361 -84.485100, 1115 m, 20 July 2009, Robert Rojas (MNCR). INBIOCRI000153088 (COI Barcoded), Costa Rica, Prov. Heredia. Sarapiquí, Estación El Ceibo 10. 328044 -84.080424, 500 m, 1 March 1990, Carlos Chavez (MNCR).

**Females:** 95-SRNP-4712 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Casa Fran 10.93663 -85.46685, 1140 m, 5 July 1995, gusaneros (USNM). 03-SRNP-22441 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Estación Cacao 10.92691 -85.46822, 1150 m, 20 September 2003, Mariano Pereira (USNM). 00-SRNP-9631 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Circular 10.92714 -85.46683, 1185 m, 21 July 2000, Harry Ramírez (USNM). 05-SRNP-35651 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Derrumbe 10.92918 -85.46426, 1220 m, 31 July 2005, Harry Ramírez (USNM). 06-SRNP-47968 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Pajarito 10.88989 -85.47427, 600 m, 26 November 2006, Harry Ramírez (USNM). 05-SRNP-47044 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Palmas 10.89641 -85.47370, 675 m, 28 August 2005, Dunia García (Charles Mitter, University of Maryland, TOL). 05-SRNP-47045 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Palmas 10.89641 -85.47370, 675 m, 28 August 2005, Dunia García (USNM). 04-SRNP-34674 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 9 September 2004, Petrona Ríos (USNM). 09-SRNP-31427 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 27 May 2009, Petrona Ríos (Charles Mitter, University of Maryland, TOL). 04-SRNP-2684 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 11 July 2004, Elda Araya (USNM). 05-SRNP-3156 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 28 June 2005, Gloria Sihezar (USNM). 07-SRNP-1427 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 15 April 2007, Gloria Sihezar (USNM). 08-SRNP-1548 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 21 April 2008, Gloria Sihezar (USNM). 08-SRNP-6576 (ETOH adult Mitter TOL), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 11 December 2008, Elda Araya (USNM). 05-SRNP-2965 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Río Blanco Abajo 10.90037 -85.37254, 500 m, 21 June 2005, Freddy Quesada (USNM). 00-SRNP-21580 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Palo Alto 10.88186 -85.38221, 570 m, 5 November 2000, Carolina Cano (USNM). 99-SRNP-5631 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Piñal 10.87161 -85.39333, 630 m, 29 June 1999, Freddy Quesada (USNM). 04-SRNP-4861 (1 pinned adult FLA), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 24 October 2004, Gloria Sihezar (USNM). 07-SRNP-505 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 14 February 2007, Carolina Cano (USNM). 99-SRNP-5631 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Piñal 10.87161 -85.39333, 630 m, 29 June 1999, Freddy Quesada (USNM). 09-SRNP-35763 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Cacao, Sendero Derrumbe 10.92918 -85.46426, 1220 m, 9 June 2009, Harry Ramírez (USNM). 09-SRNP-31219 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Bernales 10.98350 -85.42117, 660 m, 2 May 2009, Petrona Ríos (USNM). 09-SRNP-31221 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Bernales 10.98350 -85.42117, 660 m, 30 April 2009, Petrona Ríos (USNM). 09-SRNP-31428 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 24 May 2009, Petrona Ríos (USNM). 09-SRNP-32338 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 7 September 2009, Petrona Ríos (USNM). 10-SRNP-30117 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 23 June 2011, Manuel Ríos (USNM). 11-SRNP-31453 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Cuestona 10.99455 -85.41461, 640 m, 24 June 2011, Manuel Ríos (USNM). 11-SRNP-30843 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Pitilla, Sendero Naciente 10.98705 -85.42816, 700 m, 24 April 2011, Calixto Moraga (USNM). 08-SRNP-2274 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 20 May 2008, Elda Araya (USNM). 08-SRNP-2275 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 27 May 2008, Elda Araya (USNM). 08-SRNP-2277 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 26 May 2008, Elda Araya (USNM). Rica, Prov. Guanacaste, Sector San Cristóbal, Sendero Perdido 10.8794 -85.38607, 620 m, 28 May 2008, Elda Araya (USNM). 08-SRNP-2775 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Tajo Angeles 10.86472 -85.41531, 540 m, 1 July 2008, Gloria Sihezar (USNM). 10-SRNP-7324 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Tajo Angeles 10.86472 -85.41531, 540 m, 11 January 2011, Elda Araya (USNM). 11-SRNP-2250 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Tajo Ángeles 10.86472 -85.41531, 540 m, 30 July 2011, Elda Araya (USNM). 08-SRNP-4651 (dissected, COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Vado Rio Cucaracho 10.8702 -85.39153, 640 m, 29 August 2008, Gloria Sihezar (USNM). 08-SRNP-1547 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Finca San Gabriel 10.87766 -85.39343, 645 m, 19 April 2008, Gloria Sihezar (USNM). 08-SRNP-2329 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector San Cristóbal, Puente Palma 10.9163 -85.37869, 460 m, 31 May 2008, Osvaldo Espinoza (USNM). 00-SRNP-2204 (COI Barcoded), Costa Rica, Prov. Guanacaste, Sector Del Oro, Quebrada Serrano 11.00025 -85.45614, 585 m, 5 March 2000, gusaneros (USNM). INB0003772563 (COI Barcoded), Costa Rica, Prov. Guanacaste, Bagaces, Estación Cabro Muco 10.718333 -85.144722, 1100 m, 23 September 2003, Braulio Hernández (MNCR). INB0003375635 (dissected, COI Barcoded), Costa Rica, Prov. Guanacaste, Canas, P.N. Volcán Tenorio. Sector Montezuma 10.676383 -85.031210, 1325 m, 26 March 2003, José Daniel Gutiérrez (MNCR).

**Other specimens examined but not barcoded:** **Males:** INBIOCRI001079004 (dissected), Costa Rica, Prov. Guanacaste, Estación Pitilla, 9 km S. Santa Cecilia 10.992609 -85.429477, 700 m, December 1988. GNP Biodiversity Survey. INB0003403275 (dissected), Costa Rica, Prov. Alajuela, Upala, P.N.Volcán Tenorio, Estación Heliconias 10.722946 -85.032692, 700 m, 08-14 December 2001, G. Rodríguez.

***Xylodonta billhaberi*** Chacón **new species**

**Specimens examined:** 51 specimens (42 males, 9 females).

Type specimens: **HOLOTYPE MALE:** INBIOCRI001992457 (COI Barcoded), Costa Rica. Prov. Puntarenas, Est. La Casona, Res. Biol. Monteverde 10.298429 -84.792544, 1520 m, 3 - 17 September 1994, K. Martínez (MNCR).

**PARATYPES.** 17 males, 7 females.

**Males:** INBIOCRI001369579 (COI Barcoded) Costa Rica. Prov. Puntarenas, Reserva Bosque Eterno de los Niños, Sector Monteverde, Sendero El Camino 10.298428 -84.792543, 1520 m, 1 May 1991, Norman Obando (MNCR). INBIOCRI002356470 (COI Barcoded) Costa Rica. Prov. Puntarenas, Coto Brus, Estación Pittier, 4.2 Km SW del Cerro Gemelo 9.025663 -82.96269, 1660 m, 22 September 1995, M. Moraga (MNCR). INB0004134732 (COI Barcoded) Costa Rica. Prov. Puntarenas, Buenos Aires, Tres Colinas 9.121253 -83.071677, 1850 m, 25 Februrary 2008, C. Hernández (MNCR). INBIOCRI002374590 (COI Barcoded), Costa Rica. Prov. Puntarenas, Coto Brus, Estación Pittier, Sendero La Escuadra 9.021123 -82.952699, 1660 m, 12 - 20 May 1996, M. Moraga (MNCR). INBIOCRI002212268 (COI Barcoded), Costa Rica, Prov. Puntarenas, Coto Brus, Estación Pittier 9.025664 -82.962695, 1660 m, 5-18 January 1995, A. M. Maroto (MNCR). INBIOCRI002212265 (COI Barcoded), Costa Rica. Prov. Puntarenas, Coto Brus, Estación Pittier 9.025664 -82.962695, 1660 m, 5-18 January 1995, A. M. Maroto (MNCR). INBIOCRI002337146 (COI Barcoded) Costa Rica. Prov. Puntarenas, Coto Brus, Estación Pittier 9.025664 -82.962695, 1660 m, 23-26 January 1995, S. Ávila (MNCR). INBIOCRI002595269 (COI Barcoded) Costa Rica. Prov. Puntarenas, Coto Brus, Est. Biológica Las Alturas 8.942209 -82.835553, 1500 m, 28-30 October 1997, B. Gamboa (MNCR). INBIOCRI002548846 (COI Barcoded) Costa Rica. Prov. Puntarenas, Sendero a Cerro Pittier, 600 m. NO. de la Estación 9.028833 -82.964963, 1750 m, 5-11 March 1997, M. M. Moraga (MNCR). INBIOCRI002548852 (COI Barcoded), Costa Rica,.Prov. Puntarenas, Sendero a Cerro Pittier, 600 m. NO. de la Estación 9.028833 -82.964963, 1750 m, 5-11 March 1997, M. M. Moraga (MNCR). INB0003024963 (COI Barcoded) Costa Rica. Prov. Puntarenas, Coto Brus, Zona Protectora Las Tablas, Est. Biol. Las Alturas 8.952154 -82.83462, 1550 m, 15-24 March 1999, R. Delgado (MNCR). INBIOCRI002548847 (COI Barcoded) Costa Rica. Prov. Puntarenas, Sendero a Cerro Pittier, 600 m. NO. de la Estación 9.028833 -82.964963, 1750 m, 5-11 March 1997, M. M. Moraga (MNCR). INBIOCRI001357868 (COI Barcoded) Costa Rica. Prov. Puntarenas, Est. La Casona, Res. Biol. Monteverde 10.298429 -84.792544, 1520 m, August 1991, Norman Obando (MNCR). INB0003861980 (COI Barcoded) Costa Rica. Prov. Puntarenas, Buenos Aires, Altamira, Sendero Los Gigantes del Bosque 9.036111 -83.022222, 1300–1400 m, 16-18 July 2004, R. Delgado (MNCR). INBIOCRI002025065 (COI Barcoded) Costa Rica. Prov. Cartago, P.N. Tapantí 9.749012 -83.782884, 1150 m, October 1994, R. Delgado (MNCR). INBIOCRI002139237 (COI Barcoded) Costa Rica. Prov. Puntarenas, Est. Pittier, PILA-ACLA 9.025664 -82.962695, 1670 m, 5-18 January 1995, F. Alvarado (MNCR). INBIOCRI001626752 (COI Barcoded) Costa Rica. Prov. Puntarenas, Buenos Aires, La Amistad, Sect. Altamira 9.032987 -83.010887, 1340 m, December 1993, R. Delgado (MNCR). **Females:** INB0003316636 (COI Barcoded) Costa Rica. Prov. Cartago, Paraíso, Quebrada Segunda, Macizo de la Muerte, Sector de la Esperanza 9.7625802 -83.786505, 1300 m, 1 June 2001, R. Delgado (MNCR). INBIOCRI002092890 (COI Barcoded) Costa Rica. Prov. Cartago, Turrialba, Monumento Nacional Guayabo 9.973978 -83.694935, 1000 m, 1 November 1994, G. Fonseca (MNCR). INBIOCRI001375636 (COI Barcoded) Costa Rica, Prov. Puntarenas, Est. La Casona, Res. Biol. Monteverde 10.298429 -84.792544, 1520 m, March 1991, Norman Obando (MNCR). INB0004134900 (COI Barcoded) Costa Rica. Prov. Puntarenas, Buenos Aires, Potrero Grande, Las Verijas 9.117215 -83.090789, 1700-1800 m, 20-21 Februrary 2008, A. Solís, C. Víquez, M. Moraga (MNCR). INBIOCRI001619379 (COI Barcoded) Costa Rica. Prov. Puntarenas, Buenos Aires, Estación Altamira 9.032987 -83.010887, 1340 m, 15 Setember-14 October 1993, R. Delgado (MNCR). INBIOCRI002477162 (COI Barcoded) Costa Rica. Prov. Puntarenas, Buenos Aires, Estación Altamira 9.032987 -83.010887, 1300 - 1450 m, 12 - 30 August 1996, R. Villalobos (MNCR). INBIOCRI000755171 (dissected, COI Barcoded) Costa Rica. Prov. Cartago, Turrialba, Tayutic, Grano de Oro 9.818357 -83.459163, 1120 m, P. Campos (MNCR).

**Other specimens examined but not barcoded.** **Males:** INBIOCRI002200889 (dissected), Costa Rica, Prov. Puntarenas, Est. Pittier, PILA-ACLA 9.025664 -82.962695, 1670 m, 5-18 January 1995, E. Fletes (MNCR). INBIOCRI002596412 Costa Rica, Prov. Puntarenas, Est. Pittier, 4.2 Km SO. del Cerro Gemelo 9.025664 -82.962695, 1670 m, 28-30 November 1997, M. Moraga (MNCR). INBIOCRI002548692 Costa Rica, Prov. Puntarenas, Send. a Cerro Pittier, 600 m, NO. de la Estación 9.028833 -82.964963, 1750 m, 5-11 March 1997, M. M. Moraga. INBIOCRI001166004 Costa Rica, Prov. Puntarenas, Buenos Aires, La Amistad, Sector Altamira 9.032987 -83.010887, 1340 m, November 1993, R. Delgado (MNCR). INBIOCRI002356790 Costa Rica, Prov. Puntarenas, Est. Pittier 9.025664 -82.962695, 1670 m, 24-27 October 1995, M. Moraga (MNCR). INBIOCRI002139238 Costa Rica, Prov. Puntarenas, Est. Pittier, PILA-ACLA 9.025664 -82.962695, 1670 m, 5-18 January 1995, F. Alvarado (MNCR). INBIOCRI002477163 Costa Rica, Prov. Puntarenas, Estación Altmira, 1 Km. S del Cerro Biolley 9.032987 -83.010887, 1300-1450 m, 12-30 August 1996, R. Villalobos (MNCR). INBIOCRI002429366 Costa Rica, Prov. Puntarenas, Est. Pittier, Alrededor de la Estación 9.025664 -82.962695, 1670 m, 18-20 January 1996, M. Moraga (MNCR). INBIOCRI001876003 Costa Rica, Prov. Puntarenas, Buenos Aires P.I.L.A. Sector Altamira, A. C. Amistad 9.032987 -83.010887, 1150-1400 m, June 1994, R. Delgado (MNCR). INBIOCRI001166021 Costa Rica, Prov. Puntarenas, Buenos Aires, La Amistad, Sector Altamira 9.032987 -83.010887, 1340 m, November 1993, R. Delgado (MNCR). INBIOCRI001619318 Costa Rica, Prov. Puntarenas, Est. Altamira, Buenos Aires 9.032987 -83.010887, 1340 m, 15 September 1993, R. Delgado (MNCR). INBIOCRI000953910 Costa Rica, Prov. Puntarenas, Res. Biol. Monteverde, Est. La Casona 10.298429 -84.792544, 1520 m, June 1991, N. Obando (MNCR). INBIOCRI002410891 Costa Rica, Prov. Puntarenas, Estación Altamira, 1 Km. S del Cerro Biolley 9.032987 -83.010887, 1300-1450 m, 24 September 1997, R. Villalobos (MNCR). INBIOCRI002200888 Costa Rica, Prov. Puntarenas, Est. Pittier, PILA-ACLA 9.025664 -82.962695, 1670 m, 5-18 January 1995, E. Fletes (MNCR). INBIOCRI002548692 Costa Rica, Prov. Puntarenas, Send. a Cerro Pittier 600 m NO. de la Estación 9.028833 -82.964963, 1750 m, 5-11 March 1997, M. M. Moraga (MNCR). INBIOCRI002558334 Costa Rica, Prov. Puntarenas, Est. Pittier, 4.2 Km SO. del Cerro Gemelo 9.025664 -82.962695, 1670 m, 11-25 May 1997, M. M. Moraga (MNCR). INBIOCRI002352891 Costa Rica, Prov. Puntarenas, Est. Pittier 9.025664 -82.962695, 1670 m, 26 September 1995, E. Navarro (MNCR). INBIOCRI001988113 Costa Rica, Prov. Puntarenas, Sector Altamira, Buenos Aires, PILA 9.031184 -83.014528, 1400 m, July 1994, R. Delgado (MNCR). INBIOCRI001988112 Costa Rica, Prov. Puntarenas, Sector Altamira, Buenos Aires, PILA 9.031184 -83.014528, 1400 m, July 1994, R. Delgado (MNCR). INBIOCRI001619300 (dissected), Costa Rica, Prov. Puntarenas, Est. Altamira, Buenos Aires 9.032987 -83.010887, 1340 m, 15 September 1993, R. Delgado (MNCR). INBIOCRI001357925 Costa Rica, Prov. Puntarenas, Est. La Casona, Res. Biol. Monteverde 10.298429 -84.792544, 1520 m, Agust 1991, N. Obando (MNCR). INBIOCRI002183263 (dissected), Costa Rica, Prov. Puntarenas, Est. Pittier, PILA-ACLA 9.025664 -82.962695, 1670 m, 5-18 January 1995. R.Villalobos (MNCR). INBIOCRI002596412 Costa Rica, Prov. Puntarenas, Est. Pittier, 4.2 Km SO. del Cerro Gemelo 9.025664 -82.962695, 1670 m, 28-30 November 1997, M. Moraga (MNCR). INBIOCRI002186653 Costa Rica, Prov. Puntarenas, Sector Altamira, 1 Km S.O. de Cerro Biolley, A. C. Amistad 9.032987 -83.010887, 1300 m. 2-20 April 1995, L. Angulo (MNCR). Females: INBIOCRI000118759 (dissected), Costa Rica, Prov. Puntarenas, Coto Brus, Sabalito, Fca. Cafrosa, Estación Las Mellizas 8.891473 -82.792936, 1300 m, November 1989, M. Ramírez & G. Mora (MNCR). INBIOCRI002394522 (dissected), Costa Rica, Prov. Puntarenas, Est. Pittier, Rio Gemelo 9.025664 -82.962695, 1670 m, 16-22 March 1996, M. Moraga (MNCR).